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Empirical results of the awareness of social media and its application by academics in teaching in New Zealand

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Keywords

Social media, academics, education, Facebook, Twitter, students, social networks

Abstract

Academics and students across the globe are increasingly using social media (SM) for personal interactions, social connections and educational purposes. The article reviews the awareness and use of SM in teaching by academics and whether they can utilize this platform for effective communication to engage students in learning activities. The overall objective of this research study is to identify how academics can best integrate SM into traditional teaching methods by examining both the advantages and disadvantages of this innovative medium.

The research study was conducted during 2015 at a New Zealand tertiary educational institution in a business school comprising various departments. A total of 58 usable responses were obtained via an E-survey using survey monkey and then analysing the responses. Suggestions are made to educators regarding a viable social digital educational environment using SM. It is concluded that academics are communicating with students in a positive way via the use of SM for educational purposes and that much scope exists to improve the use of SM for educational purposes by academics.

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Note

The terms “educator, academic and teacher” are used interchangeably in this article.

1. Introduction

The evolution of social media (SM) in the contemporary world has been meteorically increasing between 2000 and 2010. Today it permeates all spheres of life; no matter whether it is digital media being used for a business to speed up recruitment processes or for internal communication between staff (Rahman, Arora & Kularatne 2014). Furthermore, the fast-moving world of today has placed new demands on communication systems and particularly the younger generation Y who are notoriously impatient, are demanding instant feedback on a variety of issues in the social environment. Dixon (2015:9) claims that worldwide there are over 2 billion users of SM and covers 40% of all people with an internet connection. Face book alone has the greatest use with more than 1.3 billion people globally. It is thus clear

why academics have also embraced electronic media in their teaching to transfer knowledge and improve the learning experience of students. It is also generally believed that SM technology usage in teaching enhances student participation, engagement, and communication. It also strengthens relationships between academics, students and communities (Retta 2012).

In a broader context, note should be taken of the role of eLearning. It is pointed out by Young (2014) that eLearning is the delivery of content to individuals and groups via the Internet and is enabled by the support of Information Computer Technology (ICT). It is therefore unsurprising that eLearning and SM go hand in hand to enhance student learning as means used by academics to enrich students' learning experiences. Internet based SM technologies are designed and developed to improve social connections of a community. SM applications include Facebook, Google Plus, YouTube, Pinterest, Twitter, Whatsapp, Snapchat, Instagram and Web Blogs, all of which have become very popular among students and educators.

In view of the growing importance of SM, it is clear why the need for the use thereof has been accommodated in the educational environments in various countries (Wiid, Nell & Cant2015; Lupton 2014). It is also the case in New Zealand where this article reports on the awareness and use of SM by academics at a tertiary institution.

The purpose of this research project is to determine academics' awareness of SM networking systems and their view on using it. The objective is to determine the following:

1. The awareness of academics regarding SM media as a lecturing tool.
2. The use of SM by academics to enhance student learning.
3. The relationship between SM as a lecturing tool and the personal use of SM by academics.

The next section provides an overview of SM networking systems as well as the awareness and uses of SM networking systems. The empirical findings and the discussion of the findings are presented after the literature review had been executed.

2. Literature review

2.1. General theory

Electronic communication has become a very popular and highly preferred means of communication in organisations for a variety of purposes (Research New Zealand,2015 White,Vanc & Stafford 2010; Welch 2012). Even though email is currently the preferred method of internal communication (Welch 2012), the Society for Human Resource Management (SHRM2012) state that there is an increasing trend of using SM for communication purposes in the workplace. The use thereof in the education environment is therefore a logical progression in the educational process.

SM is defined by SHRM (2012 Par 1) as "web-based tools and technologies used to share information and turn communication into interactive dialogue with internal and external audiences through Facebook, LinkedIn and Twitter". Mangold & Faulds (2009: 357) define SM somewhat differently as "... a variety of new sources of online information that are created, initiated, circulated and used by consumers intent on educating each other about products, brands, services, personalities and issues."The Education Council NZ, (2015a) outlines what social media entail as shown in Figure 1.As a further refinement to describe more fully what SM entail, the Education Council NZ,(2015a) outlines the characteristics of SM as follows:

1. Internet based platforms that enable all the users to: create, adapt, share and sustainably reuse the information and content. It enables the users to engage in digital collaboration and dialogue. It provides linkages to create groups, networks and communities.
2. Users are able to have, initiate and continue social interactions with peers and other users. Create and maintain their online profiles and IDs.
3. SM applications are largely public online platforms that are accessible 24/7 through different locations and most computer & mobile devices.
4. Content and information on SM is largely created by the users, persistent and can be subject to conditions of use.

Figure 1. What is Social Media?



Source: Education Council NZ, (2015a)

Social networking creates a virtual culture based on diversified media systems that use computer/mobile mediated communication. The best part of a SM culture is that the content is created by the audiences and it is based on the principal of sharing and participation. When using SM people not only create content, but go on to make conversations and communities using openness and connectedness (Huang 2014).

The educational publishing company Pearson in the USA regularly executes surveys using representative samples of American faculty members. *Results reported by Seaman and Tinti-Kane (2013: 7-14) indicate that more than half (55 per cent), use SM for professional purposes other than teaching, but only 41 per cent did so for teaching purposes.* LinkedIn was the site most used for professional purposes other than teaching, followed by blogs and wikis, Facebook, podcasts and Twitter. For teaching purposes, blogs and wikis are most used, followed by podcasts, LinkedIn, Facebook and Twitter. Lupton(2014:13) on the other hand found that in response to the question in her survey, about which SM the respondents found *most useful* for their academic work, Twitter was very strong (83%), followed by a much lower response re Academia.edu (23%), a personal blog (16%), Facebook (14%), LinkedIn (14%), online referencing tools (11%), YouTube (10%), a multi-authored blog (7%), Google+ (5%), Slide Share (5%) and curation tools (4%). Other tools listed (Wikipedia as an author/editor, Pinterest, Instagram, Tumblr, Flickr and Quora), attracted less than 2% of responses.

The research reported by various authors as outlined above, clearly shows varying results which could be refined by more reporting of research investigations such as this study's reporting in the current research.

2.2. Benefits of the Social Media for Academics

Lupton (2014) states that there are various published reports and surveys outlining the usefulness, benefits and drawbacks of SM usage by academics and students in the recent years. The results and recommendations of research reports offer insight into how academics strategically use SM in a sophisticated way to reap many benefits in their academic endeavours. The benefits of SM includes connecting and creating networks, not only with students and other lecturers, but also with people outside universities which promote openness, giving and receiving supports and social sharing. The reports and research on SM have largely been positive, however, certain people have also raised concerns in regards to issues related to privacy, professionalism, injudicious users, ethical usage, time pressures, and lack of credibility and problems of possible plagiarism.

Lupton (2014) further highlights that for teaching purposes, Wikipedia and blogs are useful along with YouTube, podcasts, LinkedIn, Facebook, and Twitter. By creating SM *ecosystems*, academics can use a variety of sophisticated tools and platforms to reap many benefits in academic practices. The following are listed as benefits of SM use in academic practices:

1. Creates a culture of sharing and building new connections.
2. Provides real time rapid access to vast professional networks.

3. Enable users to make more direct conversations and influences.
4. Help students to keep in contact with their teachers.
5. Provides the ability to chat and start conversations any point of time.
6. Easy to disseminate information to a large audience.
7. Strong networking is possible through SM which is otherwise a difficult task.
8. Provides access to unlimited up to date information and support that can be utilized for various purposes.
9. Interactions and connections between diversified people which is otherwise not possible.
10. The increased ability to access information with mobile units facilitates and simplifies the possibility of increased electronic communication.
11. Keep track of information/opportunities internationally by following key players, leaders and authors.
12. Fast and very effective way of communicating with students.
13. Great tool to increase student engagement and interaction both in class and at home.

SM thus has the potential of transforming the fundamental nature of education and academic writing as well. Scholarship and knowledge creation is enhanced by using SM due to the sharing and participation culture of SM platforms. Nel (2013) also points out that users of SM should encourage and promote two-way communication so that the transfer of information is fair and effective to all concerned. Users should also be in a position to utilise innovative ideas from all participants to gain excellence in desired educational outcomes.

2.3. Social media in New Zealand

The awareness and use of SM in New Zealand has, amongst others, been researched by Fuatai (2012) when the Kelly Global Workforce Research project was executed. The New Zealand results in 2012 indicated that 23% of Generation Y (aged 19-30); 22% of Generation X (aged 41-48) and 15% of baby boomers (49-66), found the use of SM in the workplace acceptable. These results clearly indicate that there is a greater awareness and use of SM amongst the younger generation, which would probably include the primary group participating in educational activities to prepare them for their careers. The follow on would be that the use of SM by academics to communicate and use it as part of their educational tool kit for student education is appropriate (Lupton 2014; Neal 2012).

Dixon (2015:9) outlined a number of important elements in terms of the awareness and use of SM in New Zealand. Four out of five New Zealanders with an internet connection have SM accounts with 87% of those using Facebook. It has also become the norm in New Zealand that businesses interact with their clients via SM when dealing with complaints or announcing offers or good deals. Dixon (2015:10) also points out that there is an awareness by the community at large that different SM options exist and that they should use a social platform that suits them personally. Apart from Facebook or Twitter, there are also other platforms such as the friendlier picture driven Instagram and on the other hand, the more touchy-feely approach of Vine which could also be used. Alternatively, users could also use Pinterest. Practically speaking professional users appear to make more use of LinkedIn.

The Education council NZ (2015b) also identified SM as an effective tool to engage students and for creating an effective communication channel with parents and communities. NZ academics are also encouraged to use SM to help students to grow positive behaviour and enable them to apply respectful values in all interactions on SM platforms. For educational institutions and academics the use of SM as a toolkit for educational purposes, has therefore become imperative to improve educational delivery and learning of students (Retta 2012).

2.4. Downsides to the usage of social media

Some critics argue that there are downsides regarding the usage of SM and it presents several legal and security related concerns for institutions. Since SM is a public platform, users, both sending and receiving, should be clear that it should not be taken seriously and personally, as it is merely a communication media. Various cases of bullying and even suicide cases have been recorded where the indulgence has become so severe that people have not been able to extract themselves from SM consequences on their personal lives (Taylor 2015).

Excessive use of SM usage is bad because students often show signs of addictions to SM. This compulsiveness and its symptoms have a significant negative impact on the academic performances of the students and consequently on the SM. Huang (2014) points out that student behaviour reflects four major SM addiction symptoms namely: preoccupation, adverse consequences, alleviation of negative emotions, and loss of interest in social activities. Academics should channel the strengths of the students in the right direction and encourage healthy usage of SM. With proper care and guidance they can increase the academic performances of students by integrating SM in day to day educational presentation.

Welch (2012:252) also found that excessive and inappropriate internal communication could be "... a source of irritation to employees", because top-down communication using electronic media could portray an image of organisational power.

Users sometimes lose sight of the fact that they are in control of their environment and that no one else who are following them, or who they are following, is in any way in control in the real world by any stretch of the imagination. People should learn to "shut the door" when they feel uncomfortable using SM. Similarly, users should not become obsessed with the number of followers or friends they have or don't have. Users should however not miss out on great opportunities for learning which exist via SM and only refrain from doing so if it becomes negative. Furthermore, it must also be noted that academics do not seem keen to position themselves as their students' friends or equals or to engage in personal disclosures (Veletsianos & Kimmons 2013).

It is becoming customary for the users of SM to see it as part of their daily life and daily activities, but with an understanding of the accompanying downside to it. In order to determine lecturers' perceptions of the use of SM networking systems in tertiary institutions (higher education), the five constructs of the Technology Acceptance Module was studied. These are discussed in the next section.

2.5 Technology Acceptance Model (TAM)

The technology acceptance model (TAM) is an information system theory¹ that demonstrates how users accept and use specific technology (Davis 1993:475). The model indicates that when users are confronted with a new software package, various factors influence their decision about how and when they will use this specific technology (Mazhar 2006). Davis, Bagozzi & Warshaw (1989:985) indicated that user motivation can be explained by three constructs; 'Perceived ease of use', 'Perceived usefulness', and 'Attitude toward using the system'.

The first construct is 'Perceived usefulness' which is described according to Davis (1993:477) as, "... the degree to which an individual believes that using a particular system would enhance his or her job performance". The second construct which is 'Perceived ease of use', is defined as, "... the degree to which an individual believes that using a particular system would be free from effort" (Davis 1993:477- 478). The third construct is 'Attitude towards using' and is defined as, "... the degree of evaluative affect that an individual associates with using the target system in his or her job" (Davis 1993:478). The fourth construct that was being tested, was that of 'System accessibility' which refers to organisational context variables, and the last construct was that of 'Intention to Use', which refers to the degree to which a person has created a conscious plan to perform or not perform a future behaviour (Venkatesh 2013).

3. Methodology

This research study was executed after an ethics application was submitted and subsequently approved by the Ethics and Research Committee of the educational institution where the research was executed. However, due to the confidentiality of the project, the name of the educational institution cannot be revealed. The results and implications are, however, applicable to the current educational environment in New Zealand, but could perhaps be applied to the tertiary educational systems in other countries as well.

The Questionnaire was based on an existing survey used by another educational institution where it was validated. Minor changes were made to suit the New Zealand environment for example, removing regions and styles of teaching which are not applicable to the institution being used to gain responses from academics in New Zealand.

¹System that consists of all the network communication channels used within an organisation.

After the online questionnaire was made available via survey monkey, various reminders were sent to eligible staff and after two months it was closed. Useable responses totalled 58.

The majority of lecturers (45.71%) were 56 years or older. The gender split for the respondent group is male dominated, with 59% of lecturers being male. Most of the respondents are Lecturers or Senior Lecturers (54.29% and 28.57% respectively). Most lecturers were employed between 0 and 5 years. It is evident from the missing responses that more than a third (39.66%) of the questions was left unanswered by the respondents. The demographic profile of the respondent group is presented in Table 1.

Age group	% of Total	N	Position	% of Total	N
<25	2.86%	1	Research Assistant	2.86%	1
26-30	0%		Junior Lecturer	0%	
31-35	14.29%	5	Lecturer	54.29%	19
36-40	8.57%	3	Senior Lecturer	28.57%	10
41-45	2.86%	1	Associate Professor	0%	
46-50	2.86%	1	Professor	2.86%	1
51-55	22.86%	8	Other	11.43%	4
56+	45.71%	16	Missing responses	39.66%	23
Missing responses	39.66%	23			
Gender	% of Total	N	Years Employed	% of Total	N
Male	58.82%	20	0 - 5	42.86%	15
Female	41.18%	14	6 - 10	17.14%	6
Missing responses	41.38%	24	11 - 15	28.57%	10
			16 - 20	8.57%	3
			20 +	2.86%	1
			Missing responses	39.66%	23

Table 1. Demographic profile

4. Results

In the results section the use of SM and communication with students via SM are discussed. The discussion only reflects usable responses received from the respondents.

4.1 Social media account and communication

The respondents were asked to indicate if they have a SM account and whether they think it is important to communicate with students on SM. The majority of respondents (86%) indicated that they do have a SM account whereas 14 % of the respondents did not have a SM account. Almost two thirds (61%) of respondents indicated that they do not think it is important to communicate with their students via SM whereas more than a third (39%) do think it is important to communicate with students using social media, figure 2 below. The majority (52%) of the respondents who has a SM account is of the opinion that it is not important to communicate with students via this medium. 60% of the respondents without a social media account shared in this opinion as shown in Table 2.

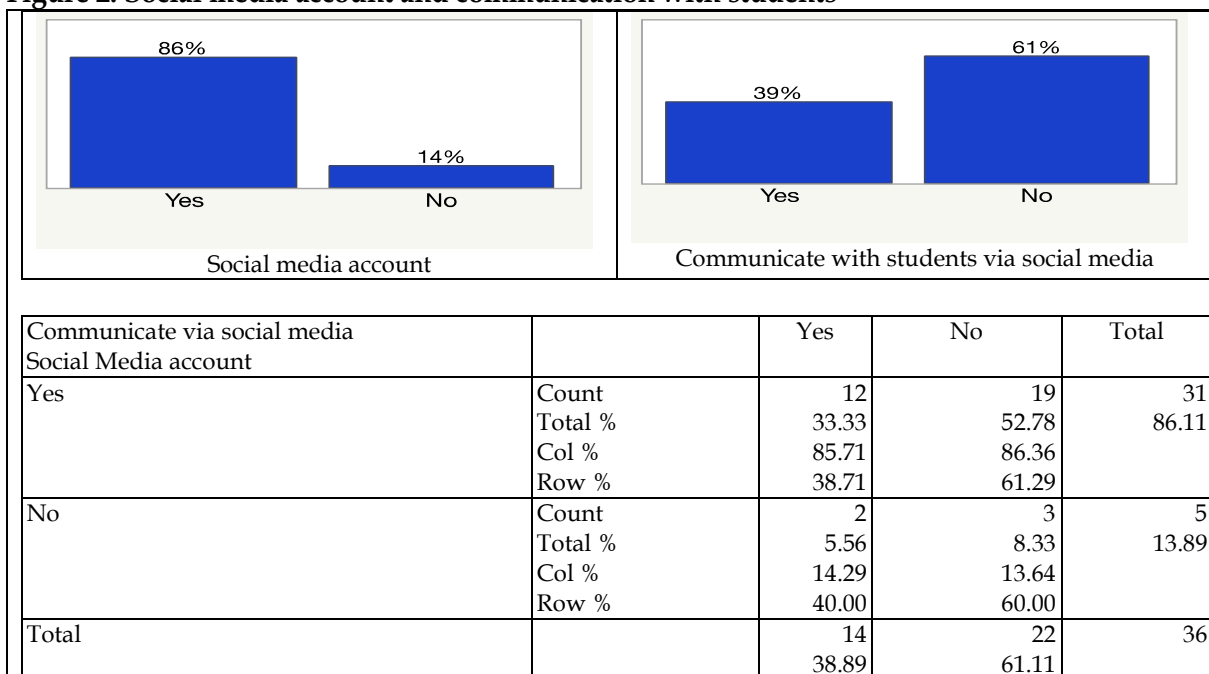
Figure 2. Social media account and communication with students

Table 2. Social media usage

In table 3 below, the respondents who indicated that they have a SM account were asked to indicate the type and usage of the account.

Social Media platform	Use this platform		Number of hours use per week, yes responses only					Total yes responses
	No	Yes	0 - 5	6 - 10	11 - 15	16 - 20	> 21	
Facebook	35 60.3%	23 39.7%	12 52.2%	4 17.4%	2 8.7%	4 17.4%	1 4.3%	23
LinkedIn	33 56.9%	25 43.1%	23 92.0%	1 4.0%	1 4.0%	0 0.0%	0 0.0%	25
Twitter	49 84.5%	9 15.5%	8 88.9%	1 11.1%	0 0.0%	0 0.0%	0 0.0%	9
Mxit	58 100.0%	0 0.0%	0 .	0 .	0 .	0 .	0 .	0
MySpace	56 96.6%	2 3.4%	1 50.0%	1 50.0%	0 0.0%	0 0.0%	0 0.0%	2
Blogs	49 84.5%	9 15.5%	9 100.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	9
YouTube	41 70.7%	17 29.3%	11 64.7%	3 17.6%	0 0.0%	3 17.6%	0 0.0%	17
Pinterest	52 89.7%	6 10.3%	5 83.3%	0 0.0%	0 0.0%	1 16.7%	0 0.0%	6
Institution system	31 53.4%	27 46.6%	13 48.1%	6 22.2%	6 22.2%	1 3.7%	1 3.7%	27
Instagram	52 89.7%	6 10.3%	3 50.0%	0 0.0%	1 16.7%	2 33.3%	0 0.0%	6
Tumblr	41 70.7%	17 29.3%	13 76.5%	3 17.6%	0 0.0%	1 5.9%	0 0.0%	17
Google+	56 96.6%	2 3.4%	2 100.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	2

Table 3. Usage of social media accounts

It is clear from the table that the platforms most used by the respondents, are the institution system (46.6%); LinkedIn (43.1%) and Facebook (39.7%). The majority of the respondents do not use Mxit

(100%); MySpace (96.6%); Google+ (96.6%); Pinterest (89.7%) and Instagram (89.7%). More than half the respondents spend five or less hours per week on a social media platform. Only one respondent, not necessary the same respondent, indicated that he/she spend twenty hours or more per week on Facebook and the institution system.

4.2 Use of social media to enhance learning

The respondents were asked to indicate the use of SM as academics to enhance student learning on a seven-point Likert scale. The items used are borrowed from the Technology acceptance model, see table 4.

Item	% of Total							N	Mean
	1	2	3	4	5	6	7		
I found social network systems easy to use.	5.13%	7.69%	0.00%	20.51%	17.95%	33.33%	15.38%	39	5.00
Learning to use social network systems would be easy for me.	5.13%	5.13%	5.13%	17.95%	12.82%	35.90%	17.95%	39	5.08
My interaction with social network systems is clear and understandable.	5.13%	5.13%	10.26%	12.82%	17.95%	28.21%	20.51%	39	5.00
It would be easy for me to find information on social network systems.	5.13%	7.69%	12.82%	10.26%	15.38%	33.33%	15.38%	39	4.85
It is easy to become skilful at using social network systems.	2.56%	7.69%	7.69%	17.95%	17.95%	23.08%	23.08%	39	5.03
Using social network systems would enhance my effectiveness in teaching.	5.13%	10.26%	15.38%	25.64%	20.51%	12.82%	10.26%	39	4.26
Using social network systems would improve my course performance.	5.13%	15.38%	10.26%	28.21%	17.95%	17.95%	5.13%	39	4.13
Using social network systems would increase my productivity in my teaching work.	7.69%	15.38%	12.82%	23.08%	20.51%	17.95%	2.56%	39	3.97
I found social network systems useful.	10.26%	10.26%	2.56%	30.77%	20.51%	20.51%	5.13%	39	4.23
Social network systems could make it easier to study course content.	5.13%	10.26%	7.69%	28.21%	25.64%	15.38%	7.69%	39	4.36
I dislike the idea of using social network systems.	17.95%	20.51%	12.82%	20.51%	7.69%	10.26%	10.26%	39	3.51
I have a generally favourable attitude towards using social network systems.	10.26%	7.69%	2.56%	20.51%	17.95%	30.77%	10.26%	39	4.62
I believe it is (would be) a good idea to use social network systems for my teaching work.	5.26%	7.89%	18.42%	31.58%	15.79%	13.16%	7.89%	38	4.16
Using social network systems is a foolish idea.	26.32%	23.68%	13.16%	18.42%	7.89%	2.63%	7.89%	38	2.97
I am positive towards social network systems.	2.63%	7.89%	7.89%	26.32%	15.79%	23.68%	15.79%	38	4.79
I intend to use social network systems during the semester for teaching purposes.	7.89%	18.42%	7.89%	23.68%	18.42%	5.26%	18.42%	38	4.16
I will return to social network systems often.	7.89%	13.16%	15.79%	23.68%	13.16%	15.79%	10.53%	38	4.11
I intend to visit social network systems frequently for my teaching work.	10.53%	15.79%	15.79%	23.68%	10.53%	13.16%	10.53%	38	3.89
I intend to be a heavy user of social network systems.	13.16%	21.05%	13.16%	21.05%	21.05%	2.63%	7.89%	38	3.55
I intend to use social network systems	5.26%	15.79%	13.16%	15.79%	21.05%	15.79%	13.16%	38	4.32

Item	% of Total							N	Mean
	1	2	3	4	5	6	7		
for communicating with others.									
What social network systems stand for is important for me as a university lecturer.	7.89%	18.42%	5.26%	26.32%	21.05%	13.16%	7.89%	38	4.05
I like using social network systems based on the similarity of my values and society values underlying its use.	7.89%	18.42%	13.16%	28.95%	15.79%	13.16%	2.63%	38	3.76
In order for me to prepare students for their future careers, it is necessary to take social network systems courses.	13.16%	18.42%	7.89%	26.32%	10.53%	23.68%	0.00%	38	3.74
I have no difficulty accessing and using an e-learning system in the university.	2.63%	2.63%	5.26%	13.16%	10.53%	18.42%	47.37%	38	5.71

Table 4. Items on the use of social media by academics to enhance student learning

It is evident from the table that the average score on a 7-point Likert scale are all above 3.5 except for the item –“Using social network systems is a foolish idea” ($M=2.97$). It can thus be inferred that the respondents are positive about using SM in their teaching. The three items with the highest average scores are “I have no difficulty accessing and using an e-learning system in the university” ($M = 5.71$), “Learning to use social network systems would be easy for me” ($M= 5.08$) and, “It is easy to become skilful at using social network systems” ($M = 5.03$).

4.3 Constructs

The items used are borrowed from the technology acceptance model and can be grouped in five constructs, (perceived ease of use; perceived usefulness; attitude towards using; intention to use and subjective norm), see table 5. Due to the number of responses, the fact that TAM is well researched and the constructs are confirmed, no confirmatory factor analysis was performed.

Constructs	N	Mean	Standard Deviation	Cronbach's alpha value (α)
Ease of use 1-5	39	4.99	1.61	.97
Usefulness 6-10	39	4.19	1.42	.92
Attitude 11-15	39	4.61	1.26	.76
Intention 16-20	38	4.01	1.61	.93
Subjective norm 21-23	38	3.85	1.51	.87

Table 5. Technology acceptance model constructs

It is evident from the table that the average score of the constructs on a 7-point Likert scale, are all above 3.5. The construct ease of use has the highest mean score ($M=4.99$) and the subjective norm has the lowest mean score ($M=3.85$). The constructs were all found reliable with Cronbach's alpha values of well above .60. Perceived ease of use consisting of 5 items (1 - 5) has the highest Cronbach's alpha value ($\alpha = .97$) whereas attitude towards using consisting of 5 items (11 - 15) has the lowest Cronbach's alpha value ($\alpha = .76$).

4.4 Profiling the usage of social media by respondents

The biographical variables age, gender, years of employment and position were tested against the usage of social media as well as the importance to communicate with students via SM. No significant differences were found in usage.

5. Limitations of the study

The study was only conducted at one tertiary educational institution in New Zealand in 2015 and the results should therefore be viewed with caution as it is only a limited snapshot of the need for, and use of SM in New Zealand. A comparison of the needs and use of SM from the learners' point of view was not addressed in this research study and should be undertaken in the near future. Also not addressed in the

study, is a comparison with the state of use of SM in other countries. Further studies in this regard could shed light on the global state of affairs. This study could, however, give an indication on where New Zealand is with the use of SM at tertiary educational institutions. As it was beyond the scope of this research, no attempt was made to investigate the use of SM at secondary school level either. This could however certainly be considered in future for comparative purposes and also to reveal the readiness of pupils to embrace SM at tertiary level should they continue their studies.

It is suggested that a study be conducted to cover various tertiary educational institutions throughout New Zealand to gain a more representative view of what the actual use and need for SM is in New Zealand. A limiting factor is the number of responses received back and the results can therefore not be generalised.

6. Discussion and conclusion

Due to daily changes in technology, people are more enabled to become informed and aware of the different types of technological systems as opposed to a few years ago. The use of the internet has further enabled many people, students, lecturers and institutions around the world to communicate more effectively with each other on specific topics and issues at any point in time (Mangold & Faulds, 2009:357). It therefore becomes evident that the use of SM networking systems in tertiary institutions does not only simplify communication between them and the students, but it can also add a lot of value by encouraging discussions between and among students, as well as addressing administrative issues (Moran, Seaman & Tinti-Kane 2011:4).

The findings of the study revealed that 86% of the respondents have a SM account and from those respondents who do have an account, 39% think it is important to communicate with students on SM. The most used platforms are the institution's systems, LinkedIn and Facebook and the majority of the respondents who are using a platform, spend less than five hours per week on the platform. It is clear that the respondents in general found SM easy to use and useful. They have a positive attitude towards SM and intend to use it in future.

Results of similar studies in South Africa suggested that there were biographical differences for age-group and gender when it comes to the use of SM as a lecturing tool. However the findings of this study suggest that there are no significant differences between the biographical differences and the SM as lecturing tool. However one should not lose sight of the number of response in the last study.

It is clear that the use of SM has become an essential aspect of the toolkit of academics to enhance their teaching and to improve the learning environment for students. It is accompanied by the fact that the learning environment can become more interactive and exciting for the learners and also infuse enthusiasm for both teachers and learners by employing the tools that are available. The positive is that SM broadens a person's mind and their perception of things they can do or help them to do. As pointed out in the research results there are however challenges in New Zealand regarding its use in the educational environment.

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Emerging frontiers in Entrepreneurship through Retail-E-Business: 'Centripetal momentum' engaged Product Life Cycle model

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Key Words

E-business to e-development, sustaining entrepreneurship, centripetal momentum, product life cycle, Thailand 4.0, resilience to cyber threats such as ransomware

Abstract

Cyber-space is a milieu of challenges and opportunities. The proliferation of popular e-portals along with looming ransomware creates the research challenge for this paper. E-based transactions are pervading at all levels of our connected society and needs to be self-sustaining. Given the inherent complexity of e-business models and virtual transaction systems, this paper aims to address the linkage between the product / service offerings in the e-business domain with stages of the product / service life cycle model. The paper addresses the threat gap evoked by vulnerability of cyber security issues such as ransomware, enforcing 'back to the future' for reliable pathways for cyber security (Lawrence, et. al. 2017). The purpose of this conceptually grounded work is to assess the diffusion of innovation at introduction, nascency, growth and maturity stages of the product / service life cycle. Diffusion of innovation product – service life cycle literature informs this research and attempts to analyze the life-cycle stage transition using concepts on centripetal momentum.

The Framework Method structures the methodology of this paper that analyses qualitative data for thematic analysis or qualitative content analysis (Gale, Heath, Cameron, Rashid and Redwood, 2013). There are a number of findings such as (i) the rate of diffusion of innovation and its effect on sustainability, (ii) impact on entrepreneurship to self-sustaining e-business systems. The outcomes are consistent with the Thailand 4.0 initiative, wherein e-business is transcending to the next level to e-development. Thailand 4.0 envisions transformation through creativity and innovation (Honorable Prime Minister of Thailand, 2016). This surge driven by the internet, has the potential to change relationships with customers, suppliers and intermediaries. New relationships evolve into entrepreneurship with incubator networks serving as catalysts (Carayannis and Von Zedtwitz, 2005). Novel revenue streams emerge and new business models are created. This happens when strategy blends with e-business, creating an impact that is far more than mere launching of a website.

E-business trajectory commenced with e-shop, to e-mall, to e-procurement, to e-auction. Current trends are on shared value chains (Hayes and Finnegan, 2005). The dynamics enables entrepreneurship and is transforming the rules of competition. Strategic use of e-business leads to the creation of value-drivers, viz., novelty, lock-in, complementarity, efficiency and excitement. All these parameters are interrelated, and act in unison, though in varied degrees. E-business gives rise to virtual markets where transactions face new challenges. To sustain e-business, value chain analysis should create value in virtual markets. A virtual value chain is a sequence comprising of accessing, organizing, synthesizing and distributing information. E-business thrives on strategic networks as firms, suppliers and customers complement capabilities.

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1. Introduction

Diffusion of innovation at a reasonably accelerated rate is key to sustain entrepreneurship. This paper aims to address the linkage between the product / service offerings in the e-business domain with stages of the product / service life cycle model. Sustaining the diffusion rate is a challenges (Karakaya, Nuur and Hidalgo, 2016). With net-presence mounting super-rapidly, e-business is

transcending to the next level to e-development. For instance, Thailand 4.0 envisions transformation through creativity and innovation (Honourable Prime Minister of Thailand, 2016). However, threats such as cyber-vulnerability with ransomware, poses serious e-business resilience. This paper highlights the surge driven by the internet, as well as the need to co-create e-business resilience to cyber attacks such as wannacry. has the potential to change relationships with customers, suppliers and intermediaries (Lawrence, 2017; Seo and Park, 2017). New relationships evolve into entrepreneurship with incubator networks serving as catalysts (Carayannis and Von Zedtwitz, 2005). Novel revenue streams emerge and new business models are created. This happens when strategy blends with e-business, creating an impact that is far more than mere launching of a website.

E-business trajectory commenced with e-shop, to e-mail, to e-procurement, to e-auction. Current trends are on shared value chains (Hayes and Finnegan, 2005). The dynamics enables entrepreneurship and is transforming the rules of competition (Dandapani et. al., 2017). Strategic use of e-business leads to the creation of value-drivers, viz., novelty, lock-in, complementarity, efficiency and excitement. All these parameters are interrelated, and act in unison, though in varied degrees. E-business gives rise to virtual markets where transactions face new challenges (Zott et. al., 2010). To sustain e-business, value chain analysis should create value in virtual markets. A virtual value chain is a sequence comprising of accessing, organizing, synthesizing and distributing information. E-business thrives on strategic networks as firms, suppliers and customers complement capabilities.

Is there a synergy to inter-relate entrepreneurial E-business with plc?

This paper integrates the stages of the Product/Service Life Cycle onto Value streams (Marques, Cunha, Valente and Leitão, 2013). E-business models combine new business processes, technology and organization to formulate successful strategies. E-business offers enormous scope for the use of technology and e-commerce processes to develop customer relationships and enhance value. As a prelude to the PLC linked e-business model, this paper enunciates the prime value drivers of e-business. It goes on to explore the linkages that points towards an integrated theory of value creation. Entrepreneurial element emerges as the integration of e-business with Product Life Cycle (PLC) enhances the elements of the marketing mix. For instance, inter-dependencies between place and promotion could better satisfy consumers' needs. The internet based portals provide uninterrupted analysis in contrast with television commercials (Allen and Fjermestad, 2001). The ambidexterity perspective (Hu and Chen, 2016) provides pointers to the PLC centripetal momentum model. Two technological innovation performance drivers, namely, efficiency and novelty, are sort of ambidextrous, with (i) combined dimension (CD) and (ii) balance dimension (BD).

2. Research objective: Transitioning from E-business to E-development

Baseline literature	Building-on-related literature references	Gap/Scope to elucidate research objectives
Transaction efficiency is one of the prime value drivers of e-business (Amit and Zott, 2001)	Architecting gloCal (global-local), real-virtual incubator networks (G-RVINS) (Carayannis, E. G., & Von Zedtwitz, M. (2005)	Scope to use centripetal momentum as catalysts and accelerators of entrepreneurship
Commoditization to knowledge management (Barnesa, Mieczkowskab and Hintonb, 2003)	Online shopping portal listings lack comprehensiveness, omitting merchandise and provide preferential treatment to high revenue retailers (Betts, 2001)	Entrepreneurial opportunities through: complementarity, lock-in, novelty, excitement
The temple framework for liquidity and capturing value (Brunn, Jensen and Skovgaard, 2002)	Knowledge management view of e-business posits that e-knowledge enables and facilitates value drive (Holsapple and Singh, 2000),	The role of the qualitative component within the wider goals of the project
Establishing relationships between purchasers and suppliers (Coltman et. Al., 2001)	Four faces of internet: (i) business/financial models (ii) relationships (iii) commerce (iv) responsiveness (Damanpour, 2001)	Charting the framework matrix

Table 1: Transitioning from e-business to e-development: configuring the centripetal PLC model

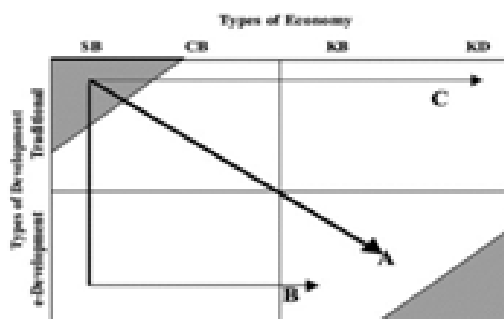


Figure 1: Transitioning from e-business to e-development: configuring the centripetal PLC model

Thailand 4.0 builds substantively on connectivity-driven momentum for e-business. Figure 1 depicts the transition from e-business to e-development (Carayannis and Jeffrey, 2001) that creates centripetal leverage augmented-business to the next paradigm-level of e-development, that spans society and economic development.

Knowledge-driven Economy (KD) is the frontier-rung of the e-business to e-development transition, with subsistence-based economy (SB), commodity-based economy (CB), knowledge-based economy (KB) being hierarchical steps (Papadopoulou, Andreou, Kanellis and Martakos, 2001). This proposition is illuminating this paper on the centripetal momentum engaged product/services life cycle model (Figure 1). Transaction efficiency may be achieved by reducing information asymmetries between buyers and sellers. This enables potential buyers to make speedy yet well-informed decisions (Kepler, 2002; King, Lee, and Viehland, 2004).

2.1 Complementarity

Complementarities are present wherever there is a bundle of goods. E-business leverages the value created, by offering bundles of complementary products and services. These complementary goods may be vertically grouped (like after sales services) or horizontally packed (like one-stop-shopping). For instance, service providers on travel add-on complementary weather information, and currency exchange rate information. These peripheral services enhance the value of the core product, such as, airline tickets and vacation packages, among others (Kandampully, 2003). Complementarity could bridge online and offline businesses, popularly termed as click and mortar. This is evidenced from online browsing and ordering (evidenced as clicks), with physical delivery from out-lets (brick-and-mortar stores). Complementarity may be extended beyond core transactions (Kalakota and Robinson, 1999). Certain service providers catalyse internet community building, through home-page building and web-page hosting. Though these services are not directly related to the core transactions. Nevertheless, they facilitate camaraderie and collaboration among members.

2.2 Lock-in

Successful e-businesses are those that motivate the customers to engage in repeat transactions, and creates bonds for strategic partners. Loyalty programs between book-sellers and credit cards enables consumers to earn bonus points from usage of card, which are redeemed with books and related accessories. Through lock-in, firms establish a relationship and motivation of trust. To fulfil individual needs of customers, e-businesses use lock-in (Joines, Scherer and Schenfele, 2003).

2.3 Novelty

Novelty or innovation is essential for success. Novelty thus captures 'mind share' and creates 'first mover' advantage, as evidenced in digital signatures, mobile commerce, among others (Shiralkar and Vijayaraman, 2003; Sian, Lim and Shen, 2001).

2.4 Excitement

Conducting innovative business via the Internet offers excitement. Finely customized communications create a profile of personal preferences. Extending from personalization to CRM, customer information is shared companywide, so that there is a better understanding about the customer at the functional level, providing a 360-degree view of the customer (Souitaris and Cohen, 2003).

3. Methodology

The Framework Method for the management and analysis of qualitative data dates back since 1980s. The Framework Method often termed thematic analysis or qualitative content analysis. Identifies commonalities and differences in qualitative data, before focusing on relationships. To draw descriptive and/or explanatory conclusions clustered around themes (Gale, Heath, Cameron, Rashid and Redwood, 2013). The Framework Method is deployed to elucidate the analogy between centripetal momentum with growth of clientele corresponding to the stages of the Product/Service Life Cycle.

The justification is the qualitative content in this research framework. Framework Method benefits managing and mapping the nascency, growth, maturity, sustainability phases. Multi-disciplinary and mixed methods studies are becoming increasingly relevant (King,1999). It is encouraging for the author to attempt the usage of the Framework Method as the research problem of linking the scientific concept of centripetal momentum to a qualitative issue of PLC is a phenomenon under investigation. The Framework Method allows flexibility that can be adapted in this research analysis. The author concedes that, it is beyond the scope of this paper to consider in depth data collection. The emergent nature of the portals is a challenge, that is best served by the mixed methods genre of methodology, wherein the Framework Method belongs.

3.1 Conceptual model: Momentum value drivers

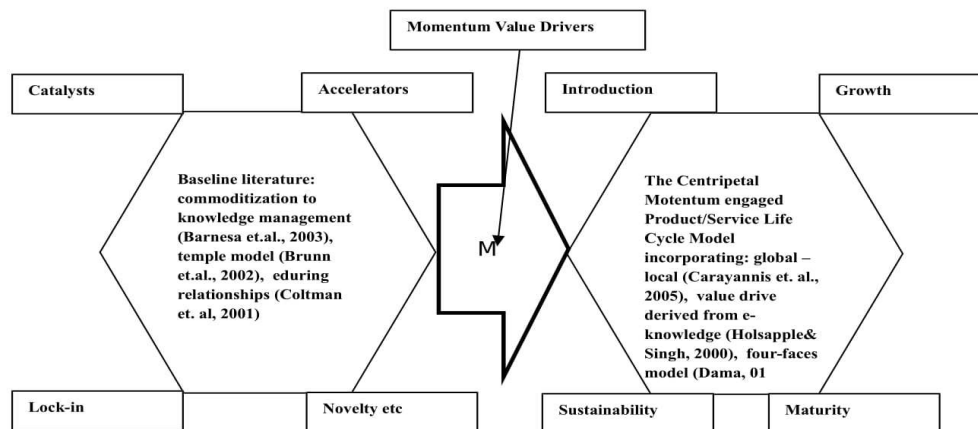


Figure 2: Literature inputs applied on to the Centripetal Momentum engaged Product/Service Life Cycle Model

The conceptual framework (Figure 2) sets the categories into two related structures (Jelassia and Leenenb, 2003), that enables analysis of the research objective stated in this paper to answer the research question: Transitioning from E-business to E-development. The conceptual model helps abstraction of the analogy of centripetal momentum with stages of the Product/Service Life Cycle. The baseline literature and associated building-on-related literature (Table 1) populates the left-hand part of the structure. Framework components from the baseline literature are: commoditization to knowledge management (Barnesa et.al., 2003), temple model (Brunn et.al., 2002), enduring relationships (Coltman et. al, 2001). Building-on-related literature incorporated are: Architecting gloCal (global-local), real-virtual incubator networks (G-RVINs) (Carayannis, E. G., & Von Zedtwitz, M. (2005), preferential treatment by shopbots (Betts, 2001), knowledge management enables and facilitates value drive (Holsapple and Singh, 2000) and four faces of internet: (i) business/financial models (ii) relationships (iii) commerce (iv) responsiveness (Damanpour, 2001). They trigger transformative parameters, namely, (a) catalysts (b) accelerators (c) novelty et. al. and (d) lock-in [figure (ii)].

The right-hand segment is configured by the Centripetal Momentum engaged Product /Service Life Cycle Model (Figure 1). The Centripetal Momentum engaged Product/Service Life Cycle Model draws from the outcomes on: incorporating: global – local (Carayannis et. al., 2005), value drive derived from e-knowledge (Holsapple & Singh, 2000). The resultant drivers being (i) introduction/nascency (ii) growth (iii) maturity and (iv) sustainability.

3.2 Results: centripetal momentum engaged product life cycle model

Qualitative level analysis with Framework Method was done with following steps, using the sample of online service providers (27 in number). Steps included: (a) development of analytical framework, wherein categories were formed (Figure 2). manage and organise the data. The framework enabled comparable structure configurations that on one hand, draws from literature at various temporal phases, as well as, facilitates answering the research question, on Transitioning from e-Business to e-Development. (b) explore a new analytical objective, linking centripetal momentum to PLC trajectory. This would lead to the core aspirational issue of entrepreneurship leading to the transitioning of e-business to e-development, for instance the Thailand 4.0 vision. (c) categorization and clustering leading to the process of abstraction.

(d) Configuring the Framework Method matrix (Table 2).

Research Objective: Transitioning from e-business to e-development		
Momentum Value Drivers	Results from Framework Method	Stages of the Centripetal Momentum engaged Product/Service Life Cycle Model
Catalysts	The development of themes	Introduction/Nascency
Accelerators	Systematic search for patterns	Growth
Complementarity, novelty, excitement	The role of the qualitative component within the wider goals of the project	Maturity
Lock-in for Sustainability	Four faces of internet: (i) business/financial models (ii) relationships (iii) commerce (iv) responsiveness (Damanpour, 2001)	Sustainability or Lock-in

Table 2: Configuring the framework method matrix transitioning from e-business to e-development

4. Discussion

Novelty and lock-in have a synergistic advantage in attracting and retaining customers. Similarly, novelty and complementarity put together, are associated in a way that the main features of innovation of e-business lies in their complementary elements. Certain efficiency features of e-businesses may be due to novel assets. It is possible to augment efficiency by reducing asymmetry of information between buyers and sellers (Lampe and Garcia, 2004). Thus, the insight emanating from these linkages, leads to an integrated theory of value creation (Mahadevan, 2000; Marques et. al., 2013; Michalak and Jones, 2003). In the traditional approach, each of these theories is used in isolation.

Thus, the Centripetal Momentum engaged Product Life Cycle Value Chain Framework focuses on firm's activities. In contrary to this singular approach, the sources of value creation in e-business emanates from an integration of business opportunities (Pant and Ravichandran, 2001). We define the business model for e-business as the content, structure and governance of transactions designed to create value through the exploitation of business opportunities (Papadopoulou et. al., 2001; Rowley, 2003). The transaction comprises of content (goods or information that are being exchanged and resources and capabilities required to enable the exchange), structure (the parties that participate in the exchange and the sequence in which the exchanges take place), and governance (ways in which flow of information, resources and goods are controlled by relevant parties) (Vassilopoulou, Ziouvelou and Pateli, 2003). Providing online information to customers can be a strategic differentiating factor. The success of e-businesses hinge on electronic linkages between supply-chain partners in terms of automated ordering, online invoicing, order-status tracking and electronic payments.

During the presales phase, information regarding the service offering is provided to customers, thereby providing a truly distinctive value proposition. The information content is rich and interactive. It informs the customers about the inventory status, delivery options, timeframe and payment conditions. Manufacturers need to leverage their brands to create online brand identity and build customer brand preference. Besides providing information, firms can collect valuable customer information regarding demographic, behavioural and psychological data. Consumers often form virtual communities to provide feedback, gather ideas and perform online comparisons. Additional services like product simulation and

testing, assessing alternative financing schemes are possible online. Internet transaction mechanisms provide dynamically updated online catalogues, bundled offerings, bulletin boards and online auctions.

5. Outcome and contribution: How super-imposing the centripetal-momentum-engaged product/service life cycle can enable transition from e-business to e-development

5.1 The Introductory Stage of the PLC:

During this stage, the product or the service offering is new. The transition from brick & mortar offering to e-business generates value in terms of better price & enhanced service. This value stream coupled with the product/service offering cause a thrust of centripetal momentum about the customer at its core. It acts as a shield to 'lock-in' the customer. Stronger the momentum caused by the combination of the product/service offering and the value stream, the greater are the chances that the customer would stay loyal.

5.2 The Growth Stage of the PLC:

As the product/service offering gains momentum, it transcends to the growth stage of the PLC. By this time, the product or service offering has attracted attention of the portals who would like to add it in its list, to funnel the prospective customers towards that product or service. Added to this is the Revenue stream that emanates from increased margins. This coupled with the former duo of product & service offering as well as the value stream, forms a dipole that imparts added momentum to the model, exerting greater influence on the customer at the centre. This additional 'lock-in' influence on the customer pushes the offering up the PLC to the accelerated growth path.

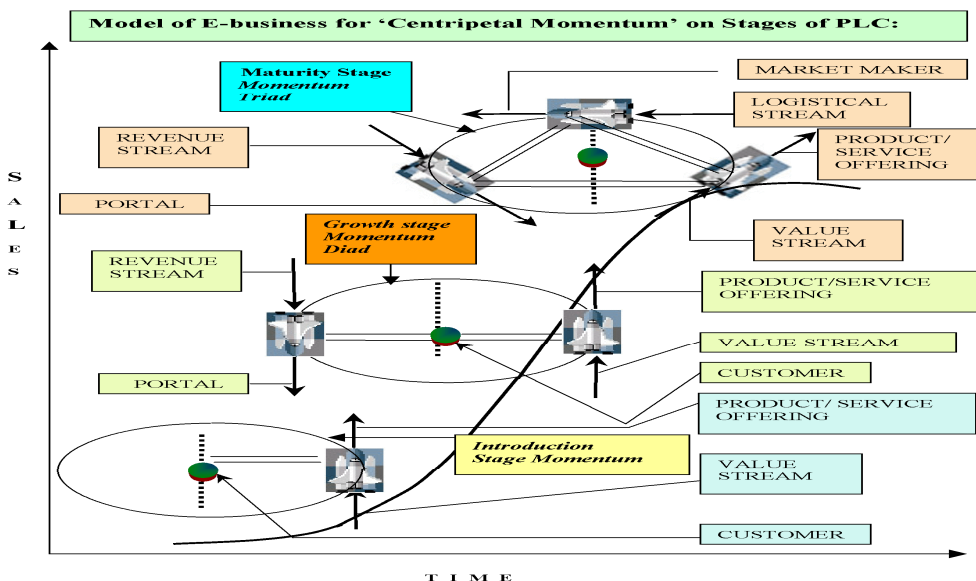
5.3 The maturity Stage of the PLC:

The above average growth of the product/service offering lifts it to the maturity stage of the PLC. The runaway success at the growth stage would attract competition. The customer, which is at the focus, is exposed to greater choice and is lured by competition. At this stage, more centripetal momentum is to be exerted to retain the customer. This extra force is exerted by the presence of the third value proposition: the market-makers, who facilitate the transaction between the buyer and seller, usually providing guarantee & security. This is coupled by the logistical value stream.

5.4 Sustainability or Lock-in: beyond the maturity stage

The logistical value stream, prunes the supply chain by dis-intermediation or info-mediation, thereby cutting search costs. The triad formed by aligned force couples, viz, the product/service offering coupled with value stream, the portal coupled with revenue stream and the market-maker coupled with the logistical stream, provides superior levels of momentum to hold the customer in place.

Figure 1: Model of E-business for 'Centripetal Momentum' on Stages of PLC:



But as competition is severe, most of this momentum energy is spent to neutralize the 'pull' from competition, leaving only a fraction of the momentum to push the product/service on the PLC. This explains the flattening of growth at the maturity stage. In the event diminution of power of the triad couples, the product/offering would slide to the decline stage of the PLC.

6. Comparison and contrast of the findings of this study with respect to literature (Table 3):

Baseline literature	Comparing findings with respect to literature	Contrasting outcomes with respect to literature
Transaction efficiency is one of the prime value drivers of e-business (Amit and Zott, 2001)	Value Streams *	Concept of centripetal momentum accelerates entrepreneurship
Architecting gloCal (global-local), real-virtual incubator networks (G-RVINS) (Carayannis, E. G., & Von Zedtwitz, M. (2005)	Revenue Streams	Entrepreneurial opportunities
Commoditization to knowledge management (Barnesa, Mieczkowskab and Hintonb, 2003)	Logistical Streams	complementarity,
Online shopping portal listings lack comprehensiveness, omitting merchandise and provide preferential treatment to high revenue retailers (Betts, 2001)	Lock-in	Virtual Communities
The temple framework for liquidity and capturing value (Brunn, Jensen and Skovgaard, 2002)	Novelty	Transaction Cost Reduction
Knowledge management view of e-business posits that e-knowledge enables and facilitates value drive (Holsappleand Singh, 2000)	Excitement	Information Asymmetry Advantage
Establishing relationships between purchasers and suppliers (Coltman et. Al., 2001)	Short-term Value-added Market-making process	Sustainable-term Value-added Market-making process
Four faces of internet: (i) business/financial models (ii) relationships (iii) commerce (iv) responsiveness (Damanpour, 2001)	Dis-intermediation, info-mediation and	Meta-mediation

Table 3: Comparison and contrast of findings of this study with the literature *details enumerated below

6.1 Value Streams, Revenue Streams & Logistical Streams:

The blend of these three streams drives the business model for e-business. The Value stream identifies the value proposition for the buyers, sellers, the Market-makers and the Portals. The Revenue stream determines the revenue generation. The Logistical stream addresses issues related to the design of the supply chain for the e-business.

6.2 Significance of Value Streams in E-business:

Increased supplier base gives more options for customers, thereby giving buyers added perceived value in terms of better price, enhanced service, convenience and heightened experience. Suppliers perceive value arising out of reduced search costs, product promotion costs and lead-time. For instance, a car dealer, who spends about \$25 to close business in the brick & mortar operation, spends zero on customer search cost for referrals from Autobyte.com. The market-maker or the portal increases the value for both buyers and suppliers, creating a virtuous cycle. More suppliers join, and the buyers get more choices. As more buyers join, suppliers get wider customer base. Simultaneously, buyers & suppliers rely more on Market-makers/ Portals, ensuring a healthy revenue stream.

6.3 The Four Value Streams in Sustainable E-business entrepreneurship:

Value generated from virtual communities, dramatic reduction in transaction costs, advantage from information asymmetry and value-added market-making process, comprise the quadrangle of value streams in e-business.

6.4 Virtual Communities:

Communities have a distinctive focus that draws participants with common interests. For instance, WebMD is a community site that caters to medical practitioners. The members themselves generate the value derived in these communities.

6.5 Transaction Cost Reduction:

The e-business facilitates reduction in search costs allowing buyers, sellers, multi-firm consortiums to exchange information.

6.6 Information Asymmetry Advantage:

In e-business, numerous buyers are spread over large geographical areas. There are sellers with perishable products & services (travel, hotel & tourism). The sellers do not have perfect information on demand. Also, the buyers do not have perfect information on supply. The intermediary takes advantage of this asymmetry. Priceline.com is a business-to-consumer value stream setting up online bids and reverse auctions.

6.7 Value-added Market-making process:

Security and trust are value propositions used by market-makers. In the Seafood industry, small buyers and sellers transact without knowing each other. Seafax.com provides trusted third-party certification to augment confidence of buyers and sellers. Similarly, eBay provides guarantees of transactions involving financial instruments ensuring privacy and reliability of delivery.

6.8 Revenue streams in Sustainable E-business entrepreneurship:

Revenue streams realize the value proposition in the short term. Revenue streams could emanate from increased margins (for instance Amazon.com's 50% discount on best seller's due to dis-intermediation of the value chain generated increased margins), advertising (Yahoo, AOL)

6.9 Logistical streams in Sustainable E-business entrepreneurship:

Three distinct logistical streams exist in e-business, which evolve because of pruning the supply chain, viz, dis-intermediation, info-mediation and meta-mediation. By dis-intermediation, the logistical stream is shortened, as is done by Amazon.com to gain advantage over Barnes & Noble and by Encarta over Encyclopaedia Britannica. Online journals like Emerald have found success over physical libraries by shrinking the supply chain. Info-mediation is necessitated by proliferation of information in the Net. Infomediaries are search engines & electronic product catalogue aggregators. Meta-mediation goes beyond information dissemination and facilitates transactions. Few business-to-business segments have high vendor search costs. In such cases meta-mediation adds value to the buyers & sellers by providing additional services.

6.10 Specific reference to Thai retail market:

Table 4 and Figure 2 illustrates the summary finding of the Framework Method with specific reference to Thailand 4.0. The trajectory or pathway to transition from e-business to e-development. Momentum Value Drivers were clustered on (i) catalysts, (ii) accelerators, (iii) complementarity, novelty, excitement and (iv) lock-in for sustainability. Finding were, that entities emphasized on: reforms, recognition, consumer protection, non-cash-electronic transactions and smooth dispute resolution.

Case: Thailand 4.0: Transitioning from e-Business to e-Development		
Momentum Value Drivers	Results from Framework Method	Stages of the Centripetal Momentum engaged Product/Service Life Cycle Model
Catalyst: agriculture	The development of themes: Online agri-marts	Introduction/Nascency
Accelerators: Light industry	Systematic search for patterns: industry segment portals	Growth
Complementarity, Heavy industry	Novelty, excitement: Revenue streams	Maturity
Connectivity for Sustainability:	Innovation, Smart Thailand	Sustainability or Lock-in

Table 4: Transitioning from e-business to e-development

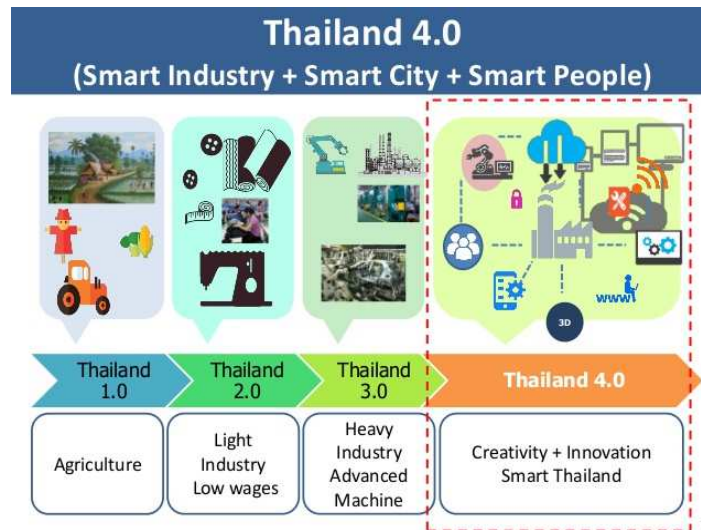


Figure 2: Transitioning from e-Business to e-Development (adapted from Languépin, 2016)

7. Discussion: 'Centripetal momentum' engaged product life cycle model for internet based e-commerce:

Marketspace in e-business can add value to elevate to a sustainable e-development system. A portal builds a community of consumers by providing information about products & services. They are focal points to channelize traffic into websites. The market-makers are facilitators between the buyer & the supplier (Dandapani, et.al. 2017). They possess high degree of domain knowledge. Here, the role of the portal is that of a facilitator, catalyzer and enabler. Portals funnel traffic of prospective computer software buyers to related websites.

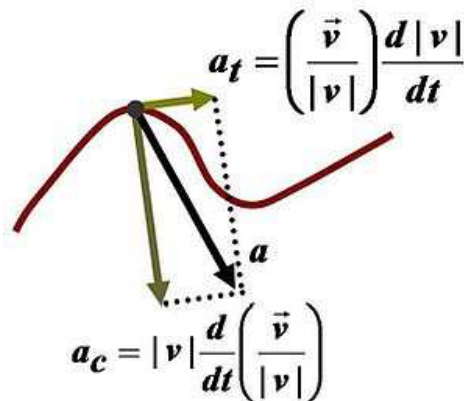
The next level are market-makers, who leverage their domain knowledge related to software, provides implicit guarantee and security in the business transaction. For instance, auction sites serve as market-makers in the business-to-consumer segment. The Product/Service Providers are the third element in the market space, which deal directly with the customers and hence call for extensive customization. Through the interaction between these three players, viz, portals, Market-makers and product/service providers, the e-business model propagates. Prospective customers catch the attention about the products/services through the portals. The market-makers facilitate the business transaction of the product/service providers.

Author concedes some limitations. Dependence on secondary data (Rauter, Jonker, and Baumgartner, 2017) is an inadequacy for generalization. Furthermore, product - service life cycles model trajectory is assumed to be super-imposed with the centri-petal momentum concept, is a blend of social science model with physical science, needs rigorous literature review.

Since buyers cannot physically feel & touch products on the Internet and as they are concerned regarding credit card abuse, building trust is a prime issue. Digital Signature (DS) technology is widely used to secure transactions and thereby build trust. Digital Signature (DS) technology involves encrypting messages. Two separate but interrelated 'keys' carry out this process of encryption and decryption. One party in the transaction holds the secret key (the private key) and the other party holds the public key. The Utah Digital Signature Act (1994) introduced the concept of Certifying Authority (CA). Leading CA service providers like VeriSign provides Public Key Infrastructure (PKI) based on 128-bit encryption. DS vendors develop 'keys' and encryption software like 'Smartcard Solutions' developed by RSA Securities Inc. Global sign Inc creates and manages DCs for signed and sealed e-mail messaging for secure & confidential e-commerce & mobile commerce applications.

8. Conclusion, future scope:

Analogy of increased intensity of centrifugal momentum directed inwards at different stages of the product/service life cycle is a key assumption in this paper (diagram below).



Equation of acceleration α (wikipedia definition) is a function of the second derivative. Centripetal force is created inwardly. In this case, the stages of PLC pass the nascency, growth, maturity and sustainability phases. At each stage, added α (details in Figure 1) creates higher levels of inwardly directed, customer-retainer-forces. This qualitative analogy is assumedly appropriate as the PLC is a curved trajectory.

Author admits this as a limitation, as it is not supported by PLC literature. The main objective of this paper has been to synthesize the existing value drivers of e-business and to superimpose them onto the Product Life Cycle. Secondly, the unique analogy of Centripetal Momentum exerting a compelling force on the customer (at the focus) is elucidated. In this paper, it is attempted to contribute to the value creation parameters of e-business by integrating the forces acting as Centripetal Momentum, thereby locking in the customer at the focus. The intensity of this force varies at the introduction, growth and maturity stage of the product life cycle. (Rauter, Jonker and Baumgartner, 2017).

This unique model sets the stage to analyse the strategies for e-business and to deliberate on the vital issue of security and trust. The advancement of Digital Signature technology, encryption and biometrics has led to rapid development in m-commerce, healthcare & banking segments. The emerging trends in e-business have a lot of promise to propel it up the product life cycle curve. But future research should address the specific issues like bandwidth restrictions and legalities.

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The effect of entrepreneurial orientation, market orientation, total quality management and organizational culture on the SMEs performance: A theoretical framework

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Keywords

Entrepreneurial orientation, market orientation, total quality management, organizational culture, organisational performance.

Abstract

In the contemporary, Entrepreneurial orientation and Market orientation have become important topics among business academics and practitioners. Since business environment has become more competitive, the need to develop and improve internal resources is now a prerequisite for global survival; entrepreneurial orientation and market orientation are now the crucial factors that are assisting the firms to achieve such a niche. Despite the importance of MO and EO, researches that link these concepts to SMEs performance are very limited. In this view, through extensive literature view, this study has found a theoretical link that exists between entrepreneurial orientation, market orientation and performance of SMEs and also developed conceptual model for empirical validations. This study serves not only to clarify the relationship between entrepreneurial orientation, market orientation and SMEs performance, it also explains the role which TQM plays as a mediator in this relationship which most studies have neglected. Again, the conceptual model also examines the moderation role of the organizational culture in the relationship between TQM and SMEs performance.

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1. Introduction

Over the past decade, the rate of globalization, world-wide competition and changing in needs and desires of customers have increased dramatically (Ebrahimi & Adeghe, 2013). Moreover, most industrial sectors that operate in the economies of developing countries are witnessing structural and speedy changes unearthing economic opportunity for foreign direct investment, unbalanced growth and increased uncertainty as a result of environment changes (Chironga, Leke, Lund & Wamelen, 2011; Goedhuys & Sleuwaegen, 2010).

For firms to become more efficient and competitive in this regard, many companies are being motivated to change their existing traditional business operations, and as well select and develop best processes to improve products and services to ensure customer satisfaction at competitive costs (Zakuan, Yusof & Shaharoun 2009; Wanjau, Gakure, Peterson & Kahiri, 2013; Teixeira, Lopes & Sousa, 2015). Importantly, these changes have given essential challenges and opportunities for companies to take

advantage of their capabilities or competence for growth (Li, Zhao, Tan & Liu, 2008). These changes have also changed decision making processes and managerial assumptions in numerous entrepreneurial firms, including those decisions taken to achieve opportunities and how customer value can be produced and delivered (Webb, Ireland, Hitt, Kistruck & Tihanyi, 2011).

To this end, firms have to adopt and implement market orientation (MO), entrepreneurial orientation (EO) and new operation management practices activities, which have been proved to be effective over the years (Sadikoglu & Zehir 2010; Zakuan et al., 2009). In the same side, many of the authors stressed on the importance of EO, MO and TQM in achieving competitive advantage and enhanced performance of firms (Li et al., 2008; Aziz & Yassin, 2010; Talib, Rahman & Qureshi, 2010; Mokhtar & Yusoff, 2012; Al-Dhaafri, Yusoff & Al-Swidi, 2013; Calvo-Mora, Ruiz-Moreno, Picón-Berjoyo & Cauzo-Bottala, 2014). Further, previous studies have recognized the organizational culture (OC) as a means of sustainable competitive advantage and a significant driver of best performance (Xenikou & Simosi, 2006; Rad, 2006; Irani, Beskese & Love, 2004; Schein, 1984, Wu, Zhang & Schroeder, 2011).

However, the bulk of extant studies that examined the EO, MO, TQM and business performance focus on large organization, particularly in developed countries (Salaheldin, 2009; Urban, 2010; Mahmoud, 2011; Wales, Gupta & Mousa, 2011; Raju, Lonial & Crum, 2011; Mahmud & Hilmi, 2014). Accordingly, fewer studies are available on EO, MO, TQM in the SMEs (Chao & Spillane; 2010; Raju et al., 2011; Islam, Khan, Obaidullah & Alam, 2011; Filser, Eggers, Kraus & Málovic, 2014; Jabeen & Mahmood, 2015).

Based on the above premise therefore, it is logical to conclude that previous researchers have not only paid very minimal attention to the EO, MO and TQM in the SMEs; a lot of opportunities still abound to extend theoretically and empirically the literature on EO, MO, TQM and SMEs performance. Consequently, the specific objective of this article is to avail the research community a conceptual framework that will link EO, MO and SMEs performances, and will equally contribute to the body of knowledge and as well as facilitate the connections between Europe, USA, and other developing and emerging countries such as KSA. Based on the objective of this study, the second part of this paper is literature review on EO, MO, TQM, OC and SMEs performances. The next part of the article unveils the conceptual framework of the study. The framework depicts the relationship between EO, MO, TQM, OC and performances of SMEs. And last part is conclusion and suggestion for future research.

2. Literature Review

2.1 Entrepreneurial Orientation (EO)

In a general sense, EO refers to firms' the decision-making styles to explore new market opportunities (Lumpkin & Dess, 1996; Wiklund & Shepherd, 2003; Walter, Auer & Ritter, 2006). EO has been a salient topic in entrepreneurship literature and strategic management (Zainol & Ayadurai, 2011; Miller, 2011; Covin & Lumpkin, 2011; Covin & Wales, 2012). In addition, EO is an important factor affecting the marketing, strategy of the organization, leadership, culture of organization as well as growth and profitability of the organizations (Phokha & Nonsrimuang, 2013; Wijetunge & Pushpakumari, 2014). In a similar vein, the firm with higher EO will achieve higher organization performance (Ambad & Wahab, 2013). Therefore, organizations with higher levels of EO perform better than the ones with poor levels of orientation (Keh, Nguyen & Ng, 2007).

Historically, in the past academic literature presented the EO definition for the first time by Miller (1983) (Covin & Lumpkin, 2011). It was defined by Miller (1983, p. 770) an entrepreneurial firm "engages in product market innovation, undertakes somewhat risky ventures and is first to come up with 'proactive' innovations, beating competitors to the punch". Morris and Paul (1987) also defined EO as the preference of a firm's executive to take calculated risks being innovative, and proactive in their approaches to strategic decision making.

Moreover, three original EO dimensions were developed earlier by Miller (1983) namely, innovativeness, proactiveness, and risk-taking. Subsequently, Miller's three EO dimensions have been converted into measurable scales by Covin and Slevin (1986; 1989). Several studies have been applied Miller's model with three dimensions (Wiklund & Shepherd 2005; Wiklund & Shepherd, 2011; Kraus, Rigtering, Hughes & Hosman, 2012; Wang & Yen, 2012; Ambad & Wahab, 2013; Filser et al., 2014).

Several researchers examined the association between EO and organization performance focus on large firms, especially, in developed countries (Wales et al., 2011; Urban, 2010). Therefore, there is a sparse of research that examines the influence of EO in the SMEs (Islam et al., 2011). Moreover, Wales et al., (2011) in their empirical research of EO assessment suggest that future research should consider mediation by arguing that there is little understanding of the causal mechanisms of how or why EO affects other variables. Lechner and Gudmundsson (2014) also recommend that there is a need for more research to examine what constructs can mediate between EO and performance.

In addition scholarly works have supported that EO brings about improvement in performance of organization (Wiklund & Shepherd, 2005; Li et al., 2008; Tajeddini, 2010; Hassim, Nizam, Talib & Bakar, 2011). Moreover, organizations adopting a high EO expected to have a superior performance better than companies that adopt conservative orientation, where the market share showed improvements and the number of new products, services and processes has shown some growth (Rodrigues & Raposo, 2011; Rauch, Wiklund, Lumpkin & Frese, 2009). Hence, firms need to implement EO, because it is considered as an important process that helps a firm to survive, successfully compete and improve its performance (Dimitratos & Plakoyiannaki, 2003; Teece, 2007).

Moreover, numerous studies have argued that there is a link between EO and TQM (Fernandes, Felgueira, & Lourenço, 2015; Kim, Kumar & Kumar, 2012). Besides this, customer satisfaction, open culture and continuous improvement, are common aspects of TQM and innovation (Kaynak, 2003; Sing & Smith, 2004; Zehir, Müceldili, Zehir & Ertosun, 2012). Therefore, both technology and human dimensions of TQM practices assist in creating culture and an environment that allows innovation (Hoang, Igel & Laosirihongthong, 2006). Thus, the following hypotheses should be introduced for further empirical examination.

H1: Entrepreneurial orientation has a significant effect on the organizational performance.

H2: Entrepreneurial orientation has a significant effect on total quality management.

2.2 Market Orientation (MO)

MO is regarded as the philosophy of business, through which the firm can recognize and meet customer demands and integrate the concept of marketing through the firm (Aziz & Omar, 2013). The researchers also strongly support that firms should adopt MO, due to its ability to help firms to achieve sustainable competitive advantage (Zhou, Li, Zhou & Su, 2008; Kumar, Jones, Venkatesan & Leone, 2011). Further, MO is regarded as a firm's capability, rare and valuable resources which cannot be copied easily and which emphasize the placement of the customer's needs in the core of organizations' operations and strategy (Polat & Mutlu, 2012).

At its core, MO related to firm's ability to explore and identify existing and potential customer needs and works to respond to those needs via superior ways (Slater & Narver, 1995; Day, 1994; Kohli & Jaworski, 1990). In simple terms, MO approves the necessity of moving closer to the customer (Slater & Narver, 1998). Within this context, MO includes capability that is possessed by an organization to swiftly act in response to transformation in the market demands by introducing new products and services (Ho, Wu & Chen, 2010; Adis & Jubilee, 2010). Therefore, it is logical to assert that MO activities will influence firm's innovativeness (Aziz & Omar, 2013).

Notably, the first conceptualizations of MO that was recognized as the main firms' performance determinant was provided by Kohli and Jaworski (1990) and Narver and Slater (1990). Several other studies have however been conducted after the works of Kohli and Jaworski (1990) and Narver and Slater (1990), linking relationship between firm performance and market orientation. Kohli and Jaworski (1990) confirm on the aspects of behaviour MO and defined MO as "organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it" (1990, p. 6). In contrast, Narver and Slater (1990) viewed MO as a form of organizational culture. They define MO as the "organizational culture that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers and thus, continues superior performance for the business" (1990, p. 21).

In relation to that, Kohli and Jaworski (1990) view MO as being made up of three components; intelligence generation, intelligence dissemination, and organization wide responsiveness. Other scholars such as Narver and Slater (1990) equally identify three dimensions of MO to include competitor

orientation, customer orientation, and inter functional coordination. However, both MO approaches have the same goal that means customers remain the main factor of MO thinking and in explaining the behaviour of firms (Vieira, 2010; Shehu & Mahmood, 2014).

In this regard, a lot of market oriented literature considered that market oriented culture looks to be a very important determinant of improved business performance as it makes customers' needs a priority, while the market oriented firm tries to work better on customer satisfaction, and in this manner, increase the level of firm performance (Li, Wei, & Liu, 2010; Kumar et al., 2011). Hence, the literature of marketing has considered MO to be a main part of organizational culture (Raju et al., 2011). As a matter of fact, majority of the studies regarding MO have used these three dimensions to measure the MO construct (e.g., Appiah-Adu & Ranchhod, 1998; Augusto & Coelho, 2009; Aziz & Omar, 2013; Julian, Mohamad, Ahmed & Sefnedi, 2014; Wilson, Perepelkin, Zhang & Vachon, 2014).

There are numerous studies that reveal a link between MO and organizational performance in large firms, particularly, in developed countries (Raju et al., 2011; Mahmoud, 2011). Hence, there is a lack of research investigating the impact of MO in the SMEs (Islam et al., 2011). In addition, Herath and Mahmood (2013) recommend the inclusion of the mediator on strategic orientation to the business performance relationship.

Furthermore, studies have supported that MO leads to improve organizational performance (Hassim et al., 2011; Suliyanto & Rahab, 2012; Aziz & Yasin, 2010; Mahmoud, 2011; Chen, Tang, Jin, Li & Paillé, 2015). Related to that, when a market oriented firm identifies customer needs, desires and preferences and strives to satisfy these better than competitor an increase in the level of firm performance will be achieved (Olavarrieta & Friedmann, 2008). Similarly, to deal with the changing customer demands and preferences, several firms adopt the MO idea, which is considered one of the most important developments in the marketing literatures (Suliyanto & Rahab, 2012). Therefore, every organization should embrace MO as a strategy which could be used to build capabilities of the marketing in order to meet customers' needs, satisfaction with the purpose of outperforming the competitors (Liu & Wang, 2009; Chin, Lo & Ramayah, 2013).

Additionally, many prior studies have shown there is a relationship between MO and TQM (Zelbst, Green, Abshire & Sower, 2010; Lam, Lee, Ooi & Phusavat, 2012). In line with these results, Day (1994) and Mohr-Jackson (1998) confirmed a link between MO and practices of TQM as both are concerned with customer's needs, customer's participation, as well as target to achieve the same final aim customer of satisfaction. Indeed, TQM practices offer a group of tools, which help firms to become market-oriented (Litton, 2001). Furthermore, Day (1994) argues a market oriented firm enhances the process of market and customer sensing. Thus, linking capabilities are essential segments of firm's building, as a result, implementation of TQM helps to enhance capabilities and "at the heart of the TQM is the concept of an organization as an interrelated collection of processes rather than an interacting set of functional units". Hence, MO and TQM are complementary (Wang, Chen & Chen, 2012). Thus, the following effects can be hypothesized:

H3: Market orientation has a significant effect on the organizational performance.

H4: Market orientation has a significant effect on total quality management.

2.3 Total Quality Management (TQM)

TQM is a widely recognized management philosophy as a management reference system and as strategic support to achieve sustainable competitive advantage is enabling organizations to obtain superior performance (Calvo-Mora et al., 2014; Abusa & Gibson, 2013). In fact, TQM allows organizations to develop product quality will improve their competitive position, differentiate their products and business success (Perez & Gutierrez-Gutierrez, 2013; Lam, Lee, Ooi & Lin, 2011). Therefore, it is not accidental that Wang et al., (2012) confirms that the TQM ensures continuous process improvement which will help to meet superior customer value and customer needs as well as the alignment of the firm operations and understanding, sharing, and responding to customers through marketing concept. A lot of firms have reached the conclusion that the implementation of TQM can help firms improve competitive abilities as well as provide strategic advantages in the marketplace (Karani & Bichanga, 2012).

In the extant literature, there are many definitions for TQM as there is no commonly agreed one (Deros, Yusof, Azhari, & Salleh, 2006). However, several of the existing definitions seem to suggest that all

firms' processes are being covered by the TQM (Al-Swidi & Mahmood, 2012). For instance, TQM was defined as an encompassing approach that works on sustaining an uninterrupted improvement that leads to high quality results of responding, meeting and exceeding the customers' demand and expectation (Flynn, Schroeder & Sakakibara, 1994). Recently, Kumar, Choisine, Grosbois, and Kumar (2009) equally considered TQM as an inclusive method that combines all the activities of organization to meet and exceed customers' expectations towards achieving overall firm objectives.

Many TQM practices have been identified by many scholars and organisations such as Malcolm Baldrige Award, EFQM (European Foundation for Quality Management), and the Deming Prize criteria. Based on these studies a wide range of empirical investigations have been generated. Black and Porter (1996) identified ten major categories of practices, namely people and customer management, corporate quality culture, quality improvement measurement, supplier partnerships, strategic quality management, external interface management, operation quality planning, teamwork structure, communication of improvement information, and customer satisfaction orientation. Yusof and Aspinwall (2000) analysed the TQM Critical Success Factors (CSFs) in the SMEs such as; human resource development, education and training, leadership, continuous improvement system, measurement and feedback, supplier quality assurance, system and processes, improvement tools and techniques and work environment and culture.

In addition, based on an extensive reviewing of the TQM literature, Sila (2007) identified seven main classification of practices measured in past studies, namely human resource management (HRM), leadership, customer focus, strategic planning, process management, information and analysis, and supplier management. These practices are consistent with the criteria that are used in Malcolm Baldrige National Quality Award (MBNQA), except supplier management. The TQM six practices (i.e., leadership, strategic planning, customer focus, human resource management (HRM), process management and information and analysis) are also seen in past studies (e.g. Prajogo & Sohal, 2003; Prajogo & Hong 2008; Tan, 2013; Mahmud & Hilmi, 2014). Therefore, these criteria will be used in this study.

Furthermore, recent studies showed positive relationship between TQM and organizational performance (Lam et al., 2011; Fening, 2012; Agbola, 2013). However, other studies found negative (Duarte, Brito, Di Serio & Martins, 2011; Kober, Subraamanniam, & Watson, 2012; Kannan & Tan, 2005). These inconsistent results in the literature necessitate a further investigation on the relationship between TQM and firm performance, particularly in developing countries where there is a severe lack of relevant studies (Meftah Abusa & Gibson, 2013).

As mentioned before, previous studies have revealed that there is positive a relationship between EO, MO and TQM (Fernandes et al., 2015; Lam et al., 2012; Lai, 2003). Several empirical studies supports have also been found for a mediating role of TQM. For example, Prajogo and Sohal (2006) investigated the mediating role of TQM practices on the relationship between organization strategy and firm performance. The findings of their study indicated a positive and significant relationship between TQM and differentiation strategy as well as a partial mediation on the relationship between firm performance and differentiation. Moreover, Hung, Lienb, Fangc and McLeand (2010) examined Knowledge management, TQM and innovation performance. They reported that TQM was a mediator between Knowledge management and innovation performance. This discussion leads to the following hypothesis:

H5: Total quality management has a significant influence on the organizational performance.

H6: Total quality management significantly mediates the relationship between Entrepreneurial orientation and organizational performance.

H7: Total quality management significantly mediates the relationship between Market orientation and organizational performance.

2.4 Organizational Culture (OC)

In general, OC represents the beliefs, values, and assumptions which members of an organization shared (Sigler & Pearson, 2000). Specifically, OC is conceptualized as a pattern of shared meanings between members inside an organisation which effect how its employees behave (Denison, 1990). Similarly, Cameron and Quinn (2005) argued that OC is group's values, beliefs, and assumptions which described organizations and their members. Lies the importance of organizational culture as the main instruments which managers can employ to guide the path their organizations (Daft, 2005). Therefore, OC influences the style of work of the organization, affects people's decisions and behaviours and, in impact

on firm performance (Wu et al., 2011). This fact has also been supported by Gambi, Boer, Gerolamo, Jørgensen and Carpinetti (2015), and Schein (1984) as they assert that OC is the main factor to organizational excellence.

In this regard, ignoring the impacts of organizational culture is one of the biggest change problems as it affects the implementation of new initiatives as well as that of dissecting, evaluating and identifying the existing position of the OC is very germane to decide the changes required in order to increase the organizations effectiveness (Cameron & Quinn, 1999). On other word, OC is considered as one of the unique characteristics that distinguish successful organizations from others (Hilman, Abubakar & Kaliapan, 2017; Keller & Richey, 2006). Hence, OC is considered as a source of sustained competitive advantage (Zheng, Yang & McLean, 2010; Barney, 1986).

Many types of OC have been described in literature. This study will use the model proposed by Cameron and Quinn (2005). The model which is popularly known as competing value has been relatively widely used in prior studies to examine the effect of organizational culture on TQM practices (Zu, Robbins & Fredendall, 2010; Gimenez-Espin, Jiménez-Jiménez & Martínez-Costa, 2013; Valmohammadi & Roshanzamir, 2015).

As it has been indicated earlier, the findings on the relationship between TQM and organizational performance, have been inconclusive (Fening, 2012; Agbola, 2013; Kober, Subraamanniam & Watson, 2012; Kannan & Tan, 2005; Samson & Terziovski, 1999). To resolve the inconsistency of the results, Jabeen, Shehu, Mahmood and Kofarmata (2014) in their study recommended that the moderator variables should be incorporated in the relations between TQM and organizational performance. To respond to this call, this study will use OC to moderate the link between TQM and organizational performance.

In conclusion, several previous studies have found significant relationships of OC with TQM (Haffar, Al-Karaghoulis & Ghoneim, 2013; Zu et al., 2010). In addition, many studies have proved that OC affects the successful implementation of TQM by providing an environment that is conducive to implement TQM as a change strategy towards improving the overall organizational performance (Brah & Lim, 2006; Powell, 1995). Hence, Rad (2006) argued that the current OC could either promote or inhibit implementation effectiveness TQM. Based on the above discussion, following hypothesis is raised:

H8: Organizational culture significantly moderator the relationship between Total quality management and organizational performance.

2.5 Organisational Performance

The issue of performance measurement and management has attracted researchers and scholars interest in the last two decades (Valmohammadi & Servati, 2011). This is because importance of performance explains how well an organisation is doing (Obiwuru, Okwu, Akpa & Nwankwere, 2011). According to Madrid-Guijarro, Auken and Lema (2007) performance measure accurately can provide to firms reliable information about what effects performance as well as how firms utilize and organize resources, develop best strategies, meet consumer expectations and compete favourably. Venkatraman and Ramanujam (1986) proposal of business performance model by using both financial and operational measurements to develop a comprehensive assessment of firm performance.

Furthermore, Carton and Hofer (2006) concluded that organizational performance can be described five categories of measures; operational measures (include non-financial variables such as market share and customer satisfaction); accounting measures (relying on financial information); survival measures (long-term organizational performance); market-based measures (ratios of the market value of the organization such as return to shareholders and market value-added); and economic value measures (adjusted accounting measures). On the other hand, (Kaplan & Norton, 1992, 1996), who introduced a strategic model called the Balanced Scorecard (BSC) offer balanced performance measures for financial and non-financial perspectives in evaluating the organizational performance.

In addition, Kaplan and Norton (1992) went further in arguing that financial management alone is inadequate in assessing an organization's competitive position. As a result, the balanced scorecard strategy retained the financial and added three other non-financial measures - customers, internal process, and learning and growth (Kaplan & Norton, 1992, 1996). In the same line, several researchers have proposed measurement of performances should consider both financial and non-financial measurement test (Gronum, Verreynne & Kastle, 2012; Hilman, 2009; Kaplan & Norton, 2000; MacDougall & Pike,

2003). Organizational performance in this study, is a subset of organizational effectiveness that covers financial outcomes and non-financial.

Overall, based on the foregoing, the literature reviewed have identified a theoretical gap which need to be fill as demonstrated in the conceptual model. Specifically, it has been established in the literature that all the construct of the paper has proven to have link with organisational performance. First, EO and MO have effect on organisational performance. Some literature reported positive link between the variables while others have a negative result.

Therefore, this mix result in the literature form the very reason for this paper, to further explain the relationship between EO, MO, SMEs performance, the paper introduced TQM as mediating variable. Also, OC was introduced as moderator to further, strengthen the said relationships.

3. Conceptual Model

Based on the reviewed literature and subsequent suggested hypothesis. The following conceptual model was developed to explain the relationship between the variables of the study.

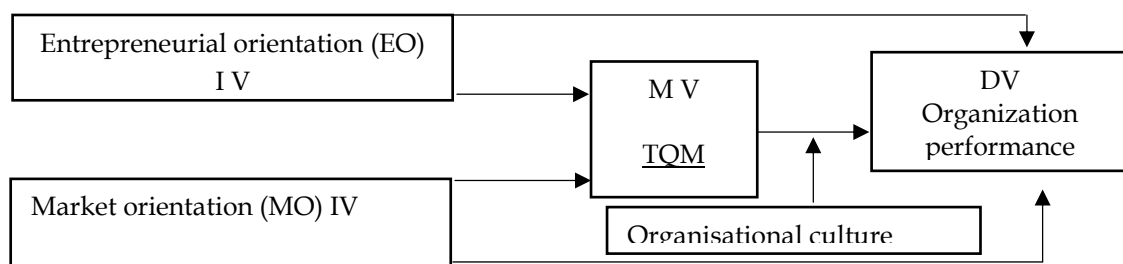


Figure1. Conceptual Model

From the model above a relationship among EO, MO, TQM, OC and SMEs performance. This relationship is underpinned by the resource based view theory which argues that the firm performance is actively impacted by its existing internal resources and capabilities. This assertion comes from the fact that an organization may obtain superior performance than its competitors by effectively making use of its resources. Additionally, extant studies suggest that TQM can mediate the relationship between EO, MO and SMEs performance to further explain the relationship in contras of mix finding in the literature. While OC moderates the relationship between TQM and SMEs performance to strengthen the link between the variables of concern.

The model as shown in figure1 aligns with the recommendations of previous scholars (e.g., Raju et al., 2011; Shehu & Mahmood, 2014; Baron & Kenney, 1986; Jabeen et al., 2014). TQM as variable can determine the effectiveness of organisation performance. Further, a supportive of OC affects the successful implementation of TQM. Therefore, this paper is unique in the sense that, for the first time it has logically within the context of literature provide a model that will help SMEs have better performance as guided by the previous study and theories.

4. Conclusion

This study has provided a conceptual framework that links a relationship between EO, MO, TQM, OC and SMEs performance. Importantly, this study is making an important contribution to the body of knowledge by providing a framework which provides explanation of the influence of the EO, MO on SMEs performance. Moreover, this study is unique as it by elucidating the possibilities of using TQM as a mediator in the relationship between EO, MO and SMEs performance and as well as the role which OC plays as a moderator in the relationship between TQM and SMEs performance. One of the thrusts of this study is that it will raise level of awareness among managers of SMEs to pay more attention to EO, MO, TQM, and OC as it will help them to improve the performance and competitiveness of their organizations.

5. Limitation and future research

Nevertheless, just like any other studies, this study has its own limitations. First, since this is a conceptual paper, future research should further verify the claim of this study empirically. Second, the focus of this model is on the SMEs; there is a need to test its veracity in other larger companies and different sectors by future research.

6. References

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Development potential of Russian zirconium industry on world markets

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Zirconium, baddeleyite, minerals, zircon, production, consumption

Abstract

The review describes the most commonly natural minerals and compounds, which contains zirconium and the structure of zirconium-containing materials consumption in the modern conditions. Substitutes of zirconium products in individual industries are identified. A brief analysis of Russian mineral resources base of zirconium shows the most promising fields and regions with considerable resource potential for the development of zirconium production. An analysis of the volume and structure of world reserves of zirconium identified the major importers and exporters. The analysis of trends in production and consumption of zirconium in Russia and in the world markets showed a high elasticity of zirconium products demand by the price. It is shown that Russia, despite the availability of resources, is dependent on the import of zirconium.

The article presents the forecast of zirconium production and consumption in the world market, which shows the necessity of Russian zirconium industry development to enter international markets and meet the needs of the country.

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1. Introduction

Russian economy is characterized by low level of industrial development, expressed in the absence of capacities for deep processing of mineral raw materials. The presence of only primary processing capacity determines the current way of development – export of raw mineral resources with a minimum value-added (Vyboldina et al. 2016). As a result, Russia imports exported raw materials, which processed in foreign factories. It is also common situation when, having sufficient production capacity, all manufactured products are exported because of more attractive prices, and domestic demand is met by import (Didenko et al. 2015).

An example of this is the situation in the market of zirconium products, which, despite the relatively low volume of production capacities (world production in 2014 - 1.51 million tons), is a strategic resource for a number of industries.

2. Zirconium products application areas

Zirconium - non-ferrous metal, which, despite its substantial world reserves, often referred to a group of rare-earth minerals due to its high rate of decentralization in the earth's crust. Zirconium is not

found in its pure form in nature, however, there are about 40 minerals which contain zirconium in the form of oxides or salts, the most common of them are baddeleyite (ZrO_2), and zircon ($ZrSiO_4$) (Volpato et al. 2011). Zirconium applications are quite extensive, due to its high abrasion resistance, thermal conductivity, low rate of interaction with other metals, and so forth (Saridag et al. 2013).

The main application area of zirconium use is ceramic production (53.4%). Another application areas are: foundry industry (13.6%), the manufacture of refractory bricks and other refractory materials (12.6%), chemical industry (14.8%), nuclear power (0.5%), electronics (3%), and others. (2.1%) (Lundberg 2011).

Taking into consideration high price of zirconium, in some industries there is a tendency to use its substitutes (Elsner 2015):

- in manufacture of refractory materials: bauxite, chromite, graphite, magnesite, olivine, sillimanite, etc;
- in foundry industry: bauxite, aluminum, chromium, clay, olivine, perlite, silica sand, vermiculite;
- in manufacture of abrasives: feldspar, magnetite, hematite, pumice, perlite, ilmenite and others.

However, there are no substitutes for about 80% of zirconium products markets, for example, nuclear power energy, where zircon is the main component for the production of alloys used for the manufacture of fuel rods cladding (Macdonald 2011, Thomson Reuters 2009).

3. Russian zirconium reserves

Russia has significant resources of zirconium - 11.6 million tons. The reserves are estimated at 12.3 million tons. According to this Russia takes the third place in the world (USGS 2015). The largest reserves of zirconium have Australia (31.86%) and South Africa (8.74%). The shares of Ukraine, the USA, India and Brazil account between 1-3% of world reserves.

Russian state balance considers 17 fields of zirconium, of which 11 fields - placer, 5 - primary, 1 - anthropogenic. The most promising fields in terms of mineral reserves volume are (Akimova et al. 2014, Larichkin et al. 2013):

Kovdor carbonatite primary deposit (Murmansk region). Now being developed by JSC "Kovdor GOK". Reserves of deposit are estimated at 1.2 million tons (10% of total Russian reserves). In 2013, after prospecting, the reserves of baddeleyite-apatite-magnetite ore were increased by 994.2 thousand tons (7% of the total Russian reserves). Total reserves of the Kovdor deposit is 2.34 million tons (20% of total Russian reserves). The average content of ZrO_2 in the ore is 0.15%.

"Tuganskoe" placer deposit (Tomsk region). Now being developed by JSC "Tuganskiy GOK "Ilmenite". Reserves of zircon-rutile-ilmenite ores are estimated at 980.5 thousand tons (8.5% of total reserves). The content of ZrO_2 is 7.72 k./m³.

"Central" placer deposit (Tambov region). Reserves of zircon-rutile-ilmenite ores are estimated at 830.2 thousand tons. The content of ZrO_2 is 3-6.5 k./m³.

"Lukyanovskoe" zircon-rutile-ilmenite placer deposit (Nizhny Novgorod region). Reserves are estimated at 346.4 thousand tons. This field contains the richest zircon ore in Russia - ZrO_2 content is 13 k./m³.

"Katuginskoe" zircon-pyrochlore-cryolite primary deposit (Chita Region). The share of this deposit reserves is 3% (361.2 tons) of the total Russian reserves. Resources are estimated at 3 million tons. Average content of ZrO_2 in the ore is 1.58%.

"Ulug-Tanzekskoe" zircon-columbite-pyrochlore primary deposit (Tyva Republic) refers to the undistributed fund. Reserves are estimated at 1.9 million tons. Resources - 2.8 million tons. The average content of ZrO_2 in the ore is 0.4%.

Lovozero rare-metal deposit. ZrO_2 content in apatite-nepheline-syenite ores (Alluayv area) ranges from 1.83% to 5-9%, and the total reserves are estimated at 7.28 million tons

Thus, most of Russian zirconium reserves are concentrated in refractory ores. Placer deposits containing easy to process ores comprise only 28% of the country resources and tend to have a sufficiently large depth and a low content of ZrO_2 .

Despite significant reserves of zirconium, the share of Russia in its global production was only 0.6% (8273 tons) in 2013. The world's largest production facilities to produce zirconium are in Australia (38.5%) and South Africa (23.13%). A significant role in world production playing three countries: The

United States (7.4%), Indonesia (7.7%) and China (8.99% of world production, having only 0.5% of the world resources) (RiC2014, Reihl et al. 2014). At the same time on the territory of China are located 88% of the world's chemical production capacity for zirconium refining (Macdonald 2014).

In Russia, almost 100% of zirconium is produced by JSC "Kovdorskiy GOK", where a comprehensive production and processing of baddeleyite-apatite-magnetite ores and anthropogenic deposit was implemented to produce baddeleyite concentrate. These ores are extremely valuable, because the cost of zirconium production from them is the lowest. Today JSC "Kovdorskiy GOK" is the only one producer of baddeleyite concentrate in the world. Other reserves of baddeleyite were only in South Africa (Phalaborwa deposit), but they were completely exhausted by 2001.

In 2013, on Tugansk deposit was launched pilot production line of zircon concentrate production. As a result, was obtained 121 tons of zircon concentrate after processing of 47.7 tons of sand ore.

In addition to these fields, there is a significant resource potential for the development of Russian zirconium industry discussed in detail in Larichkin's paper (Larichkin et al. 2013). Among the promising areas of production are Volga region of Siberia, Baikal, Tambov, Nizhny Novgorod and Stavropol regions.

4. Global zirconium reserves

Russia is the third world producer of zirconium and its alloys products and occupies 18% of the world market. Zirconium processing enterprises are in the Republic of Udmurtia, Moscow, Perm, Leningrad Region, the Sverdlovsk region and other regions. Among the products of Russian enterprises: metal zirconium, zirconium-based alloys, ceramics, refractories, etc.

Export of zirconium from Russia (in Europe, Japan, China and the United States and other countries) in 2013 was 95% of total production. At the same time, domestic demand for zirconium in 2013 was about 8.2 tons. Thus, the domestic needs were satisfied exclusively by import (8 tons in 2013), mainly from Ukraine. In current political climate, this source of raw materials is questionable, and its volume did not allow Russia to meet the needs of more than 25-50%.

According to Metal Research (Zirconium market 2012), in 2010 the largest importers of zirconium in Russia were: "Trans Pogran services" (26%), TD "Hercules" (25%) and "Belkhi" (17%). Other companies together occupy about 32% of total import.

The world's largest importers of zirconium are European countries (Spain (100 thousand tons), Italy (56.57 thousand tons), France (27.05 thousand tons), Germany (26.65 thousand tons) Belgium (17.03 thousand tons), the UK (7.49 thousand tons) (BGS 2015)), as well as China and Japan (Porter 2014). In 2013, more than 85% of mined and processed zirconium at the production facilities in China were exported to Japan, the USA and Europe (Tiwari 2014). However, due to the decline of demand in China, the volume of zirconium products export fell. Thus, the volume of US import in 2013 fell in comparison with 2012 by 61.1% (Sutton 2015) (51.8% according to USGS (2015)) and amounted to 6.5 tons (8.05 thousand tons according to USGS (2015)).

The world's largest mining companies (in zirconium industry) are Iluka Resources Ltd (Australia, the USA), Richards Bay Minerals (South Africa), Exxaro (South Africa). Respectively their shares accounted for 34%, 18% and 15% of the world zirconium production (Lundberg 2011). Extraction of these companies carried out, mostly, on the placer deposits of zirconium (95%).

Demand for zirconium is characterized by high price elasticity. According to the DERA (2012) statistical data we can say that in the period from 2005 to 2011 the balance on zirconium markets ranged from a deficit of 86.9 tons (2008), to a surplus of 300.7 tons (2011). At the same time, zirconium markets have a quite slow response to the impact of external macroeconomic factors. It confirmed by international economic crisis (2009), after which the surplus amounted to 157 thousand tons (more than half of demand rise was in Indonesia).

According to the State report on the status and use of mineral resources of Russian Federation in 2013 and "Mineral IAC" (2016) the average prices for zircon concentrate in 2011 was reached 1800-2400 USD/t. (2-2.5 times higher than in 2010), depending on the zirconium content and country of origin. At the same time, the price of baddeleyite increased slightly - from 3250 USD/t. up to 3350 USD/t. This situation has led to an increase in sales of baddeleyite concentrate of "Kovdorskiy GOK" on 3 thousand tons (30 %). However, in 2013, due to the reduction in demand for zirconia in China and the expansion of the substitutes markets, the price dropped to 1450 USD/t., and in 2015 to 1058 USD/t. (Figure 1).

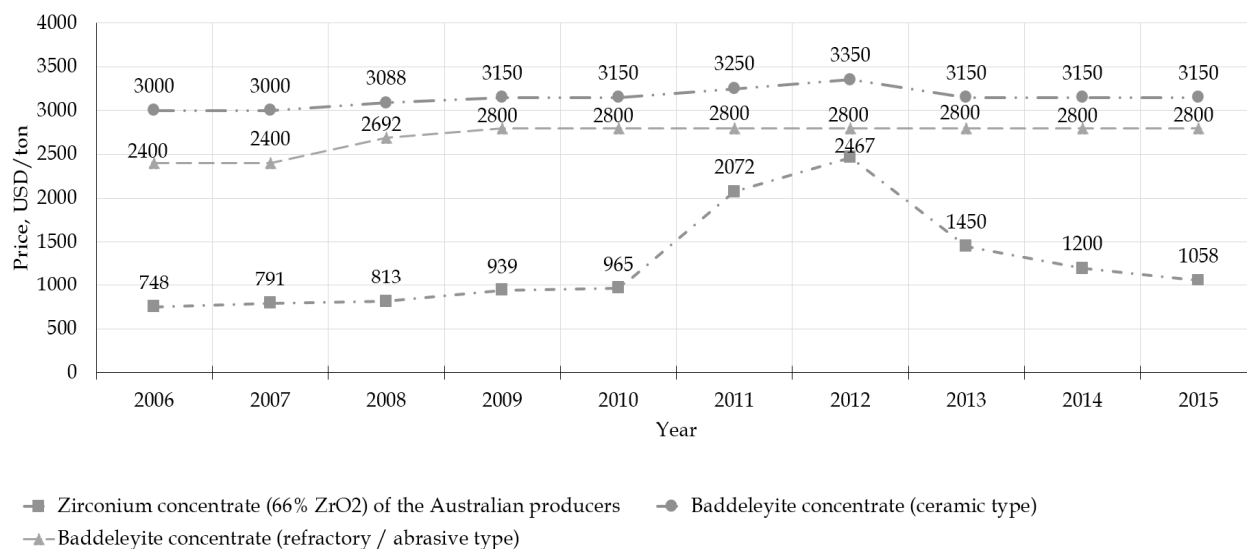


Figure 1. The dynamic of Zirconium and Baddeleyite prices in 2006-2015

4. The development potential of the global Zirconium Industry

In recent years, many companies actively work to start implementation of zirconium mining projects in Australia, Mozambique, Tanzania, Madagascar and other countries. For example, in 2016 it is planned to launch the project Dubbo Zirconia (New South Wales, Australia). Estimated field life period - 20 years. Annual production capacity of zircon - 16 thousand tons. Furthermore, it is expected to produce niobium, tantalum, yttrium, hafnium and other rare earth elements as byproducts (Chalmers 2012).

In 2014 the development of three major placer deposits were launched. The first one is Tormina project (South Africa), mine «Xolobeni». Start of production occurred in February 2014. The mine life period with annual production capacity of 48 thousand tons (the content of ZrO₂ - 81%) is 4 years (EIR 2015).

The second is Kwale project (Kenya), launched in February 2014. Production of zircon, is expected to be around 30 tons per year. The field life period will be 13 years (Bwye 2014).

The third is «Grand Cote» project (Senegal), launched in August 2014. The annual production capacity is 80 thousand tons of zircon per year. The field life period is more than 20 years (Staff and Munatswa 2014, Stephenson 2010).

Thus, despite the current surplus of zirconium products and the drop of demand caused by artificially high prices for zircon in 2011-2012, which is observed till now, according to Credit Suisse (Deverel et al. 2013), the world enterprises continue to grow capacity of zircon extraction and processing. The reliability of such projects is provided by the complex character of ores (contain several useful components except zirconium), from which the production of zirconium is planned.

According to MacDonald and Chalsmer (2013), in spite of a certain imbalance of supply and demand, the need for zirconium is growing annually by 2-3%. In 2020 the demand for zirconium may increase by 48-72% (compared to 2012), depending on the number of macro- and microeconomic factors. A similar trend is predicted by Credit Suisse experts (Hope 2012).

According to Iluka company (2016) the growth of demand for zirconium products will continue, but much slower. Thus, in the optimal case, the amount of consumption in 2020 will be higher on 35.3% than in 2013. In the worst case - 20% higher.

According to experts of DERA (2013) and Roskill (2015), the global production capacity of zirconium from 2016 to 2019 will be stable. The increase in production capacity is planned only in connection with the implementation of the projects which were mentioned above. The increase in production of Russian zirconium enterprises is not expected.

In 2020 the volume of zirconium production will decline sharply due to the depletion of large deposits in Australia (TZMI 2012) and forced closing the deposit down in the north part of Stradbruk Island (because of tightening environmental standards).

In the case of maintaining a high growth rate of zirconium products consumption, the market will form a surplus of more than 400 tons in 2020. In the case of slowing down in consumption (which is unlikely), the market, despite the decline in production in 2020, will remain a surplus of zirconium (150 tons).

In this situation the fields of South Africa, which can be implemented in 2020 are very promising. They are large enough, and are characterized by low cost of mining and ore dressing (Macdonald 2012).

Also, this surplus can bring some positive results for the Russian companies, in the case of implementation of new zirconium deposits. Thus, despite the current surplus in zirconium markets, in the long term is possible to enter on the world zirconium markets not only "Kovdorskiy GOK", but also several new Russian enterprises.

5. Discussion and conclusion

Zirconium is a valuable mineral resource, which, depending on the quality characteristics, may be used in many various industries, ranging from dentistry to nuclear power. At the same time about 80% of the zirconium products market has no substitutes.

Russia, having a large zirconium resource base (third in the world), develops it extremely slowly due to the lack of easy-to-mine surface and near-surface placer deposits. Promising areas for development of zirconium industry enterprises, in addition to the already explored deposits, are Volga district of Siberia, Baikal, Tambov region, Nizhny Novgorod region, Stavropol placer area.

Russia's share in world production of zirconium is extremely low (less than 1%). The only Russian company, which carries out production and processing of zirconium is "Kovdorskiy GOK". All produced baddeleyite concentrate (about 95%) is exported, while domestic demand is satisfied exclusively by import from Ukraine. Nevertheless, Russia occupies 18% of the world zirconium and its alloys products market.

Zirconium market is highly dynamic. Firstly, there is considerable variation in prices, which is explained by artificially high prices in the largest industry companies (in 2011-2012). Secondly, the consumption greatly depends on the situation in China, which is a major importer and exporter of zirconium products. Thirdly, there is a significant surplus of zirconium, reaching 15-20% of total production.

Despite this, many companies actively work to start implementation of zirconium mining projects. Among them are three projects: "Tormin" (South Africa), "Kwale" (Kenya) and "Grand Cote" (Senegal). Moreover, it is planned to launch the "Dubbo Zirconia" project (Australia) in 2016.

Statistical data shows that the consumption of zirconium in the world increase annually by 3% (from 2005 to 2015). According to forecasts up to 2020, this growth will be several times higher. Despite this, in 2019 the production of zirconium will be significantly higher than its consumption. However, in 2020, after the exhaustion of the largest zircon deposits in Australia, an acute shortage of zirconium is predicted.

Thus, given the low competitiveness of most of Russian zirconium deposits, the main volume of production should provide domestic needs. Access to international markets is now extremely difficult and possible only in the case of a certain political influence, state support or international cooperation. One possible option is to develop a strategy for the development of zirconium enterprises aimed at the replacement, starting from 2020, production capacity of Australia on the global market. For example, in Europe, which will not be able to meet the growing demand for rare-earth elements in the nearest future because of limited amount of scrap market (Cherepovitsyn et al. 2015).

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Craftsvilla is Revolutionizing through Co-creation: Creating Value for Stakeholders

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Keywords

E-commerce, disparity, stakeholder engagement, co-creation, value creation

Abstract

Monica and Manoj, founders of Craftsvilla.com, once had an opportunity to interact with rural artisans and designers, in her road trip to Kutch. While interacting, they realized that the middlemen involved in this unorganized retail business were paid very less for the products. The single reason for this disparity they found was the process of taking the art form to retail stores (middleman involved). Most of the artisans, because of no return from the business, want to disengage their future generations to learn the art.

The reasons for the extinct includes illiteracy, inability to reach the customers, lack of awareness to understand customer needs and customization, better bargaining power of the middlemen, lack of awareness about the government support programs, lack of mentors to guide them, poverty, and so on. With the passion for Indian culture and the urge to benefit the artisan-producers, they decided to work on an e-commerce business model, craftsvilla.com, a \$200million start-up. The idea was to create a platform where the artisans could directly connect with consumers and earn a good livelihood. The present case study on Craftsvilla. Com is built under the context to explore the concept of co-creation in e-commerce industry and the business opportunities for Craftsvilla through co-creation. The data for the case study was collected over a period of 10 months, starting from October 2015 to August 2016. Data collection primarily was through regular interaction with the founders, artisans, employees, and customers of Craftsvilla. Learning from the case will help to identify various methodologies to adopts co-creation opportunities by engaging stakeholders.

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1. Introduction

“Customer experience is defined as the sum-total of conscious events, as a coordinated series of interactions between a customer and a brand to accomplish anything. Above all words – a customer experience is defined by the customer, for the customer, at each touch-point, each time.” – Esteban Kolsky

Monica loves handmade jewels and organic products, and Manoj loves to travel. On a road trip to Kutch in 2011, where Monica bought few of the ethnic handicrafts and home décor products for her. The couple was overwhelmed by the designs and efforts put in by artisans. Monica was surprised with the price of these products, as the artisans quoted it very low. After having detailed conversations with some of the artisans, they understood that what is sold in the market is very expensive because of the middlemen involved. These middlemen give them a raw deal and offer the same products in the market at higher prices. With their inquisitiveness to know more, the travelers became researchers and learnt a few odder deals about the reality of this unorganized retail market. All the artisans, the duo interacted, narrated their grief. Monica and Manoj felt that these are probably the last generation engaged in this exclusive traditional art form from India. The reasons for the extinction of these art forms includes illiteracy, inability to reach the customers, the lack of awareness in understanding customer needs and

customization, better bargaining power of the middlemen, lack of awareness about the government support programs, lack of mentors to guide them, poverty, and so on.

With the passion for Indian Culture, Monica felt the need to promote these heritage ethnic homemade products. They started brain storming with the only objective to benefit the artisan- producers. They decided to work on an e-commerce business model; the idea of creating a platform where the artisans could directly connect with consumers and earn a good livelihood. The online platform will showcase a variety of products, which would not have been possible through a shop. As they came back home to Mumbai Manoj took off from his regular job routine as a Principal at Nexus Venture Partners, as the duo was serious about executing the idea. The couple wanted to have a fair deal and give the artisans their due and this is how they sowed the seed called 'Craftsvilla.com, once \$200mn start-up. The Founder's passion is strongly visible with their tagline "A market place to discover India". It has today expanded beyond India across the shores to Malaysia, US and Canada, Australia and New Zealand. Today they stand tall with more than 8 categories of products and more than 6,410,199 Facebook likes² and 46+ online pages. With this backdrop, the present case study on 'Craftsvilla.com' tries to explore the relevance of Co-creation in e-commerce Industry and to explore the business opportunities for Craftsvilla through Co-creation.

1.1. Craftsvilla Business Encounters



There are parts and parcels that every start-up carries with it. But there are very few people who understand that starting something new is easy but getting into the roots of market requires practice, patience, time, and money. Challenge is not just to establish the self but to empower customers with better and distinctive services with greater demand placed in the product.

Monica and Manoj had the business plan, but the couple had "low funds" and their first two years were chaotic; they ate through funds and did all the things a start-up should not do³. The start-up had completely exhausted US\$ 1,500,000 in the early stages—Series A of funding from Nexus Venture Partners and Light Speed Ventures-which resulted in couple selling their home and downsizing employees to a 10-member team. Another challenge was to connect the designers with the technology platform to expand the range of their handmade products and to enhance customer connectivity. Initially they bought products from artisans and sold them online.

Gradually, founders earned their trust and today they have over 75,000 organic products on the portal. For the first two years, *venture capitalist showed no interest* in investing in this start-up. They viewed Craftsvilla's pitching stories as worst, and that they were trying to create just another e-bay in India. As narrated by Manoj- Ethnic clothes were not considered to be a sexy category; which played as a weak pitch for requesting funding. As capitalists felt that our target group was aunts (the elder ladies)."

Being a start-up, it was never easy for founders to *lay off people*. Initially they were giving double the amount in terms of salaries to their employees, later-on they started asking people to leave from different parts of the business and retained a team of 10 strong (brains only with prior experience and with business acumen) people to survive on. The focus of the founders changed from managing people to giving away discounts to the consumers. It was done to gain strong seller acquisitions, using technology to automate the online selling systems and customer care, to automate inventory updates, to track numbers in bulk, and in starting even charging sellers for marketing. It *took patience, practice, time and money*. Initially, they felt being broken into pieces from offering excessive discounts, seeing no repeat customers, and acquiring sellers with fake shops. This caused them a waste US\$ 74,173 in cash each month. The next challenge was the time taken for the exchange of products, which was also turning the customers off. Although Craftsvilla had a 7-day return policy, but there were gaps. For e.g. if a product

²https://www.facebook.com/pg/craftsvilla/likes/?ref=page_internal (Latest updated on 21st March 2017)

³http://articles.economicstimes.indiatimes.com/2015-12-28/news/69356583_1_50-lakhs-nexus-venture-manoj-gupta (accessed on 25 May 2016).

was returned by a customer, it would take more than the promised time to reach back to the customer, with an exchanged product. To ensure a smooth and timely procedure, they recently acquired Send, a logistics company, which is now taking care of each aspect related to the delivery at Craftsvilla.

The major challenge for Craftsvilla was working with unknown brands in the ethnic category⁴. It led to a lot of struggle in gaining trust of consumers, who were unaware about these brands. Craftsvilla made sure that the seller quality is maintained by adopting the quality check and packaging part, even when they are scaling up. Unlike other the competitors, they always had a controlled marketplace and checked inventory and product quality of all on-board sellers periodically. Monica personally ensured double quality check for all the products ready to be delivered. During this period, the primary challenge identified was how to scale up audit processes with no significant increase in cost⁵.

2. Indian E-commerce Industry

In 2015, India's e-commerce industry's worth was \$23 billion, and it has grown up by 67 percent in 2016, representing almost \$38 billion dollars in worth. There is a tremendous increase in online shopping and mobile commerce⁶. A lot of Shift in consumer buying behavior is noticeable. Huge shift in buying everything online rather than giving preference to visiting a shop personally, has created a boom. This has further led to a healthy competition amongst e-commerce players. E-shopping portals have given birth to the community of aggressive buyers. The growth of online participation has a great impact on the buying decision of these buyers. Craftsvilla has started seeing a 90 percent repeat customer base, with their strong social media presence. They currently have over six million users on Facebook only. Their primary cost is marketing and the expenses on fixed costs do not exceed more than 2-3 percent of their annual income. Their current revenue per employee is \$14,300⁷.

2.1. Contemporary Customers in India

Young people in India spend 16 percent of their disposable income online, and an estimated 828 million Indians are less than the age of 35 in 2015. These people increasingly use mobile devices to shop, and the increasing penetration of smart phones in the country can only help the cause of e-commerce⁸. D.S. Rawat, Secretary General, Assocham, says, "The customer is connected 24x7 through their smart phones, tablets and other mobile devices, which is leading to a gradual evolution of e-commerce into mobile commerce and there is an issue of convenience which also leads to impulsive buying." In 2015, 78 per cent of shopping queries were made through mobile devices, compared to 46 per cent in 2013⁹.

2.2. Ethnic Wear Market

Ethnic wear market is expected to grow at a compound annual growth rate (CAGR) of 8 percent and reach \$19,600 million in 2018¹⁰. Therefore, a huge potential for ethnic wear websites is lying ahead. However, the success depends on how different one player from the other is. There are few online parameters explored by Prashant, Sujatha and Ruchi in a research paper are real product details, cumulative ratings and understand about the brand, explaining the expectations of the consumer on the online content such as product benefit, deals, cautious syndrome of the consumer before deciding to buy a product or service and Currently, helping customers to understand features of new products or gain comparative analysis of products (Devedi, 2017). Currently, Craftsvilla is getting 70 percent of their traffic

⁴<http://www.adageindia.in/marketing/cmo-strategy/Craftsvilla-eyes-female-ethnicwear-market-with-rs-100-crore-media-plan/articleshow/49174434.cms> (accessed on 24 May 2016).

⁵<http://startupbeat.com/2012/07/04/with-1-5-million-in-recently-raised-series-a-funds-in-the-bank-Craftsvilla-is-building-a-marketplace-for-unique-products-from-india/> (accessed on 23 May 2016).

⁶<http://www.josic.com/indias-ecommerce-market-expected-to-top-thirtyeight-billion-in678-new-year> (accessed on 25 October 2015).

⁷<https://www.owler.com/iaApp/234952/Craftsvilla-competitors?onBoardingComplete=true> (accessed on 3 Feb 2016).

⁸<http://www.livemint.com/Industry/p5bKwMUdBOOKAjwxTVsWZP/Why-investors-are-betting-big-on-Indian-ecommerce-firms.html> accessed on (19 December 2015).

⁹<http://www.josic.com/indias-ecommerce-market-expected-to-top-thirtyeight-billion-in678-new-year> (accessed on 23 October 2015).

¹⁰<http://www.mydigitalfc.com/news/home-and-overseas-ethnic-wear-new-rage-768> (accessed on 9 May 2016).

from mobile and 30 percent from desktop. Therefore, to consider above mentioned online preferences by customer must be considered by Craftsvilla.com. It is an online marketplace for ethnic products among the few Indian start-ups to have remained afloat and scaled without raising funds in 2013 and 2014¹¹. “Craftsvilla’s growth using a lean cost structure is rare in the Indian e-commerce ecosystem”¹².

2.3. Online Shopping Cycle

It is shown in the figure below as two-way process: It is believed that customers surf through different websites to find out about the product they have in mind. Else they follow the navigation provided in a promotional mail they get in their inbox, or the advertisement/promo they see on websites.

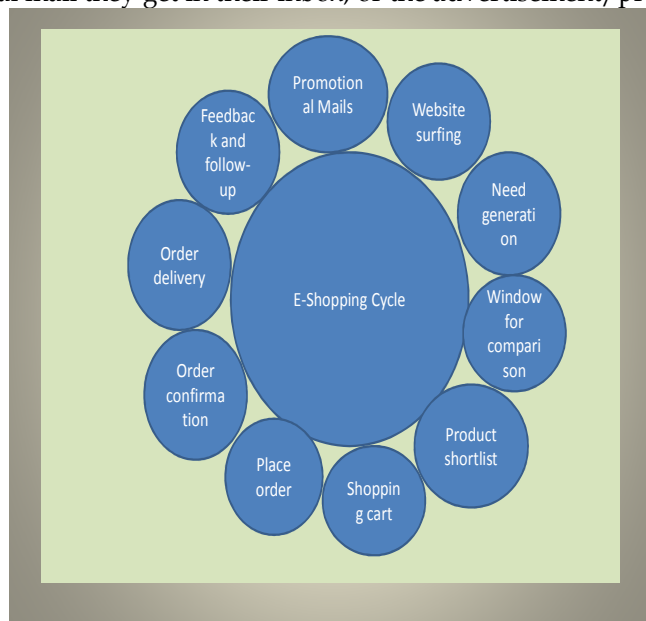


Figure 1: Online Shopping Cycle, Source: Researcher’s Work

2.4 Craftsvilla’s Growth

Recently Craftsvilla has three acquisitions. First one is on-demand logistics enabler Sendd, which they acquired on 1 February 2016. The all-equity deal values the Kae Capital-backed start-up at close to \$5 million (around INR 34 crore). This deal took place with a vision to make Sendd one of the largest logistics companies. The key focus now will be on delivering volume, which can only be achieved by B2B play. Three major factors that Craftsvilla (on the logistic front) and Sendd conjointly would be focusing on are reducing the shipping cost, delivery time, and returns. This acquisition has helped Craftsvilla reach smaller towns and villages that are known as ethnic heartland of India. They acquired an ethnic food online retailer, placefororigin.com, on 25 February 2016. It was the second major acquisition by Craftsvilla within a month. The idea behind these acquisitions is to build Craftsvilla into a one-stop destination for all ethnics needs. This Bengaluru-based portal, which retails sweets, savories, and other local specialties from across the country, fits into Craftsvilla’s vision of building the foods category into a huge one for the company, and it plans to go public in next two years. Third acquisition by them is a clothing rental start-up, F2SO4, on 28 April 2016. It offers branded and high-end designer clothes on rent, with the idea to make luxury clothing affordable to wear by everyone. After raising INR 220 crore (US\$ 33 million approx.) in November 2015, Craftsvilla has taken multiple bets to increase its product portfolio, on-boarding men’s ethnic wear and expansion to South East Asian markets. The marketplace was also piloting customized stitching for buyers on the platform. The current acquisition will be a part of the technology for ease of

¹¹Shashwati Shankar, ET Bureau 28 December 2015.

¹²BejulSomaia, Managing Director of Lightspeed India Partners Advisors.

sharing designs between buyers and the tailors¹³. Craftsvilla founders aim to acquire Ayurveda category in future¹⁴. Craftsvilla's success has been not just that of buying, selling, and retailing products. They stand different from others and have crafted success by having an integrated business model (depicted below) of co-creating with stakeholders. Journey has not been as easy for them. Monica has been putting in a lot of efforts to be consistently in touch with offshore and onshore customers and their changing demands. Her focus has been on training artisans to be technology savvy as well as deliver the best products by including customer ideas, i.e. delivering what customers want and not what they can make.

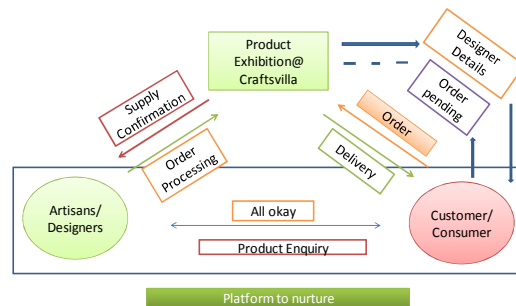


Figure 2: Craftsvilla's Business Model, Source: Researcher's work

This research is intended to study and understand the existing business model and suggest current and future acquisitions are done to enable easy payments, reconciliation for artisans as well as to enable designers for catalogue management themselves. The idea behind is to enrich Craftsvilla's digital platforms to third party users to create an additional stream of revenue¹⁵.

3.Co-creation

"If a customer likes you and continues to like you, they will do business with you. If they don't, they won't."

– Paul Greenberg

As coined by, Prahlad and Ramaswamy, Co-creation is a management initiative, or a form of economic strategy, that brings different parties together (for instance, a company and a group of customers), to jointly produce a mutually valued outcome (Prahlad, 2004)(Lindegaard, 2013). "Co-creation projects between social entrepreneurs and employees of traditional companies are a powerful way to ensure the employees' satisfaction with their jobs". Co-creation allows and encourages a more active involvement from the customer to create a value rich experience". Co-creation grants consumers free rein to work with company-provided resources in the production of their own value offerings. It is a product (or service) development approach where users and customers are actively involved and take part in the design of a new offering. "co-creation by sharing experiences, all the parties involved will acquire a deeper understanding of what is happening on the other side of an interaction, enabling them to devise a new, better experience for both sides". "Co-creation projects between social entrepreneurs and employees of traditional companies are a powerful way to ensure the employees' satisfaction with their jobs"¹⁶. Co-creation allows and encourages a more active involvement from the customer to create a value rich experience"¹⁷. Co-creation grants consumers free rein to work with company-provided resources in the

¹³<http://tech.economictimes.indiatimes.com/news/startups/Craftsvilla-acquires-clothes-rental-company-f2so4/52019729> (accessed on 24 May 2016).

¹⁴*Sunday Times of India*, "Newsmaker of the week, Manoj Gupta: The craft of success," New Delhi, 28 February 2016.

¹⁵<http://tech.economictimes.indiatimes.com/news/startups/Craftsvilla-acquires-clothes-rental-company-f2so4/52019729> (accessed on 24 May 2016).

¹⁶ <http://www.forbes.com/sites/ashoka/2014/02/04/why-co-creation-is-the-future-for-all-of-us/#17cf27c2478e>

¹⁷ <http://www.businessdictionary.com/definition/co-creation.html>

production of their own value offerings¹⁸. It is a product (or service) development approach where users and customers are actively involved and take part in the design of a new offering¹⁹. “co-creation by sharing experiences, all the parties involved will acquire a deeper understanding of what is happening on the other side of an interaction, enabling them to devise a new, better experience for both sides”²⁰.

4.1. Understanding Trend of Co-creation

Firms are involved in co-creation for the following three reasons as suggested by a report on co-creation by European commission are: 1) For their own benefit; 2) Deploying the platform for co-creation in service of others; 3) Co-creating for production of own products and third parties (Co-creation design as a new way of value creation, 2014). Craftsvilla has crafted own process of co-creation through the followings:

- Beautifying the raw products with designers.
- Creating a visibility of Indian ethnic products through their website platform.
- Creating a market for ethnic products globally.
- Customers get the freedom to put in ideas on what product is required and the variants they wish to see.
- Providing a platform for direct communication between designers and customers to facilitate idea generation and adoption.

4.2. The Advantages/Edge

For Craftsvilla, the advantages in this case are 1) the improved product quality, 2) innovative efforts that are taking place to meet consumer needs, 3) product outreach from remote area of India to global places, 4) increased competitive advantage through different product, 5) focused logistics, and 6) diversified acquisition of business to facilitate the process of co-creation.

Their role of co-creation stands in service of others as they have deployed their platform for creating a B2B platform. Key driver for this co-creation includes 1) making more user-friendly web-based technology, 2) accessing customers' knowledge with least difference, and 3) analyzing shopping behavior and shifts in consumer buying behavior. Contemporary online retailers have created own community of buyers. People on such places/platforms discuss their likes and dislikes about a company that further serves as a chance for improvement. Consumers feel delighted as their bargaining power has increased. Online shopping portals' approach is more of a customer centric than company centric²¹. From Monica's perspective, reasons for this uptake are 1) to save Indian culture and 2) provide the talented individuals platform to show their talent to the world. So, that they get the fair amount for their work with least minimum margin in between. All their website promotions have been consumer centric with upholding the cooperation for beautifying the raw products (Please refer to Figure 2).

5. Value Proposition Model

Craftsvilla has its own value business model which is based on its growth strategy of backward integration from growing artisan portfolio to growing customer. This model progresses towards building an entire value chain from producers to end customers. Very few people are involved in this process as compared to traditional retail models used by other websites. Key players forming this value chain are only artisans, Craftsvilla team, and customers. Products flow from designers to the Craftsvilla studios. Craftsvilla shoots the products at their studio, helps artisans to upload the pictures, and provide warehousing, packaging, and dispatch facilities. They also train artisans to manage their own online accounts.

Once the order is placed on the website, the information immediately reaches the designer. In addition, the mail confirming the order includes the contact details of the designer so that the customers can discuss product variations directly with the producer. Manoj Gupta, has also ensured that his

¹⁸<https://timreview.ca/article/302>

¹⁹ <http://frankpiller.com/customer-co-creation/>

²⁰ <https://hbr.org/2010/10/building-the-co-creative-enterprise>

²¹ file:///C:/Users/Ruchi%20Gautam%20Pant/Downloads/14-dfi-co-creation-design-as-a-way-of-value-creation_en.pdf

business model is focusing on increasing checks and balances for sellers that reduce chances of creating shortcuts. However, this should not be a concern for the founders and the portal because once a customer opts for shortcut they may have to compromise with quality. As quality check at Craftsvilla is a two-round process performed at the end of completing the order and before dispatch.

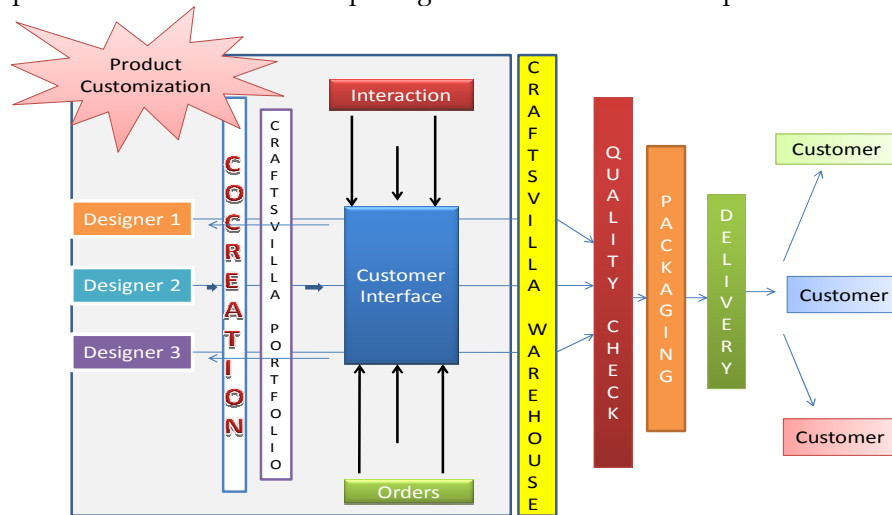


Figure 3: Figure 3: Value Chain Model of Craftsvilla. Source- Researcher's work

5.1. Value proposition for crafters:

Craftsvilla.com is an online marketplace with the largest selection of unique products from India across categories, including jewelry, home décor, accessories, and apparel. Craftsvilla has brought global consumers access to Indian products that are unique, not available through any other medium globally, and delivered at an affordable price with quality guaranteed²². Their present customer acquisition strategy ensures they do not incur more than INR 100 (US\$ 1.50) for acquiring each consumer. Craftsvilla presently takes a 20 percent commission on each transaction and has over 25,000 artisans and designers on-board²³.

5.2. Value proposition for customers

Craftsvilla has made its customer care scalable by creating an online mechanism for dispute resolution and by enabling direct customer-seller communication. In addition, they have made finance function scalable by creating automatic payments to sellers and by integrating SAP with their webstore for automatic invoicing and accounting of payments. They have zero spent on advertisement, and the strategy to attract customers is through active blogger community, active search engine optimization, and heavy usage of social media platforms. This value business doesn't only have horizontal reach but has a geographical reach too.

Craftsvilla.com has transcended traditionally disorganized/lost ethnic craft on an elevated platform and has enabled micro-entrepreneurship at a scale. Customers gain access to well-designed, high-quality products at reasonable prices and craftspeople get fair prices by removing intermediaries. With increasing global travel, cultural integration, and desire for bespoke design, this platform can now serve customers and craftspeople across nations²⁴.

6. Craftsvilla's cocreation journey

²²<http://startupbeat.com/2012/07/04/with-1-5-million-in-recently-raised-series-a-funds-in-the-bank-Craftsvilla-is-building-a-marketplace-for-unique-products-from-india/> (accessed on 16 January 2016).

²³http://articles.economictimes.indiatimes.com/2015-12-28/news/69356583_1_50-lakhs-nexus-venture-manoj-gupta (accessed on 3 January 2016).

²⁴<http://www.franchiseindia.com/entrepreneur/news/Ethnic-eCommerce-portal-Craftsvilla-com-raises-Rs-100-crore-Series-B-fund-6324/> (accessed on 3 January 2016).

To Cocreator is innovation in products and services with empowered consumers and external partners. Frugal Innovations are promoted through a structured cocreation model as proposed by the present study. The team made several critical decisions with crystal clear conviction that, in hindsight, worked well for the company. These include the following:

- A clear commitment to be a marketplace versus a retailer (or mix of the two).
- With this clarity, focused aggressively on aggregating sellers and building strong technology-led capabilities for the on-board sellers and allow them to create together and sell through the Craftsvilla platform.
- Letting the diversity of supply-drive demand instead of using a discount-led approach.
- Kept the team lean and fixed cost burden low. Manoj and Monica gave it everything they had and built a young and highly motivated team around them—a team of 15 people till a couple of months back! Conventional wisdom might have argued for a seasoned and pedigreed team that allows for accessing capital faster.

6.1. Craftsvilla's Key Differentiators Leading to Co-creation

- Frugal innovation as is practiced in emerging markets purposefully targets the bottom and then makes its way up to other levels to benefit all users. There is potential to demonstrate that this is a new kind of innovation process which leverages institutional voids and resource constraints, debunks heavy R&D investment claims, and achieves profitability from BOP consumers²⁵. Craftsvilla.com uses a marketplace model to capture the regional variations of India, and they are different from other online players because of the following reasons:
- There is a platform provided by Craftsvilla where the direct communication between artisans and consumers takes place.
- In addition to order placed by customers, artisans get regular feedback on product customization/personalization.
- Craftsvilla is not just providing supply confirmation but is helping designers to incorporate the ideas given by customers in the products through formal training programs.
- When the product is ready for delivery, packaging and quality check aspect is taken care of by Craftsvilla only.
- One differentiation is the focus on Asian supply, especially, with strength in India.
- Business model handholds artisans and designers in bringing them online by helping them with photo shoots, content writing, web upload, and even in some cases helping them in inventory management and dispatches.
- Craftsvilla has introduced Internet to artisans of India, and has created an online market for them.
- Craftsvilla now operates with the help of a solid team including technical force, seller acquisition specialists, and marketing professionals.
- They have established "Craftsvilla Studios" in various parts of India which serve as local hubs for artisans.
- They have created a platform that enables cocreation to happen between buyers and sellers in a very simple way.

6.2. Implementing Co-creation @ Craftsvilla: Payoffs

- It has been announced as one amongst top-five ecommerce companies in India because of its gross merchandise volume scale.
- Has grown four times in scale in the last six months, as on date and continuous that trajectory.
- It has turned the corner on cash flow break-even while achieving scale and growth.
- This performance by Craftsvilla is exceptional by all standards and is driven by three key factors as follows:
 - (i) **Fundamentally strong business model**

²⁵<http://www.frugal-innovation.com/what-is-frugal-innovation/>

Craftsvilla has gone through the hard part of getting the platform to scale, and the quality of the current business is reflected in several metrics. Marketing spent has stayed below 10 percent of sales while revenue has grown four times in last six months; organic sources contribute two-thirds of the total traffic; Craftsvilla has an active seller base of 12,000 artisans who by themselves upload and manage an inventory base of 2 million stock keeping unit on the platform; a highly fragmented seller base; and median contribution of top-10 sellers to gross merchandise volume is 1.5 percent and beyond top-10 none of the sellers contributes more than 1 percent of sales.

(ii) **Extraordinary perseverance and focus of the founders**

Instead of going down the path of driving gross merchandise volume through discounting (at the cost of margins). Manoj and Monica chose to go through the harder path of building the core of the business by bringing thousands of suppliers across the country on to one platform and helping them sell their products online. To continue to do this for multiple years, while the industry is still rewarding a capital-led growth path, it needs strong founders like Monica and Manoj who have deep conviction.

(iii) **Adopting co-creation has made a boom**

Craftsvilla had reported a PAT profitability of 1.2 percent in their second quarter, 2013, financial results. Craftsvilla.com was targeting gross sales of 100 million in the FY14 (2013-14) with PAT profitability of close to 4 percent. In Indian ecommerce environment where big ecommerce companies like Flipkart and Snapdeal are bleeding cash on every sale, Craftsvilla.com is the rising star with a capital efficient and profitable business marketplace model. With a growth of more than 10 percent month-on-month and with a differentiated positioning as a leader in Indian products, focused on a unique consumer segment that is primarily women in India and customers outside of India²⁶. They should continue to invest more in technology and online collaborative platforms to make Craftsvilla the best place to buy and sell and create products online.

7. Relevance and Significance

In today's world of information and communication technology, Internet is forcing companies to think differently about value creation and to be more responsive to consumer experiences. In fact, the balance of power in value creation is tipping in favor of consumers²⁷. Consumers expect variety and are open to experience change. "Something new and different" is the key to keep customers loyal and when it is not, customers do not hide their disappointment. Businesses, therefore, are now transforming as per customers' viewpoint. Open innovations have encouraged organizations to embrace crowdsourcing (Airtel, Uber, OLA), consumer-led innovations (Kohler)(Pathak & Sharma, 2016), and co-creation (Craftsvilla.com). Another advantage for online portals is that they gain greater consumer awareness and quicker visibility in the market. Co-creation is a strategy to earn customers, their ideas, and support to develop a product. In this process people instantly transit from just thinking about a product to creating a product. Customers feel returning to the websites where their ideas are welcomed and to believe online traffic is getting diverted to companies where ideas are heard, evaluated, and included in the formulation of product processes. In keeping with such a strategy, Craftsvilla has come up with co-creating with customers. The present case study on co-creation will not only enable online players to revisit their strategy but also be useful in business schools in understanding co-creation, designed specifically for innovation-led courses. Case study on Craftsvilla enables organizations to learn the art of "welcoming the customers" and "converting them into repeat/loyal." The proposed model has not been designed by keeping only Craftsvilla in mind rather it has the potential to benefit every e-com player willing to have creative customers on-board.

²⁶http://www.indiaonline.com/article/news-top-story/Craftsvilla-com-becomes-the-only-profitable-ecommerce-company-in-india-114020500230_1.html (accessed on 7 March 2016).

²⁷http://www.tantum.com/tantum/pdfs/2009/2_the_co_creation_connection.pdf last (accessed on 27 May 2016).

8. Conclusion

In the red ocean of competent online players, Craftsvilla has created a blue ocean for itself where they have no competition and are continuously rising. Craftsvilla has created a blue ocean with co-creation which is creating value simultaneously for both—the buyers and the company. In this manner, they have become the value pioneers. This innovation—in product, service, and/or delivery—must raise and create value for the market. Craftsvilla has made it successful to change the mindset of Indian customers from unattractive products to most-demanding ethnic products. Craftsvilla is equally focused on simultaneously reducing or eliminating designers that are less valued by customers. Moreover, co-creation does not only give a boost to innovation capacity of the firm, but it also enhances the scope for further improvisation and upbringing the firm to serve and cheer.

a) Customers

World is full of “speed and innovation” happening all around. Now-a-days, what customers expect from any website is the variety and the speed of delivery. Portals having less focus on either of these two become a second choice for its crowd. What matters the most is to connect with the customers, to know before them what they want. Co-creation adds a star to it. People, knowingly or unknowingly, take part in these activities. The need is to make them aware that yes organizations are co-creating and they need external inputs as they matter the most. It is not the product or services that will keep the e-commerce alive rather its customers, and to keep updated with them, will keep it alive. When it comes to internal customers, that is, employees, these are the ones whose passion and enthusiasm keeps Craftsvilla going good. Founders welcome the idea given by their employees and recognize them timely.

b) Investors

They invest where the huge potential is seen at number one and where the firm has considerable market share they invest on at number two. Investors always check the weight an idea has and after putting up the money and to generate the capital further. Co-creation is the best way to show the development path for the money, investors are investing. In this whole process, investors keep intact with both vision of the founders and the future customers. As a support of these concerned investors only Craftsvilla could make all acquisitions so far. It is the result of the mutual understanding of the board and the customers.

c) Artisans/Designers

They are still innocent on the part how well they are known to the world. They still focus on the hard work they put in their products and the amount they will be getting on the deals. Two prime motivating factors for them are 1) getting known to the world and 2) orders from worldwide. The feedback received from the customers helps the artisans in two ways. Primarily, it acts as an input for improving the value proposition of the existing product. Later, it helps them to understand the degree of likability of the product by the customer. Artisans love to customize products as per their customers, be it adding few more colors or glitters to a product or the personalized packaging and personal messages on the gift boxes.

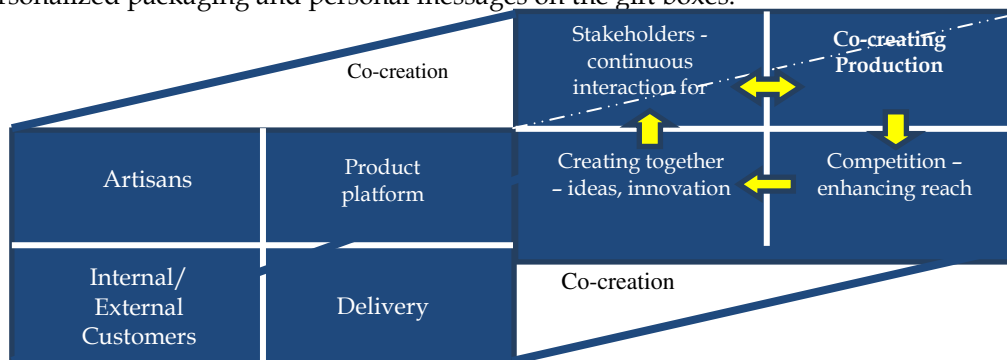


Figure 4: Business Model to Co-create, Source: Researcher's Work

d) **Founders**

They are first, own kind of entrepreneurs with primary focus on saving the vast Indian heritage. Their second focus is on increasing earnings of the artisans/designers sitting in remote areas and providing them a global platform to showcase their skills. Third, boosting capital from investors by showcasing a unique platform to have a good amount of money invested by them and have maximum crowd for their website by providing the best services with bare minimum interruptions. Now, the better way to increase the traffic is not only by the products and services rather by making customers feel that they are being cared and their ideas are welcomed. This phenomenon should be made visible and known.

e) **Delivery**

Craftsvilla is a live example of winning the consumer confidence through their delivery model. They continuously are putting effort to have a fast delivery model since competing on delivery grounds becomes easy for other online players. The same way, once the order is placed online, customers can't really wait to have their packet in hand, so it is a two-way competition. It is the logistics part of the company that takes care of the time taken (to minimize it) during the order and delivery process. Online portals must make it sure that they compete by enhancing the customer reach in a minimum possible time.

At the end of the day when we are talking of co-creation, it's all about a deal, a win-win model, because every initiative in a firm takes place by the people, with the people, and for the people. We should be able to answer every question. Who all are we dealing with? And, who all are we doing it for? Although it is not possible to put everyone at the central place, but we should be able to justify efforts of everyone we involve. Everything said and done should also furnish answers to what stakeholders expect from innovation capacity of any firm, specifically the type of innovation and the difference it has made.

8.1. What Motivates Cocreation Contributors

If we consider co-creation as a process in any organization, our focus should include everything from having skilled employees to having skilled customers. Following are the factors identified by researchers. Which enables and encourages different parties to come together and collaborate, Directly and indirectly.

Customers	Investors
Skilled employees Online platform to collaborate Customer engagement through various touch points Creating awareness for such collaborations Idea generation, recognition and acknowledgement Clear communication of values and costs Involved (Simoes-Brown, 2011) Key brands vs. creating own brands	Growing use of internet Accumulated interest of investors Founder's passion vs. investor's goal behind investment Market opportunities and profit sharing Non-replicable horizontal business model
Artisans	Employees
Simple people with limited needs Generally happy 80% woman entrepreneurs Preserving culture and tradition through product showcase Strong relationship with organization Proper tools to measure artisan engagement	Central representatives Healthy positive environment Regular interaction with founders Extra facilities to ensure good health Continuous seller support Freedom to express ideas Focused approach to excel together Culture of collaboration and participation Employees first Everyone equals

9. Limitations and Scope for Future Study

The present study is focused on individual company involved in co-creation. The generalization arrived at can be supported and further strengthened by analyzing more companies and by doing

empirical research to explore and examine additional variables, if any. Literature suggests that conceptual studies are done to establish the basis for further studies. Some important areas for future research are consumer intuition and intentions to find out if the customer is always right, to explore how to have right consumer representatives, and strategies to grab numerous ideas and suggestions available at the market place. In the light of this paper researchers further can interview founders to understand the innovation and entrepreneurship eco-system in India. What are the barrier they faced and what were their overcome strategies? and develop a case-study.

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Evolution of e-government: Transparency, competency, and service-oriented government with Korean government 3.0

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Keywords

E-Government, transformation, transparency, competency, service-oriented government, government 3.0

Abstract

E-government is increasingly being implemented in all areas of government administration. It is increasing efficiency and transparency and bringing convenience and safety to citizens' lives, and consequently improving the quality of life. E-government is a transformation of government processes, transactions, and policy making and implementation that are efficiently carried out through information and communication technologies to provide better and efficient services to the citizens while reducing waste and corruption and increasing accountability, transparency, and trust.

This paper discusses the efforts of Korean government to transforming with transparency, competency, service-oriented government.

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1. Introduction

E-government has achieved significant improvements through the deployment of many innovative applications (Gronlund & Horan, 2005; Lee et al., 2005). Citizens use government web sites as central points of access to government information and services across different agencies via Internet or Mobile access.

Transformation of government processes, transactions, and policy making and implementation that are efficiently carried out through ICTs. Through ICT, new forms of collaboration and inter-organizational public service networks become feasible, making it possible to carry out the public sector's tasks more efficiently and effectively. Also, ICTs provide better and efficient services to the citizens while reducing waste and corruption and increasing accountability, transparency, and trust.

In this paper, we discuss about transparency, competency, and service-oriented government with Korean government case. In spite of successful implementation, Korean government need more transformation of government. Despite the advanced E-Government services and infrastructure, e-government has not changed the way government works much. Also, innovative programs through ICT should contribute to change government culture and the way officials working. They must consider how to measure the performance or accomplishments of the results. They are also failed to integrate online services of each agency due to the lack of information sharing in government. Furthermore, they need to provide one-stop, customized service for each people to promote well-being of Korean.

2. Background

Certainly, the most compelling political news about Web 2.0 has been the way that social networking has revolutionised the art of political campaigning. But the most enduring political implications of Web 2.0 may lie in what democratic governments seek to achieve in their efforts to engage users in the mundane daily processes of governance. Administrative agencies, particularly in the

bureaucratic and industrial age, are finally changing as governments reinvent themselves for the information age. One essential part of this transformation to Government 2.0 is the recognition that the social media enable governments to invite citizens, as democratic watchdogs and collaborators as well as creative do-it-yourself forces, into the administration of government.

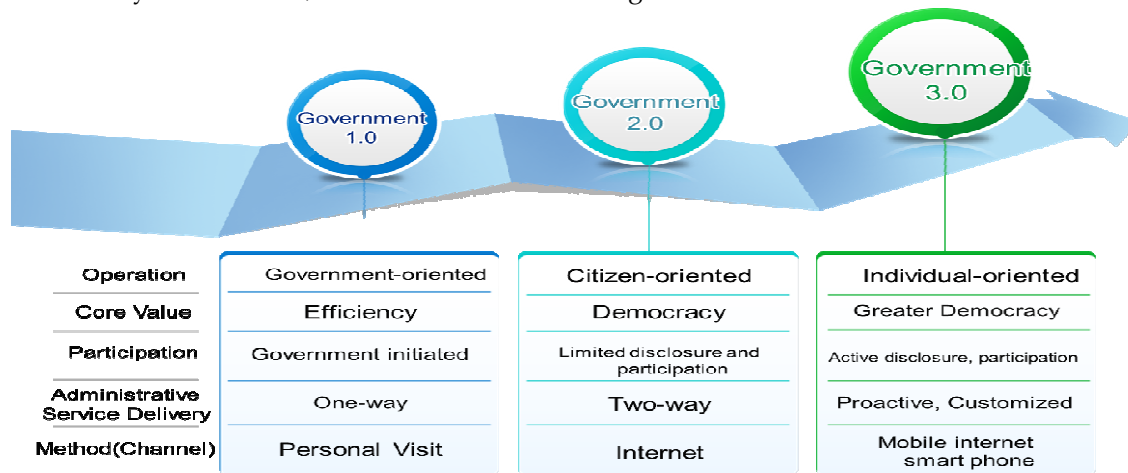


Figure 1. The evolution of Government in Korea

2.1 Transparency

Transparency means openness of decisions and actions. Put another way, it means a free flow of information about decisions and actions, from source to recipient. In other words, transparency is the open communication between citizens and governments. It is the effective knowledge with relevant information to citizens' needs. (Cerrillo-i-Martinez, 2011; Cuillier & Piotrowski, 2009) Many deployed laws across the world are related to transparency like the right to information, open access of e-government information, or the use of ICT and the Internet to promote public information.

Here, we are interested in public sector transparency: flows of information about the decisions and actions taken by civil servants, politicians, judges, etc to various groups who would seek to hold them accountable-transparency means the use of ICTs to handle some or all of the transparency-related information flows.

In terms of the e-transparency, we need to consider publication which is just providing basic information about a particular area of government, transaction which is automating some public sector process and reporting on that process, reporting which is providing specific details of public sector decisions and actions, openness which is allowing users to compare public servant performance against pre-set benchmarks, and accountability which is allowing users some mechanism of control over public servants.

2.2 Competency

Competencies required for an e-government cover three things skills, knowledge and attitudes. All three of these must be addressed in planning the e-government project. Development of skills and knowledge can be undertaken through relatively straightforward training. Training to change attitudes is much harder but ultimately probably more important. Examples of attitude training could be including case study analyses of information systems failure and/or best practice, role-play exercises to highlight the gap between users and IT staff, group-forming activities for key stakeholders, and demonstrations of functioning information systems to highlight system benefits.

In many contexts, the needed competencies can be divided into four main components as follows.

a) Systems Development Competencies

E-Government projects in developing countries have frequently had to rely on the import of external ICT personnel to develop new information systems. The indigenous information systems development capacity for e-governance must be strengthened, both within user organizations in the government and NGO sectors, and within private sector vendor organizations.

b) Project & Change Management Competencies

The public sector particularly has been poor at managing e-government projects and at managing change. That capacity needs to be strengthened. E-government project managers particularly need help with managing the human components of projects and change.

c) Intelligent Customer Competencies

Public sector organizations especially have been poor ICT customers, unable to raise the finance for projects, unable to specify their needs, unable to manage the procurement process, and unable to manage vendors. These capacities need to be addressed to change a client-vendor relationship that, to date, has been too combative, too corrupt or too vendor-driven.

d) Operational Competencies

The ability of the public sector and other governance-related organizations to operate and maintain e-government systems must also be strengthened. For almost all developing countries this will still initially include a need to build basic computer literacy skills within user communities.

2.3 Service-Oriented Government

E-government was popularized during the dot-com era in the 1990s. The emergence of e-commerce and Y2K²⁸ advanced e-government, as governments began to adopt the changes taking place in the private sector. E-government is defined in various ways. (Relyea & Hogue, 2004; Seifert & Relyea, 2004) Some definitions of e-government are limited as a unit of the government, while others are very broadly defined, with e-governance integrated throughout the government. World Bank defines e-government as "the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government." (Jeong & Kim, 2003; Kushchu & Kuscu, 2003; Trimi & Sheng, 2008) These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. (Gronlund & Horan, 2005; Reddick, 2005; Tian & Tianfield, 2003) The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth, and cost reductions." (Definition of E-government, World Bank²⁹)

E-government is a transformation of government processes, transactions, and policy making and implementation that are efficiently carried out through information and communication technologies to provide better and efficient services to the citizens while reducing waste and corruption and increasing accountability, transparency, and trust. Furthermore, it is about creating an one-to-one relationship with the government in which citizens are empowered to take part in the democratic process and policy making.

E-government is increasingly being implemented in all areas of government administration at both the local, regional and national levels, increasing efficiency and transparency and bringing convenience and safety to citizens' lives, and consequently improving the quality of life (Fountain, 2001; Mulgan, 2000; Northrup & Thorson, 2003). While it was initially promoted as a means of improving internal management efficiency in public administration, e-government is increasingly considered an important measure for enhancing citizen access to government services and expediting the delivery of services to citizens (Morris & Moon, 2005; Streib & Navarro, 2006). E-government is used to enhance citizens' access to government as much as government's access to citizens using current network technologies. (Irani et al., 2006; Premkumar et al., 2006; Heeks and Bailur, 2007; Seifert and Chung, 2008)

3. Government Challenge: Korean Government 3.0

As a leading country in ICT, Korean government is evolving their e-government structure as well as services. Korea's e-Government is transforming into citizen friendly services. Government 3.0 is a new paradigm for government operation. It aims to provide customized services for individual citizens and

²⁸The total cost of Y2K was "revised to \$1 trillion or more. Reuters reported Jeffery Boonmee, founder and president of Bicom Link, as saying Y2K is now a \$3 trillion global industry, and that in the United States alone, the market for Y2K solutions is worth about \$800 billion." (The True Cost of Y2K, Smart Computing, August 1999, Vol.7, Issue 8)
²⁹<http://go.worldbank.org/M1JHE0Z280>, May 2012

support more job creation by opening and sharing public information among government agencies and municipalities as well as removing the barriers in the government. (Song, 2014)

3.1 Transparent Government

With a Web 2.0, government focus on distributing government information previously unavailable to the citizens, either by intention or through neglect. In some cases, the interest is in enabling citizens to use this information as a political tool for transparency. When information and data about government actions and decisions are accessible, citizens can more effectively participate in decision making. They can also, at least in theory, assess the efficiency and effectiveness of government actions, and hold them accountable for their performance; a condition that is reciprocally expected to improve government performance. Such information is also a key to controlling corruption, since the right kind of information enables watchdog citizens and civil society organisations to track budget disbursements and expenditures.

Transparency is a public request by all parties involved in e-government. Many e-government systems are claimed to improve transparency and public entities efficiency like the Korean procurement services and On-Nara business process system. They are doing many efforts to improve transparency of e-government.

The Korean government discloses public information closely related to citizens' lives. It also aims to vitalize public-private governance and establish foundations to create jobs and realize the creative economy.

To empowering people's right to know through information disclosure, Korean government listens to citizens' voice on what information they need to know and discloses public information held by central government ministries, municipalities and public agencies. Once public documents are approved, the original text disclosure system instantly discloses them without request, save for personal information and other confidentialities. The Korean government collectively discloses public information on the online information disclosure portal (open.go.kr) for easy access.

To enhancing the private sector's use of public data, Korean government are developing a government-wide public data disclosure roadmap and disclose 60% types of public data by 2017., it will select promising businesses in 15 strategic fields that face strong demands from the private sector, such as transportation, patent, and employment, and help commercialize their business to create jobs.

To strengthening public-private partnerships and collaborations, Korean government increasingly involves experts and those who are directly affected by public policies in government administration through on-site visits and online policy debates. Citizens can suggest ideas and present complaints anytime, anywhere through various channels including telephone, text messages, social network services (SNS), and civil proposal service on the people's online portal (epeople.go.kr). Major policy issues and tasks are brought to three-people portal for open discussions.

3.2 Competent Government

The Korean government removes barriers among government agencies to strengthen sharing and interconnection of information, maximizes work efficiency through digital collaborations, and upgrades the quality of public administration and citizens' lives using big data.

To removing barriers in the government, Korean government will establish a problem-solving oriented approach to identify solutions for state affairs. It will establish a culture that encourages on-the-ground collaboration by resolving field problems where various ministries and agencies are involved and improving service delivery systems.

To remove barriers among organizations and improve citizens' convenience, government ministries and agencies will share information with one another and integrate their systems. Korean government will increase personnel exchanges among central government ministries, between the central and local governments, and between the government and the private sector, thereby expanding an open government operation system.

To improving communication and collaboration among government agencies, the integrated communication system offers collaborative project management, report sharing, and messenger functions, thereby strengthening communication and collaboration among organizations indifferent locations.

Korean government actively promotes videoconferences to reform its meeting practice and offers more smart work centres to improve administrative efficiency.

To enhancing rationality in administration with the use of Big Data, Korean government makes better use of various for most big data in public administration, thereby developing scientific, proactive policies and providing customized services. It will also establish a government-wide support system for predictive data analysis and advance identification of changes and risk factors.

3.3 Service-oriented Government

Engaging citizens in public governance has not only an intrinsic value in terms of deepening democracy, but it can also be instrumental in enhancing governments' capacity to deliver quality education services, promote gender equality and empowerment in public administration and society at large, deliver health services which can help reduce child mortality, improve maternal health, as well as eradicate disease, and promote a sustainable environment.

Implementing effective service and engaging citizens to take a more active role in development and in decisions that affect their lives poses.

The Korean government places citizens at the heart of all public services. It provides individual citizens with public services customized to their characteristics and life cycles. The Korean government also uses new information technology to realize whole new administrative services in the fields of disaster management, environment, and security.

In terms of the integrated provision of customized services, each government agency selects priority policies and services that are most requested by citizens and provides customized services. The government classifies its services by type of beneficiaries including childbirth, upbringing, the disabled and the elderly, and provides customized services.

Korean government provides integrated information and services related to citizen's life events such as moving and death. The civil service portal "Minwon 24" is designed to provide various types of information closely associated with citizens' lives, such as administrative penalties and refunds.

To enhance one-stop services for businesses, Korean government will establish an integrated system for SME support and manage track records of SME support projects of central and local governments in a systematic manner. Local governments will establish the one-stop permit processing system for businesses, and simplify approval processes for start-ups and businesses.

To improving access to services for the information poor, Korean government will improve the service delivery system and accessibility for vulnerable groups to minimize blind spots in public services. Text-to-speech conversion of civil petitions, improving web accessibility of the disabled, providing ICT aids.

The government will also take advantage of the nationwide coverage of postmen networks, thereby enhancing civil affair and welfare services for vulnerable groups in rural areas, such as elderly living alone.

4. Concluding Remarks

The role of ICTs has dramatically changed over the past decade. Even in the private sector, until the mid-1990s, ICTs were commonly considered as corporate expenses with limited return on investments (ROIs). Governments had more passive approaches to adopting ICTs, often lagging behind the private sector. There was also typically lack of a legislative framework for e-government, largely due to ignorance or unwillingness to adopt transparency and accountability. Many global organizations define e-government in transitional terms as stages or phases. This implies that e-government is an evolutionary progress. However, as we have seen in the private sector, with new ICTs, it is not always necessary to go through the same stages that others have gone through.

As a response to these challenges, Korean government is attempting to revitalize their public administration, make it more proactive, more efficient, more accountable, more service-oriented and closer to the people. To accomplish this transformation, governments are introducing innovations in their organizational structure, practices, capacities, and how they mobilize, deploy and utilize the human, material, information, technological and financial resources for service delivery to remote, disadvantaged and challenged people.

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Market actor's response towards flower colours in determining the economic value of Chrysanthemum flowers

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Chrysanthemums, market actor's response, flower colour, economic value.

Abstract

Chrysanthemum flowers are a commodity with a chance to be developed. The colour of chrysanthemum flowers determines its economic value, thus becoming a major factor in choosing which types of flowers to be cultivated. This is a survey research. This research was carried out on market actors in Special Region of Daerah Istimewa Yogyakarta (DIY) and Central Java to obtain the preference of chrysanthemum flowers market in supporting Daerah Istimewa Yogyakarta (DIY) as the centre of chrysanthemum seeds and cut flowers. Market survey is also used to know the types of chrysanthemum flowers that consumers need. Research results showed that the largest consumer of cut flowers come from office workers that happen to be loyal customers. Yellow and white chrysanthemums are the most commonly selected flowers by consumers as they are believed to create a sense of social energy and hope, as well as being able to stimulate mental activities and are generally attractive.

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1. Introduction

Agricultural development in green areas is expected to have a strategic role in improving a sustainable development, creating harmony and balance in the process of economic empowerment, and transferring environmentally friendly technologies (Muafi et al., 2016; Muafi, 2016a; 2016b; Muafi, 2017). Ayandibu and Houghton (2017) stated that in developing countries, the contribution of SMEs towards employment generation is significant because they: (a) nurture entrepreneurship, (b) it helps to reduce risks (reduce crime rates), (c) support the building up of systemic productive capacities and the creation of resilient economic systems, through linkages between SME, (d) tend to use more labour intensive production processes than large enterprises, boosting employment and leading to more equitable income distribution and (e) value adding processing activities in agriculturally based economies". Chrysanthemums are floriculture crops that have a high economic value and are cultivated by many farmers on narrow lands. Hargobinangun region, Pakem, Sleman, Special Region of Daerah Istimewa Yogyakarta (DIY), Indonesia is coordinated area of cultivation of chrysanthemums to anticipate the public demands of cut flowers. The outlook of chrysanthemum flowers market is quite encouraging, especially with the development of tourism industries, florists, wedding decorators, and catering services in the country. Market opportunities abroad are also promising. According to Amarta Regional Agribusiness'

Competitions Specialist, under USAID, the opportunity of chrysanthemums agribusiness is very interesting to be developed as a land of investment. This is the important stage of uncovering market opportunities faced by an organization. Kotler (2003) has identified five strengths that determine the attractiveness of a long-term intrinsic profitability of a segment, namely: industry competitors, potential newcomers, substitutes, buyers or customers, and suppliers.

Business opportunities of chrysanthemums should still be developed. One of ways to do it is to see the level of market satisfaction towards the cut flowers produced by SMEs in Hargobinangun, Sleman, DIY, Indonesia. Marketing survey of this research aimed to fulfil and serve the demands of consumers. The colours of chrysanthemum flowers determine its economic value considering colour varieties they offer, thus becoming a major factor in choosing which types of flowers to be cultivated. The customers' behaviour is influenced by cultural, social, personal and psychological factors. Their selection process is the result of a complex interplay of these factors. Such factors are useful to identify customers who may have the greatest interest or demand to a product (Kotler, 2003). The cultivation technology that has been applied at chrysanthemum cultivation sites in Hargobinangun has met the national standard (Wijayani et al., 2015). However, the nature of cut flowers being very fragile remains the same; therefore, the location of marketing chrysanthemum products is strongly associated with the location of cultivation sites. Flower production centres with marketing location will determine the types of flowers sent, post-harvest handling, transportations, and shipping distance. Up until now, product marketing of cut flowers from Hargobinangun is limited in the areas of DIY and Central Java, considering the flower production is enough only for those regions.

Another problem frequently encountered in marketing chrysanthemum flowers is that producers do not yet fully apply the GAP/SOP principles of chrysanthemums (Muafi et al., 2016). The real condition in the field shows that the unavailability of high quality chrysanthemum seeds greatly affect the quality of the flowers produced. This is mainly due to that the high quality of chrysanthemum seeds are the kind of plant introduction that is relatively more expensive compared to the seeds produced in the country. The demands of homemade chrysanthemum seeds are, at first, quite high, but because of its availability does not last very long, sellers and producers tried to cultivate their own plants, resulting in making the seed quality to continuously decline (BAPPEDA DIY, 2003). On the other hand, introducing high quality domestic products surely needs a professional marketing campaign, so homemade chrysanthemums can be the host in their own country. The management in the field should also be done in an integrated manner, including a "field day" within the management to introduce new seed varieties in the country to attract cut flower producers who, in turn, are expected to shift chrysanthemum plant introduction (Sirohi and Behera, 2000; Wijayani and Amiaji, 2014).

Market survey was conducted to obtain preference of chrysanthemum market to support Yogyakarta as the center of chrysanthemum seeds and cut flowers. In addition, market survey was necessary as it would give a reference for regulating chrysanthemums development in Yogyakarta and to also identify customers. Moreover, market survey can determine the types of chrysanthemums needed by customers, the most preferred flower colour, price, and the best time to sell them.

2. Theoretical Review

To explain consumer behaviour, it is necessary to examine the theory that reinforces the responses of consumer behaviour. Consumer's purchasing decisions are a response to previously received stimuli. This research is reinforced by the *Theory of Reasoned Action* and *Theory of Planned Behaviour* that shape a person's behaviour.

Theory of Reasoned Action

Alport (1935) stated that attitude is a state of mental and nerve from readiness which was previously arranged through experience that gives dynamical or directional influence towards individual response on every related object and situation (in O'Sears, 1985). Krech & Crutchfield (1948) added that attitude as a permanent organization formed from motivational, emotional, perceptual and cognitive processes regarding individual aspect (in O'Sears, 1985; Muafi, 2012; Muafi, 2016b).

A person's attitude has been studied intensively, but companies tend to pay more attention to real consumer behaviour, especially the behaviour of their work. Therefore, it is not surprising if a large

number of researches try to establish the relationship between attitudes and behaviour. Consumer behaviour happens for a reason, especially for consumers who are in the following conditions: (1) have the freedom to choose, and (2) are not dominated by emotional aspects when making a decision-making process (Dharmmesta, 1998).

Ajzen and Fishbein (1980 in Dharmmesta, 1997) have developed a *theory of reasoned action* to associate the attitude of intent/interest and continued to behaviour. Ajzen and Fishbein's research has been the basis of their understanding of the relationship between attitude and behaviour. Most researchers of behaviour believe, and work under the assumption that the better a person's attitude towards an object, the more likely that person behaves. Fishbein realized that a person's attitude towards an object does not have to be strong or estimated to be associated with his behaviour. On the contrary, the direct determinant of whether someone will engage in behaviour is their own desire to engage in such behaviour. Fishbein modified and expanded the model of multi-characteristics attitude and associated beliefs and attitudes to the desires of their behaviour. Fishbein Model states that the purpose seen directly as a direct antecedent of behaviour is determined by the attitude component or by personal and social normative components.

Sometimes, behaviour is more influenced by the pressure of social environment rather than by personal attitudes. We all may have experienced a situation where we do things not because of our personal desires, but because of social influences (e.g., smokers attempting not to smoke when accompanied by non-smokers). Therefore, in the model of intended behaviour, attitude measurement is accompanied by social influence measurement to predict behaviour. Behavioural variables have been placed as an "estuary." That is, anything that is achieved by the model is a predictive behaviour. Employee behaviour can be predicted accurately from their attitudes and norms of subjectivity through intention variable. The result of this process of reasonable behaviour is a desire to engage in behaviour. The desire to behave is the best predictor of a real behaviour. In essence, the *theory of reasoned action* states that a complicated intentional behaviour (like buying a pair of shoes) is determined by a person's desire to express this particular behaviour. The *theory of reasoned action* is irrelevant to any simple and unintentional behaviour, such as winking, turning his head when the phone rings, or snoring. *Theory of reasoned action* will be able to accurately predict behaviours, but only under specific conditions. The main benefit for researchers is that there is a possibility that the measures of behavioural intentions would estimate actual behavioural choices or that predicted behaviours are determined by intentions (Dharmmesta, 1992: 44; Muafi, 2016b).

Theory of planned behaviour

Efforts to predict behaviours more accurately are continued to be developed by experts in various researches. *Theory of Planned Behaviour* (Ajzen, 1987, 1988; Madden, Ellen, Ajzen, 1992 in Dharmmesta., 1998), which is the development of the *theory of reasoned action*, has emerged as an alternative to predict behaviour more accurately. Typically, the behaviour of certain employees will be made if the related conditions are possible, such as:

- The employee's attitude is positive or beneficial.
- Social norm of the employee is also beneficial.
- The study of perceived behavioural control is quite high (this is what distinguishes it with the theory of reasoned action. This also makes it the focus of the theory of planned behaviour).

The theory of reasoned action not only emphasizes the rationality of someone's behaviour but it also stresses that targeted actions are within the consciousness control of that person. An example is "I know I can stop smoking if I really want to." But, some behaviour is not in full control of that person. Therefore, Ajzen (1987, 1988, 1989 in Dharmmesta., 1998) enhanced the basic model by expanding or adding new variables to give attention to the concept of their own accord. *Perceived behavioural control* is a condition where people believe that an action is easy or difficult. This includes experience, in addition to the existing obstacles, which is considered by the person. Ajzen and Madden (1986, in Dharmmesta., 1998) pointed out their research, which found that students always want to get an A in every subject they take. Grade A is the value that is highly appreciated by them (*attitude*), and that grade is the value that their family and friends demands (*subjective norm*). However, the predictions of grade A in real terms may be

misunderstood if the students' perceptions about their own abilities are considered and considered. Ajzen has stated that perceived behavioural control may affect intention or directly on the behaviour itself. Ajzen named this modified model by the term: *theory of planned behaviour*. Dharmmesta (1998) described several things to note in this intention variable, namely:

- Intention is considered to be a "catcher" or an intermediary of motivational factors that creates an impact on behaviour.
- Intention shows how hard someone dares to try.
- Intention also shows how much effort a person plans to do.
- Intention is most closely associated with subsequent behaviours.

Specifically, the *theory of planned behaviour* suggests the existence of three conceptually Independent determinants of intentions, namely:

- Attitude towards behaviours that indicates the degree to which a person has a positive or a negative evaluation about certain behaviours.
- Subjective norms, as social factors, indicate perceived social pressure to perform or not to perform certain actions/behaviours.
- Perceived behavioural *control*, a variable that is not included in the *theory of reasoned action*, shows how easy or difficult a particular action is and is considered as a reflection of experience, in addition to the anticipated obstacles.

3. Methodology

The method of data collection is done by doing a two-phased survey method: pre-survey and formal survey. Pre-survey was conducted to determine the field conditions of research locations and by also collecting secondary data to support the research. Formal survey was conducted through interviews and distributing questionnaires to the respondents. The research locations are flower markets in Yogyakarta and Central Java. The selection of respondents is determined intentionally and the sample size is determined based on a *Formula Stovin* method with an error of 10%. Respondents are determined intentionally based on the data collected during pre-survey. Respondents are consisted of producers/farmers, traders, cut flowers consumers, and the public who happened to be at the cut flowers markets, with a total number of 60 respondents. The collected data is processed descriptively and was analysed in non-parametric according to the type of data collected.

4. Results and Discussion

Consumers prefer cut flowers in a bouquet (95%), rather than pieces. The majority of the main customers of cut flowers are still regular customers and at the same time are loyal customers to a particular merchant. The distribution of cut flowers regular customers are shown in Table 1.

Table 1. Distribution of cut flowers regular customers

Customers	Response (%)
Office complex	40
Individuals	30
Florist	25
Others	5

Table 1 shows that the end customers of chrysanthemums are dominated by office workers. Usually, they need to buy cut flowers for formal occasions such as seminars, workshops, training, etc. Customers of office workers are dominated by civil servants. Sellers prefer office workers customers even though they do not always pay immediately. This is because they are loyal customers and regular buyers. This also applies to the florists; most of them are loyal customers and regular buyers, even though they buy those flowers at a cheaper price, and this is because they will re-sell those flowers in a bouquet. A

two-way communication between sellers and buyers should always be made to ease the payment. This condition is in line with Kotler's theory (2003), which states that to communicate effectively, sellers need to understand the fundamental elements underlying an effective marketing communication. The two elements that make up the primary function of communication are the sender and the recipient.

Chrysanthemum flowers are a commodity with a lot of colour variations, but not every colour is liked by consumers. Yellow chrysanthemum flowers are the most preferred choice by consumers. The survey results can be seen in Table 2.

Table 2. Rate of demands of chrysanthemum flowers by colour

Colour	Demand (%)	Other Criteria
White	40	Sharp/strong flower colour, strong stems,
Yellow	50	safe from pests and diseases, and has a
Green	5	long lifespan.
Other Colours	5	

Table 2 shows that the favourite colours of chrysanthemum flowers are yellow and white. Yellow chrysanthemum flowers, like Puspita Nusantara and Sakuntala, are considered national varieties and are very popular. Puspita Nusantara represents the type of "spray" (one stem contains few flowers); while Sakuntala represents the standard type of chrysanthemum flower (one stem contains one flower stalk). The other criteria selected by customers are generally flowers with sharp colours, the size and shape of flowers are proportional, strong stems, safe from pests and diseases, and have a long lifespan.

Although sometimes customers will mix different types of flowers in the bouquet, chrysanthemums remain the most dominant. Puspita Nusantara and Sakuntala have a sharp yellow colour, the colour of which is able to spread an aura of happiness. The yellow colour is also considered to create a social energy and hope, as well as stimulating mental activities and is generally attractive. Some plant introduction varieties are also looked for by the consumers, especially yellow and white, with green as another colour liked by the consumers (Yiyao et al., 2002; Fukai et al., 2002; Wijayani et al., 2015). Marketing chrysanthemum cut flowers depends on the number of activities/events at the time. During "busy" months of a particular occasion, chrysanthemum cut flowers come with a great demand, which results in a shortage of flowers. According to florists in Kotabaru, Yogyakarta, flower colour determines the kinds of activities demanded by customers. For example, wedding parties and receptions will likely demand bright colours like red, yellow, and green. As for words of sorrow and condolences, the colour purple and yellow are dominant. According to Diener (2001), lack of knowledge will lead to forming negative attitudes from consumers. Cut flowers are commodities that are appreciated for their beauty and freshness. Post-harvest handling to maintain the freshness of cut flowers is a very important effort. Wijayani's research (2015) about flowers phase-life found that a yellow Sakuntala chrysanthemum is capable of maintaining freshness for up to 15 days, while a green Samrok chrysanthemum has a phase-life of 7 days. The increasing demand of cut flowers from time to time is a business opportunity with great prospects. Process and product diversification strategy should consider the customer loyalty in every region so it will be unique. This research finding is also supported Terblanche (2017) findings that "customer loyalty as an outcome holds various advantages for a retailer. Retailer provides the type and level of retail mix elements for interaction that customers' desire and which results in customer loyalty". Consumers admire yellow and white chrysanthemums because they are more durable than other colours. This research gives practical implication that SMEs performance which has a basic on centres can be achieved with increasing Local Economic Development (LED) (Ayandibu and Houghton, 2017) and green area competitiveness (Muafi et al., 2016). Future research should consider other aspects that are also important to increase

SMEs performance which is the empowerment of Green IT, creativity, innovation, social capital and pro social behaviour (Muafi, 2015a; Muafi et al., 2016; Muafi, 2015b).

5. Conclusion

Based on data analysis, it can be concluded that the market for chrysanthemum cut flowers is still very broad. The largest consumers of cut flowers come from office workers that happen to be loyal customers. Yellow and white chrysanthemums are the most commonly selected flowers by consumers as they are believed to create a sense of social energy and hope, as well as being able to stimulate mental activities and are generally attractive.

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Factors influencing young adults' debt in Malaysia

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Keywords

Debt, Young adults, Malaysia, Money management skills, Materialism, Income

Abstract

This study explores factors affecting debt level among young adults in Malaysia. Previous studies have linked material values, money management skills, and economic factors to credit card debt and student debt, but this study extends the previous research by investigating various forms of consumers' debt in an emerging market where vulnerable youths are frequently bombarded with materialistic media messages that trigger their spending behaviour. In particular, variables such as pursuits of materialistic attitudes, money management attributes, and income level are examined in this study to see whether they are predictors of youth debt in Malaysia. A self-administered survey on 629 respondents centered around northern part of Malaysia was conducted based on convenience and judgmental sampling techniques.

The findings suggest that money management skills and income level significantly influence the debt level of Malaysian young adults. Interestingly, materialism variable is insignificant, implying that young Malaysians represented in this sample do not possess materialistic attitude that lead to indebtedness. The findings provide insights to the policy maker and the government to inculcate awareness of basic money management skills to ensure that the younger generation does not fall into the state of excessive debt which could lead to financial insolvency.

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1. Introduction

Malaysia was reported as having high household debt to gross domestic product (GDP), reaching 89.1% in 2015 from around 60% in 2008 (Bank Negara Financial Stability and Payments System Report, 2015). The Star newspaper dated 22 June 2015 reported that close to 25,000 Malaysians below age 35 have become bankrupt since 2010. Most of the bankruptcy cases in Malaysia were primarily caused by the inability to sustain debt due to hire purchase transaction, mortgage, personal loans, being a guarantor, and credit card debt trap. The same article reported that a survey done by the Federation of Malaysian Consumers Associations (FOMCA) in 2013 revealed that 37% of young Malaysians were found to be living beyond their means while 47% used more than one-third of their monthly income to settle debts. Implicitly, this suggests that on average young Malaysians are committing to higher debt levels beyond their means. The friendly credit environment or the ease of obtaining credit facilities is often the blame for mismanagement of financial resources such as overspending and over borrowing that are very likely to increase the probability of financial insolvency.

The issue of household debt has received great amount of interest from researchers. Previous literature suggests that there are several factors that may influence the level of debt among households, among others are: 1) materialism (Ponchio and Aranha, 2008; Nga et al. 2011; Gardarsdottir and Dittmar,

2012), 2) money management skills (Elliot, 2005; Kim et al. 2003; Norvilitis et al. 2006; Donnelly et al. 2012) and 3) income level (Robb and Woodyard, 2011; Garðarsdóttir and Dittmar, 2012; Min-Yen Teoh et al. 2013). Generally, the findings indicate that people who are highly materialistic will have higher level of debt, people who have good money management skills will have lower debt, and people with lower income level will have higher debt.

Most of the previous studies however, focus on credit card debt and student debt, in which the findings may not be generalizable to other types of consumer debt such as housing loan, personal loan, and hire purchase loan. In addition, there are limited studies that investigate factors that contribute to consumer debts in Malaysia particularly among young adults. According to Alias et al. (2010), Malaysians like to spend although the prices of goods and services are relatively high. In addition, a study by Ahmad and Omar (2016) reveals that 25 percent individuals who have high credit card debts in Malaysia usually have poor financial planning skills. The same study also reveals that young professional aged 30-40 years are faced with credit card default due to unnecessary spending.

In this respect, the Geert Hofstede's dimensional model of culture reveals that the indulgence score of Malaysia is higher than other countries in Southeast Asia including Singapore. Indulgence is defined as the willingness of societies to realize their impulses and desires with regard to enjoying life and having fun (Hofstede, 2001). The high indulgence score implies that Malaysians tend to place a higher degree of importance on leisure time, act as they please, and spend money as they wish. This kind of culture may contribute to the high level of debt among Malaysians particularly the young ones.

Thus, this study extends the existing studies by focusing on general public samples, which are young Malaysians within the age of 18-35 years and include various types of consumer debt to measure debt level such as credit card, housing loan, hire purchase loan, personal loan, and education loan. This study poses one big question: Do materialism, money management skills, and income level influence the amount of debt of young adults in Malaysia? Accordingly, the aim of this study is to examine whether they determine young adults' debt in Malaysia.

2 Literature review and hypothesis development

2.1 Materialism and debt

Materialism can be defined as the centrality of possession and acquisition in consumers' lives (Richins and Dawson, 1992) and the possession of material goods in achieving major life goals (Richins, 2004). In relation to this, materialists can be defined as consumers who are constantly looking for their next unnecessary purchase (Fournier and Richins, 1991; Richins and Dawson, 1992). There are several studies that examine the relationship between materialism and debt. Watson (1998) concludes that people who are highly materialistic have more favourable attitudes toward spending as well as more favourable attitudes toward debt than people with low levels of materialism. The sample consists of 299 students from a university in New Zealand.

Pinto et al. (2000) investigate students' attitudes toward use of credit and their credit card balances. The findings suggest that students who scored higher on materialism had more favourable attitudes toward spending. Watson (2003) examines how people with differing levels of materialism vary in their propensity to spend and/or save and their attitudes and behaviours toward borrowing money. The findings suggest that there is a positive relationship between materialism and the tendency to spend. In addition, highly materialistic respondents had more favourable attitudes toward borrowing money (particularly for luxury purchases), and were more likely to use instalment credit and had loans of more than \$1000. In contrast, people with low levels of materialism were more likely to invest in stocks or bonds and have mutual funds.

Norvilitis et al. (2006) explore factors hypothesized to be causes and effects of credit-card debt among college students in the United States. Lack of financial knowledge, age, number of credit cards, delay of gratification, and attitudes toward credit-card use were factors related to debt. In contrast, the factors such as sensation seeking, materialism, the student attitude toward debt scale, gender, and grade point average were not unique predictors of debt. Results highlight the need for comprehensive financial literacy education among college students.

Ponchio and Aranha (2008) explore the influence of materialism on consumer indebtedness among low income individuals who live in poor regions of Sao Paulo. The findings highlight that materialistic

people who lived in poverty were willing to enter into an expensive credit agreement in order to achieve the material good life depicted in the lives of the more affluent people around them. Nga et al. (2011) examine whether materialism and compulsive spending mediates the relationship between image consciousness and credit card usage intentions among students at private college in Subang Jaya, Malaysia. The findings reveal that materialism is a partial mediator in the relationship between image consciousness and compulsive spending.

Gardarsdottir and Dittmar (2012) investigate the association of materialism and indicators of financial well-being such as amount of debt, financial worries, spending tendency, money-management skills and compulsive buying. The results show that people who endorse materialistic values have more financial worries, worse money-management skills, and greater tendency towards compulsive buying and spending. In addition, the findings further show that amount of debt including mortgage, can be directly linked to materialism, controlling for income, and money management skills. To summarize, previous studies relate materialism as one of the factors that contribute to the debt level among households. In this regard, this study hypothesizes that:

H1: Materialism positively influences the debt level of young adults in Malaysia

2.2 Money management skills and debt

Money management skills refer to management of financial resources such as planning, budgeting, and savings. Money management skills are found to be one of the significant psychological variables associated with the levels of debt (Lea et al. 1995). A common finding generated from previous studies is that poor money management skills are one of the predictors of debt (Elliot, 2005; Kim et al. 2003; Lea et al. 1995; Norvilitis et al. 2006); in which serious debtors often refer them as having weak money management styles (Walker et al. 1992). In addition, non-debtors claim that careless budgeting is one of the reasons why other people get into debt (Livingstone and Lunt, 1991). A recent study by Donnelly et al. (2012) reveals that money management skills negatively influence credit card debt among students where students who have good money management skills will have lower credit card debt. Accordingly, the second hypothesis of this study will be as follows:

H2: Money management skills negatively influence the debt level of young adults in Malaysia

2.3 Income and debt

In general, people with less income, fewer liquid assets, fewer investment assets, and fewer real assets are expected to be more likely to involve in debt (Berthoud and Kempson, 1992). Berthoud and Kempson (1992) further claim that people with higher income borrow more, those with lower income face more debt problems.

Lea et al. (1993) and Davis and Lea (1995) suggest that lower income group tend to have higher levels of debt, where in particular, the poorer people are, the more debts they face. Households with high liquid assets or high income are more likely to pay their debt in full each month (Canner and Cynrak, 1985; Zhang and DeVaney, 1999) whereas respondents with lower income are less likely to pay their bills on time (Hilgert et al. 2003).

In the case of credit card, households with less income, fewer liquid assets, fewer investment assets, and fewer real assets are expected to be more likely to revolve credit cards and to have a larger outstanding credit card balance (Kim and Devaney, 2001). On the contrary, a recent study by Ming-Yen Teoh et al. (2013) reveals that lower income group is more cautious in their credit card expenditure while higher income group are spending more on their credit cards. Livingstone and Lunt (1992) and Kim and Devaney (2001) report that income is positively related to the amount of debt in United Kingdom and the United States, respectively. Robb and Woodyard (2011) find that certain negative financial behaviours, such as an overdraft on a checking account or failing to pay off a credit card are due to the income constraints. Therefore, income is identified in the previous literature as one of the important predictors of the level of debt. Thus, the study hypothesizes that:

H3: Income level significantly influences the debt level of young adults in Malaysia

In summary, Figure 1 demonstrates the conceptual model adopted in the study.

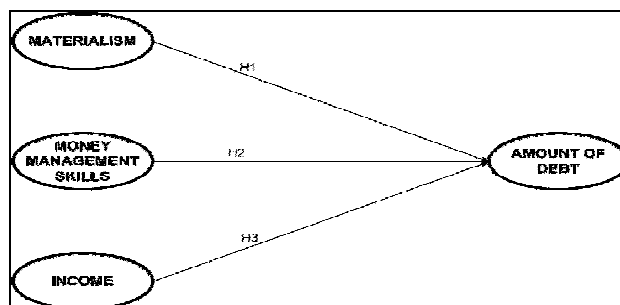


Figure 1: Conceptual model of factors influencing the amount of debt of Malaysian young adults

3. Methodology

3.1 Research design

A set of structured questionnaire was used for primary data collection. Questionnaire items were generated from an extensive review of the literature and items adopted were modified to fit the debt context. A seven-point Likert-type scale ranging from “1=strongly disagree” to “7= strongly agree” was adopted for measuring the variable items of materialism and money management skills whereas income is a self-reported measure of individual monthly income on a 7-point scale, ranging from less than RM1,000 to over RM11,000.

Pre-test was performed to verify face and content validity. In particular, an expert panel consisting of practitioner and academic reviewed the items to assess for relevance, readability, and ambiguity. For practitioner category, an interview with Alor Setar Head Branch of the Credit Counselling and Debt Management Agency was conducted in April 2016 to validate the questionnaire. As for academic category, the questionnaire was validated by senior lecturer in Finance at the School of Economics, Finance and Banking University Utara Malaysia. Few amendments to the questionnaire were made accordingly and the initial pool of items defining constructs was thus finalized for the next stage of the pre-test procedure. The questionnaire was pre-tested among a convenience sample of 50 young Malaysians aged between 18 to 35 years old. This was undertaken to ensure that there was no ambiguity in the survey instrument. All the respondents completed a pre-final draft of the questionnaire and were encouraged to give feedback in terms of clarity and time taken to complete the questionnaire.

Cronbach’s alpha test was performed and the results showed no reliability alpha was below the threshold point of 0.60, demonstrating internal consistency (Nunnally and Bernstein, 1994). In the final process, minor modifications to the scales were made to ensure that the questionnaire would be effective for data collection and achieve the study’s objectives. Two versions of the questionnaire, English and Malay, were made available to the respondents.

The structured questionnaire used for this study consists of four sections. Sections A and B asks respondents to rate their perceptions of factors that contribute to debt: materialism and money management skills. Eight-item representing materialism was adopted from Richins and Dawson (1992) and seven-item of money management was adopted from Lea et al. (1995) and Loke et al. (2015). Section C sought to obtain information about the respondents’ total debts which encompass how much loan they have for credit card, housing loan, hire purchase loan, personal loan, education loan and other types of loan. Section D, the final section, was designed to obtain socio-demographic profiles and information on the respondents’ monthly savings amount and most importantly, their monthly income. To measure the level of income, this research followed Grable et al. (2009) by asking respondents to select their income level ranging from less than RM1, 000 to over RM11, 000. To measure the amount of debt, Z-score was employed to sum up the debt amount of each respondent.

Convenience and judgmental sampling were used for this study, given the exploratory nature of the study. The data was gathered at several places such as major shopping malls, higher educational institutions, office buildings, and other public places in northern states of Malaysia, which are Kedah and Perlis. Located near the border of southern Thailand, agriculture is the major economic activity of these 2 states. With the approximate population of 2.12 million in Kedah (1.08 million male and 1.04 million female) and 0.26 million in Perlis (0.13 million male and 0.13 million female), the mean monthly

household's income for both states in 2014 is RM4,478 and RM4,445 respectively, which is below the national level (RM6,141).

The questionnaires were circulated in September 2016 on different days of the week, and at different times of the day to reduce location and timing biases (Bush and Hair, 1985). Participation of respondents was purely voluntary. The potential respondents must satisfy the following conditions: the respondent must be Malaysian, and aged between 18 to 35 years old. The age range is based on the age definition by Petry (2002), who defines age by three categories; young adults (18-35 years), middle-aged adults (36-55 years), and older adults (55 years and above). If a respondent did not meet these conditions during the initial screening, the survey will not be carried out.

A total of 670 self-administered questionnaires were distributed and returned over ten days with the help of a research assistant. Sekaran (2003) suggests that the main advantage of conducting a self-administered questionnaire is that researchers could collect all of the completed responses within a short time. Through the questionnaire conducted in this way, any doubts that respondents may have on any question can be immediately clarified. Of these, 24 were excluded due to incompleteness, giving a net response rate of 96 percent. For most studies, Babbie (2014) advises that a response rate of at least 50 percent is adequate for analysis and reporting, 60 percent is good, and 70 percent or more is very good. However, after data screening (missing data, outliers, and a normality test), 629 cases remained for subsequent analysis. The data were coded and run using the Statistical Package for Social Sciences (SPSS) version 22.0. Frequency tests were conducted on items in Section D. Multiple regression analysis was carried out to test the hypotheses.

4. Results and discussions

Descriptive statistics displayed in Table 1 indicate that the percentages of male and female respondents are almost equal, 51.5 percent being female and 48.5 percent being male. More than half of the respondents fall within the age brackets of between 18 and 25 (62.2 percent). Most respondents are Malay (81.9 percent), followed by Chinese (10.7 percent), Indian (7.3 percent) and other (0.2 percent). Majority of the respondents are employed (96.5 percent) and single (75.2 percent). About 33.1 percent of the respondents are working in the government sector, 38.2 percent work in the private sector, and 28.8 percent in another sector. In terms of education, respondents are mostly well educated as 68.7 percent completed a diploma/bachelor degree and 1.6 percent completed a postgraduate degree. Over 72.6 percent of the respondents have an income between the range of RM1, 000 to RM4, 999 whereas only 16 percent in the range of RM5, 000 to RM10, 999. 11.4 percent are reported to have income below RM1, 000 per month. In terms of savings, most of the respondents (56.5 percent) saved between RM100-RM499 with 30.4 percent saved less than RM100 per month. Only 1.1 percent saved more than RM1, 100 per month.

Demographic	Categories	<i>n</i>	%	Demographic	Categories	<i>n</i>	%
Gender	Male	301	48.5	Age	18-25	391	62.2
	Female	320	51.5		26-35	238	37.8
Race	Malay	515	81.9	Sector	Government	201	33.1
	Chinese	67	10.7		Private	232	38.2
	Indian	46	7.3		Other	175	28.8
	Other	1	0.2	Education	SPM	95	15.2
Marital status	Single	470	75.2		STPM	83	13.3
	Married	152	24.2		Diploma	173	27.8
	Single mother	2	0.3		Degree	255	40.9
	Divorced	1	0.2		Master	8	1.3
Income	< RM1,000	71	11.4		PhD	2	0.3
				Other	7	1.1	

RM1,000-RM2,999	269	43
RM3,000-RM4,999		
RM5,000-RM6,999	185	29.6
RM7,000-RM8,999		
RM9,000- RM10,999	77	12.3
>RM11,000	18	2.9
	5	0.8
	0	0

Table 1: Demographic characteristics of the sample (n = 629)

Table 2 presents the mean and standard deviation together with Cronbach's alpha for the items used to measure materialism and money management skills. Overall, money management skills items score higher mean compared to the items measuring materialism. The mean of the money management skills items are above the midpoint of the scale. The lowest mean is 5.6121 for item "I am in control of my money" and the highest is 6.1129 for item "I think it is "cool" to be able to manage my money well". This finding demonstrates that most young adults represented in the sample agree with the positive statements about money management skills. Therefore, it is assumed that most of the respondents possess good money management skills.

In terms of materialism, the lowest mean is 3.6200 for item "I like to own things that impress people" and the highest is 4.8156 for item "I admire people who own expensive homes, cars, and clothes". On average, the mean of the materialism measured items are within the scale midpoint (mean = 4.3148). This suggests that the young adults represented in the sample have a neutral perception with respect to the materialism statements made in this study.

The Cronbach's alpha for the eight items for materialism and seven items for money management skills are greater than 0.60. This result indicates internal consistency of the variables (Nunnally and Bernstein, 1994; Churchill, 1979) and the questionnaire is considered to be reliable. Taken together with the face validity achieved, the data can be applied for further analysis.

Items	Mean*	SD	Cronbach's α
Materialism			
1. I like a lot of luxury in my life.	3.9857	1.75528	
2. I like to drive imported car.	4.2258	1.72742	
3. I like to own things that impress people.	3.6200	1.82786	
4. I would be happier if I could afford to buy more things.	4.2099	1.57927	
5. It bothers me that I cannot afford to buy all things I like.	4.2703	1.62487	0.910
6. The things I own say a lot about how well I am doing in life.	4.7568	1.57295	
7. My life would be better if I owned certain things I do not have.	4.6343	1.55775	
8. I admire people who own expensive homes, cars, and clothes.	4.8156	1.74241	
Money Management Skills			
1. I am in control of my money.	5.6121	1.13102	
2. I accurately plan my expenses.	5.7234	1.10144	
3. I keep an eye on my cash flow.	5.6868	1.16429	
4. I follow a careful financial budget.	5.6916	1.12737	0.932
5. I always know exactly how much money I owe.	5.8140	1.07167	
6. I think it is "cool" to be able to manage my money well.	6.1129	1.02437	
7. I keep track of my personal expenses in a systematic way.	5.7727	1.08880	

* Seven-points scale: 1 = strongly disagree; 7 = strongly agree

Table 2: Means, standard deviation scores, and Cronbach's alpha for materialism and money management skills

Table 3 shows the results for the multiple regression analysis to examine the relationship between materialism, money management skills, income level, and amount of debt of Malaysian young adults.

Variance Inflation Factor (VIF) test indicates the value of <10, suggesting that the issue of multicollinearity does not exist and that the variables can be used for regression analysis (Chatterjee et al. 2000). The R-squared (R^2) is 0.105, consider low but significant and the amount of explained variance suggests that other important variables, must be incorporated into future studies as a way to increase the R^2 value.

Materialism variable is not statistically significant, implying that materialistic attitude is not the main reason why young adults in the sample are involved in debt. Confirming previous studies (Walker et al. 1992; Lea et al. 1995; Kim et al. 2003; Elliot, 2005; Norvilitis et al. 2006; Donnelly et al. 2012), money management skills variable is negative and significant (p -value <0.05), indicating that young adults who have good management skills usually have lower debt compared to those who are lacking in money management skills. Finally, the income variable is positive and strongly significant, implying that those who have higher income tend to have higher debt. The positive relationship supports the studies by Livingstone and Lunt (1992), Berthoud and Kempson (1992), Kim and Devaney (2001) and Garðarsdóttir and Dittmar (2012).

Independent variables	Dependent variable: Amount of debt						
	B	SE	β	T	Significance	Tolerance	VIF
Materialism	0.055	0.035	0.064	1.602	0.110	0.900	1.111
Money management skills	-0.075	0.034	-0.087	-2.214	0.027**	0.921	1.085
Income	0.271	0.035	0.312	7.788	0.000***	0.895	1.117

F = 24.371 ($p = 0.000$); $R^2 = 0.105$, ** and *** represent significance at 5% and 1% level, respectively

Table 3: Multiple regression results

5. Conclusion, limitation, and suggestion for further research

This study has addressed three research questions in exploring factors influencing the debt level of Malaysian young adults, an extended study which examines variants of debt consumed by youths in northern region of Malaysia. The results suggest that income level is a significant predictor of debt level among Malaysian young adults. This indicates that high income earners have more debt capacity that allows them to borrow more. The result may have an indirect implication to financial institutions to target the high-income groups to sell their loan products.

The study also finds strong support that associate negatively money management skills with debt. In particular, Malaysian young adults who have poor money management skills may have higher debt than those who are financially literate. The result implies that to minimize debt accumulation, money management skills must be inculcated among youth by educating them on the basic financial management knowledge at an early age. Malaysian government through Central Bank of Malaysia indeed has taken initiative to collaborate with the Ministry of Education to integrate basic financial education elements into the school curriculums beginning 2014, which will be expanded to all primary and secondary school levels by 2021.

In the aspect of materialism, this study does not find any significant relationship between materialism and debt level, indicating that young adults represented in this sample do not possess materialistic attitude that cause them to involve in debt. This finding, however, should be interpreted with caution, as the data was collected from respondents in northern states of Malaysia, where the socio-economic background and living lifestyle might different than respondents from urban areas such as Kuala Lumpur, Penang, and Johor Bahru. The data was also gathered during a time when Malaysian government had a tremendous cut in its budget, particularly in some economic sectors which could affect spending behaviour or attitudes toward debt for some respondents, which may limit the generalizability of the findings.

The findings of this study should be interpreted with some limitations. Firstly, due to time and resources constraints, the sampling frame was limited to a geographical area covering only two states in northern part of Malaysia, which are Kedah and Perlis. Thus, the sample size of this study may not fully represent the young Malaysians as a whole. Future study should increase the sample size by covering respondents in other states in Malaysia. Secondly, this study only employed three variables to explore factors influencing young adults' debt in Malaysia. Future studies may include other variables such as

financial literacy, self-control, spending tendencies, compulsive buying, and financial worry. It is worth paying attention to the issue of financial literacy in the future as only 36 percent of Malaysian adults are financially literate (Klapper et al. 2015) compared to its closest neighbour, Singapore (59 percent).

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Impact of co-branding and brand personality on brand equity: A study of telecom sector in Pakistan

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Keywords

Brand Equity, Co-branding, Brand Personality

Abstract

Brand Equity is an important concept in marketing academia and practice. It has long been studied but still there are gaps to be filled. The research aims to explain marketers of how brand extension strategy and brand personality can enhance brand equity. Co-branding and brand personality are the emerging development in market which attract scholars to explore for future implications.

This research is conducted in the telecom sector of Pakistan. Based on the responses from 619 cellular users, the study explains the relationship between co-branding and brand personality with brand equity. The results are highly significant, co-branding and brand personality have strong relation with brand equity enhancement, and when they are observed together, their impact is synergized to increase brand value. Hence, our findings indicate that users of the telecommunication brands do ascribe personality characteristics to the brands they use. The study also gives future directions to research on.

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1. Introduction

The era of increasing consumer awareness has urged organizations to consider the need to develop customer satisfying offerings. Products are now recognized by the name of brand and not by the product itself. Increasing role of brands in everyday life of consumer has driven some creative terminology, such as 'brandization of society' (Kornberger, 2010). Brand building can make strong relationship between the marketers and customers. This relationship allows marketers to gain competitive advantage over the others (Keller, 2009).

Every marketing activity strives, to build, manage, and exploit brand equity either successfully or unsuccessfully (Yoo and Donthu, 2001). Evolving brand equity is considered a vital part of brand building (Keller *et al.*, 2011). Brand value is viewed as a critical idea in business honours and also in scholarly research on the grounds that marketers can gain competitive favourable circumstances through solid brands (Keller *et al.*, 2011). Managers in organization are applying different strategies to attain their goal of brand equity enhancement, thus the study aims to assist the management in the telecom sector of Pakistan. The purpose of the study is to find the impact of co-branding and brand personality on brand equity.

Research will be conducted in the telecom sector of Pakistan that has an economic contribution of \$1112.8 million in 2013-2014 and cellular users of around 136.5 million (Finance.gov.pk.2015). The scope of study is wide and tends to cater the gaps identified by (Ponnamet *et al.*, 2015; Su and Tong, 2015). The uniqueness of the study is that it will explain the relationship of co-branding and brand personality together with brand equity.

The research will answer the following questions: a) Does co-branding and brand personality enhances brand equity? b) How does the co-branding and brand personality are influenced by the

strategic decisions made by the top management? C) What initiatives should be taken by top management to enrich the brand equity through employment of co-branding and building brand personality?

1.1 Background

The writing on brand extension alone has accumulated more than a hundred studies in leading journals and has distinguished various elements that influence how customers feel toward a given brand expansion. Co-branding, being one of the brand extension strategy is an element that influences brands through the exchange of positive affiliations, for example, brand-quality, picture, or mindfulness, starting with one brand then onto the next (Washburn *et al.*, 2000).

Previous research studies propose that consumers like to purchase items which have high brand value contrasted with those with low brand value. When a brand upsurges high value it generates attractive and positive affiliations, and consumers feel confident about the quality of the product. It improves trust in the product and encourages the firm to build profitable relationships with the customers (Keller and Lehmann, 2006).

Earlier examines consider that brand worth is slanted by brand image (Keller, 1993), which is the collection of association with a brand as found in customer's memory. Brand personality, are the characteristics used to portray a man and connected with a brand, is an idea inside the field of social advertising. Understanding brand identity is essential for making and building strong consumer-brand relationship.

2. Literature review

2.1 Brand equity

Brand equity is explained as the "additional value" with which a brand grants a product (Fournier, 1998). Consumer based behavioral view of brand value, it is characterized as buyers' distinctive reaction between a brand and unbranded item accepting that both have the same level of product attributes (Yoo and Donthu, 2000).

Consumer based brand equity scale will be applied in the study. Brand value gives quality to the clients by upgrading their interpretation (Aaker, 1990), processing of data, confidence in choice and satisfaction. It might be utilized to quantify the brand equity of existing brand. The measure would evaluate an individual customer's image equity.

Brand value has a significant part in purchaser's choices to buy certain brand over the other (Swait *et al.*, 1993); marketing strategies can be better understood by understanding brand equity (Keller, 1993).

In 1990, Aaker said that capacity of a buyer to perceive and review a brand to a specific item and class is alluded as brand mindfulness. Brand association is expressed as, anything connected to brand as part of memory in mind. Association of brand are said to mean something as a brand and these affiliations can be from an extensive variety of assets and differ as per the positivity, uniqueness and quality (Keller, 1993).

Perceived quality is explained as the consumer's judgement about a product's overall excellence or superiority. Perception of brand in consumer mind is dependent on the subjective evaluation and not the objective quality (Zeithaml, 1988).

Loyalty with brand can be conceptualized in a few routes, in light of attitudinal viewpoint and customer observation or on behavioral point of view. Yoo and Donthu in 2001, described brand loyalty is the inclination to be faithful to a critical brand, which is exhibited by the expectation to purchase the brand as an essential decision.

2.2 Co-branding

Grossman and till in 1998, defined co-marking when two or more brands commonly show up on the logo or bundle of another item, in light of the fact that the inevitable objective of co-marking is to dispatch another item. It is frequently alluded as an exceptional instance of brand expansion by Park *et al.*, 1996. Brand extension decision is strategically critical to organizations, as erroneous extension decision could create dangerous association that may be expensive or even can be irreversible (Aaker, 1990).

There is exhaustive writing on augmentation systems from brand expansion, line augmentation, sub-brands (Aaker, 1990; Broniarczyk and Alba, 1994; Kapferer, 2012; Bottomley and Holden, 2001), to co-brands, compound brands and brand alliance (Rao and Ruckert, 1995).

Desai and Keller in 2002 said that co-branding is an effort to exploit their existing brand equity. Co-branding provides a tool for differentiation that provides leverage to brands through transmission of positive association, from one brand to the other, such as brand-quality, image, or awareness (Simonin and Ruth 1998; Washburn *et al.*, 2000).

Baxter and Llicic in 2015 voiced, based on psychological factor, sentimentality unit relations on attitudinal and behavioural outcomes were evaluated under the Balance Theory. Balance theory is significant for marketers in formulating a key fit inside a co-marking aggregate, represents the central part of customer estimations and their impact on buyer attitudinal judgment and behavioral goals.

2.3 Brand personality

Azoulay and Kapferer (2003) defined brand personality as “the set of human personality traits that are both applicable and relevant to brands”. It empowers buyer to distinguish themselves by means of a brand and to prompt their own particular identity through the brand. Anthropomorphic (Human Hypothesis) expresses that human yearning to exemplify protests in order to communicate with impalpable world. To build up an association with the substantial world, the idea of brand identity is introduced in writing which utilizes human descriptors to depict brands.

Aaker defined brand personality in 1997 as “the set of human characteristics associated with a brand”. Aaker addressed the Big Five human personality structure in all dimensions to develop a reliable, valid and generalizable scale to measure these dimensions. This is the scale that will be used in this study.

Freling and Forbes in 2013 led a research to illustrate the effect of brand personality on consumer driven outcomes. The results drawn from a series of hypothesis, indicated that brand personality have positive influence on product evaluation by consumer. Louis and Lombart in 2010, validated that the consequence of brand personality comprise superficial brand quality, approach towards the brand, intention of future behaviour, trust in brand, attachment and promise to the brand.

Brand personality is studied to examine different strategies such as advertising, spokespersons, celebrity endorsement, brand extensions and product attribute. Few researches have investigated the moderating effect of county of origin (Louis and Lombart, 2010).

3. Theoretical framework

3.1 Hypotheses development

Voss and Gammoh in 2004 inspected the consequence of brand alliance with two, one or zero well-known brand, with an unknown focal brand. Presence of single ally did increase the perceived quality, hedonic and utilitarian demeanors of customer while multiple alliances enhanced central brand assessments in respect to the no ally condition.

Vaidyanathan and Aggarwal in 2000 accompanied a research which focused basically on alliances between two known, national brand and private brand. Both parties get benefit from this combination, private brand with a name brand ingredient is evaluated positively. As per the signaling theory, familiarity with high value, very much rumored, solid brand gives an ideal data of the required amount and ought to exhibit positive consumer state of mind (Van *et al.*, 2000). Grossman and till in 1998, declared that one goal of co-branding is to develop favorable consumer attitude towards the new product by pairing it with a favorable existing product. Park *et al.*, 1996 said that a new high equity brand built by making an alliance with another high-equity brand, can build favourable association that results in enhanced attribute profiles.

Past studies have shown the influence of co-branding on brand equity. Ponnum and Balaji in 2015 recommended a future investigation over the relationship between brand alliance and brand equity. Following this, the study aims to unveil the relationship between brand alliance and equity of brand in the telecom sector of Pakistan. To determine this relationship, the hypothesis is developed:

H1: Co-branding is significantly related to Brand Equity.

Freling and Forbes, 2013 assumed an untried approach to understand the effect of brand personality and its part in shaping the technique in which consumer answer to brands and brand

messages. The results exhibited that, strong, positive brand personality leads to brand association that is promising, matchless, durable and consistent, thus enhancing brand equity.

Supphellen and Grønhaug, carried a study in 2003, the research was designed to evaluate the level of ethnocentrism in consumer preference among the Russians. The answer was found through a survey, which demonstrated the effect of western brand personalities being moderated by consumer ethnocentrism. Demirbag Kaplan *et al.*, in 2010, aimed to emphasize on brand dispositions of places and to inspect the applicability of this concept for city brands. After surveying 898 college students their findings divulge that distinguishing places with respect to their brand personalities is attainable.

Fennis and Pruyn in 2007 presented a research to examine the part of brands in the process of impression development. The speculation shaped was to investigate that brand identity quality may bring over and influence impression of the identity of the brand's proprietor. Purchaser frequently purchase item that is sound with their own particular identity.

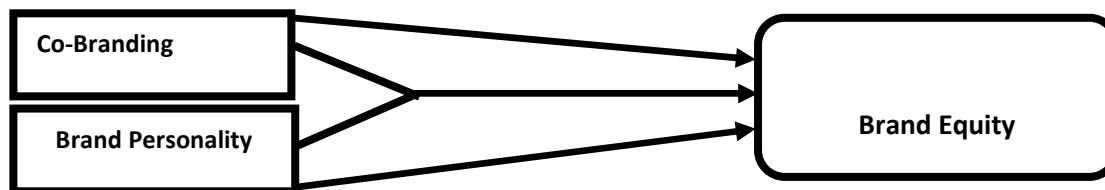
Su and Tong in 2015 suggested a future research to examine the relationship between brand equity and brand personality. To bridge this gap the research will unveil the relationship between brand personalities, of the telecom sector in Pakistan; with brand equity is determined through the following hypothesis:

H2: Brand Personality is significantly related to Brand Equity.

Brand Equity is the focal variable of the study and to determine the relationship of brand alliance and brand personality with brand equity the study is conducted. Enhancement of brand equity in the telecom sector of Pakistan is the basis of this intended study. To show this the hypothesis is developed:

H3:Co-branding and Brand Personality enhance Brand Equity.

3.2 Research Model



The constructs of co-branding to be studied include consumer attitude (Simonin& Ruth, 1995), quality perception (Washburn *et al.*, 2004) and purchase intention (Van Osselaer and Alba 2000). The constructs of brand personality to be studied here are competence and excitement (Aaker, 1997). The examination of these constructs will determine their impact on the dependent variable i.e. Brand Equity. Customer-based brand equity scale to be studied which include perceived quality, brand loyalty, brand association (Aaker, 1996).

4. Research methodology

4.1 Research design

The research is exploratory study, with quantitative measures and required qualitative material taken that tends to discover the response to the examination questions through questionnaire. Under the quantitative research impact of co-branding and brand personality on brand equity of telecom brands is studied.

4.2 Population and Sample Description

Population for the research comprises of all cellular users, and report states that in Pakistan there are around 136.5 million users. However, out of 1000, 619 responded to the questionnaire. Respondents are geologically from various urban communities of Pakistan, for example, Multan, Karachi, Lahore, Islamabad, Peshawar and Quetta. Demographics are likewise gathered concerning sex, age and education.

4.3 Data Collection

Respondents were approached by person, through mail and online. Majorly responses were collected from university students, business personnel and educated class. Out of 1000 targeted sample 619 responses were collected.

4.4 Data Analysis

The survey results represented that, there were 58.5% of male and 41.5% female. Ages of respondent's extent from less than 25 were 47.8%, 32.7 % were aged from 26-30, 31-35 were 11.3%, 35 and above were a total of 8.2%. There were 5% matriculates, 14% intermediated, and 30.8% bachelors, 27% masters, 26.4% MPhil and 1.9% PhD.

The goal of the study was telecom brands; among them were Mobilink, Warid, Telenor, Zong and Ufone. The respondents were users of all the respective brands. Mobilink had the greatest number of users with a 23.9%, Ufone had 22.1%, Warid had 22%, and users of Telenor were 13.2%, Zong were 8.8% and others 10%.

The first hypothesis was to check the relationship of brand equity and co-branding, on the basis results, it is evident that co-branding is highly significant with brand equity as the significance level is 0.000. This speculation is acknowledged in light of the fact that the P quality is under 0.05. The finding for this hypothesis is supported by Washburn *et al.*, 2004, who said that mix of two high value brands ought to bring out superior quality discernment since blend includes extra data. Cobranding is a technique to improve brand esteem i.e. brand value (Baxter and Llicic, 2015).

The second hypothesis of the study was to check either brand personality is significantly related to brand equity or not. The statistical results reveal that both variables are highly significant with a significance level of 0.000. Freling and Forbes, 2013 said that brand identity prompts brand affiliation that is positive, interesting, solid and consistent, along these lines improving brand value.

The third and most important hypothesis was to test the combined impact of co-branding and brand personality on brand equity. The significance of this hypothesis is 0.000. The level of significance indicates that this hypothesis is approved. If co-branding is employed with brand personality it will together have a synergetic effect on the enhancement of brand equity. However, independently they both have different level of impact, where co-branding is rigorous than brand personality in enhancing brand equity.

5. Discussion and conclusion

The first objective was to measure if brand equity can be enhanced through co-branding, from the first hypothesis acceptance we have attained this objective. The second aim was to amount examine the possibility of increasing brand value through brand personality, through the compliance of second hypothesis this has also been achieved. The final and most important objective was to evaluate the enrichment of brand value by combined impact of brand personality and brand alliance. Approval of third hypothesis gives courage to state this theory and say that together they enhance brand value more. It has been validated that cobranding and brand personality both together synergistically boost the equity of brand. Hence this is of great importance to incorporate both the factors if the telecom marketers want to enhance their brand equity.

The explored statistics indicate directions to top management in the brands to take right decision with respect to co-branding, brand personality and brand equity. Brand managers should realize that brand value is perceived as quality standard in the eyes of customer, so they must take steps to improve quality and services of their brand (Fournier, 1998). Brand in the telecom sector are similar and the distinguishing factor is the positioning of brand in the market (Yoo and Donthu, 2000). Marketers should put efforts to increase awareness, affiliation and develop positive image of their brand to increase brand value (Keller, 1993). If the brand is well known and recognized among the customers, they will prefer it over the other. To make customer loyal, managers should formulate strategies that bridge the gap between consumer perception and their expectations (Hassan *et al.*, 2012).

Cobranding or brand alliances propose financial advantage to the organizations. This strategy reduces cost and time of the firm to enter a new market or to introduce a new product (Gatignon *et al.*, 1990). This gives direction to the managers for taking steps to introduce newer offers and enter in new markets. On one hand if co-marketing gives so many benefits it also gives a warning for taking the critical step very vigilantly because if a wrong collaboration is made it can ruin the brand value very badly (Aaker, 1990).

Telecom brands should create brand image to make a distinction from one another. The image should coincide with their product and service (Fennis and Pruyn, 2007). If they do not complement each

other than there is a chance for the brand equity to get spoiled. Hence careful decisions should be taken to build image and then accompany it with the whole organization.

6. Future directions

This examination is not without impediments; these restrictions constitute regions for future exploration. There are 136.5 million telecom clients in Pakistan, out of which 1000 were focused on and 619 reacted, subsequently in future research more respondents ought to be joined. In this study, we examined the impact of only two dimension of brand personality i.e. competence and excitement. So, in future other dimension should be considered as identified by Aaker in 1997. Additional research is needed to further probe the factors that enhance brand equity of telecom brands. This research was carried out on the telecom sector only; hence it is recommended that other sector should be studied in future.

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The quadratic relationship between working capital management and firm performance: Evidence from the Nigerian economy

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Working capital management, quadratic, deviation, firm performance, cash conversion cycle, optimal working capital investment level.

Abstract

Optimal investment in working capital is vital to provide liquidity and enhance firm performance. This paper seeks to determine the quadratic relationship between working capital management (WCM) and firm performance. Also, this paper examines the effect of deviation from optimal WCM on firm performance. Therefore, the study uses a sample of 75 non-financial firms listed on the Nigerian Stock Exchange from 2007 to 2015. It adopts the cash conversion cycle component of working capital management to evaluate the quadratic assumption using panel regression. The empirical results from the sample of the study indicate that the relationship between working capital management and firm performance is quadratic. This study also found that an optimal level exists at which investments in working capital will yield the maximum return. This study concludes that deviation from the optimal level of investments in WCM (either above or below) affects the performance of firms. The study, therefore, recommends that firms should promote best practices for maintaining optimal working capital investment level to enhance their performance and sustain growth.

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1. Introduction

Working Capital Management (WCM) is a strategy for generating free cash flow which greatly facilitates a firm's operations and performances. Over time, the findings of extant studies on the effect of WCM on firm performance have been inconsistent. This inconsistency has been linked to the non-linear or quadratic relationships existing between WCM and firm performance (Banos-Caballero, Garcia-Teruel & Martinez-Solano, 2014; Afrifa & Padachi, 2016). The term "quadratic" is borrowed from economics to explain a relationship that is rarely linear. In other words, the term quadratic is employed in this study to describe the type of investment in working capital that is non-sequential and harbours the propensity to deviate.

In the context of Nigeria, a key problem affecting firms has been several economic crises, which has resulted in high liquidity issues for firms. Typically, Nigerian economic crises can be linked to its heavy dependence on the oil sector. Consequently, the economy has not performed to its full potential relative to the Nigeria's enormous endowments of natural and mineral resources (Sanusi, 2010). For instance, the country has the sixth largest gas reserves in the world and has the eighth largest crude oil reserves as well. In fact, mineral resources are said to account for 80% of the revenues of the Nigerian government (Sanusi, 2010). However, over dependence on petroleum resources has made the Nigerian economy vulnerable to the vicissitudes of periodic disruptions of the oil market. These disruptions have often led to falling oil revenue, which has placed heavy pressure on the country's external accounts. In

addition, the deleterious performance of the economy has resulted in the lowering of investor confidence, exchange rate volatility, stagnating government expenditures and a significant rise in inflation rates (Sayne & Hruby, 2016). Moreover, foreign direct investment (FDI) fell by 37%, while capital inflows were reduced by 75.7% around the second quarter of 2016 (Mitchell, 2016).

The consequences of these economic challenges are entrenched in the level at which the revenue of firms in Nigeria and the growth of their investments and liquidity have been negatively affected. In other words, most companies in the country are now encountering major financial challenges that are adversely affecting their operational activities. Furthermore, the current pitfalls in the WCM of firms in Nigeria can also be linked to the recent policy of the Central Bank of Nigeria (CBN) on forex allocation to raw material requirements. The CBN ceased to allocate forex to firms for acquiring raw materials which are considered essential to the continued survival of firms (Nnorom, 2015; Adebimpe & Ekubiat, 2015).

In general, the philosophy of working capital management is meant to generate adequate liquidity through free cash flow. In addition to that, such a framework also guarantees smooth and continued operational activity. To understand the importance of working capital management, providing a definition of the concept is important. Filbeck and Krueger (2005, p. 11), for example, defined "working capital as the difference between resources in cash or readily convertible into cash (current assets) and organizational commitments for which cash will soon be required (current liabilities)." Therefore, working capital is the difference between current assets and current liabilities. This indicates that WCM is time-bound and reflects liquidity through the process of cash conversion to raw materials, to finished goods, to sales and finally to ready cash again. To enhance the performance of firms, the money conversion process must be completed within a material time.

As such, WCM is vital to firms in several ways, some of which involve significant roles in enhancing performance and shareholders' value (Deloof, 2003; Filbeck & Krueger, 2005; Makori & Jagongo, 2013). Underscoring this point, Orobia, Padachi, and Munene (2016) noted that poor WCM affects the growth and rate of survival of firms and their overall economic development. However, the mixed findings in the literature (Makori & Jagongo, 2013; Salman, Folajin, & Oriowo, 2014; Yazdanfar & Öhman, 2014) suggest that the effect of working capital management on firm performance is inconsistent. Thus, the effect of WCM on firm performance can be either linear or quadratic and either positive or negative, depending on other relevant variables and situational factors.

This stance has influenced previous researchers to examine a linear relationship between WCM and firm performance (Deloof, 2003; Lazaridis & Tryfonidis, 2006; Charitou, Lois & Budi, 2012; Ademola, 2014; Wasiuzzaman, 2015; Sharma & Kaur, 2016). However, Martinez-Sola, Garcia-Teruel, and Martinez-Solano (2014), Nha and Loan (2015), Pais and Gama (2015) and Afrifa and Padachi (2016) opined that the relationship between WCM and firm performance is non-linear and should, therefore, be examined through a quadratic model (Afrifa & Padachi, 2016). This recommendation is yet to receive notable attention from researchers especially in the context of Nigerian economy and Africa at large.

Therefore, this study aims at determining the quadratic relationship between WCM and firm performance in Nigeria, with a focus on large firms in lieu of SMEs, which have been the concern of prior studies (Martinez-Sola et al., 2014; Pais & Gama, 2015; Afrifa & Padachi, 2016). This paper is therefore structured as follows: section two of the paper reviews the relevant literature relating to WCM. Section three discusses the methodology used and presents the results of the analyses while section four concludes the paper.

2. Literature Review

The relationship between working capital management and firm performance has been extensively studied from different viewpoints. Some have viewed WCM from the perspective of its influences on firm performance (Deloof, 2003; Lazaridis & Tryfonidis, 2006; Owolabi & Alu, 2012; El-Maude & Shuaib, 2016). Others have provided evidence that low and high investment levels in working capital management have benefits and costs, indicating that investments in WCM have characteristics different from the linearity assumptions of most studies (Banos-Caballero et al., 2014; Nha & Loan, 2015; Pais & Gama, 2015; Afrifa & Padachi, 2016). These studies have resulted in mixed findings, which suggest the need for further studies to confirm the presumption regarding WCM investment levels. For example, Deloof (2003), Charitou, Elfani and Lois (2010), Napompech (2012), Owolabi and Alu (2012), Tauringana and Afrifa (2013), Iqbal et

al. (2014), Wasiuzzaman (2015) and Pais and Gama (2015) found a statistically significant relationship between working capital management variables and measures of performance.

Deloof (2003) evaluated the impact of working capital management on the profitability of Belgian firms using a total observation of 1,009 firms between 1992 and 1996. The study found a significant and negative relationship between all the working capital management variables (account receivables, accounts payable, inventory and cash conversion cycle) and gross operating income (GOI). Similarly, Charitou et al. (2010) examined the effect of WCM on the profitability of 43 firms in emerging markets from 1998 to 2007. On the other hand, Owolabi and Alu (2012) determined the effectiveness of WCM and profitability using five manufacturing firms listed on the Nigerian Stock Exchange between 2006 and 2010. While Napompech (2012) used 255 listed firms on the Thailand Stock Exchange between 2007 and 2009 to evaluate the effect of WCM on profitability of Thai firms. Tauringana and Afrifa (2013) used 133 firms in the United Kingdom between 2005 and 2009 to determine the relative importance of WCM and its components on SME's profitability of Alternative Investment Market (AIM) listed firms. Iqbal (2014) also determined the relationship between WCM and profitability of Pakistan listed firms. Wasiuzzaman (2015) also used a sample of 160 manufacturing firms to investigate the influence of WCM on firms in Malaysia between 2005 and 2010. Pais and Gama (2015) studied the influence of WCM on 6,063 non-financial SME's profitability of Portuguese firms. These studies concluded that minimizing investments in WCM enhances the performance of firms.

However, several other studies have contradicted these findings. Sharma and Kumar (2011) investigated the effect of WCM on 263 non-financial firms in India from 2000 to 2008. Their findings revealed that days accounts payable and inventory management days were negative and significantly related to ROA while accounts receivable and cash conversion period were positively associated with ROA. They concluded that good management practices of working capital are crucial in providing liquidity and enhancing firms' profitability. Moreover, Makori and Jagongo (2013) evaluated the impact of WCM on the performance of ten firms listed on Nairobi Securities Exchange between 2003 and 2012. They found that the accounts receivable period and the cash conversion cycle were negatively related to firm performance while the inventory and accounts payables period showed a positive and significant relationship to firm performance in Nairobi. All their results were statistically significant except for accounts receivable period. They concluded that the survival of firms depends largely on how effectively and efficiently WCM components are managed. El-Maude and Shuaib (2016) empirically investigated the association of WCM and the performance of ten listed Food and Beverages firms in Nigeria between 2010 and 2014. The results of their analysis revealed that a negative and insignificant and a significant and negative relationship existed between the cash conversion cycle and accounts receivable with profitability respectively. Inventory days were positive but statistically not significant while accounts payable was positive and statistically significant in relationship to profitability. The findings of these studies reflect that the relationship between WCM variables and a firm's performance is uncertain. This uncertainty may also be linked to the findings of prior studies suggesting that the effect of WCM on firm performance depends on the optimal level of investment in working capital.

Optimal working capital levels influence the liquidity and profitability of firms (Bolek, 2013). WCM provides short-term funds and guarantees smooth operational activities for firms, and liquidity management is crucial in good times and takes pre-eminence in troubled times (Eljelly, 2004). Liquidity is a necessary condition that mitigates against bankruptcy. Liquidity management has been defined as involving the "efficient planning and controlling of current assets and current liabilities in such a manner that eliminates the risk of the inability to meet short-term obligations, on one hand and avoid excessive investment on the other hand" (Eljelly, 2004, p. 1). Hence, maintaining higher liquidity reduces the risk of default and insolvency, but high liquidity tends to reduce the profitability of firms as it may constitute idle resources (Eljelly, 2004). Thus, the inference can be made that appropriately ensuring a balance between liquidity and returns to their investments is important for firms. The benefits and costs associated with holding a large inventory supports the primary argument of Afrifa and Padachi (2016), suggesting that a non-linear (quadratic) relationship may account for the relationship between WCM and firm performance. Aggressive and conservative working capital policies also support the view of a non-linear relationship (Afrifa & Padachi, 2016; Bolek, 2013; Tauringana & Afrifa, 2013).

The assumptions of a non-linear (quadratic) relationship between WCM and firm performance have been examined in different countries (Banos-Caballero et al., 2014; Nha & Loan, 2015; Pais & Gama, 2015; Afrifa & Padachi, 2016). Banos-Caballero et al. (2014) investigated the association between WCM, corporate performance and financial constraints amongst non-financial firms in the United Kingdom between 2001 and 2007. Their study adopted the alternate measure of working capital management (Net Trade Cycle) that Shin and Soenen (1998) developed. They noted that managers traditionally adopt a lower level of working capital to increase investments in WCM to enhance their sales and enjoy discounts for early payments from suppliers. But, this basic method leads to a level of working capital at which higher investments begin to yield negative returns resulting from additional interest expenses and to create higher chances of credit risk for firms and a higher probability of bankruptcy (illiquidity). Their findings suggest the presence of an inverted U-shaped relationship between working capital management and corporate performance and imply that an optimal level of investment in working capital management exists that balances costs and benefits and maximizes firm performance. In a similar study, Nha and Loan (2015) used a different model to confirm the U-shaped relationship between WCM and firm value. They used 450 non-financial companies listed on Vietnamese Stock Market between 2006 and 2014. Nha and Loan (2015) used a non-common measure of WCM defined as $[(\text{Cash and equivalents} + \text{Short-term investments} + \text{Inventories} + \text{Accounts receivables}) - \text{Accounts payables}] / [\text{Total assets} - \text{Cash and equivalents}]$. They found that an optimal level exists at which investments in working capital will maximize firm value and deviation from such an optimal level of investments in working capital management could reduce firm value. Thus, this finding indicates that a non-linear relationship exists between WCM and firm performance.

Meanwhile, Pais and Gama (2015) used a sample of 6,063 Portuguese SMEs between 2002 and 2009. Their robustness test confirmed that a non-linear relationship existed between WCM and profitability of SMEs in Portuguese. Pais and Gama (2015) and Lyngstadaas and Berg (2016) provided evidence of a non-linearity relationship in their study through the robustness test conducted. Lyngstadaas and Berg (2016) evaluated the effect of WCM on the performance of 21,075 SMEs from Norway between 2010 and 2013. Their results confirm the findings of Banos-Caballero et al. (2014), Nha and Loan (2015) and Pais and Gama (2015). Afrifa and Padachi (2016) presented a more robust model to explain the relationship between the WCM level and 160 Alternative Investment Market (AIM) SMEs between 2005 and 2015. Their study extended the models of Banos-Caballero et al. (2014) and Nha and Loan (2015) by using a more conventional working capital management proxy – cash conversion cycle defined as $[(\text{Inventory}/\text{Cost of Sales}) \times 365 + (\text{Accounts Receivable}/\text{Sales}) \times 365 - (\text{Account Payable}/\text{Cost of Sales}) \times 365]$. Using three different measures of profitability, their result confirmed the existence of an optimal level of WCM that maximizes SME's profitability. This generated two obvious dimensions of the non-linear relationship. First, it confirmed that the relationship between WCM and profitability is non-linear or quadratic and that an optimal working capital level exists that maximizes profitability. Second, the study confirmed that deviations from this optimal level result in reducing firm profitability.

Thus, assorted studies have shown that a quadratic relationship exists between WCM and firm performance but most previous studies (Banos-Caballero et al., 2014; Nha & Loan, 2015; Pais & Gama, 2015; Afrifa & Padachi, 2016; Lyngstadaas & Berg, 2016) examined this relationship with respect to SMEs. While the study of Nha and Loan (2015) evaluated listed firms, it used a proxy different from the traditional WCM proxies that have been utilized (for example, the net trade cycle, and cash conversion cycle and accounts payables). Hence, this usage may reduce the reliability of the proxy and therefore affect the generalization of their results.

Given that previous studies have contributed to the overall understanding of the non-linear relationship of WCM (but with much concentration on SMEs), the present study becomes imperative against the backdrop that very few attempts have been made to test this assumption using the CCC for listed firms in both developed and developing countries. Also, given the limited studies undertaken in relationship to the non-linear relationship between WCM and firm's performance as articulated in the preceding paragraphs, it is not surprising that existing literature on WCM in Nigeria and Africa at large lacks in-depth understanding of the subject. Hence, this current study intends to fill this gap by determining the quadratic relationship between WCM and performance of listed firms in Nigerian. The

study adopted the metrics of CCC as a comprehensive dimension of working capital management in its evaluation. Moreover, given the liquidity challenges and increasing decline in the performance of firms in Nigeria, the underlying assumption of the quadratic framework will benefit firms from the region, particularly in their operational activities. The findings may also help determine the implications of either excess or inadequate level of investments in WCM. Thus, the findings of this study will also usher in a new research dimension for scholars in both developed and developing countries and most particularly the African continent.

Drawing upon the above discussion and arguments regarding WCM and firm performance, the following hypotheses are posited.

H₁: There is a quadratic relationship between WCM and firm performance.

H₂: Deviation from the optimal WCM investment level affects firm performance.

3. Methodology

The data for this study were drawn from listed firms on the Nigerian Stock Exchange (NSE) for the period 2007 to 2015. The choice of listed firms is consistent with Lazaridis and Tryfonidis (2006) and Mathuva (2010) who opined that listed companies or firms present more reliable financial data, as their financial reports are mandated by law to be published in their annual reports, and an independent auditor must examine such reports. This reduces bias and material misstatement that may lead to wrong inferences.

A total of 124 firms were listed on the NSE (excluding financial firms) during the period. Following Tauringana and Afrifa (2013) and Afrifa and Padachi (2016) financial firms (banks and insurance firms) were excluded because of the peculiar nature of their activities and the definition of working capital that they have adopted is inconsistent with the definition applied in this study (Lazaridis & Tryfonidis, 2006). The initial sample of this study comprised 95 firms. This was narrowed down to 75 firms (representing 93%) due to incomplete information for these periods. Finally, a sample of 75 firms was considered for the periods 2007 to 2015, which resulted in 675 firm-year observations.

The quantitative data resulting from the sample was analysed using the balanced panel data framework. Panel data permits control for individual heterogeneity of the model (Hsiao, 2003). According to Baltagi (2005), panel data give more informative data, guarantee more reliability, have more degrees of freedom and are much more efficient. Given the extensive usage of return on assets (ROA) and return on equity (ROE) in WCM literature, this study employed these measures for the dependent variables. The usage will enable comparison of the results in this current study with those of previous findings. The independent variables are cash conversion cycle (CCC) and cash conversion cycle square (CCC²). The inclusion of cash conversion square (CCC²) is consistent with Afrifa and Padachi's (2016) study, which was aimed at determining the costs and benefits associated with holding high/low level investments in working capital management. This format will similarly be used to determine the quadratic relationship and implications of deviating from optimal working capital levels. The three most-used control variables in WCM studies were also adopted to control for the differences across the sampled firms. They are: 1) firm size, 2) sales growth and 3) the financial debt ratio. The variables are shown in Table 3.1.

Table 3.1
Summary of the Measurement of Variables

Variables	Acronym	Definition	Source (s)
Return on Assets	ROA	Profit After Tax Divided by Total Assets.	Afrifa and Padachi (2016)
Return on Equity	ROE	Profit After Tax Divided by Shareholder's Equity.	Afrifa and Padachi (2016)
Cash Conversion Cycle	CCC	[(Account Receivable × 365/Sales) + (Account Payable × 365/Purchases) - (Inventory × 365/Cost of Sales)].	Deloof (2003), Afrifa and Padachi (2016)
Cash Conversion Cycle Square	CCC ²	Cash Conversion Cycle × Cash Conversion Cycle.	Afrifa and Padachi (2016)
Firm Size	FSz	Natural Log of Sales.	Deloof (2003)
Sales Growth	SGt	This Year's Sales - Previous Year's Sales / Previous Year's Sales.	Deloof (2003)
Financial Debt Ratio	FDR	Financial Debt/Total Assets	Deloof (2003)

Several measures were employed to achieve the assumption of normality in this study. The data for this study were winsorized at 3% to deal with normality and outlier observations. The winsorization estimates reduce the estimator's variances in regression better than direct estimation. As Dehnel (2014, p.98) noted, "the general idea of winsorization is that if an observation exceeds a present cut-off value, then the observation is replaced by that cut-off value or by a modified value closer to the cut-off value". This is consistent with the method that Kieschnick et al. (2006) and Afrifa and Padachi (2016) applied. By winsorizing data, outliers' values are reduced so that the result produces an insignificant estimated bias in the characteristics of the estimates.

Moreover, auto/serial correlation and heteroskedasticity tests were conducted. The results of the Wooldridge test for autocorrelation in the panel revealed an insignificant $p >$ value (not significant at 5 %), suggesting no presence of auto/serial correlations in the model. Additionally, the Breush-Peagan and Modified Wald tests for group-wise heteroskedasticity test were conducted to determine the presence of heteroskedasticity. The results show that the null hypotheses were rejected, as the p -values were all significant at the 5% level. This suggests the presence of heteroskedasticity in the models. This means that the variances in the models are constant. To remedy this problem, the study applied the option of the robust approach in all the models. The Hausman specification test was also conducted to make a choice between the Fixed Effect (FE) and the Random Effect (RE) (Green, 2008). The results of Hausman specification test were all significant indicating p -values of 0.0477 and 0.0194 for the ROA and ROE models respectively. This leads to the conclusion that FE was the appropriate model for this study. The various models are estimated as follows:

$$ROA_{it} = \beta_0 + \beta_1 (CCC)_{it} + \beta_2 (CCC)^2_{it} + \beta_3 FSz_{it} + \beta_4 SGt_{it} + \beta_5 FDR_{it} + \varepsilon_{it} \dots \dots \dots (1a)$$

$$ROE_{it} = \beta_0 + \beta_1 (CCC)_{it} + \beta_2 (CCC)^2_{it} + \beta_3 FSz_{it} + \beta_4 SGt_{it} + \beta_5 FDR_{it} + \varepsilon_{it} \dots \dots \dots (1b)$$

$$CCC_{it} = \beta_0 + \beta_1 FSz_{it} + \beta_2 SGt_{it} + \beta_3 FDR_{it} + \varepsilon_{it} \dots \dots \dots (2)$$

$$ROA_{it} = \beta_0 + \beta_1 (DEVIATION)_{it} + \beta_2 FSz_{it} + \beta_3 SGt_{it} + \beta_4 FDR_{it} + \varepsilon_{it} \dots \dots \dots (3a)$$

$$ROE_{it} = \beta_0 + \beta_1 (DEVIATION)_{it} + \beta_2 FSz_{it} + \beta_3 SGt_{it} + \beta_4 FDR_{it} + \varepsilon_{it} \dots \dots \dots (3b)$$

$$ROA_{it} = \beta_0 + \beta_1 (DEVIATION)_{it} + \beta_2 (INTERACT) + \beta_3 FSz_{it} + \beta_4 SGt_{it} + \beta_5 FDR_{it} + \varepsilon_{it} \dots (4a)$$

$$ROE_{it} = \beta_0 + \beta_1 (DEVIATION)_{it} + \beta_2 (INTERACT) + \beta_3 FSz_{it} + \beta_4 SGt_{it} + \beta_5 FDR_{it} + \varepsilon_{it} \dots (4b)$$

The above models were estimated to determine the quadratic relationship between investment in working capital management and firm performance in Nigeria. As defined in the summary of the measurement variables (Table 3.1), ROA and ROE are dependent variables measuring firm performance. CCC is the main independent variable used to measure low-level investments in WCM while CCC^2 measures high-level investment in WCM. FSz, SGt and FDR are control variables defined in Table 3.1. *DEVIATION* is the absolute value of the residuals derived from equation 2 while *INTERACT* is defined as the "above-optimal**DEVIATION*". The subscript i indicates individual firm, t indicates the time while ε denotes the error term.

Results and Discussion

Table 3.2 shows the descriptive statistics of the variables considered in this study. According to the Table, ROA had a mean value of 5.39% with minimum and maximum values of -20.0% and 28.6% respectively. ROE on average was 23.3% with minimum and maximum values of 0.006% and 97.6% respectively. The descriptive statistics of the two dependent variables (ROA and ROE) had wide variations in value, and the differences exhibited in these variables makes their inclusion in the study worthwhile. The CCC had a mean value of 98 days with minimum and maximum values of -121.16 days and 469.8 days respectively. This is similar to 99.5391 days of CCC found in Karaduman et al.'s (2010) study. This is important because a gap of 98 days implies the period firms would source for funding while they await recovery of cash from sales. A longer number of days for CCC is suggestive of inefficient financial policies by firms. This conclusion is supported by the clear consensus in WCM literature that a longer CCC may lead firms into a cash-trap situation requiring external funding. In turn, a cash-trap situation will impact negatively a firm's liquidity position and, its ability to deliver on market expectations and enhance performance.

The mean values for firm size (FSz), sales growth (SGt) and financial debt ratio (FDR) were 9.88, 13.26 and 57.31 respectively. The skewness ranged between -0.064 and 1.19 while the Kurtosis ranged

from 2.31 to 5.81. The skewness and kurtosis indicate that the data for this study were normally distributed as they fell within the threshold value of +/- 3 for skewness and +/- 10 for kurtosis respectively as Kline (2011) suggested.

Table 3.2

Summary of descriptive statistics

Stats	ROA	ROE	CCC	FSz	SGt	FDR
Mean	0.05392	0.23321	98.03848	9.87868	0.13259	0.57314
Median	0.05113	0.15712	69.81130	9.86017	0.08566	0.56139
Min	-0.20034	0.00006	-121.16550	8.26919	-0.54096	0.07676
Max	0.28572	0.97583	469.85650	11.26919	1.26439	1.39987
Skewness	-0.20550	1.66243	1.21795	-0.06385	1.19217	0.77529
Kurtosis	4.09724	5.48206	4.88086	2.30882	5.80924	4.23238

Source: Author's computation.

Notes: ROA = return on assets, ROE = return on equity, CCC = cash conversion cycle, FSz = firm size, SGt = sales growth, and FDR = financial debt ratio.

Table 3.3 presents the correlation matrix for the variables of the study. The values were derived from a total firm-year observation of 675. The correlation between ROA and ROE was 0.1152 and was statistically significant at 1%. The correlation between CCC and ROA was negative with a value of -0.1643 and statistically significant at 1%. Similarly, CCC was also negatively correlated with ROE, had a coefficient value of -0.1190, and was statistically significant at 1%. This indicates that a shorter CCC is associated with higher performance. The result of the correlation is consistent with the WCM assumption which states that shorter CCC creates less need for external financing and reduces the risk of bankruptcy (Deloof, 2003; Nobanee et al., 2011). This implies that firms can realize cash in a timely manner, which is essential for enhancing their performance. Furthermore, firm size (FSz) was positively correlated with both ROA and ROE. The coefficients were 0.3264 and 0.1162 respectively, and they were both statistically significant at 1%. The positive relationship explains that large firms enjoy advantages over small firms. For example, large firms enjoy greater discounts and other privileges due to their large consumption (Pervan & Visic, 2012). Large firms also have a long-time experience, which promotes wider market acceptability and the adoption of best practices that yields competitive advantages.

Table 3.3

Variables Correlation Matrix

Variables	ROA	ROE	CCC	FSz	SGt	FDR
ROA	1.0000					
ROE	0.1152***	1.0000				
CCC	-0.1643***	-0.1190***	1.0000			
FSz	0.3264***	0.1162***	-0.3418***	1.0000		
SGt	0.2276***	-0.0073	-0.0960**	0.0647*	1.0000	
FDR	-0.2183***	0.3542***	-0.0290	0.0751*	-0.0259	1.0000

Source: Author's computation.

Notes: ROA = return on assets, ROE = return on equity, CCC = cash conversion cycle, FSz = firm size, SGt = sales growth, and FDR = financial debt ratio.

Sales growth (SGt) was found to be positively correlated with ROA and statistically significant at 1% but negatively correlated with ROE, though the coefficient was insignificant. Sales growth traditionally is expected to be positively related to performance, but, given the challenging financial crisis in Nigeria, the negative and insignificant correlation between SGt and ROE was not surprising. The results also show that FDR was negative and significantly correlated with ROA. The coefficient was -0.2183 and significant at 1%. With regards to ROE, the coefficient of FDR was positive (0.3542) and significant at 1%. From Table 3.3 above, the correlations amongst the remaining independent and control variables did not differ significantly from expectations as the highest value was (0.3542) between FDR and

ROE. The correlation matrix, therefore, shows no multicollinearity problem, as the coefficients are below the threshold of 0.8 that Field (2009) suggested. Furthermore, the mean value of variance inflation factor (VIF) of 2.43 confirmed that the variables in this study were not highly correlated.

Determination of the Quadratic Relationship

Table 3.4 presents the results of the quadratic relationship between WCM and firm performance. As proposed in Model 1, two effects of WCM investment levels were created. The CCC represented low investment levels while CCC² represented high investment levels in WCM. This was done to determine the quadratic relationship and consequently the optimal level of investment. To confirm this relationship, the coefficients β_1 and β_2 are expected to be either positive and negative or negative and positive respectively to confirm the effect. The results in Table 3.4 show that, the R² for ROA was 10% while the R² for ROE was 9%. The R²s indicate that the models explained about 10% and 9% of the variations in ROA and ROE respectively. The F-probability was statistically significant at 1% for both ROA and ROE. These show that jointly the models are fit in predicting firm performance. The results of CCC and CCC² were consistent with expectations. The CCC was negatively and insignificantly associated with both ROA and ROE. The coefficients of CCC were -0.0000919 and -0.0001577 for ROA and ROE respectively while the CCC² was associated positively with both ROA and ROE. The coefficient value of ROA was 0.000000223 and not statistically significant. ROE also had an insignificant coefficient value of 0.000000312. The results of ROA and ROE were statistically not significant because their p-values were greater than 10%. This is not surprising as it reflects the consequences of both high inflation and interest rates that firms in Nigeria experience.

Table 3.4

Variables	ROA	ROE
CCC	-0.0000919(-1.16)	-0.0001577(-1.91)
CCC ²	0.000000223(1.08)	0.000000312(0.64)
FSz	0.016047(0.96)	-0.0633484(-1.74)*
SGt	0.0555814(3.73)***	0.0075271(0.26)
FDR	-0.0469117(-2.22)**	0.2244374(3.56)***
Constant	-0.081464(-0.49)	0.737274(2.08)**
R ²	0.1025	0.0908
F-value	13.59	11.89
F>Prob	0.0000	0.0000
rho	0.48977	0.44312
Observations	675	675
Heteroskedasticity	57967.81(0.0000)	35957.94(0.0000)
Serial Correlation	1.636(0.2049)	22.931(0.0000)

Source: Authors Derivation

Notes: Variables results begin with their coefficients, t-statistics are in parentheses while *, **, and *** denote significance levels at 10%, 5%, and 1% respectively. Results were obtained using the FE model with a robust cluster estimate.

The results are in line with expectations. The results indicated that CCC was negatively related with ROA and ROE. The results indicate that realizing cash early improves firm performance. This is in line with the findings of Deloof (2003) and Lazaridis and Tryfonidis (2006). They stated that the inverse relationship between CCC and profitability suggests management efficiency in realizing cash early enough and avoiding the danger of a cash trap. Hence, the results of this current study demonstrate a level of efficiency that leads to sustainable performance of firms. Consistently, the negative relationship between CCC and ROA and ROE also shows that investment in WCM increases firm performance to a "point" at which further (high) investments in WCM (denoted by CCC²) will begin to reduce firm performance. This is evident in the positive relationship between CCC² and ROA and ROE. It signifies longer periods of the cash conversion cycle. The longer gap indicates the period that a firm uses to source for external funding to maintain operational activity levels. Integral to this current discussion is that a lower level of investment in WCM increases firm performance to a point at which a higher-level investment in WCM will lead to gross underperformance. This result is consistent with the findings of Banos-Caballero et al. (2014), Nha and Loan (2015), Pais and Gama (2015), Afrifa and Padachi (2016) and Lyngstadaas and Berg (2016) who clearly provided evidence that the relationship between WCM and firm performance is quadratic.

Other variables included in the analysis to control for the differences amongst firms are firm size, sales growth and financial debt ratio. Firm size was positively related to ROA but not statistically

significant. Related to ROE, the relationship between a firm's size and ROE was significant and negative. Sales growth on the other hand was positively associated with both ROA and ROE. However, the coefficient of ROA was statistically significant at 1% while the coefficient of ROE was statistically insignificant. The FDR was negatively associated with ROA. The coefficient was significant at 5% while the coefficient of the relationship between FDR and ROE was positive and statistically significant at 1%.

Effect of Deviation from Optimal Working Capital Investment Level

How a firm manages investment in working capital is a major issue in this paper. That is how WCM impacts a firm's liquidity position, profitability and its ability to sustain growth. It is evident from Table 3.4 that the relationship between WCM and firm performance was quadratic. The quadratic relationship suggests a lower investment boundary and higher investment boundary for WCM that inevitable leads to the conclusion that an optimal level of WCM investment exists that maximizes firm performance.

Hence, this section determines the effect of deviation from this "optimal level" of investment in WCM by considering Models 3. In Models 1, a quadratic relationship was established, and this relationship reflects on the potential impacts of working capital in improving firm performance to an optimal point, at which further investments reduce performance. Following Martinez-Sola et al. (2014), Nha and Loan (2015) and Afrifa and Padachi (2016), CCC and CCC² were eliminated in Models 1 and replaced with the residual estimated from Model 2 by making CCC the dependent variable. Several steps were followed to determine the effect of deviation.

Table 3.5

Determination of Deviation from Optimal Level of WCM Investments

Variables	ROA	ROE
DEVIATION	-0.028702(-4.52)***	-0.0133325(-1.09)
FSz	-1.440642(-4.65)***	-0.740557(-1.25)
SGt	-.7019604(-4.44)***	-0.3438182(-1.12)
FDR	-0.1174142(-4.38)***	0.192707(2.38)**
Constant	17.26001(4.65)***	8.791255(1.23)
R ²	0.1028	0.0893
F-value	17.07	14.6
F > Prob	0.0000	0.0000
rho	0.48639	0.44840
Observations	675	675

Source: Author's derivation.

Notes: Variables results begin with their coefficients, t-statistics are in parenthesis while *, **, *** denote significance levels at 10%, 5%, and 1% respectively. Results were obtained using the FE model with robust cluster estimate.

Firstly, the residuals estimated from Model 2 were obtained and substituted with CCC and CCC² in Model 1 (a & b). Secondly, the residual's absolute values were determined from equation 2. The absolute values of the residual are called deviation. Thirdly, deviation was included in Models 3 (a & b), as the main independent variable to determine if deviation from the optimal investment level of WCM affects the performance of firms. Consistent with Nha and Loan (2015) and Afrifa and Padachi (2016), there is the assumption that in Models 3 (a & b), the coefficients of the deviation will be negative and less than zero ($\beta < 0$). This will indicate a negative relationship between deviations from optimal investment level of WCM and firm performance. As expected, Table 3.5 revealed that the coefficients of deviation were negatively associated with both measures of firm performance - ROA and ROE. The coefficient of ROA was statistically significant at 1% while the coefficient of ROE was not statistically significant. The negative relationship between deviation and firm performance confirms the quadratic relationship of WCM and implies that deviation from an optimal investment level of WCM affects firm profitability negatively. These results, however, did not show if deviation either higher or lower (above or below the optimal level) affected firm profitability.

To determine whether deviations in either way (above or below) affected profitability, Models 4 was introduced. Model 4 (a & b) advances over Model 3 by including an Interaction Term. The aim is to determine the effect of deviation below (negative) or above (positive) the optimal investment level in WCM on firm performance. Following Afrifa and Padachi (2016), the term *Interact* was introduced and

defined as Above Optimal*Deviation. Above optimal is described as a dummy variable that takes the value of 1 for a positive residual estimated in Model 2 and 0 if otherwise. Table 3.6 presents results of Model 4 (a & b). In line with the studies of Nha and Loan (2015) and Afrifa and Padachi (2016), the expectation was that the coefficient of Deviation ($\beta_1 < 0$) would be less than 0 and the coefficient of *Deviation + Interact* ($\beta_1 + \beta_2 < 0$) also less than 0.

Table 3.6*Effect of Deviation from Optimal Level of WCM Investments on Firm Performance*

Variables	ROA	ROE
DEVIATION	-0.0570636(-4.58)***	-0.0328143(-1.30)
INTERACT	0.0567238(4.65)***	0.0210581(0.77)
FSz	-	-4.104798(-0.56)
SGt	0.0475753(2.96)***	-0.2990479(-0.48)
FDR	-0.0456682(-2.11)**	0.1950883(2.08)**
Constant	0.1072857(2.95)***	14.2046(0.55)
R ²	0.1028	0.0901
rho	0.48639473	0.43475858
Observations	675	675

Source: Author's derivation.

Notes: Variables results begin with their coefficients, t-statistics are in parentheses while *, **, *** denote significance levels at 10%, 5%, and 1% respectively. Results were obtained using the FE model with a robust cluster estimate

The results in Table 3.6 show that Deviation was negatively associated with both ROA and ROE. The coefficient of ROA was statistically significant at 1% while the coefficient of ROE was statistically insignificant. Conversely, interact was positively associated with both ROA and ROE. The coefficient of ROA was significant at 1% while the coefficient of ROE was statistically insignificant with respect to Interact. Mathematically, the expectation was that the coefficients of $\beta_1 < 0$ and $\beta_1 + \beta_2 < 0$ and would confirm the effect of Deviation. In column 1 (ROA model), the coefficients of β_1 was < 0 (-0.0570636) while $\beta_1 + \beta_2$ was < 0 (-0.0570636 + 0.0567238 = -0.0003398). In column 2 (ROE model), the coefficients of β_1 was < 0 (-0.0328143) while $\beta_1 + \beta_2$ was < 0 (-0.0328143 + 0.0210581 = -0.0117562). These results support the study's hypothesis, which stated that Deviation from an optimal level of investment in working capital would negatively affect firm performance. This is indicated in the sum of the coefficients values of Deviation and Interact that yielded a negative value, suggesting that deviation have a negative effect on firm performance.

The relationship between WCM and firm performance has been widely presumed to be linear, but this paper provided evidence that the relationship is quadratic. This means that either a low-level or a high-level investment in working capital has implications with respect to the reduction of firm performance and threatens a firm's sustainability. Integral to the potential impacts of either a low or a high-level investment in working capital is the conclusion that an optimal level exists for maximizing firm performance. Thus, deviations, in either direction from an optimal level of investment affect firm performance. This study, therefore, argues that understanding the variability of investment in WCM will greatly influence firm performance. This is noteworthy because investments in WCM clearly show a lack of consistency. For instance, Samiloglu and Demigunes (2008) argued that investment in WCM demonstrates a high level of complexity as both excessive and inadequate WCM have an adverse effect on firm performance. While excessive WCM suggests idle funds and inefficiency, inadequate WCM relates to the inability of a firm to meet its short-term, maturing obligations. This inability has the consequence of limiting the chances of firms taking advantage of favourable market conditions as they arise and impairs the reputation of firms. Such a state leads to some deprivations for firms.

In a related opinion, Afza and Nazir (2007) argued that investment in WCM can be categorized into aggressive and conservative policies. They described aggressive WCM policy as a technique adopted to deploy minimal investments in current assets as a proportion of total assets. While a conservative WCM policy places great importance on a high proportion of investments in liquid assets, both conservative and aggressive financing policies have effects on the rate of return of a firm's investments. Arising from the effects of these policies, Salawo (2007) suggested that a combination of both aggressive and conservative policies would strengthen productivity and enhance firm performance. In support of this argument,

Deloof (2003), Tauringana and Africa (2013) and many others have both stated that low-level and high-level investments in working capital management have benefits and costs. Thus, the variability of WCM financing policies and their consequences demonstrated the need for this study. However, different results have been found about the non-linearity of WCM investment levels (Nha & Loan, 2015; Afrifa & Padachi, 2016), but the results of this study provide an important insight that would help guarantee firm performance, particularly in the Nigerian context.

4. Conclusion

This study examines the quadratic relationship between WCM and performance of non-financial firms in Nigeria. The fundamental finding of this study is that both high and low investments in working capital have implications for firm performance. The findings from the study suggest that the relationship between WCM and firm performance is quadratic and not linear. The result also shows that an optimal investment level exists in working capital, which maximizes firm performance. Also, a deviation from such an optimal level significantly and negatively affects firm performance. These results are consistent with the findings of Nha and Loan (2015) and Afrifa and Padachi (2016). This paper also contributes to the literature on WCM as it provides evidence of a quadratic relationship for large firms; this is important because previous researchers have mostly considered SMEs. Practically, the study will benefit firms operating within Nigeria and African countries, by extension, as the quadratic framework could be used to promote the adoption of best practices for maintaining optimal level of investment in WCM to enhance firm performance and create sustainable growth.

5. Limitations of the Study and Suggestions for Further Research

This paper extends the borders of WCM literature by considering the quadratic relationship between WCM and firm performance in Nigeria. However, there are a few methodological limitations which should be considered when interpreting the results. Firstly, because of resource constraints, the paper only considered the Nigerian economy out of the fifty-four (54) countries in Africa. Therefore, to generalize the results of this paper, more studies need to be done within African and other developing countries. Secondly, the paper only considered non-financial firms but a consideration of financial firms in future studies could add to the robustness of the present findings. Thirdly, as can be observed from Table 3.6, one of the control variables (firm size) of this paper was omitted because of multicollinearity when *Interact* was introduced for the ROA model. This contradicts the result of the variance inflation factor (VIF) and correlation analysis reported, which suggests that multicollinearity is not a threat in the study. This inconsistency may be attributed to the effect of the limited number of control variables examined in this study as indicated by the R^2 . As such further studies with more control variables, with or without the omitted one (firm size) in this study, is recommended. This will help to determine the sensitivity of firm size (FSz) to *Interact*. Moreover, a general recommendation is that more research needs to be done on the quadratic relationship between WCM and firm performance. This call is informed by the result of this paper which has demonstrated that either high or low investment in WCM has implications and poses serious risk to firms in achieving sustainable growth.

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Internet banking adoption in Egypt: Extending technology acceptance model

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Keywords

Internet banking, website characteristics, perceived privacy & security, TAM, computer efficacy

Abstract:

The increased expansion of E-commerce and internet along with the development of technology has changed business operations and functioning. Internet banking is considered an opportunity for banks to have differentiated services provided for their customers. The purpose of this paper is to investigate the factors that affect customers' adoption of internet banking in Egypt in light of technology acceptance model (TAM). The study adopted a quantitative approach through distributing questionnaires in public and private banks' customers operating in Egypt.

The results indicated that website characteristics, computer efficacy, and perceived risk had a direct impact on customers' adoption of internet banking. These variables were considered an extension to TAM when studying internet banking adoption. It is suggested that financial banks give continuous attention to their websites and provide their customers with easy and useful access to internet banking services. Banks should be concerned with inhibitors of internet banking such as perceived risk in order to keep existing customers and attract new ones.

This paper is the first to investigate the factors that affect customers' adoption of internet banking in Egypt after banks introduced many of their services over their websites.

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1. Introduction

Dramatic changes regarding banks' operation have emerged due to the rapid expansion of information technology. The Internet expanded the growth of the banking industry, along with other industries. This is considered a new opportunity to develop their service (Chechen et al., 2016). The internet banking replaces the visit to bank branches and decreases fixed costs. According to Arunachalam and Sivasubra-manian (2007), Internet banking is when a customer has the ability to access his/her bank account through the internet or mobile phone. Nowadays, customers are welcoming the shift from using traditional banking services offline to benefiting from all banking services online (Qureshi et al., 2008). This is because customers value the high level of usefulness and ease of use of internet banking services online.

In less developed countries, very few banks offer internet banking services other than the services of providing their customers with information about products and services offered by the bank. Internet banking services were first offered through banks' promotional activities and advertisements. But today customers can execute financial activities and transactions easily and directly through internet banking

services. According to Akhlaq and Ahmed (2013); Rahman (2009), internet banking activities include transferal of funds, loan applications, online payments, investment activities, opening or modifying deposit account, exchange rates, bill payments, account details, pay credit cards by direct debit or manual transfers, view credit card statements, online statements or check account balance.

2. Internet Banking in Egypt

E-Banking services proved to be financial benefits to the adopting banks. In developed countries, banks have recognized the importance of adopting e-banking services on the banks' overall performance whether financial or marketing operations. E-banking services were introduced in Egypt to retain existing customers and attract new ones. Egypt had three banking categories: 1. Commercial banks. 2. Business & investment Banks. 3. The Central Bank of Egypt (CBE) is the banking industry regulator. CBE regulates banking and monetary system, credit & banking, banking policy & dealing with the daily settlement of clearings. The Egyptian banking sector adopted Internet banking services to manage the relationship with customers such as HSBC, QNB, SABB, Cre'ditAgricole, BanqueMisr, NBAD, Citibank Egypt, Arab Bank, Piraeus bank, BNP Paribas Egypt, Barclays, and CIB. The first bank introducing internet banking service in Egypt was Citibank. Although many banks are offering internet banking services, these services are limited and do not extend to third party transactions such as paying a bill or transferring funds to another bank customer's account.

Although internet banking provides a wide variety of services online and is characterized by a high level of convenience, it is still not accepted by many people in Egypt due to the problem of security and privacy in addition to the perceived risk. Customers are unwilling to provide their personal details and their credit/ debit card information over the internet. The aim of this research is to investigate the factors that affect internet banking adoption.

3. Model development and hypotheses

According to Adam et al., (1992) TAM, perceived usefulness and perceived ease of use influence one's attitude toward system usage. It was also reported by McKenzie et al., (2006) that TAM helps in understanding the factors that affect users' acceptance of internet in financial services. Despite TAM popularity in many studies such as Ariff (2014) & Abdel Kader (2013) TAM was criticized by a number of researchers in different studies and in different contexts (Farid, 2012). Theory of Reasoned Action (TRA) developed by Fishbein and Ajzen (1975), and Theory of Planned Behavior (TPB) developed by Ajzen on an extension to TRA and TAM agree that behavioral intentions are a function of attitude (EINaggar, 2010; Shih & Fang, 2004). TPB was employed in many studies concerned with indicating the factors affecting consumer behavior in e-commerce, online shopping (Farid,2012) Internet banking adoption (Kamyab&Delafrooz, 2016; Shi et. al, 2008). According to AIDA model procedures and steps of adoption process are awareness, interest, evaluation, trial and finally adoption.

3.1 Website characteristics:

Customers use internet banking services to interact with the bank website. It is important that the website provides customers with the needed services and information to complete their transactions successfully (Alhudajthy& Kitchen, 2009). Websites should be characterized by clarity of information, high-speed level for uploading or downloading, highly secured (especially to money transactions), easiness and user friendly. Internet banking provides customers with a unique advantage of offering bank services and allowing transactions from any location at any time (Ndubisi&Sinti, 2006; Kesharwani&Bisht, 2012). According to Ortega et al., (2007), website design is considered one of the reasons for having a successful internet banking adoption and that the failure of some financial entities adopted internet banking was because of poor website characteristics s and other factors as well.

H1. Website characteristics have a positive effect on perceived ease of use of internet banking technology.

3.2 Perceived Usefulness:

Internet banking services solve the problem of 'waiting time' spent in the bank to access your account or even to ask about any information or access financial needs. Since the internet banking is 24/7 customers can access their banks' activities any time of the day and on any day of the week. It is considered convenient and affects adopter of e-banking services (Sohail&Sanmugham, 2003). Working

hours of banks in Egypt are inconvenient especially for people living in the capital city as in Cairo and Alexandria as being the second capital. The banks working hours are from 8:30-2:00. Because of crowdedness of banks and long waiting hours, Internet banking is considered more useful and convenient. It is characterized by a 'no queuing' service. It also minimizes the information latency. Based on the literature, the technology acceptance model is the mostly widely used to predict individual adoption of a new system or technology (Venkatsh& Davis, 2000; Yusaff et al., 2009; Kesharwani&Bisht, 2012). According to Ramos& Castro (2017) perceived usefulness is determined many factors that have an effect on the system acceptance which is considered crucial in its implementation.

H2: Perceived usefulness has a positive effect on customers' attitude towards internet banking.

3.3 Perceived ease of use:

Perceived ease of use has been reported in many studies to have an impact on the technology adoption. Ease of use depends on the features and the website design of the bank. When the website meets an individual's expected needs by then he will be satisfied.

H3: Perceived ease of use has a positive effect on a customers' attitude toward internet banking.

3.4 Perceived Security & Privacy:

It was noted by Susanto (2016) that privacy and security are considered a critical determinant of the success of internet banking. This is due to the fact that for conducting online transactions, consumers need to provide their personal and financial information, which raises concern about privacy and security issues. Based on TRUSTe survey, Akter (2014) indicated that online users are becoming more familiar with how to protect their online privacy. Moreover, Akter noted that positive attitudes decrease consumers' privacy concerns while on the other hand increased consumers' willingness for information control.

H4: Perceived privacy and security has a positive effect on customers attitude toward internet banking

3.5 Computer efficacy:

People exhibit more self-confidence to be involved in online transaction when they have a high degree of computer efficacy. According to Gazinoory & Afshari-Mofrad (2012) computer efficacy was considered one of the factors that affect attitudes and intentions of users towards a system. Computer efficacy was studied and used to extend TAM.

H5: Computer efficacy has a positive effect on customer attitude towards Internet banking

H5a: Computer efficacy has a positive effect on customers' intentions towards internet banking

3.6 Attitude:

Customers use internet banking when they perceive it as useful and helpful for their transactions and interest. If customers do not perceive it as useful they will not use it and banks would lose the competitive advantage they provide. The more useful, the more internet banking will be used.

H6: Customers' attitude towards internet banking has a positive effect on their intentions towards internet banking

3.7 Perceived Risk:

The separation between consumers and e-retailers in the online context generate risk towards the uncertainty of outcomes. Threats of hacking attempts decrease consumers' intention to provide their personal and sensitive information over the internet (Polasik& Wisniewski, 2009; Kesharwani & Bisht, 2012). Consequently, it is expected that the perceived risk would negatively affect customers' intentions to use internet banking. Consumers are likely to engage in internet banking if their risk perceptions about behavioral and transaction uncertainties, such as hacking, are lessened. El- Kasheir et al., (2009) noted that perceived risk is a major factor affecting intentions.

H7: Perceived risk has a negative effect on customers' intentions towards internet banking.

3.8 Intention:

Intention to use is a key determinant of usage behavior as previously noted in the literature as shown in TRA and TAM (Davis et al., 1989). Turner et al., (2010) analyzed 79 empirical studies and found

out that behavioral intention is a significant determinant of adoption and actual usage of a system while applying on TAM.

H8: Customers' intentions towards internet banking affect their acceptance of internet banking.

4. Methodology

A structured questionnaire was designed, distributed, and collected in order to study the factors that affect customers' adoption of internet banking in Egypt. A pilot testing included 30 respondents has been carried out to ensure the reliability of the scale and to modify it according to customers' comments. The questionnaire consisted of 61 items. Each item was measured using a 5 point Likert scale ranging from (1) strongly disagree to (5) strongly agree. Demographic details such as age, gender, financial income and education level were added. Moreover, respondent was asked to choose the most preferred bank name in case they have accounts in more than one bank. The population of the study was all individuals using internet banking. The statistical analysis for this study was done using the SPSS (Statistical Package for Social Science) software. Reliability Analysis (Cronbach alpha) was used to measure the reliability of factors that affect customers' adoption of internet banking. Whereas, the overall reliability of the scale was 0.968, according to Nunnally, (1967, p.41) "A social construct might be considered as reliable whenever Cronbach Alpha coefficient is 0.45 or more. Furthermore, content validity was also ascertained by such pretesting to the questionnaire with a group of professionals and staff members. Few comments aroused and researchers managed to simplify few words and modified some of the statements. The survey included some opening questions besides all variables according to Table (1). Two questions were developed to determine internet banking adoption which was: how frequent is your use of internet banking site? And how many times do you use internet banking?

The sample size was 220 respondents, 60% males and 40% were females. The majority of respondents' age groups were between 21-25 years of age, most of the respondents were using internet banking 2-3 times a week and at least once per month. The majority of respondents' income level were between 5000 and less than 10000.

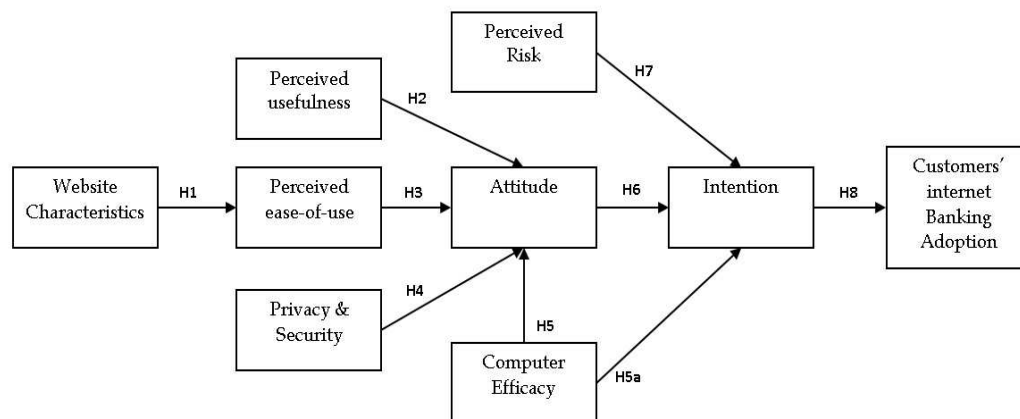


Figure1.1: Research Conceptual Model

Variables under study	Conceptual definition	Operational Definition
Security/Privacy	Security is defined as a threat which creates circumstance, condition, or event with the potential to cause economic hardship to data or network resources in the form of destruction, disclosure, modification of data, denial of service and/or fraud, waste, and abuse" (Kalakota and Whinston, 1997). Privacy is defined as the ability to control and manage information about oneself (Belanger et al., 2002).	Adopted from Chellappa (2003)
Computer efficacy	Computer efficacy is defined as an individual's self- confidence in his or her ability to perform tasks across multiple computer application domains (Monsuwe et al., 2004).	Adopted from Taylor & Todd (1995)
Perceived usefulness	Perceived usefulness is defined as the degree to which a person believes that using a particular system would be free of effort (Davis, 1989).	Adopted from Moon & Kim (2001)
Perceived ease of use	Perceived ease of use is defined as the extent to which a person believes that using a particular system will be free of effort (Davis, 1989).	Adopted from Venkatesh & Davis (2000)
Attitude	Attitude refers to an individual's positive or negative evaluation of the performance effect of a particular behavior. (Ajzen and Madden, 1986).	Adopted from Taylor & Todd (1995)
Perceived Risk	Reflects consumer's perception about the uncertainty of outcomes that pertain primarily to searching and choosing information of product or service before making any decision. (Kesharwani and Bisht, 2012)	Adopted from Chan & Lu (2004)
Adoption	According to Baraghani (2007) consumer adoption is the process that represent the procedures consumers follow in making the decision of whether to use or not to use a new product or service. Adoption here refers to how customers are able to use internet banking services.	Adopted from Taylor & Todd (1995)
Intention	"refers to customers' intention to use, as opposed to their actual use of, IB services" (Cheng et al 2006)	Adopted from Davis & Venkatesh (1996)
Website characteristics	Includes all elements of the consumer's experience at the website, including navigation, information search, order processing, appropriate personalization, and product selection. (Gad, 2009)	Adopted from Tarafdar and Zhang (2007)

Table 1.1: Conceptual and operational definitions of the study variables

5. Analysis and Results

According to the analysis of results 40.4% of respondents used internet banking for account summary (balance statement), where 15% used internet banking for opening an account, while 12.7% used it for checking loan information, 10.5% used it to pay credit card dues and 10% used it for loan repayment, while 8.2% used it in checking their account details and in fund transfer among their account, 5.5% used it in viewing their credit card statements, 4.5% for checking their balance and 3.6% for exchange rates and 2.3% for checking bank statements. Frequencies showed the percentage of respondents who frequently or infrequently use internet banking. Results indicated that 58% infrequently use internet banking website, whereas 42% used banks websites. Moreover, results show how many times respondents access to the internet banking, 17.7 of respondents use internet banking once per week where 39.6% use of internet banking 2-3 times a week and 42.7% use internet banking once per month.

In order to achieve the research aim, hypotheses were tested. Based on the previous studies Website characteristics have an impact on how customers perceive the website easy to use in internet banking technology. Website characteristics were tested according to the sample of the study through testing information content, ease of navigation, usability, and customization. Kruskal-Wallis test was used to examine the significance, followed by a regression test to determine the strength of the relationship between the perceived ease of Use and website characteristics among a series of other factors affecting the use of internet banking technology. If the value (p-Value) is equal to 0.05 or less, this indicates that the dimension is significant, whereas if the p-value is greater than 0.05, this indicates that the result is insignificant. The equation is shown below:

$Y = a + b x$, where Y is the dependent variable (perceived ease of use of internet banking technology), a, is the Y intercept, that is the value of Y (perceived ease of use of internet banking technology) when $x = 0$, b is the regression coefficient which indicates the amount of change in Y given a unit change in x, and finally x is the value of the independent variable (Web characteristics x_1 is information content, x_2 is ease of navigation, x_3 is usability and x_4 is customization). The results were as follows Kruskal Wall (P-value = 0.000, Regression test: P-value = 0.000, Chi-square: P-value = 0.000.

With the previously mentioned values, the hypothesis is accepted. The website characteristics affect ease of use of internet banking technology. The result obtained from the Kruskal-Wallis test is

supported by the result obtained from the regression test with significant level equals to 0.000. This shows highly significant because the value equals to 0.000 which is smaller than 0.05

Ease of use of internet banking technology = $0.952 + 0.181x_1 + 0.530x_2 + 0.221x_3 + (-0.179x_4)$. This illustrates the impact of information content, where an increase in information content by 0.181 will cause an increase in ease of use of internet banking technology by this amount, also an increase in ease of navigation by 0.530 will cause an increase in ease of use of internet banking technology by this amount as well as an increase in usability by 0.221 will cause an increase in ease of use of internet banking technology by this amount and decrease in customization by -0.179 will cause an increase in ease of use of internet banking technology by this amount.

In order to further measure the significance of the web characteristics, chi-square test was used and the value for Use of technology was equal to 0.000, by comparing the value to 0.05, we found $0.000 < 0.05$. Therefore, H1 is accepted. In other words, significance was recorded, which proves that web characteristics affect ease of use of internet banking technology

Using TAM as a theoretical base, H2 and H3 were found to be significant. Perceived usefulness and perceived ease of use had a positive effect on customers' attitude toward internet banking since P-value of both constructs are less than 0.05. In addition to traditional constructs of TAM privacy/security, computer efficacy and perceived risk were added. H4 is supported whereas perceived privacy and security has a positive effect on customers' attitude toward banking since P-value less than 0.05. During the last few years, internet transactions were attacked by hackers and many cases of theft and fraud were reported.

H5 and H5a have been tested to see the impact of computer efficacy on both customers' attitudes and intentions. Results reveal that Computer efficacy has a positive effect on customer attitude and intentions toward internet banking (P-value less than 0.05). Results show that Customers' attitude toward internet banking has a positive effect on their intentions, since P-value less than 0.05. On the other hand, perceived risk has a negative effect on consumers' intentions towards internet banking and P-value is less than 0.05. Banks should consider how to decrease customers' perceived risk on internet banking and put emphasis on safety features.

6. Discussions and conclusions

The study aimed at studying customers' adoption of internet banking in Egypt in the light of technology acceptance model since it is considered, based on the literature, one of the most adopted models in studying information systems acceptance. The findings from this study provide support for the theoretical model embracing TAM.

By testing hypotheses, it is clear that the website characteristics are considered one of the main factors affect customers' perception towards the ease of use of internet banking technology. This highlights the importance of identifying the web characteristics through information available over the website, ease of navigation, usability, and customization. This is in line with Alwan et al., (2016) and Alhudaithy&Kitchen (2009) where website characteristics had a significant impact on internet banking adoption. Results reveal the significant impact of perceived ease of use and perceived usefulness on customers' attitude towards internet banking. This result is supported by previous studies such as Jahangir & Begum (2008) which have examined the factors affecting customers' adoption of internet banking. Their study indicated that perceived usefulness and ease of use are significantly impacting customers' attitude towards internet banking.

According to this study results indicated that perceived risk affects negatively customers' intention towards internet banking. Perceived risk has been widely discussed, and studies had shown that perceived risk is a critical factor influencing customer decisions and behaviors (Chen et al., 2016). Customers' perceived risk would have an impact on their adoption of internet banking. Lovelock et al., (2001) noted that highest adoption of a system occurs when the risk is low. This highlights that perceived risk has a negative effect on the adoption of internet banking. This is in line with Aldas-Manzano in which he argued that perceived risk increases when customers' uncertainty increases. This confirms that perceived risk weakens customers' intention towards adopting internet banking. Previously perceived risk was always noted with fraud but recently according to Algethmi (2014, p. 65) perceived risk is risk from financial, performance, social, psychological, physical or the time when customers make transactions online.

Security and privacy were found to be a real obstacle to consumers in the adoption of online systems such as online shopping, internet banking, etc. (Fawzy& Abdel Salam, 2015; Farid, 2012), Consumers are always concerned about their credit card information and about their personal information. According to many studies, consumers are not willing to accept that they do not have full control over their own information.

7. Managerial implication

According to the literature, the growth of internet banking in a country depends on key success factors such as the availability of internet access, new internet banking features, the growth of internet usage by household and legal and regulatory concerns. The results of the study provide managers information about what they should consider while designing or developing their internet banking websites. Software developers should pay attention to websites characteristics. Online banking channel is considered the cheapest delivery channel for offering banking services but some concerns must be given to the level of security and privacy to provide personal and debit/credit card information. Besides you cannot change your pin code of your visa or credit/debit card to guarantee continuous security for your cards. Banks should work on developing better security levels and provide more advanced financial protection to be able to grow customers' internet banking adoption. Banking fraud cannot be eliminated without a dedicated, trusted security protocol (Mridha et al., 2017).

Determining the factors that influence customers' behavior, including constraints and key success factors would be useful for bank managers in formulating strategies aimed at benefits from providing their services online. Especially with the inconvenience in accessing different bank branches due to traffic and crowdedness, this would increase the accessibility and the acceptance of internet banking adoption. Bank managers should manage improvements of their services to deal with customers concerns.

8. Limitation and direction for future research

This study did not test the effect of perceived behavioral control, described in theory of planned behavior (Azen, 1991). Perceived behavioral control can explain the relationship between perceived risk and consumers intention towards internet banking. Besides that, the sample size is small although it is considered close to the sample size of other TAM studies. This affect generalization of the results. Future research can explore the antecedents and consequences of continue using internet banking for different developing countries. Moreover, future research may be conducted to extend TAM in the context of other technologies such as banks mobile applications and its effect on users' internet banking adoption.

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How can we envision smallholder positioning in African agribusiness? Harnessing innovation and capabilities

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Keywords

Social entrepreneurship, agribusiness, developing countries, complexity science, leadership capabilities, transformation, agricultural innovation platforms

Abstract

The intricate nature of the African agricultural-food system and the related multi-sectoral value chain capability challenges means that efforts to transform the current landscape to achieve food security in developing countries cannot escape complexity. A burgeoning body of research that uses the innovation systems approach to drive agricultural development in developing countries is emerging. In this article, we argue that social agro-entrepreneurship has the potential to create the possibility space to make smallholder ventures sustainable.

This can be achieved via collective approach to transformation provided within agricultural innovation platforms. The development of agribusiness capabilities is considered from the complexity science perspective. We draw an analogy from the theoretical framework provided by the Leadership Capabilities Model of Hazy (2006) to explain how strategic institutional entrepreneurship can co-evolve towards fit within innovation platforms by harnessing capabilities simultaneously across sectors and at different levels through adaptive governance. Cross-sector partnerships are important to leverage the transformation of the smallholder sector towards stable ventures.

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1. Introduction

There is a large body of work debating on the food security problematic (Fuss et al., 2015; Godfray et al., 2010; Slimane, Huchet-Bourdon & Zitouna, 2015). Yet, challenges remain. The potential for agribusiness development to harness smallholder agricultural development has been suggested as an option for reducing hunger and enhancing overall economic growth in developing countries (Banson et al., 2015, HLPE, 2013; World Bank, 2013). What role can agribusiness development play in ensuring food security among smallholders in the developing world?

Sub-Saharan Africa is home to most of the world's agriculture-based countries (AGRA, 2014; Banson et al., 2015). Despite increased attention to and financing for African agriculture over the last decade, the expected research impacts remain obscure and the potential of the smallholder sector remains largely untapped (Babu, Manvatkar & Kolavalli, 2015). Smallholders represent the overwhelming majority of all farms in Africa and produce up to 90% of the food in some countries. But they need better connections to market and more cooperation amongst each other as collectives (Bolo, 2016). The sector is plagued by many constraints, such as poorly functioning farmer organisation, limited access to markets, inadequate agricultural financing, failure of the land tenure system, inadequate electricity supply, absence of irrigation systems, poor communication infrastructure and road networks (Sheahan & Barrett, 2014). These problems are compounded by concatenated issues, such as political instability, climate change,

trade globalisation, unstable commodity prices, rising energy costs, new waves of technologies which remain out of reach, amongst other issues (Chauvin, Mulangu & Porto, 2012; Fuglie & Rada, 2013).

In the following section, we describe how the approach to agricultural rural development has shifted from the traditional linear model of technology diffusion and adoption to that of creating whole systems change through Innovation Platforms. This concept is one of the latest 'tools' that fall within agricultural innovation systems application which has been applied among some smallholder communities to improve the performance of agricultural rural transformation in some parts of Africa (Roling, 2016; Van Paassen et al., 2014). Sustainable agribusiness and rural enterprise development therefore, has been identified as one of the pathways that can make smallholders successful on the long-term in improving their farm ventures and eventually their food security status. Challenges remain (Khanna & Palepu, 2013; Raikundalia, 2016). In this paper, we draw on the concept of social entrepreneurship's potential to improve our understanding about the ways in which smallholders' capabilities can be unleashed to enable them to upgrade to sustainable ventures. Thus, we propose the mainstreaming of social entrepreneurship within agricultural Innovation Platforms (IP) in developing countries in order to trigger the development of smallholder farming and agribusinesses. The Leadership Capabilities Model of Hazy (2006) is used to illustrate how meta-capabilities can be harnessed to enable this.

2. Agribusiness developments in the context of social entrepreneurship

2.1 What is social entrepreneurship?

A social business is an enterprise that has a dual bottom line of financial stability and social profit (Schultz, 2009). This corresponds closely to Muhammad Yunus's, Nobel Prize Winner 2009 and founder of the Grameen Bank, interpretation that a social business is a subset of the idea of social entrepreneurship. It relates to an enterprise that uses free market principles to address a pressing social problem – such as poverty or homelessness. In the development of her social entrepreneurship Matrix, Masetti (2009) explained that social businesses must be profitable and sustainable, but instead, profit is shared with the investors and the organisation/business. This requires a shift from the traditional bottom line accounting to the so-called triple bottom-line accounting, which considers economic, environmental and social benefits. According to Peredo & McLean (2006), social entrepreneurship is defined as a state of the social system:

“Social entrepreneurship is exercised where some person or persons aim either exclusively or in some prominent way to create social value of some kind and pursue that goal through some combination of

- recognising and exploiting opportunities to create this value
- employing innovation
- tolerating risk and
- brushing aside limitations and available resources” (p.13).

We use this definition because it can reflect the dynamic and continuously emerging social patterns of agents and collective actions, which can be both constructive and destructive, which is required to embed agribusiness and rural enterprise within agricultural innovation platforms aiming at improving food security in Africa. This is also in line with the notion that agricultural innovation platforms are complex adaptive systems with the potential for organisational capabilities that can be unleashed through leadership.

2.2. In what capacities does social agribusiness leverage smallholders' ability to contribute to national food security?

Smallholders contribute to world food security and nutrition while performing other related roles in their territories. Historical evidence shows that smallholder agriculture, adequately supported by policy and public investments, has the capacity to contribute effectively to food security and food sovereignty (HLPE, 2013). Within an enabling political and institutional environment, it can also substantially lead to economic growth, the generation of employment, poverty reduction, the emancipation of neglected and marginalised groups, and the reduction of spatial and socio-economic inequalities.

What type of investment sources sustain the smallholder sector in developing African countries? Public investments in and for agriculture have fallen considerably since the 1980s. It is now widely recognised that agriculture has been neglected at both the national and international levels. Many agricultural banks have discontinued their commercial transactions, and extension services, applied research and investment in infrastructure projects have declined since the mid-1980s (Pingali, 2012). Most investments in smallholder agriculture are realised by smallholders themselves. This occurs through different modalities but mostly through labour investments to enlarge and improve the resource base, and to a lesser extent through personal savings and remittances from family members that are used for the acquisition of additional resources (Swaminathan, 2010). However, these investments are limited since domestic needs receive priority when food, health or education expenditures are at risk.

In Africa, 80 percent of the holdings are below 2 ha. Even then, the potential efficiency of smallholder farming relative to larger farms have been widely documented, focusing on the capacity of smallholders to achieve high production levels per unit of land through the use of family labour or other types of collectives in diversified production systems (Graeub et al., 2016; Swaminathan, 2010; Titttonell et al., 2010). Major corporations and other private sector companies were expected to provide the appropriate market services as well as the technical knowledge to help producers upgrade their standards in order to meet market requirements. This has occurred in some places, but not in most, and often not in ways that have benefited smallholders (Bolo, 2016). When related to the total number of smallholders, only a minority has actually been able to participate in such schemes.

2.3. Agricultural Innovation Systems

Research interventions in agricultural development have predominantly focused on the traditional linear model of technology diffusion and uptake to improve livelihood. While Asia experienced a rapid increase in food production and yields during the Green Revolution in the late 1970s and early 1980s, in Sub-Saharan Africa (SSA) per capita food production and yields have stagnated (Pingali, 2012; Roling, 2016). In SSA, this approach to Agriculture Innovation Systems (AIS) has been unsuccessful. Roling (2016) referred to this failed approach as the Business Model of Agriculture (BMA). This pathway to achieve agricultural innovation development among smallholders in developing countries is based on deriving high internal rate of return from investment in technology. "An innovation system is a network of organisations, enterprises, and individuals focused on bringing new products, new processes, and new forms of organisation into economic use, together with the institutions and policies that affect their behavior and performance." (World Bank, 2013, p.2). The failure of agriculture to take off in SSA within such a pathway has been attributed to the lack of supportive policy environment to counteract the dependence on rainfed agriculture; low population densities; the lack of infrastructure, markets, and supporting institutions; the agro-ecological complexities and heterogeneity of the region; low use of technologies and inputs (Moyo, Bah & Verdier-Chouhane, 2015; Mytelka, 2016; World Bank, 2008).

Unfortunately, this approach stems from the adoption of a reductionist understanding of how science informs policy and practice (Leach, 2008) for it neither admits multiple partial perspectives nor the idea that praxis, theory-informed practical action, is contextual and dynamic. According to Ison (2010), accelerated agricultural growth is broadly transformative. This transformation can be realised by catalysing an entrepreneurial environment that starts on the farm (HLPE, 2013). Rising agricultural productivity can encourage broad entrepreneurial activities such as diversification into new products, the growth of rural service sectors, emergence of agro-processing industries, and expansion into new markets (Diao, Headey & Johnson, 2008). Adopting a sustained approach to growing farm incomes raises the demand for industrial goods, lowers food prices, and curbs inflation.

In order to stir such large-scale transformation, policy makers and development actors have been focusing on the setting up of Innovation Platforms (IP) (Francis, 2016). It entails fundamental shifts in how the agricultural sector utilises and implements innovative technology to improve output in a sustainable manner and address the need for greater food security in the developing world. A growing body of knowledge is emerging to understand how these shifts, mainly via large-scale systemic change, within smallholder agriculture communities can leverage sustainable farming and rural enterprise ventures. IP involves transformative change (Ison, Blackmore & Iaquinto, 2013). In this model of AIS, practitioners

need to understand the relational dynamics at play within interventions to create opportunities for the convergence of enabling conditions and improve governance mechanisms (Roling, 2016). This involves the process of social learning whereby institutional complexity has to be appreciated and made apparent to improve the understanding of the systemic implications that enable governance. How do we need to appreciate the governance processes that nurture the transformation of agricultural system innovation in developing countries?

3. Agro-entrepreneurship within Innovation Platforms

In this paper, the strategic focus is to demonstrate that smallholders' sustainability can be leveraged via entrepreneurship development. An analysis of how change is already taking place via STI, seen within the perspective of the drivers that lead to the transformation, will improve our understanding of how in order to boost smallholder productivity, there is a need to develop cross-sector agribusiness and rural enterprise. For instance, the inexistence of an established distributed irrigation system in SSA is one of the major constraints to ensure that farmers' investment in cropping practices end up in producing a yield. We take the example of how when farmers, in Kenya, are provided with the option of using mobile money, they are able to acquire the 'pata pump', from a social entrepreneurship scheme, to irrigate their plots, improve yield and sell their produce (Box 1).

Box 1. Harnessing capabilities to ensure on-farm productivity by improving access to distributed irrigation systems

Improving access to distributed irrigation systems through mobile finance in Kenya

In a comprehensive study on the potential that irrigation can have in driving agricultural development in Sub-Saharan Africa, Burney, Naylor & Poste (2013) explicate how distributed irrigation systems should be prioritised to improve productivity. Although irrigation schemes have been promoted in the sub-Saharan region, the impact has not been as expected (Faures & Santini, 2008). Yet, Hussain & Hanjra (2004) had identified three main inter-linked impact pathways through which irrigation can help the agricultural sector to play its role as an engine of growth and poverty reduction. Within the micro-pathway, it increases returns to physical, human, and social capital of poor households. At the meso-pathway, market participation opportunities are improved by integrating the poor into factor-product and knowledge/information markets. This includes employment opportunities on irrigated farms or higher wages on rainfed farms. Irrigation enables farmers to obtain more output per unit of input which brings down the price of food on-farm. In the macro-pathway, the gains in agricultural productivity through irrigation can stimulate national and international markets, and can thus assist in improving economic growth and creating second-generation positive externalities.

Thus, irrigation development has the potential to create windows of opportunities to improve agricultural productivity. But then which upstream factors could create the enabling conditions for such development? We draw on the opportunities offered to smallholder farmers in Kenya to tap the potential provided by mobile payments and digital finance, namely through the M-Pesa platform, to acquire small-scale irrigation equipment (Babcock, 2015). While the development and use of ICTs have increased in developing countries, mobile payment has disruptively catalysed the entrepreneurship, microfinance and services sectors. For example, Kickstart International, a non-profit organisation, designed a mobile money product called 'Mobile Layaway', which enables farmers to make payments of any amount and any frequency through M-Pesa, to acquire an irrigation pump, the 'pata pump', which is human powered, either by pumping it manually or by pedalling it (Maree et al., 2013). This enables farmers to overcome the bottleneck of having to rely solely on rain-fed irrigation, which is becoming increasingly erratic due to climate change, to ensure crop growth and the production of quality produce at the farm-gate level. In this case analysis, we showcase how when stakeholders from various socio-economic spheres converge towards the successful deployment of infrastructure, human resource capabilities and social enterprise alliances (via market-supporting institutions and/or specialised intermediaries, etc.), it is possible to transform problematic situations into enabling environments for food production.

New trends in recent years have been changing the ways business is done in Africa. The rapid expansion of information and communication networks specifically, mobile technology - has provided tremendous new opportunities. Instead of playing catch-up, entrepreneurs in Africa are “hacking” existing infrastructure gaps through technology, connecting Africans to new goods and services. Such novel solutions to socio-economic problems are an outcome of the complex interactions of the social system that contribute varying patterns of skills, knowledge and history (Schwandt, Holliday & Pandit, 2009). The contribution of youth should be mentioned here. In Africa, many young people are already involved in family farming. They undertake daily tasks and acquire knowledge and skills from their elderly family members and apply these techniques in their farming activities. They also bring agricultural technology and innovation into the family farm and are often involved in management activities that require their educational knowledge such as keeping accounts, communication with partners, NGOs etc. There is also another category of youth who are not directly involved in the field, but are developing ICT applications or offering ICT services which are useful to family farmers, especially women farmers (Rahman & Fong, 2016). Young agro-entrepreneurs bring their experiences with emerging technologies, accompanied by visions for a different agricultural value chain.

Harnessing and enabling the entrepreneurial skill and spirit of smallholder farmers, especially young people in the rural economy are therefore being mainstreamed at the forefront of current food security and economic empowerment agenda. Viewed from this perspective, a trans-disciplinary approach to research and policy-making is required in order to improve the conceptual clarity of policymakers and development actors on the relative merits and potential future role, contribution, and impacts of alternative policies to enhance sustainability of food security interventions in developing countries, with special focus on agribusiness development. However, to achieve this development actors and decision makers need to adopt leadership styles and policy-making that are in conformity with dealing with complex and dynamic situations.

4. How is agricultural innovation platforms governed?

4.1. Governance mechanisms that unleash capabilities

How do we frame governance to bring innovation in the smallholder business sector? What are the leadership implications for developmental practitioners? By drawing from complexity science, we explore the nature of interaction and adaptation and the way notions such as emergence, innovation, and fitness arise. When viewed from the lens of leadership, complexity science focuses on behaviours that enable organisational effectiveness, as opposed to determining or guiding effectiveness. This includes processes for managing dynamic systems and interconnectivity. One clear implication in dealing with complex problems is the need for increased emphasis on “governance” in development:

‘In the face of intensification of societal complexity [...] we should see governance as the complex art of steering multiple agencies and institutions which are operationally autonomous from one another and structurally couple through [...] reciprocal interdependence. [...] Governance appears to have moved up the theoretical and practical agenda because complexity undermines the basis for hierarchical top-down control’ (Jessop, 2003)

In developing countries, structures of governance already exist, although they are different to those in developed countries (Jones, 2011). These are rooted in day-to-day, ground level realities which are centred on various norms and values. These institutional arrangements have to be taken into consideration in the quest for establishing innovative practices in a sustainable manner and are what Roling (2016) referred to as the relational dynamics to crafting governance of IPs. Leadership in complex systems is about interactions and emergence. It is about events and how these shape future action (Lichtenstein et al., 2006). It is also about how human activity is organised into a system of choices and actions when organisations are considered to be complex adaptive systems where heterogeneous agents interact such that they and their activities evolve and change over time (Marion and Uhl-Bien, 2002).

4.2. Harnessing meta-capabilities within Innovation Platforms

How can adaptive capabilities can be harnessed by development actors within IPs to promote agribusiness development? Which institutional arrangements would enable farmers to make use of socio-

technical improvements to improve their farm income sustainably in the developing world? What role should governance play under such complex systems? According to Plowman et al. (2007), leaders should be enablers - in that they disrupt existing patterns of behaviour, encourage, novelty and make sense of emerging events for others. Within this approach, leadership is considered as emerging from among multiple agents rather than as an individual or even a dyadic phenomenon. The instrumental impacts of leadership should be observed within the IP independent of individuals. This must be observed not only in the agents and what they do, but also in how the agents are connected into organisational capabilities. Francis & van Huis (2016) noted that

“Some experts, development and innovation practitioners, and policymakers may have a problem in designating smallholder farmers as ‘firms’, although they are essentially entrepreneurs, operating a ‘business’ in a competitive environment.” (p. 10)

Thus, recent research shows how farmers are being included in Innovation Platforms to create agricultural innovation systems that drive agricultural development. This is because Research & Development and Science & Technology are no longer considered as the main source of knowledge or drivers of socio-technological change. Even though this is regarded as a challenging concept to be applied to agricultural development, a burgeoning body of knowledge has emerged on the application of innovation systems to Agricultural Research and Development (Roling, 2016). As complex systems, organisations/firms/industries and therefore IPs, exist far from equilibrium where the ongoing interaction of system components leads to emergent and self-organising behaviour. Within Roling’s (2016) cultural theory analysis of the IP literature, it is referred to as transformation from one set of situations to another. Pathways are created so that the agricultural sector can improve its sustainable transition. This is rendered possible when interactions with other areas of the economy can be strategically shaped.

How, then, should organisational capabilities be leveraged within IPs? Organisational capabilities were originally defined by Nelson & Winter (1982) in their book, *An Evolutionary Theory of Economic Change*, as roughly collections of routines, domain knowledge and decision capacity to get something done. A successful organisation has many capabilities. The organisation's ability to build, extrapolate and recombine capabilities to move in new directions and to enable both operation and adaptation is referred to as its meta-capability; it is the capability to use other capabilities effectively. According to Hazy (2006), leadership must be observable as a meta-capability that connects and organises disparate agents into a complex adaptive system that acts as a unity in the environment. For example, running a smallholder venture effectively would be a capability. It requires successful interactions with various other actors on the agribusiness scene for input and marketing. Similarly, for international development experts to steer change successfully via Innovative Platforms to improve smallholder ventures requires harnessing meta-capabilities.

4.3. How leadership leverage changes in complex systems?

A conceptual version of the Leadership and Capabilities Model (LCM) of Hazy (2006) which has been adapted to demonstrate the harnessing of capabilities for agribusiness and rural enterprise development in developing African countries is shown in Figure 1. In the model, we consider the smallholder enterprises as firms. Agribusiness and rural enterprise is considered as a system of human interactions within the complex adaptive systems viewpoint. These human interactions consist of two major aspects. First, autonomous agents must interact in some form of coordinated action. In an IP, this would include farmers, the private sector from diverse socio-economic spheres, financial institutions, international development practitioners, academicians, local development practitioners, government civil servants, social enterprise, NGOs and other non-state actors. Second, these agents and their resource, tasks, and knowledge must change over time; and to the extent that they improve the systems, that is the IP’s, ability to make use of the environment. The changes must be differentially selected and retained by the system in response to changes in the environment. This refers to the selection of pathways to adapt and innovate within the IPs. For example, in Benin, a women’s cooperative eventually extended their activities from the traditional cotton plantation to include a neem-based natural pesticide enterprise within the IP to improve their yield and profitability (Jiggins et al., 2016). This was an activity that was not envisioned in the initial phase of the innovation pathway and institutional arrangements had to be re-configured to accommodate and enable this change.

In the LCM (Hazy, 2006), leadership is central to this process of change, variation, selection, and retention. Leadership activities taken together constitute the system level mechanism that exerts leverage on these system processes in five ways. These are the five value-creating levers, shown as A, B, C, D and E, available to the leadership meta-capability to regulate performance and adaptation in an effort to sustain the arrangements agreed upon within the IP.

Leadership involves actions among agents that identify or espouse a cooperation strategy, shown as A, in Figure 1. The aim is to create more efficient operations e.g. by recognising the possibilities for creating linkages amongst agents and institutions in IPs. Ultimately, more slack resources are generated for the system's use. Resource slack, in the business and management literature, is the level of availability of a resource (Dolmans et al., 2015). Within IPs, slack resources can be goods/capital/services, profits and knowledge gained throughout the transformation process.

Having highlighted the potential of the IP for transformation, leadership activities should catalyse conditions where other agents choose to participate in the program via strategically focused partnerships (Lever B). This increases or improves the current capabilities and may include investment in technology, human and intellectual capital, and other assets that increase capacity and effectiveness at both appropriating known resources and processing them for the IP's benefit. Ultimately, there is an increase in the level of slack resources available to the system.

How can the level of slack resources be increased to leverage smallholder farming and social entrepreneurship? It is to be recalled that, from a systemic viewpoint, smallholder ventures and social entrepreneurship fit in a self-reinforcing feedback loop which can then have spill-over effects into the wider socio-economic spheres. In much of the developing world, smallholder farmers and for many small and micro- enterprises, there is the major issue of sustainable access to finance and markets, and for potential customers, there are perennial complaints about quality control, packaging and labelling, etc. In an extensive study, Tenywa et al. (2011) explained the importance of Enabling Rural Innovation (ERI) systems whereby capacity building is harnessed at different levels to provide smallholders and entrepreneurs access to relevant and meaningful training. Rahman & Fong (2016) relate how inductions training via social entrepreneurship ventures by youth groups that provide agricultural market information to women farmers also contribute to leverage the adoption of innovation practices to boost farming. Such capacity building systems could occur, at the third point, shown as "C" in Figure 1. Leadership can bias the flow of information within and across the IP's boundary to encourage learning, sharing of knowledge, and experimentation by identifying stakeholder groups and the specific potential contribution within the IP. This has the dual effect of increasing the possibilities within and attracting possibilities from outside of the IP. Astute governance mechanisms organise choices and actions in actors to navigate complexity so that lever D, leadership can bias the flow of slack resources toward nurturing possibilities identified in the learning and experimentation process and toward building new capabilities that may create previously unknown opportunities for appropriating resources from the environment. This is a critical component of adaptation that feeds itself from the concept feedback perspective.

The form, nature and time taken by agricultural formation process depends on both the conceptual and local context, quality of facilitation, socio-economic, culture, biophysical, political environment in which a common challenge and/or opportunity is identified and on the capacity of stakeholders to comprehend the Innovation Systems Approach. An example of governance mechanism that can have far-reaching influence here would be wide-scale anti-corruption sensitisation campaigns supported by organisations that have research and development brokerage roles, in order to create impact (Dasgupta & Roy, 2011).

Leadership is uniquely positioned to take a system perspective and balance the points of tension and risks inherent in the other points of leverage described. These are achieved via distributed leadership mechanisms that respond to system-level effects to strategically manage the storage, distribution, and use of slack resources for the long- and short-term benefit of the innovation system and its stakeholders. This influence is shown as lever E (Figure 1).

Together, these five leverage points enable the leadership meta-capability to guide the IP as an entity, that is able to appropriate resources from the environment, support its member agents and other co-evolving

entities (such as customers and suppliers). It has to simultaneously adapt its internal capabilities to likewise co-evolve with the environment and sustain the system as the environment changes over time.

4.4 Research implications for understanding leadership style in Innovation Platforms

How can we improve the knowledge of leadership styles within social-agribusiness systems? There is no universal solution to handle complexity in smallholder agribusiness innovation systems in African countries. Distilling bottlenecks revolves around context-specificity within and outside the smallholder domains. This is an understudied phenomenon (Roling, 2016), since IPs have only recently been established (last 10 years), to gauge a comprehensive impact. More research is required to understand how to craft responsive leadership styles that need to be adopted by governmental policy-makers, international development brokers, local development practitioners and small-holder collectives. In fact, the leadership scholarship need to adopt Africa as a research context, to demonstrate how these understudied phenomena influence strategic focus in the smallholder and rural enterprise development sector since decisions taken have to be adaptive enough to deal with local pervasive problems as well as concatenated issues due to the post-globalisation era.

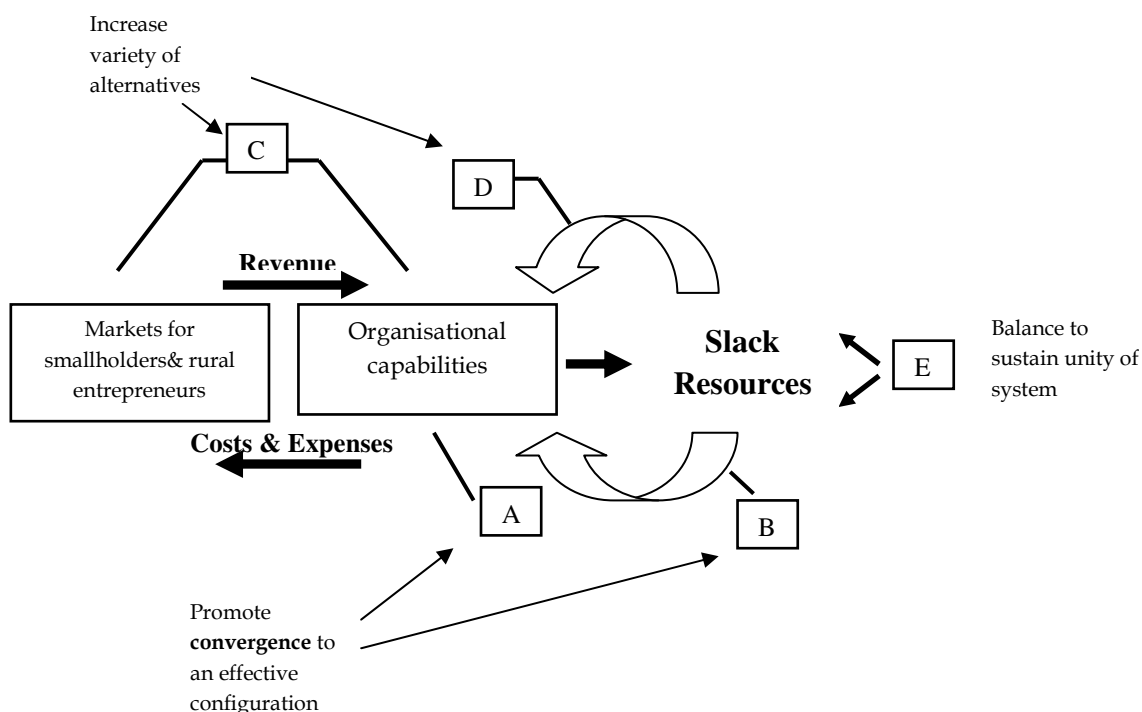


Figure 1. Complex socio-technical systems survive by building and capabilities that appropriate resources from the environment and store excess as slack resources. Leadership operates at five points of leverage, indicated by A, B, C, D and E. A and B, support the convergence of the system towards an attractor that represents an effective configuration. C and D, increase the variety of possibilities within the system. The final leverage point, E, balances tension within the system and performs activities that maintain the sense of unity and purpose for the system and its members as these internal tensions ebb and flow. (Adapted from Hazy, 2006)

Hazy (2006) based the LCM on an evolutionary economics perspective and the resource based view (RBV) of the firm to coin the term 'Performance rent' as a means to measure the value created by the leadership meta-capability of the system over time. Under this perspective, sustainable competitive advantage is derived from unique and sustained access to resources, including knowledge, and the ability to exploit that access to the continued benefit of the organisation. This economic benefit accrues in the form of economic rents, that is, excess returns derived from control of scarce resources. This also includes proprietary knowledge. Since the level of economic rent supports sustainability and is determined by the firm's performance, it is a measure of the organisation's fitness for a given configuration of its capabilities.

Thus, in the context of unleashing smallholder ventures through social entrepreneurship, the fitness of an IP can be measured at different levels by analysing its 'performance landscape'. This refers to all the levels of performance within a complex system by virtue of its many internal configurations and their interactions (Siggelkow, 2002). Performance rent can thus be considered to measure the value created by the leadership meta-capability of the system over time. It is thus an operating metaphor for leadership that can be applied to the evaluation of governance effectiveness in IPs.

Given that a of body research has already been started in the smallholder innovation systems, we believe that special emphasis should be placed on the application of Individual Depth Interviews of well qualified respondents who are at the fore-front in engaging with complexity at different levels within the smallholder and agribusiness community in order to extract experiential information that can be analysed from the leadership and complexity science perspective. The aim should be the continuous discernment of knowledge, to the benefit of smallholders, social entrepreneurs and to gain buy in from other private actors from the wider socio-economic sector that tallies somehow along the lines of the theme for this year's World Economic Forum in Davos which is responsive leadership (Giles, 2017). A responsive socio-technical system can adapt to change and is resilient in the face of adversity for it encourages different types of innovation and transformation, building on local knowledge and initiatives to embed technological innovations. Engineering this style of "adaptive governance" will require designing laws, incentives, regulations or safeguards that have the same self-organising principles that define the complex systems they are meant to deal with.

5. Conclusion

This paper is intended to critically inform the role that social entrepreneurship can play in unleashing sustainable ventures at the smallholder level in developing African countries. We draw essentially on the burgeoning literature on how innovation platforms have been recently applied within agricultural innovation systems and an example of the ways successful trans-sectoral collaboration through mobile payments are already leveraging change to suggest that strategic institutional entrepreneurship should be embedded and facilitated. Astute steering of leadership capabilities is key to mobilising the multitude of stakeholders to create variety of pathways to innovate, establish linkages and distil institutional complexity. The key limitation of this paper is that it is conceptual in nature. However, recent evidence shows that there is scope for further research to improve the practical understanding of how the smallholder and immediate communities can tap opportunities to innovate. If governments and institutions embrace the science of complexity in policy decisions for mainstreaming social agro-entrepreneurship within agricultural IPs, economic actors, including smallholder farmers and citizens can anticipate a novel kind of policy making that would dynamically and rapidly evolve and change in context.

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Improving professional competence of the staff as a strategic factor for sustainable development of companies

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Staff development, staff development model, training center, evaluation of staff development

Abstract

The purpose of the present work is carrying out analysis of possibilities to improve the professional competence of personnel by implementing the most effective model of staff development. The urgency of the work is stipulated by the undeniable fact that one of the most important issues in the personnel management system is the development of professional competencies. This is confirmed by the experience of leading companies in advanced countries, whose success is achieved primarily due to the creation of highly effective personnel management mechanisms, which are based on an integrated approach to the use and development of labor potential.

Research methodology is based on the case-studies method oriented to the study of several models of personnel development of the companies involved in the study to compare their efficiency. This article describes the main theoretical and methodological aspects of people strategy development (staff development strategies) considering peculiarities and specificity of the socio-economic development of Russia. The article summarizes the key problems of people strategy development, which contribute to raising the level of professional competence of staff in the Russian business entities. The following conclusions were drawn based on research matter of the present article:

- *based on the analysis and empirical comparison of Russian and foreign approaches (case studies of Lundbeck, Nordea Bank, Media Market, and LANIT companies) to the staff development, basic strategic models that can be used to enhance the level of professional competence of employees of the Russian business entities have been structured;*
- *it has been revealed that the most advanced systems of staff development aimed at enhancing the professional competence of the staff do not always have complex structure, at that more advanced staff development systems are adaptive and proactive (i.e. are focused on the development of competencies that will be needed not only in the present but in the future);*
- *main recommendations for improving approaches to staff development of Russian business entities have been proposed considering the best foreign practices (best practices of leading European companies), as well as considering features of socio-economic development of Russia in the current transition period.*

The practical significance of the obtained results consists in the possibility of their use for the development of contemporary practice-oriented solutions related to the improvement of the personnel potential of Russian companies.

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1. Introduction

Human resources (HR) policy in contemporary conditions is one of the most important tools for managing business entity. Against the backdrop of globalization of economic relations, Russian business entities and companies must adapt their focus area and technology in HR management according to the world trends in this field to create a competitive environment in the HR management and a positive image of the employer.

2. Literature review.

The results of current research (Robert L. Mathis, John H. Jackson, Sean R. Valentine. Joan E. Pynes) confirm that the practical development of employees lacks strategic orientation, i.e. orientation towards the development prospects of business entities. This is largely due to significant differences in understanding of staff development.

Thus, Farooq Soofi (2015) tends to think that the staff development is the function and sphere of a human resource management, Tracey Tokuhama-Espinosa (2015) argues that it is a certain process. Lorraine R. Gay, Geoffrey E. Mills, Peter W. Airasian believe that staff development is primarily a complex aggregate of organizational measures aimed at staff training, requalification, and retraining (Gay et al., 2008). Seema Sanghi (2016) believes that these measures include also professional adaptation of staff, evaluation of candidates for vacant positions, planning working life and professional advancement of staff, and their periodic certification. Renate Wesselink, Vincent Blok, Sebastiaan van Leur, Thomas Lans, Domenico Dentoni understand staff development as "systematically organized process of continuous professional training of employees to perform new production functions, professional and qualification promotion, formation of top managers reserve, and improvement of social structure of the staff" (Wesselink et al., 2015). This approach to understanding the staff development is appropriate since it defines its place and value for each employee, as well as business entity in general. Thus, we can agree with the definition that staff development is integrated systematically organized continuous process of progressive qualitative changes in the professional qualification level of staff to ensure the achievement of strategic objectives of business entity through effective use of labor potential of each employee (Osagie et al., 2016; Dudin et al., 2017).

Comprehension of the objective need in staff development requires the allocation of major benefits for both the employee and the company in general, resulting from the effective implementation of this process. Such benefits may include increased value of highly qualified professionals, secure employment, formation and implementation of a rising career, high adaptability and maximum training of staff to address long-range objectives, motivation and job satisfaction, the possibility of identifying promising employees and managers, creating qualified and effective personnel reserve, the use of advanced technologies, and significant improvement of the quality of goods and services (Dudin et al., 2017).

3. Research methodology.

The research was carried out based on case-studies focused on the study of several models of personnel development in companies involved in the study to compare their efficiency. The method is based, firstly, on the highlighting of a unique component of the model, and, secondly, on comparison of these models in terms of two key indicators reflecting the effectiveness of efforts directed to staff development across the whole business structure.

All considered training and development models are multidimensional and somewhat similar, though each model of a specific business entity has its own unique components that are manifested more strongly than in other models.

Evaluation of the effectiveness of the staff development model was conducted based on two key indicators reflecting the effectiveness of staff development across the whole business entity:

- the indicator, which should be reduced, is the ratio of staff number to revenue (turnover, sales) of the business entity (for the Bank this is the operating revenue);
- the indicator, which should be grown, is the ratio of business entity revenue (turnover or sales; or operating revenue for the bank) to staff number.

4. Research results.

This section summarizes the following case studies of staff development in leading European and Russian companies:

1. a systematic approach to the development of the "Lundbeck" training center (Annual Report 2015 for H. Lundbeck; Annual Report 2016 for H. Lundbeck);
2. corporate coach institute at the Nordea University (Annual Report 2016 Nordea Bank);
3. the simplicity of the Media Market model (Annual Report 2015/16, consolidated financial statements of METRO AG);
4. integration of internal and external training at the "LANIT" company (LANIT Group of Companies).

Thus, the first case study is a systematic approach to the development of the training center at "Lundbeck" company. The "H. Lundbeck A/S" is a Danish international pharmaceutical company.

Staff evaluation, training and motivation system at Lundbeck Corporation (in-grade positions of training and development) is systematically incorporated into the corporate business processes. An employee can develop in three lines of career, salary, knowledge and skills. When changing the execution functions of the employee, lines of action, or moving to another department or corporate business unit, the employee is evaluated in terms of his competencies (suitability for new position) and training (if necessary). Thus, the achievement of an appropriate qualification level makes no problems for both the employees and the company.

The training is organized in three areas: functional knowledge and skills (so called hard skills), managerial knowledge and skills (so called soft skills), and vocational skills (relevant to production). Training and development necessary to employee is recorded in individual development plans and formed prospectively, i.e. is determined for the future based on the evaluation of achievements and development. The only retrospective indicator is the lack of development of any two of the competencies during the year. In such cases, the company reviews the need for investment into the development of the employee and tries to determine the cause of the situation with his development.

Design of staff development system has begun with the construction of the staff evaluation system. The very definition of managers' evaluation mechanism (according to competencies) and evaluation of achievement of goals formed the basis for the design of the training and development system.

Main evaluation components, such as **objectives and competencies** formed the basis of the staff development system. The next step was the design of managers' development program. The concept of the university was developed after the first pilot projects. The very name "University" is not accidental. Lundbeck not only manufactures drugs, but also has its own research and development (R&D) units involved in new products development, their marketing and sales. Such integrity requires the construction of training and development system, covering all corporate units and ensuring their harmonious combination.

The company developed **common principles of the University**, standards, and structure that are universal for the training of employees holding different positions in various fields. The standards and principles of the training and development system were implemented into the regulations: the appropriate objectives and procedures. Coordination of the staff adaptation process based on unified corporate standards is provided by the Training and Development Service.

The peculiarities of concerned model functioning:

1) Twice a year, Lundbeck Company holds managerial conferences and periodic briefings, presentations of Corporate University, where one of the points is the explanation of the staff training and development system operation, as well as changes that are being implemented, the need for systematic training and development, and how it helps to implement quality changes in the company.

2) After conducting staff evaluation and determining topics that the employee should study, the manager (or the employee himself) submits the application for appropriate training course. The peculiarity lies in the fact that the application notes not just the topic and the training objective, but describes what exactly is a production problem, or where the problem may arise, what goals will be achieved through training, specific skills that must be learned by the employee, what post-training

activities will be organized by the employee for better absorption of new knowledge and implementing it in daily operations of the company (for example, presentation of innovations to colleagues, developing new documentation or prospective project business plan). On the one hand, such format of the application makes applicant to approach the training course responsibly, while on the other hand, it allows training and development service to better understand needs of training to ensure quality satisfaction of these needs.

The second case study is the corporate coach institute of Nordea University. Nordea Bank AB is a Swedish commercial bank, the international finance group, one of the largest in Northern Europe.

Today, the training and staff development issues at Nordea Bank are coordinated by Nordea University and training centers. Training centers are organized in each business unit of Nordea Bank. Linearly such training centers are subordinated to directors of the certain business areas and functionally should clarify programs and teaching methods with Nordea University.

Each training center is responsible for training of professional skills within the certain business area. Each training center has its own coaches, who are employees of the bank, who train junior staff. In turn, Nordea University is responsible for coordination of the work of training centers as well as training of middle-level and senior managers.

The cooperation method between business areas and Nordea University is quite interesting. Each business area pays Nordea University for training programs (training workshops and seminars), which are carried out by corporate training center. The cost of training is identified in internal rates, which may vary within different countries. There are basic mandatory programs that every employee must go through, and additional training, which is ordered by a certain business area at its discretion. Under such circumstances, the business unit is changing the motivation focus of attending the training provided by Nordea University, i.e. when paying for the group training, director of a business entity is interested in the high level of attendance of the training session.

One of the special requirements for Nordea Bank staff is that each head of department must be a coach (that is, be able to conduct at least 2 one-day training sessions per quarter; as a rule, one coach does not conduct more than 2 one-day training sessions per month; usually training sessions are held on Saturdays).

Coaches of training centers are exclusively employees of the Bank: in addition to heads of departments, the training sessions are conducted also by heads of subdivisions or leading specialists at their will. Coaches have access to training content, which was used earlier. They also develop authorial programs in accordance with the methodological cards that describe the basic training elements and material requirements. A mandatory requirement of each training session is the definition of three key insights/thoughts, which the listener will take from the training.

The coaches undergo special training and internal certification. Training of coaches is carried out twice a year. Each subsequent training session is the next step in improving the art of coaching. While at the start of establishing of training centers, Nordea University used to invite coaching company to conduct training for coaches, today all these trainings are conducted by their own efforts. Analysis of the training effectiveness is defined by:

- Participants' knowledge during the learning process, which is assessed through internal mandatory testing;
- Feedback forms after the training;
- Internal e-forms for evaluation of the training, which are filled in by participants 3-7 days after the training, when they get rid of the emotional load.

The coach is certified by Nordea University, which is impartial, since the coaches do not report directly to Nordea University (it is worth mentioning that coaches work in the business units and report to their line managers; they are functionally linked to Nordea University through training centers of business units). During certification, which is conducted exactly during the training of coaches, the main attention is paid to:

- Knowledge of banking product;
- Presentation skills, especially the ability to hear the group.

Coaches conduct mini-training sessions in their groups, while representatives of Nordea University, who attend these mini-training sessions, give a professional evaluation of the coach. Similarly, to the organization of the training and staff development, the evaluation of the coach in Nordea Bank was modeled in such a way as to make its implementation as easy as possible. The fact that selling banking products always was the main strategy of the company, led to the development of a special rating system. Depending on the volume and type of sales, each employee was awarded bonuses. Ranking of employees is conducted in accordance with these bonuses. In Nordea Bank, it is established that if the employee is rated twice to 3% of the worst employees, then he is expected to be dismissed.

Obtained test results are used to:

- evaluate the performance of coaches, i.e., the higher scores of the trainees the higher the professional level of the coach;
- conduct a comprehensive evaluation of the employee; when taking the decision to move the employee to another position every manager receives the employee testing scores and information concerning the employee's ranking status.

Nordea University has defined the following performance indicators:

- Percentage of training programs fulfillment;
- Feedback evaluation forms.

The third case study reveals the simplicity of the Media Markt model. Media Markt is a German chain of electronics stores and household appliances founded in 1979 and being part of the METRO GROUP.

European network of Media Markt has identified just one key competence and crystallized values that define the staff course of development. In addition to key competence, there is a list of management standards and product knowledge training. These three elements can describe the entire system.

Staff training and development model of Media Markt Company is coordinated by staff development service. The focus of the "sales" business model is clearly reflected in the staff training and development model, which includes:

- Technical education: the development and implementation of study guides for 40 major product groups, at that, guides are updated annually;
- Trainings conducted in three key areas: product knowledge, salesmanship, and development of managerial skills. Leading coaches, who develop training programs and deliver them to regional offices, are in the corporate head office. Coaches in the regions are best sellers, who have agreed to become corporate coaches and completed training program in the field of "the art of coaching";
- Seminars of manufacturers taking place centrally in the head office; more than 1,700 seminars are held annually.
- E-learning: leading coaches and experts develop special training manuals and prepare training material that every employee must learn to successfully perform their duties. Based on results of remote training, the employees pass exams (also remotely), affecting the results of their planned evaluation activities;
- "mystery shopping" program is classically used to evaluate standards of customer service; the Media Markt company uses this tool for learning and development.

The learning model involves a series of trainings for different qualification levels in accordance with the competencies. It is worth noting that the skills that are defined for company employees as key competencies are fully correlated with the corporate values.

Store performance evaluation is always based on the level of sales. Staff performance evaluation, which subsequently influences future learning and development, is based on two indicators:

- Evaluation of the product knowledge level;
- Results of "mystery shopping" (the ability to sell/serve the customer)

The fourth case study concerns meeting the company and market needs: the integration of internal and external training of the "LANIT" company. "LANIT" (Laboratory of New Informational Technologies) is a Russian multidisciplinary group of IT companies.

The company annually hires about 140 selected employees, who undergo 3-month training. About 80-90% of those who took the courses get a job in a company.

After the employee was hired, he falls into the community of professionals named "competence group" according to his functional area. Each competence group coordinates their professional training area: exchanging knowledge and experience, supporting and assisting in problem solving, evaluating knowledge (testing). Each group includes 5 offices throughout a country. Competence groups carry on their activities through live meetings, videoconferencing, and intranet services.

In addition to learning the competences development, the head of division may request additional training for his subordinates in the "LANIT Networking Academy".

The structure of "LANIT Networking Academy" was formed in such a way as to achieve the main goals of the company, integrating the capabilities of external and internal training in various forms, as well as to provide a full cycle of training of employees at all levels. Full cycle of training includes:

- Confirmation of the training effectiveness level and professional knowledge and skills by passing exams in the certification center;

- Determination of the training format and conducting training;

- determination of training needs (by HR Department in accordance with the competence model).

Internal training and development includes:

- "LANIT Networking Academy", which produces more than 5,000 student-hours per year.

- Language School (300 students, 15 teachers); programs of "LANIT Networking Academy" and the Language School are licensed by the Department of Education and Science of the regional state administration. Tailored external programs for internal needs are developed and licensed by leading IT companies. Access and use of this software is possible due to the membership in the Microsoft IT Academy, Sun Academy, and Learning Solutions. Membership is provided within the unit of training center.

- "Cloud-based personal learning" is self-education and improvement through e-learning courses, on-line trainings, seminars, webinars, participation in conferences, and professional competitions;

- original courses of the "LANIT Networking Academy" center and partners such as Apple, Avaya, JAVA, Luxoft, Oracle, programming languages, information security, etc. (in total more than 25 items).

Curricula in the LANIT Company are made up based on staff evaluation, which includes:

- Performance evaluation (evaluation of core competencies and functional competences);

- Evaluation of the level of foreign language proficiency;

- additional criterion (which is selected in accordance with the requirements of the employee's competence group and can consist of internal testing and passing certification exams in the IT field (VUE, KRYTERION) at external vendors, such as Adobe, Cisco, Citrix, HP, IBM, Juniper, Linux, Microsoft, Novell, SAP, VMWare, etc.

As a result, the employee gains a certain number of points for each training component. The topic and format of further training is determined in accordance with the number of points, lacking to move to the next career level. The evaluation results of the staff are used by "LANIT Networking Academy" to draw up a curriculum and form training groups.

5. Discussion of the research outcomes.

In accordance with the proposed methodology for evaluation of the staff development model performance, we identified key indicators reflecting the effectiveness of staff development. These are the ratio of staff number to company revenue (turnover or sales), and the ratio that is company's revenue (turnover or sales) in relation to the number of employees. Corresponding data are shown in Table. 1. Analysis findings have shown that the most effective is a model of staff training and development based on a system approach to the development of the training centre representing, according to the researchers, systematically organized (Wesselink, Blok, van Leur, Lans and Dentoni, 2015) and continuous integrated process (Osagie et al., 2016; Dudin, Ivashchenko, Frolova and Abashidze, 2017). In our opinion, the implementation of similar informative and training programs in Russian business entities is of great importance in modern strategic management of human resources.

Table 1. Performance indicators of different staff development models (Annual Report 2015 for H. Lundbeck; Annual Report 2016 for H. Lundbeck; Annual Report 2015 Nordea Bank; Annual Report 2016

Nordea Bank; Annual Report 2015/16, consolidated financial statements of METRO AG; LANIT Group of Companies)

	Staff number, thousand		Revenue, mln euro (Danish Krone for Lundbeck, bln Rubles for LANIT)		change in ratio of staff number to company revenue (turnover or sales), %	change in ratio of company revenue (turnover or sales) to staff number, %
	2015	2016	2015	2016		
Lundbeck	5.534	5.120	14594	15634	- 15.5%	+ 15.5%
Nordea Bank	29.826	30.596	15043	15792	- 4.1%	+ 4.1%
Media Markt	63.952	64.696	21327	21921	- 8.2%	+ 8.2%
LANIT	6.197	6.264	107.8	112.2	- 2.9%	+ 2.9%

When developing domestic models of staff development, it should be noted that according to researchers (Percy and Elliott, 2008; Clark et al., 2012; Osterwalder and Pigneur, 2010), the staff development process in business entity should be based on certain principles, such as the compliance between the nature of the staff training and development, and scientific and technological advancement forecasts, as well as the advancement needs of business entity; well-functioning feedback system between all levels of the business entity; the integrity of the entire development system and flexible use of various forms of staff development; the availability of financial and non-financial motivation of staff development; formation of staff development system taking into account the resource potential of business entity.

Employee management and development processes are interrelated and depend on the strategy of a business entity, and therefore need to be defined and executed as strategic processes.

The general strategy sets the priorities and develops the advancement areas of business entity for the future (Mintzberg et al., 2002; Stuart, 2000; Walliser, 2008), while the strategy in staff development, in turn, determines the level of professional qualification of the staff and the staff number required to provide an adequate level of effectiveness in achieving strategic goals. On a practical level, however, when determining the qualification level of employees in specific conditions, there might appear certain difficulties. It should be noted that the practical use of indicator such as the level of staff development necessitates the effective functioning of the strategic management system of business entity, because the correct definition of a set of indicators reflecting the development level of employees, and the generalizing analysis of these indicators allow upper management to coordinate the activity of business entity in the right direction, and plan appropriate measures to choose effective methods of their own employees development.

The level of staff development can be defined as a complex integrated indicator of the status of the employee's professional education, training and retraining process aimed at identifying changes in the professional qualification level of the staff to perform new production functions, form and plan succession pool, provide career advancement, and improve organizational culture of the staff that will allow implementing the strategic objectives of the business entity.

Comprehensive diagnostics of the staff development level and the status of implementation of this process should be accompanied by the development of appropriate evaluation tool, definition of the set of indicators characterizing the development of the employees of a business entity. This evaluation can be implemented in the framework of the staff management system on a step-by-step basis in the following sequence:

- Defining the study purposes and selecting staff development evaluation methods (needed for selection of the most significant indicators from the groups of labor efficiency of the staff, quality of staff management activities, and development expenses).
- Collecting statistical information and defining the expert group membership; creating source file (using fixation, survey, observation, and other methods).
- Processing collected information (evaluating each quality occurrence and determining the probabilistic level of manifestation of employee's qualities). Standardizing indicators, revealing the extent to which they effect on staff development, and selecting the most

important quantitative indicators that will be included into the integral indicator of the staff development level.

- Conducting validity test of the obtained results.
- Defining the integral indicator of the staff development level.
- Analyzing obtained results and developing recommendations to improve the level of staff development of a business entity.

Apparently, the solution to the problem of evaluating the level of staff development is quite complicated, dynamic, and permanent. Therefore, company's management team must clearly remember that it is unacceptable not only ignoring the ongoing support of staff development, but also providing improper monitoring over the condition of this process and timely evaluation of results of the professional advancement of labor potential in employees at business entity.

6. Conclusion.

It follows from the foregoing that the conditions provided for professional advancement influence the effectiveness of staff development and return on invested financial resources and time. The staff development model should be based on individual approach to each employee, determination of the scope and nature of his activity, where the use of an employee brings the greatest effect, as well as results that give the opportunity to evaluate business capabilities of various specialists. This, in turn, will provide highly effective staff management policy.

The increase in business activity and labor productivity of employees, as well as preservation of competitiveness of business entity become possible only through the implementation and effective realization of the staff development process, which, for its part, requires significant investment. Investment into occupational development of the staff will not only increase the contribution of each employee in achieving the goals of the business entity and improve financial performance, but will also help creating a positive climate at the enterprise, raising the motivation of employees, their responsibilities, competence, and adhesion to the business entity.

In the framework of this article, within the scope of the current research, we have considered the general theoretical and methodological approaches to the design of staff development models at business entities to increase employees' competence level, as well as the fastest and most accurate achievement of the strategic goals of business entity. In further work, we intend to develop and complement the methodological approaches to the evaluation of professional competence of the staff, as well as present contemporary practice-oriented solutions related to the improvement of human resources of the Russian business entities in the context of current qualitative socio-economic transition.

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The influence of brand awareness, brand association and product quality on brand loyalty and repurchase intention: a case of male consumers for cosmetic brands in South Africa

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Keywords

Brand awareness, brand association, product quality; repurchase intention, cosmetics, brands, male consumers.

Abstract

This study assessed the influence of brand awareness, brand association and product quality on brand loyalty and repurchase intention among male consumers of cosmetic brands in South Africa. It is also imperative to note that, despite the theoretical contributions made by many scholars on repurchase intention of various brands, they seem to be a paucity of studies that have investigated the influence of brand awareness, brand association and product quality on brand loyalty and repurchase intention. The study utilized a quantitative research design using a structured questionnaire. In addition, they study made use of a sample of male consumers in Gauteng province of South Africa. Four hypotheses were posited and to empirically test these hypotheses, a sample data set of 150 was used. The findings indicate that brand awareness has a positive and significant influence on brand loyalty, brand association has a positive and insignificant influence on brand loyalty, product quality has a positive and significant influence on brand loyalty and brand loyalty exerts a positive and significant influence on purchase intention. The empirical study provided fruitful implications to academicians by making a significant contribution to the brand management literature by systematically exploring the influence of brand awareness, brand association and product quality on brand loyalty and repurchase intention. This study therefore, stand to immensely contribute new knowledge to the existing body of brand management literature in Africa – a context that is often most neglected by some researchers in developing countries.

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1. Introduction

In today's post-modern era, repurchase intention is a valuable force to improve a company's profit and sustainable growth. Repurchase intention involves the individual's judgment about buying again a designated service from the same company, considering his or her current situation and likely circumstances. Some studies have concentrated on determining the basic antecedent variables to repurchase intention (Hocutt, 1998; Storbacka *et al.*, 1994; Zahorik & Rust, 1992). In addition, a host of marketing studies such as, for example, Anderson *et al.* (1994) and Hennig-Thurau & Klee (1997), have acknowledged that the good experiences of customers lead to re-consumption in the future. In addition, continuous repurchase behavior by consumers results in higher profit margins, competitive advantage and faster business growth (Chinomona & Dubihlela 2014, Singh & Khan, 2012; Farquahar, 2003).

An interrogation on the repurchase intention is not new. Significant research on the subject has been done in various contexts by focusing on what attracts Chinese customers to repurchase Korean

cosmetics (Sun, Kim & Heo 2016); does customer satisfaction lead to customer trust, loyalty and repurchase intention of local store brands (Chinomona & Dubihlela 2014), investigating factors that lead to repurchase (Hellier, Geursen, Carr & Rickard, 2002), the impact of brand trust, self-image congruence and usage satisfaction toward smartphone repurchase intention (Goh, Jiang & Tee 2016), Factors affecting positive word of mouth and repurchase intention (Itsarintr, 2011), the impact of brand trust and satisfaction on retailer repurchase intentions (Zboja, & Voorhees 2006) and the influence of female university students' cosmetic purchase motivation on cosmetic attribute evaluation and brand repurchase intention (Park & Ku 2009).

All these studies point a general consensus that customer repurchase intention can yield several economic advantages (Buttle, 2004). Since customers are key predecessors for sales, business' growth and profitability (Owusuah, 2012; Rust & Chung, 2006; Thompson, 2005). Previous studies have left a gap on the influence of brand awareness, brand association and product quality on brand loyalty as a mediator variable with the end result of causing repurchase intention among male consumers of cosmetic brands. Premised on the identified research gap, the current study seeks to investigate the influence of brand awareness, brand association and product quality on brand loyalty and repurchase intention among male consumers of cosmetic brands in South Africa. Above and beyond, the current study is expected to make academic and practical contributions to the existing branding literature and the practice of branding management in developing countries - South Africa in particular.

2. Literature review

Pamacheche, Chinomona and Chuchu (2016) posits that literature serves the purposes of sharing findings of other studies related to the study at hand, relating the study to a larger ongoing conversation in literature as well as fillings gaps and extending prior studies. The literature review will comprise: theoretical framework and empirical review.

2.1. The theoretical framework

A theoretical framework is a well-developed explanation of events that helps the researchers to locate their studies and to signal the origin of their proposed research (Vithal & Jansen 2010). This study is anchored in the framework of the theory of planned behavior (abbreviated TPB), since repurchase intention can be subsumed under the more general concept of "behavioral intention" which includes intentions other than those related to repurchases, e.g. intention to purchase a product further, word-of-mouth intentions, and complaint intentions (Ahmed 2014). According to the theory of planned behavior, intention is viewed as an immediate antecedent of actual behavior (Lin & Chen 2010).

2.1. Theory of planned behavior

The theory of planned behavior aids this research by providing a theoretical mechanism through which the link between brand loyalty and repurchase intention can be established. The theory of planned behavior is one of the most influential and well-supported social psychological theories for predicting human behavior (Ajzen, 1985). Tsai (2010) points out that the TPB supposes that individual behavior is influenced by behavioral beliefs, normative beliefs and control beliefs. In addition, Tsai (2010) behavioral beliefs can generate the attitude of an individual towards a behavior normative beliefs lead to the subjective norms of an individual and control beliefs are the perceived behavioral control of an individual. Furthermore, the theory of planned behavior (TPB) predicts that planned behaviors are determined by behavioral intentions which are largely influenced by an individual's attitude toward a behavior, the subjective norms encasing the execution of the behaviors, and the individual's perception of their control over the behavior (Ajzen, 1991). Moreover, explained that the TPB can provide useful insight into the processes that translate positive attitudes or evaluations into purchase intentions and purchase behavior (Smith, Terry, Manstead, Louis, Kotterman & Wolfs 2007).

3. Empirical review

3.1. Brand awareness

Brand awareness is a super definition including brand acquaintance, potential of being remembered, information and the ideas about the product (Bilgili & Ozkul 2015). Ekhveh and Darvishi (2015) points out that brand awareness is associated with the information node in the memory; the ability

of customers to recognize a brand under a variety of conditions reflects their awareness of the brand. Jamil & Wong (2010) defines brand awareness as the brand recognition and brand recall of a brand. Brand awareness creates a great association in memory about a particular brand (Malik, Ghafoor, Hafiz, Riaz, Hassan, Mustafa&Shahbaz 2013). Brand awareness is one of the main factors in creating brand added value and is also considered as one of the key factors affecting the knowledge level of consumers about the brand (Ekhveh&Darvishi 2015).

3.2. Brand association

Jamil & Wong (2010) are of the view that brand association is defined as the strength of benefits offered by the brand. Krishnan (1996) considered that "brand association" can be used as a general term to represent a link between two nodes, which suggest brand association in customers mind" (Chen, 2001). Brand association would help consumers search and deal with information (Boisvert, 2011). Moreover, brand association would provide consumers with a purchasing reason, because most brand associations are related to brand attributes, the target consumer market, and the benefits that consumers need, so that they form the foundation of brand loyalty and consumers' purchasing decisions (Len, Cind& Lynn 2007).

3.3. Product quality

It is the totality of features and characteristics of a product or service that bears on its ability to satisfy given needs (Chavan, 2003). Jahanshahi, Gashti, Mirdamadi, Nawaser and Khaksar (2011) points out that if a product fulfils the customer's expectations, the customer will be pleased and consider that the product is of acceptable or even high quality. According to Akrani (2013) product quality means to incorporate features that have a capacity to meet consumer needs(wants) and gives customer satisfaction by improving products (goods) and making them free from any deficiencies or defects, it can also be those characteristics of a product that customer's wants and needs in exchange for monetary considerations. Therefore, from the authors' elucidations it can be noted that product quality refers to the ability of a product to consistently meet or exceed customers' requirements or expectations.

3.4 Brand loyalty

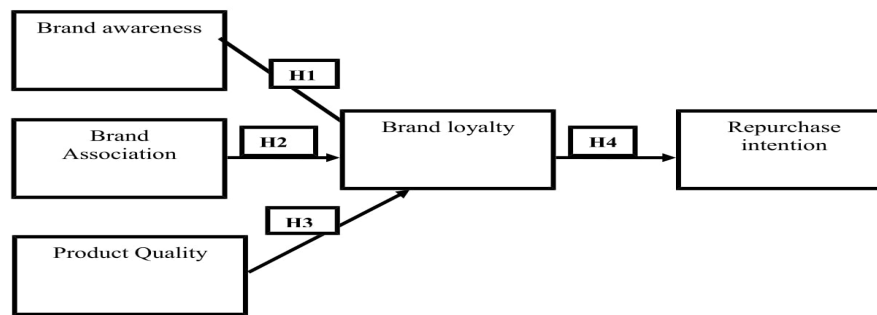
Brand loyalty is the attachment that a customer has to a brand (Kuscu & Ozcam 2014). Said (2014) define brand loyalty as a positively biased emotive, evaluative and/or behavioural response tendency toward a branded, labeled or graded alternative or choice by an individual in his capacity as the user, the choice maker, and/or the purchasing agent. According to Jing, Pitsaphol & Shabbir (2014) brand loyalty represents a commitment of the consumer to the brand which makes it as an intangible asset that reflects the company's price of the product or service. In addition, brand loyalty has been expressed as the consumer's positive feeling about the same brand, consumer purchasing the brand more frequent than the others as well as buying and using the same brand for a long time (Kocoglu, Tengilimoglu, Ekiyor&Guzel 2015).

3.5 Repurchase intention

Repurchase intention refers to the probability or, chance of using the previous service provider again in the future (Upamannyu, Gulati, Chack & Kaur 2015). Gounaris, Bimitraids and Stathakopoulos (2010) define repurchase intention as the customer's propensity to purchase products from the exact manufacturer over an extended duration of time. Repurchase intention, is the iterative process of purchasing goods and certain services from one particular store (Hellier *et al.*, 2003) and the main reasons are the post-shopping experiences. Moreover, repurchase intention is a behavioral element, where there is an eagerness and ongoing interest in purchasing a product or a brand (Pather 2016). Therefore, drawing from the above elucidations it can be pointed out the repurchase intention is the likelihood the user will repurchase cosmetic brands in the future.

4. Conceptual model and hypothesis development

Based on a synthesis of the converging literature related to the research constructs, a conceptual model is proposed to guide the empirical study as shown in figure 1. The conceptual model suggest that brand awareness brand association product quality are the predictor variables while brand loyalty is the mediator variable and repurchase intention is the outcome variable. The hypothesized relationships between the research constructs will be discussed hereafter.

Figure 1: Conceptual model

4.1 Brand awareness and brand loyalty

It is essential to note the important impact that brand awareness has on brand loyalty. Jing, Pitsaphol and Shabbir (2014) investigated the influence of brand awareness, brand image and perceived quality on brand loyalty. These authors found out that there is a significant statistically association between brand awareness and brand loyal Dhurup, Mafini and Dumasi (2014) investigated the impact of packaging, price and brand awareness on brand loyalty. The results of the multiple regression analysis showed that brand awareness contribute significantly to the prediction of brand loyalty. In addition, Xu, Li and Zhou (2015) explored on the effect of brand awareness on brand loyalty and the results of their study showed that brand awareness has significant positive influence on brand loyalty. Yousaf, Zulfiqar, Altaf and Aslam (2012) conducted a study that focused on brand loyalty in the cosmetics industry and the results of their study indicated that there are the positive relationships between brand awareness and brand loyalty. Therefore, inferring from the literature and the empirical evidence above, it is hypothesized that:

H1: Brand awareness has a positive influence on brand loyalty

4.2 Brand association and brand loyalty

It is imperative to consider the association between brand association and brand loyalty. According to Atilgan, Aksoy and Akinci (2005) a strong brand association leads to higher brand loyalty. Azadi, Esfahani and Mohammadpoori (2015) conducted research which investigated the relationship between brand association and brand loyalty in the fans of private clubs in Iran. The findings of their research showed that there was significant relationship between brand association and brand loyalty in the fans of private club. Moreover, research done by Atilgan, Aksoy and Akinci (2005) revealed that if customers have more positive association toward a brand, they would be more loyalty toward a brand and the other way round. Thus, drawing from the above mentioned discussion, it is therefore hypothesized that:

H2: Brand association has a positive influence on brand loyalty

4.3 Product quality and brand loyalty

Product quality is also considered to be one of the contributing factors of brand loyalty. Khan, Zain-ul-Aabdean, Nadeem and Rizwan (2016) investigated the impact of product on brand Loyalty and the correlation analysis results showed that product quality is highly correlated with brand loyalty and have a positive and highly significant relationship. This means that an increase or decrease in product quality will cause increase or decrease in brand loyalty (Khan, Zain-ul-Aabdean, Nadeem & Rizwan 2016). Reich, McCleary, Tepanon, & Weaver, (2006) investigated the impact of product and service quality on brand loyalty. Their results showed that quick-service restaurants need to be more concerned with product quality especially in taste, freshness, and temperature, and focus on their overall service quality to build brand loyalty. Moreover, Ndukwe (2011) investigated the effect of product quality on brand loyalty and found out that product quality was more likely to lead to brand loyalty when customers judged the product as having very or high quality in the Nigerian telecommunications environment. Based on the above positions on the relationship between green promotion and competitive advantage, the following hypothesis is posited:

H3: Product quality has a positive influence on brand loyalty

4.4 Brand loyalty and repurchase intention

It is of significance to assess the relationship that exists between brand loyalties and repurchase intention. Lanza (2008) studied the relationship between brand loyalties and repurchase intention and found that there is a significant positive correlation between brand loyalty and repurchase intention. Said (2014) conducted a study which focused on mobile phone brand loyalty and repurchase intention. The results from Said's study established a positive significance correlation between brand loyalty and repurchase intention. Accordingly, it could be expected that brand loyalty will have a positive influence on repurchase intention. Mehdi, Mojganc and Masoud (2013) investigated the effective factors on brand loyalty and repurchase intention. They found out that brand loyalty is positively correlated to repurchase intention. Therefore, it can be hypothesized that:

H4: Brand loyalty has a positive influence on repurchase intention

5. Research Methodology

The researchers opted for a quantitative research design using a structured questionnaire, because it enhances the accuracy of results through statistical analysis (Berndt & Petzer 2011) and as the elements of subjectivity associated with the qualitative approach (Du Plessis & Rosseau 2007). In addition, the design was suitable to solicit the required information relating to brand awareness, brand association, product quality, brand loyalty and repurchase intention. Moreover, the approach enables to examine the causal relationships with the constructs utilised in the study.

5.1 Sample frame and procedure

The sample of the study comprised consumers with the Gauteng province of South Africa. This research employed a systematic random probability sample approach as it allowed an equal opportunity of being selected from the population, where the first sample was a simple random probability sample and thereafter a method of $n + 3$ was adopted. Lazerwitz (1968) indicates that random sampling provides an appropriate appraisal of the populace, predominantly limiting sample prejudice and thereby making it additionally more representative than non-probability sampling techniques.

5.2 Target population and data collection

The population targeted for this study is all South African males, who potentially use male branded cosmetic products, between ages of 18 and 65, within the Gauteng region. The sampling unit was the individual consumer. For business related research, it is not viable to gather data from an entire population group; therefore the researchers adopted a random sampling method. This study incorporates collecting data from a practical cohort that would be sufficient to make accurate business decisions.

5.3 Questionnaire design

A structured self-administered questionnaire was adopted for this research and the questionnaire for this study comprised five sections; Section A, B, C, D, E & F. Section A required the respondents to fill in their background information. Sections B, C, D, E & F measured brand awareness, brand association, product quality, brand loyalty and repurchase intention respectively. The research constructs were operationalized in accordance with previous works. Proper modifications were made to fit the current research context and purpose (Fagarasanu & Kumar, 2002). There are a number of methods that assist researchers in gathering data of which one would involve the use of a scale. According to Vogt (1999), the Likert scale is commonly used which measures attitudes, knowledge, perceptions, values and behavioral changes. This study utilized a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree, to measure the data.

5.4 Descriptive Results

The structured, self-administered questionnaire was both hand delivered and electronically distributed. For both media of distribution there was distinctive guidance provided as to how to how to comprehensively complete the questionnaire. A covering letter accompanied the questionnaire stipulating the purpose of the study. In addition, the covering letter ensured respondents anonymity and confidentiality. 200 questionnaires were distributed with 150 being successfully completed. Therefore, the response rate for this study was 75 percent.

5.5 Respondent Profile

Table 1 presents the description of the participants. The respondents were asked to report their demographic information, including race, age, and male cosmetic brands frequently purchased.

Table 1: Respondents' profile

Gender	Frequency	Percentage
African	34	22.7%
White	41	27.3%
Asian	63	42.0%
Coloured	12	8%
Total	151	100%
Age	Frequency	Percentage
18-24	8	5.3%
25-34	61	40.7%
35-39	48	32.0%
40-44	12	8.0%
45-49	12	8.0%
Above 49	9	6%
Total	151	100%
Male cosmetic brands frequently purchased	Frequency	Percentage
Nivea for Men	64	42.7%
Vaseline for Men	42	28.0%
Dove for Men	8	5.3%
Gillette	23	15.3%
Clarins	6	4.0%
Kheils	2	1.3%
L'Oréal Men	5	3.3%
Total	151	100%

As indicated in Table 1 below, this study shows that the majority respondents being of Asian at (42%), following with White respondents at (27.3%) and (22.7 %) and (8 %) for African and Colored respondents respectively. The most active age group in terms of purchasing cosmetic brands is that 25 - 34 years of age which constitute 40.7% of the total population, followed by those between 35-39 years of age (32%). Those in the age group of 40-44 as well as 45-49 years of age constituted (8%) of the total population. In addition, those in the age category of 18 - 24 years of age constituted 5.3% of the total population and lastly those above 49 years, constituting 6% only. Respondents indicated the male cosmetic brands they frequently purchased. Nivea for Men was the most frequently purchased brand representing (42.7%) of the total population, this followed the Vaseline for Men brand which represented (28.0%) of the total population, then followed by Gillette which represented (15.3%) of the total population, in addition, Dove for Men represented (5.3%) of the total population, and Clarins representing (4%). Moreover, the last two brands frequently purchase, L'Oréal Men and Kheils representing (3.3%) and (1.3%) respectively.

6. Data analysis and results

A Microsoft Excel spread sheet was used to enter all the data and to make inferences of the data obtained, the Statistical Packages for Social Sciences (SPSS) and the Smart PLS software for Structural Equation Modeling (SEM) technique was used to code data and to run the statistical analysis. Smart PLS has emerged as a powerful approach to study casual models involving multiple constructs with multiple indicators (Chinomona & Dubihlela 2014). In addition, Smart PLS supports both exploratory and confirmatory research, is robust to deviations for multivariate normal distributions, and is good for small sample size (Hair, Ringle & Sarstedt 2013). Since the current study sample size is relatively small (150) Smart PLS was found more appropriate and befitting the purpose of the current study.

6.1 Accuracy Assessment

The same results of the path coefficients are tabulated in Table 2 depicting the Item to Total correlations, Average variance extracted (AVE), Shared Variance (SV), Composite Reliability (CR) and Factor Loadings.

Table 2: Measurement Accuracy Assessment and Descriptive Statistics

Research constructs		Descriptive statistics*		Cronbach's Test		C.R.	AVE	SV	Measurement Item Loadings
		Mean Value	Standard Deviation	Item-total	Alpha Value				
Brand Awareness (BAW)	BAW1	5.26	1.480	0.938	0.860	0.889	0.521	0.066	0.711
	BAW2			0.864					0.644
	BAW3			0.520					0.787
	BAW4			0.653					0.721
	BAW5			0.549					0.726
	BAW6			0.573					0.663
	BAW7			0.661					0.753
	BAW8			0.715					0.647
Brand Association (BAS)	BAS1	5.41	1.263	0.653	0.721	0.717	0.438	0.092	0.537
	BAS2			0.540					0.631
	BAS3			0.541					0.561
	BAS4			0.548					0.536
	BAS5			0.551					0.634
Product Quality (PQ)	PQ1	5.71	1.297	0.567	0.752	0.780	0.420	0.067	0.687
	PQ2			0.723					0.586
	PQ3			0.731					0.598
	PQ4			0.700					0.800
	PQ5			0.701					0.537
Brand Loyalty (BL)	BL1	5.48	1.314	0.801	0.745	0.742	0.419	0.057	0.659
	BL2			0.888					0.695
	BL3			0.716					0.584
	BL5			0.723					0.648
Re-Purchase Intention (RPI)	RPI1	4.97	1.442	0.681	0.747	0.783	0.549	0.076	0.640
	RPI2			0.566					0.719
	RPI3			0.513					0.848

Brand Awareness = (BAW); Brand Association = (BAS); Product Quality = (PQ); Brand Loyalty = (BL); Re-Purchase Intention = RPI

6.2 Scale accuracy analysis

BL4, and RPI 5 were deleted due to the fact that the factor loadings were below 0.5 which is the recommended threshold according to Anderson and Gerbin (1988). Table 2, above present the research constructs, Cronbach alpha test, Composite reliability (CR), Average variance extracted (AVE), shared variance (SV) and item loadings. The lowest item to total loading is RPI with 0.513 and the highest is BW1 with 0.938. On Factor loadings the lowest is BAS4 with 0.536 and the highest is 0.848 which is RPI3. This shows that the measurement instruments are valid. The lowest Cronbach alpha is 0.721 and the highest is 0.860 which shows that the constructs are very reliable and are explaining more than 50% of the variance.

6.3 Inter-Construct Correlation Matrix

To assess discriminant validity the AVE values were assessed. Malhotra defines AVE as the variance in the indicators or observed variables that are explained by the latent construct. A value of 0.40 or higher indicates a satisfactory measure (Anderson & Gerbing 1988). AVE values of the construct should be greater than the shared variance between the construct and the other model constructs (Chin, 1998). Table 2 shows that all the AVE values are above the SV values respectively for all the research constructs, thereby confirming the existence of discriminant validity. Table 3 lists the correlation matrix with correlation among constructs. Nunnally and Bernstein, (1994) proves that one of the methods used to check on the discriminant validity of the research constructs was the evaluation of whether the correlations among latent constructs were less than 0.60. According to Nunnally and Bernstein (1994:38) "a correlation value of less than 0.60 is recommended in the empirical literature to confirm the existence of discriminant validity". As can be seen all the correlations are below the standard level of 0.60 which indicate the existence of discriminant validity. The diagonal values in bold stands for the Shared Variances (SV) for the respective research constructs. The Shared Variance is expected to be greater than the correlation coefficients of the corresponding research constructs. Table 3 above shows that the results further validate the existence of discriminant validity.

Table 3: Inter-Construct Correlation Matrix

Variables	BAW	BAS	PQ	BL	RPI
BAW	1.000				
BAS	0.508	1.000			
PQ	0.597	0.551	1.000		
BL	0.564	0.435	0.566	1.000	
RPI	0.226	0.008	0.143	0.120	1.000

Brand Awareness = (BAW); Brand Association = (BAS); Product Quality = (PQ); Brand Loyalty = (BL); Re-Purchase Intention = RPI

6.4 Path Model Results and Factor Loadings

Below is Figure 2, showing the path modelling results and as well as the item loadings for the research constructs. In the path model, brand awareness, brand association and product quality are the predictor variables. Brand loyalty is the moderator variable and re-purchase intention is the sole outcome/dependent variable.

Figure 2: Measurement and Structural Model Results

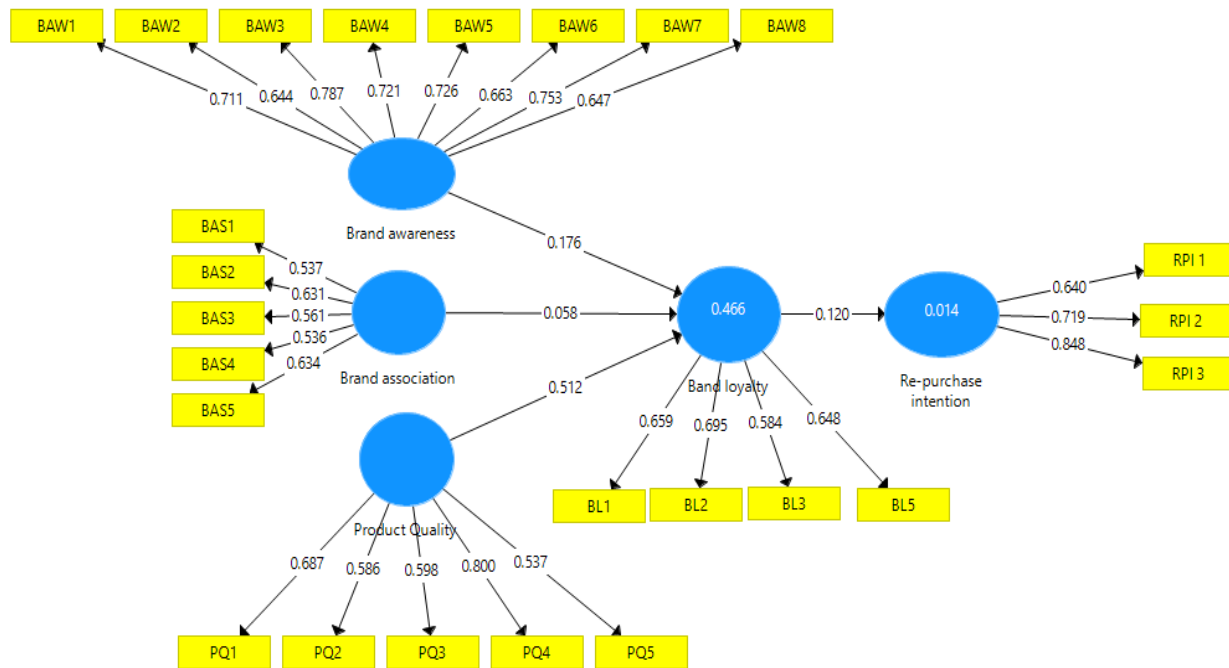


Table 4: Results of structural equation model analysis

Path	Hypothesis	Path coefficients (β)	T-Statistics	Decision on Hypotheses
Brand Awareness (BAW) → Brand Loyalty (BL)	H1	0.176 ^a	1.981	Accept/Significant
Brand Association (BAS) → Brand Loyalty (BL)	H2	0.058 ^a	0.447	Accept/in-significant
Product Quality (PQ) → Brand Loyalty (BL)	H3	0.512 ^a	4.283	Accept/Significant
Brand Loyalty (BL) → Re-purchase intention (RPI)	H4	0.120 ^a	1.974	Accept/Significant

^aSignificance Level p<.10; ^bSignificance Level p<.05; ^cSignificance Level p<.01.

Table 4, above present the four hypothesized relationships, path coefficients, the t-statistics and the decision criteria. The value of the t-statistic will indicate whether the relationship is significant or not. T-statistics which is above 2 is accepted and shows a significant relationship. Drawing from the results provided in Table 4, four of the hypothesized relationships (H1, H2, H3 & H4) are supported.

7. Research Findings and Discussions

7.1 Hypothesis One (H1): Brand Awareness (BAW) → Brand Loyalty (BL)

It can be observed in Figure 1 and Table 4 that H1, Brand Awareness (BAW) → Brand Loyalty (BL) is supported by the hypothesis result (0.176) and is significant at t-statistics 1.981. The strength of the relationship is indicated by a path coefficient of 0.176. This implies that brand awareness directly

influences brand attachment in a positive significant way. High levels of brand awareness will lead to higher leads on brand loyalty.

7.2 Hypothesis Two (H2): Brand Association (BAS) → Brand Loyalty (BL)

Figure 1 and Table 4 above, indicate that H2, Brand Association (BAS) → Brand Loyalty (BL) emerged positively but has an insignificant influence as indicated by the path coefficient of (0.058) and the t-statistics (0.447). This implies that brand association (BAS) positively influences brand loyalty (BL) but has an insignificant impact on brand loyalty.

7.3 Hypothesis Three (H3): Product Quality (PQ) → Brand Loyalty (BA)

It is depicted in Figure 1 and Table 4 that H3, Product Quality (PQ) → Brand Loyalty (BA) is supported significantly. The t-statistics is 4.283. The strength of the relationship is indicated by the path coefficient of 0.512. This finding suggests that product quality has a direct strong positive effect on brand loyalty. So, the more a consumer finds a product is of good quality the more a consumer is loyal to the brand.

7.4 Hypothesis four (H4): Brand Loyalty (BL) → Re-purchase intention

It is depicted in Figure 1 and Table 4 that H3, Brand Loyalty (BL) → Re-purchase intention is supported significantly. The t-statistics is 1.974. The strength of the relationship is indicated by the path coefficient of 0.120. This finding suggests that brand loyalty has a direct strong positive effect on re-purchase intention. Thus, the more a consumer is loyal to a brand the more a consumer intends to repurchase the brand.

8. Academic, practical and policy implications for the study

The present study offers implications for academicians. An investigation of the research findings indicate that Product Quality (PQ) → Brand Loyalty (BA) has the strongest influence on each other as indicated by a path coefficient of (0.512) when compared to other research constructs. Thus, for academicians in the field of brand management this finding enhances their understanding of the relationship between product quality and brand loyalty as this is a useful contribution to existing literature on these two variables.

On the practitioners' side, this study submits that marketers or brand managers of male cosmetic brands can benefit from the implications of these findings. For example, given the robust relationship between brand loyalty and repurchase intention (0.473), brand managers ought to pay attention on selling cosmetic products which are of high quality, enhancing brand awareness campaigns for cosmetic products as well as promotions for consumers to be associated with brands in order for consumers to be loyal and to repurchase cosmetic brands. The consumers can also spread through word of mouth to other male friends, brothers or fathers within their families thereby boosting their production and profits.

Moreover; the present study offers implications for policy makers (the government or retail associations) who have been developing brand strategies to improve the performance brands. Precisely; policies or strategies which exist in their respective departments or associations can be modified or created in order to make their consumers repurchase their brands. Thus, the results which have been obtained from this study may be used to generate new policies and revision of the existing policies.

9. Limitations and Future Research Suggestions

Limitations were observed during this research. First, the study was restricted to four factors only; namely brand awareness, brand association, product quality, brand loyalty and repurchase intention. Future research could also include factors that influence the repurchase intention of cosmetic male brands such as brand innovation and brand love. In addition, the results are based on a sample of 150 respondents which is not a bigger sample. This makes it difficult to generalize the results to other contexts in South Africa since South Africa has 9 provinces. Other researchers could make use of large sample sizes in order to get more representative views. This study focused on a purely quantitative research approach, other researchers could also try to use a mixed method approach or qualitative research so that in depth views of male consumers for cosmetic brands in South Africa.

10. Conclusion

The purpose of this study was to investigate the influence of brand awareness, brand association and product quality on brand loyalty and repurchase intention among male consumers of cosmetic brands in South Africa. In particular, four hypotheses were postulated. To test the proposed hypotheses, data were collected from Gauteng Province in South Africa. The empirical results supported all the posited research hypotheses in a significant way except H2. The study authenticates that factors such as brand awareness, brand association, and product quality are instrumental in stimulating brand loyalty as well as repurchase intention in South Africa.

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Hostess brands inc.: A case study

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Keywords

Case study, human performance technology, instructional design, business process improvement

Abstract

Hostess Brands, Inc. served as the largest manufacturer and distributor of baked goods products in the United States for decades. Throughout numerous mergers and acquisitions, the company's growth resulted in a series of problems leading to bankruptcy. The three key problems included high legacy costs, shrinking profits, and significant, long-term debt. This research is a case study utilizing Gilbert's Behavioral Engineering Model to evaluate the issues that led to the bankruptcy of Hostess Brands, Inc.

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Introduction

The largest producer and distributor of baked goods products in the United States, Hostess Brands, Inc. filed for bankruptcy on November 16, 2012. Several problems existed within the organization that made solvency and profitability nearly impossible. Three key problems uncovered within the organization included exorbitant legacy costs due to multiple unions, shrinking profit margins because of increased production costs, and large, long-term debt. This study will evaluate human performance technology, specifically analyzing the main problems within Hostess Brands, Inc., and will also argue for Gilbert's Behavioral Engineering Model, discussing how it could have been utilized to improve Hostess organizational efficiency.

Hostess Brands, Inc.

Hostess Brands, Inc. baked and distributed breads and baked goods throughout the United States from 2009 to 2013. This corporation emerged from bankruptcy in 2009, then owned by Ripplewood Holdings LLC, a private equity firm, and retained financing through hedge Silver Point Capital LP and Monarch Alternative Capital LP (Feintzeig, 2012). Some of the most common product lines included Wonder Bread, Hostess, and Dolly Madison, along with several other popular brands. Once the company was fresh out of bankruptcy under Interstate Baking Company (IBC), it began to operate again under the Hostess Brands, Inc. name, aspiring to succeed as a profitable venture by providing bakery items throughout the country.

Headquartered in Irving, TX, Hostess Brands, Inc. owned and operated 36 bakeries that manufactured products which were delivered to approximately 600 distribution centres, where nearly 6000 delivery drivers distributed product to stores (sbwire.com, 2012). In total, the company employed over 18,500 employees (cnn.com, 2012). The Hostess timeline goes back nearly a century. In 1919, the first product was introduced, known then as the Hostess Cupcake (hostesscakes.com, 2016). Continental Baking Company purchased Taggart Bakery in 1925, which made Continental Baking Company the largest bakery in the United States (cnn.com, 2012). Interstate Baking Company (IBC) was formed in Kansas City, Missouri in 1930, the same year that James Dewar of Continental Bakery invented the Twinkie. Throughout the 1920s, and through the late 1990s, Interstate Baking Company purchased and acquired numerous smaller wholesale bakeries; and, in 1995 they acquired the Continental Baking Company for \$330 million, plus stock (cnn.com, 2012). This acquisition made IBC the largest wholesale bakery in the United States.

In October 1998, Interstate Baking Company's stock fell nearly 25% in a mere two hours, following the announcement that earnings were indeed less than expected (fundinguniverse.com, 2016). Plunging from a high of \$34.375 per share down to \$22.75 per share in only a year, the company created a shareholder rights plan to prevent any possible takeovers. Further financial struggles plagued the company in 2000, when net earnings were \$37 million less than in 1999, finishing the year with earnings of \$89 million.

In the late 1990s and early 2000s, cost of production increased significantly due to increased prices for main ingredients such as flour and sugar. Gasoline prices also continued to climb during that time. Since IBC products generally carried a high price tag, the market could not support higher sales prices, so profit margins were squeezed, causing further financial burdens for the already over-leveraged company. In 2004, IBC filed for Chapter 11 bankruptcy.

Hostess Brands, Inc. Financial Struggles

Restructuring after the previous bankruptcy, Hostess Brands, Inc. was then required to carry an exorbitant amount of legacy costs. With the acquisition of numerous other wholesale bakeries, Hostess Brands, Inc. also acquired numerous labor unions, which made-up the largest employee population within the organization. The system was quite complex, as it then held 372 separate bargaining contracts for employees (Feintzeig, 2012). Additionally, the numerous mergers included pension and health care plans, along with other specific benefit packages. These contracts carried excessive financial burdens due to the administrative fees that were associated with each individual plan; and, these plans varied in accordance with the bargaining unit of the original contract.

Further, the company struggled with a vast production system and over 5,500 truck delivery routes. These delivery routes created significant inefficiencies and additional expenses to the company as they often-times crossed over one another. Regardless, union contracts prohibited any streamlining of the process.

Known for selling products high in sugar and carbohydrates, Hostess Brands, Inc. did not adequately market products sought by fitness-oriented consumers. They struggled to attract new customers due to lack of product variety and ingredients, which could have included the use of healthier grain breads over the traditional white breads (wsj.com, 2012). Therefore, product sales remained flat, including the sales of Twinkies, which declined by 2% (Isidore, 2012). Profit margins continued to shrink, due to Hostess' inability to increase consumer pricing. Production and delivery costs continued to increase, partially due to already high initial pricing (wsj.com, 2012). This, combined with the initial debt acquired by Hostess Brands, Inc. of approximately \$860 million, made the company's financial goals nearly unreachable.

Theoretical Perspectives

When evaluating the performance of the Hostess Brands, Inc. as an organization, behaviorism theory may be utilized to examine the external environment of the labor unions, which had represented and advised the employees. Due to the differences in opinions and concessions made among the leaders of the various bargaining units, a comprehensive understanding of the initiatives made by all parties involved did not exist. Therefore, no sensible efforts were ever made, which may have potentially saved the organization from financial disaster.

Arguably, by enacting a human performance technology model such as Gilbert's Engineering Behaviors Model (1978), Hostess Brand, Inc. could have created more favorable discussions and better understanding between all interested parties. Further understanding of the inefficiencies and redundancies in Hostess delivery routes can be made through an assessment process, where sound recommendations can be arrived at, applicable to business operations in financially troubled organizations such as Hostess.

Data

To effectively analyze the details behind the bankruptcy of Hostess Brands, Inc., it was necessary to review both the Disclosure Statement as well as the First Day Declaration made by Hostess Brands, Inc. during their bankruptcy proceedings. These two documents contain valuable details that can be used to better examine of challenges the company faced that fostered insolvency and ultimate bankruptcy in 2012.

In addition to these two extensive documents, a prior case study conducted by Ganier, Conrad, and Patrick (2013) can be utilized to make sound recommendations for improvements in organizational performance.

After reviewing these documents, it is sensible to further explore the roles that the numerous unions had played in company performance. According to the neoclassical economic model, competitive markets drive companies to operate as efficiently as possible, thus prohibiting unions from improving the performance of these companies (Belman, 1992). By prioritizing the needs of its members, unions can cause wages to be higher than they typically would be for similar non-union jobs, sometimes utilizing the threat of a labor strike (Sherk, 2009). The primary functions of labor unions are to ensure pay equality as well as to maintain favorable working conditions for employees. However, unions continue to face a decline in popularity due to their ineffectiveness in accomplishing their labor goals (Malik, 2011).

Previous research indicates that union labor organizations may provide valuable improvement in human performance. Belman compared research results from numerous scholars, finding that unions actually improved efficiency in some organizations (1992). Further research indicates that organizations that utilize union employees have a larger number of highly effective, high-performance work practices (Gittell, 2004).

During the Hostess Brands, Inc. financial crisis, the company had asked employees to concede and also to not strike. Although some of the unions agreed to continue to work, the decision was not mutual among all union leaders, so many of the unions began to strike. On the fourth day of the strike, Hostess Brands, Inc. announced that it was indeed filing for bankruptcy.

In a press release dated November 16, 2012, AFL-CIO President Richard Trumka states:

"What's happening with Hostess Brands is a microcosm of what's wrong with America, as Bain-style Wall Street vultures make themselves rich by making America poor. Crony capitalism and consistently poor management drove Hostess into the ground, but its workers are paying the price. These workers, who consistently make great products Americans love and have offered multiple concessions, want their company to succeed. They have bravely taken a stand against the corporate race-to-the-bottom. And now they and their communities are suffering the tragedy of a needless layoff. This is wrong. It has to stop. It's wrecking America" (aflcio.org, 2012).

In an interview with CNN, Frank Hurt, President of the baker's union remarks:

"Our members decided they were not going to take any more abuse from a company they have given so much to for so many years. They decided that they were not going to agree to another round of outrageous wage and benefit cuts and give up their pension only to see yet another management team fail and Wall Street vulture capitalists and 'restructuring specialists' walk away with untold millions of dollars." (cnn.com, 2012).

The inability for all union leadership to agree on concessions sealed the fate of Hostess Brands, Inc. on November 16, 2012, resulting in the loss of over 18,500 jobs (Brown, 2014).

Possible Solutions

Three potential business solutions emerge through evaluation of Hostess Brands, Inc. and application of Gilbert's Behavioral Engineering Model to the former organization. These three solutions include streamlining driver delivery routes, outsourcing product delivery, and the elimination of in-house product delivery. Improved communications between the labor unions and clearly agreed-upon company goals would also have greatly benefitted Hostess.

By working with the employees and the union representatives, specifically addressing the redundancies in driver routes, the company could have offered incentives to drivers to alter their usual delivery routes. Indeed, this would have fostered greater efficiencies by reducing employee labor costs, lowering fuel expense, reducing wear and tear on the delivery fleet, as well as lessening vehicle insurance premiums. Additionally, by calculating an incentive delivery rate and rewarding drivers for performance, standards could also have been set to address other gaps in operational efficiency.

A second recommendation for performance improvement in Hostess Brands, Inc. would have been to eliminate the company delivery fleet. Hostess then could have hired an external delivery source to manage and deliver the entire product line to the distributors. By eliminating the delivery drivers, several labor unions would have no longer been necessary, along with legacy costs associated with these unions.

Finally, the third possible solution to the organizational problems, which argues for the construct of behaviorism and Gilbert's Behavioral Engineering Model, is to improve communications between all of the labor union representatives and the corporate executives and decision makers in Hostess Brands, Inc. In short, by improving these communications and implementing incentives for agreement among all interested parties, a win/win situation could have been fostered between the organization and all of the employees. Hostess workers needed accurate information, communicated clearly by management. Further, employees could not perform optimally without proper resources and incentives.

It is most important to state that employee motivation and incentives would have encouraged *positive* behavior, which would have been to the benefit of the corporation and ultimately, all employees. *Negative* behavior, such as employees taking longer delivery routes and wasting company time and resources, would only have been to the detriment of the company, as well as increasing delivery and product frustrations for clients and customers. By creating this mutual benefit, employee engagement and morale would have improved, and the company could have gained in profitability and operational efficiency. Gilbert's model argues for the need for worker incentives, proper resources, and positive motivation. Indeed, employee mindfulness must be fostered by organizational leaders, in the first place. Unfortunately, complex business circumstances, poor communication, fuzzy organizational goals, and unneeded layers of labor unions, employees, and supervisors did little to lessen Hostess' operational costs, much less give employees incentives for mindfulness, efficiency, and the ultimate good of the company.

Recommended Solution

Due to the extreme complexity of the organization, along with the extent of labor unions, pension plans, administrative costs, while attempting to keep pace with numerous contractual obligations, the recommended solution is the outsourcing of product delivery to a third party. By eliminating the route redundancies, along with the costs associated with retaining double the delivery routes as well as delivery drivers, the company would have had to eliminate nearly 600 employees. This would have reduced immediate payroll expense, health care costs, and the administrative expenses that will be associated with a large workforce. Additionally, this would have decreased the number of various labor unions and their leaders, simplifying bargaining and contract negotiations. This would have made agreement on the company's future clearer, and any union problems that might have cropped up could have been dealt with in far less complicated ways. In short, union engagement with upper management would have been more sensible and efficient, benefitting a financially troubled company that was in dire need of better communication at all organizational levels.

Summary

Hostess Brands, Inc. served as the largest manufacturer and distributor of baked goods in the United States from 2009-2012. Unfortunately, due to several factors, including high production costs, lack of health-conscious products, multiple labor unions, extensive pension plans, and significant debt, Hostess Brands, Inc. had to file for bankruptcy in 2012. By being more proactive and taking a deeper dive into human performance technology, Hostess Brands, Inc. could have implemented significant changes to foster a more engaging employee environment, thus improving employee productivity, manufacturing efficiency as well as overall corporate profitability. Specifically, by outsourcing delivery, the company could have experienced substantial financial relief. Indeed, human performance technology and Gilbert's Behavioral Engineering Model was not utilized in order to save Hostess Brands, Inc. from insolvency, but much can be learned from the mistakes, hopefully preventing other businesses from ultimately succumbing to the same fate.

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Effect of perceived safety, procedural justice on domestic airline passengers of Nigeria

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Keywords

Service recovery, procedural justice, perceived safety and Nigeria's domestic airline.

Abstract

The aim of the paper is to empirically examine how perceived safety and procedural justice effect satisfaction service recovery of domestic airline passengers in Nigeria. The study uses survey method, quantitative in nature. Using PLS SEM the conceptual model was tested with a sample of 444 passengers obtained through cluster sample. From the result, both perceptions of safety and procedural justice are important to domestic airline passenger satisfaction when evaluating the airline's recovery effort in Nigeria. Empirical evidence showed that satisfaction service recovery is directly influenced by perceived safety and procedural justice.

The main limitation is that the study uses cross-sectional sample of airline passengers. It also relied on information from prospective domestic airline passengers, while neglecting other type of passengers. The research shows that passengers' perception of safety, determine their satisfaction with service recovery. It shows that in situations of failure similar to the present, safety perception, procedural justice should be given preference during service recovery.

The study fortifies the justice theory in service recovery of domestic airline context by including perception of safety. However, through empirical testing the perception of safety, procedural justice variables determine satisfaction with recovery. It suggests that airline industry faced with service failure need to consider the passengers' perception of safety and procedural justice during recovery.

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1. Introduction

Service firms try every single effort to deliver error free service, in order to amplify satisfaction of customer and advance continuing customer relationship. Consequently, even for the finest firms, mistakes do occur during service delivery procedure. Resultantly, effective service recovery is needed for relationship building and customer retention. Bitner, Booms, and Tetreault, (1990) showed that most customers can tolerate some service mistakes and mistakes alone do not lead to dissatisfaction. But refusal to take service recovery measures is the primary reason for customer dissatisfaction. Therefore, it is important that when mistakes happen, remedial measures need to be taken by service firms to effectively turn unhappy customers into pleased ones (Gursoy et al. 2005). Numerous studies shows that failure in service recovery is a vital reason for customer loss; while successful service recovery can increase customer satisfaction and retention (Maxham and Netemeyer, 2002).

Equally, managers and researchers recognized the significance of service recovery. Consequently, considerable research has been carried out on effectiveness, features of service recovery and its influence on customers. Specifically, studies like Bitner et al. (1990) use critical incident examination to assess customers' service consumption experience and summarize the attributes of service recovery. Recently also, scholars like (Tax et al. 1998; Wagner et al. 1999) examine the customers' assessment of service recovery using justice theory. The theory has provided a robust theoretical foundation for service recovery research and to a certain extent noteworthy findings has been deduced from the studies. Blodgett et al.

(1997) found interactional and distributive justices significantly show more variance than procedural justice, while Smith et al. (1999) proves that higher fairness is to distributive and procedural justices.

The existing literature is intended to be extended by the current study through the investigation of how perception of safety, procedural justice could influence satisfaction service recovery. A model was conceptually proposed to examine the influence of perceived safety, and procedural justice on satisfaction service recovery of domestic airline passenger. Additionally, a lot of preceding studies implemented experimental/scenario-based method in which irrelevant variable influences were controlled. They also lack external validity; they therefore will not be universally applicable. To overcome, the mentioned problems the conceptual model using data collected from prospective domestic airline passengers of Abuja and Lagos airports is tested. Passengers expect quality service recovery performance that will lead them to become satisfied with the recovery process. Service failures such as flight cancellations, loss of baggage, staff attitude (ground and cabin), and air strikes (Bamford & Xystouri 2005) or mishap could have effect on satisfaction of passenger, and we argue that the steps taken with consideration to perception of safety, fair procedural justice during recovery from failure will subsequently affect passengers' satisfaction with the recovery.

2. Conceptual background.

Regardless of efforts to strategize on service delivery procedure to be as free from error as possible (Shostack 1984; Chase & Stewart 1994), people involvement and its intangibility make service failure prevention difficult (Hart et al. 1990; Dewitt et al. 2003; Dong et al. 2008). Service failure creates undesirable customer responses (Keaveney 1995). Substantial scholars' attention has focused on developing strategies to recover from service failures in order to reduce these negative consequences (Miller et al. 2000; Davidow 2003). However, the findings of previous studies vary, for instance McCollough, Berry, and Yadav, (2000) studied customer satisfaction after service failure and recovery by means of scenario-based experiment and institute that distributive and interactional justice are important predictors of post recovery satisfaction, while in contrast Wagner et al., (1999) initiate that all the three justices together explain high satisfaction after service recovery or by either different antecedents or variables. Hence, re-evaluation of service recovery is critical in gaining a profound understanding of effective strategies for service recovery; this paper considers how perception of safety influences satisfaction service recovery.

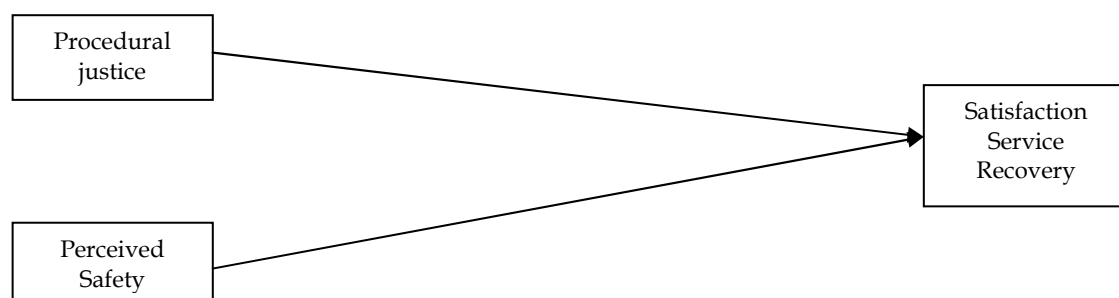


Figure 1: *Conceptual model*

4. Literature review and hypothesis

4.1 Procedural Justice

Procedural justice consists of customer assessments of whatever processes were employed to bring about a resolution in any service failure situation (Thibaut & Walker, 1975; Lind & Tyler, 1988). In particular, it is concerned with the fairness of the measures and procedures employed to reach any recovery result (Blodgett et al. 1997). In assessing procedural justice fairness customers include their perceptions of policies and procedures, consideration of service recovery elements such as the ability to be altered (flexibility) and act in response speedily and absolutely (responsiveness) of the organization as a whole throughout the course of the recovery (Hoffman et al. 2003; Mccoll-kennedy et al. 2003; Chebat & Slusarczyk 2005; Gustafsson 2009).

In other words, procedural justice denotes to the assessment of the technique used to come up with outcomes, or more specifically, the strategies and measures used to bring about the recovery result (Lind and Tyler 1988; Thibaut and Walker 1975). It is useful and meaningful as it aims to resolve conflict, with continued relationship even when outcomes are not satisfactory. Since the service process is often times an integral part of the entire product or service offering (Bitner et al. 1990), firms could presumably benefit from establishing procedural justice during the recovery effort, and the effect seems likely for satisfaction with the recovery. Several studies supports the impact of procedural justice (Mccoll-kennedy et al. 2003; Chebat & Slusarczyk 2005; Gustafsson 2009). Based on the above, we hypothesized that:

H1 Procedural justice has a positive influence on satisfaction service recovery.

4.2 Perceived Safety

Perception of safety is an overlapping emotion of concern, panic and nervousness felt while experiencing an anxiety producing situation like air mishap (Hosany & Gilbert 2009; Richins 1997). The occurrence of accidents cannot be eradicated completely, passengers are conscious of this fact. The perceived risk is assumed as the subjective anticipation of a loss (Sweeney et al. 1999) which creates feeling of uncertainty, uneasiness, and nervousness (Dowling & Staelin 1994). Airlines try to limit the risks related to air travel through various safety measures that includes service quality (Rhoades & Waguespack, 1999). Flight safety based on aircraft appearance, pilot competence (Ringle, Sarstedt & Zimmermann, 2011).

Particularly, as assessment shape passengers' perception of safety, which is regarded as important criteria when choosing an airline could enhance their satisfaction. We therefore hypothesize that safety measures have a positive influence on customer satisfaction.

H2 Perceived Safety positively influence satisfaction service recovery

4.3 Satisfaction service recovery

Satisfaction with service recovery has been deliberated to be something serious for service firms in sustaining positive relationships with customers after service failure (Maxham, 2001; Maxham and Netemeyer, 2002; Stauss, 2002). Service failure and recovery encounter often arouse robust emotional responses from customers, which may influence customers' resolution of whether to carry on in a relationship with a company directly or indirectly. Satisfaction with service recovery mostly, however, taps the cognitive aspects of consumer behavior (expectations, disconfirmations, and justice perception) (McColl-Kennedy et al., 2003; Smith et al., 1999; Wirtz and Mattila, 2004).

Previous research suggests that emotional responses to service failure and subsequent recovery influence customer affection. Affection is distinct from customers' emotional responses in that customer affection is engendered and further reinforced or damaged by customers' emotional reactions in response to service recovery efforts. With perception of safety, the emotion of passenger will become positive thereby increase satisfaction with service recovery. Respectively, customers' emotional responses to service failure and recovery encounters have received some attention (Weiss et al., 1999; Chebat and Slusarczyk, 2005; DeWitt et al., 2008; Namkung and Jang, 2010).

5. Methodology

5.1 Sample and data collection

The study use survey method, to collect data cross-sectional, from domestic airline passengers of MM Airport, Lagos and Abuja International Airport. 505 questionnaires were administered at the departure hall of both Airports through cluster sampling method. However, only 444 of the administered questionnaires were filled and returned. 53 questionnaires were excluded because multivariate outliers and missing data leaving 391 effective valid responses. 77% response rate achieved. Measures of satisfaction service recovery adapted from (McCollough et al., 2000; Nikbin, Marimuthu, Hyun, & Ismail, 2014). Procedural justice adapted from (Wagner et al. 1999; Maxham & Netemeyer, 2003). Perceived safety adapted from (Ringle, Sarstedt & Zimmermann, 2011). Item measures were based on a 5 point Likert Scale, ranging from 1=strongly disagree to 5=strongly agree.

5.2. Model Estimation

Preliminary analysis and data screening was conducted. Precisely, missing values and outliers

were assessed. Normality and multicollinearity tests were also conducted without any severe issue. Similarly, the non-response bias result proposes that we progress with data analysis. Structural equation modelling Smart PLS (Hock, Ringle, & Sarstedt, 2010) was used to evaluate both measurement and structural models. PLS a variance based SEM technique was chosen based on the consideration of complexity of the research model (Chin, 2010).

The Cronbach's Alpha, composite reliability, convergent and discriminant validity were considered in assessing the measurement model's internal consistency. The Cronbach's Alpha coefficients range between 0.59 and 0.81 while composite reliability coefficients range between 0.78 and 0.86. Higher than the threshold of 0.70 this indicates adequate internal consistency reliability of measures (Nunnally, 1978). Factor loadings were also adequate as they range between 0.59 and 0.81. To achieve the model fit, 4 items whose outer loadings fall below 0.7 were deleted (Chin, 2010) to arrive at the revised model. Convergent and discriminant validity of the instruments were evaluated through the approaches developed in PLS context by Fornell and Larcker (1981). Accordingly, the AVE of each latent construct was above 0.5 indicating adequate convergent and discriminant validity. Further, as suggested by Fornell & Larcker (1981) the square root of the AVE to be higher than the correlations among the latent variables have been achieved also. As per table 2.

Table 1:

Construct	Procedural Justice	Perceived Safety	Satisfaction Service Recovery
PROC03	0.526548	0.19095	0.254879
PROC04	0.853039	0.460629	0.499806
PROC05	0.80963	0.338689	0.436446
PS01	0.347621	0.764061	0.524695
PS02	0.339662	0.706421	0.490798
PS03	0.34773	0.747028	0.468388
PS04	0.348246	0.672773	0.469277
PS06	0.341028	0.796705	0.573125
PS07	0.30411	0.641962	0.500109
SSR01	0.458114	0.602426	0.769179
SSR02	0.376263	0.511339	0.753132
SSR03	0.35427	0.556745	0.765688
SSR04	0.442866	0.426753	0.733445
SSR05	0.369072	0.409261	0.585199

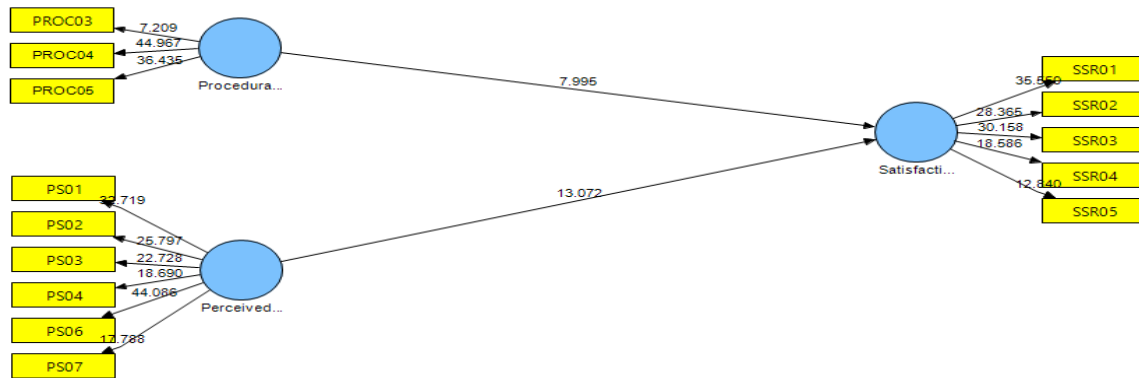
Item cross loadings

Table 2:

Construct	AVE	Composite Reliability	Cronbachs Alpha
Perceived Safety	0.523392	0.867605	0.816187
Procedural Justice	0.553476	0.781553	0.590338
Satisfaction Service Recovery	0.525104	0.845636	0.771189

Average Variance Extracted, Composite reliability, and Cronbach's Alpha

Figure: 2



Structural Model

The structural model was assessed by applying the boot strapping procedure with 500 bootstrap samples and 391cases to examine the significance of the path coefficients (Chin, 2010).

Table 3: Result of Hypothesis testing

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	Standard Error (STERR)	T Statistics (O/STER R)	P value	Decision
Perceived Safety -> Satisfaction Service Recovery	0.565	0.567	0.043	0.043	13.072	0.000	Supported
Procedural Justice -> Satisfaction Service Recovery	0.289	0.290	0.036	0.036	7.995	0.000	Supported

Table 4: Effect size

Construct	R square Included	Excluded	f-squared	Effect size
Procedural justice	0.55571	0.494	0.138896	Small
Perceive safety	0.55571	0.311	0.550789	Large

6. Result

The hypothesized significant positive relationship between procedural justice and satisfaction service recovery ($\beta=0.036$, $t= 7.955$, $p< 0.000$). Perceived safety and satisfaction service recovery ($\beta=0.043$, $t=13.072$, $p<0.000$), were all supported. Consistent with prior research on the significant relationship between procedural justice and satisfaction service recovery(Ok et al. 2005). Perceived safety and satisfaction (Ringle et al., 2011).

7. Discussions

The research was to validate a model for the domestic airline sector, and to particularly evaluate the influence of perceived safety and procedural justice on satisfaction service recovery. It is not unexpected to find that there is a significant relationship between the independent variables because safety issues like proper check on pilot competence, safety check of aircraft and its appearance should naturally enhance passenger satisfaction with service recovery. Procedural Justice issues are as well understood to influence the satisfaction of aggrieved passengers’ satisfaction with the recovery process as suggested by Ok, Back, and Shanklin, (2005) that showed procedural justice of restaurant customer had greater influence on satisfaction service recovery than the other two justices.

The study provides significant insight into perceived safety, procedural justice, on satisfaction service recovery. Therefore, if a passenger perceived safety, he will continue with relationship despite the service failure (Ringle et al., 2011).

Theoretical Implications

The research contributes to theory by empirically validating the role of perceived safety as a construct that is scant in justice theory research. Procedural justice, perceived safety and outcome variable of satisfaction service recovery is empirically validated. Precisely, the outcome of our research theoretically contributes to the literature on service recovery in particular and services marketing in general.

Managerial Implications

The study findings suggest that to achieve passengers' satisfaction service recovery, it is necessary to be aware of safety perception influence on satisfaction service recovery of domestic airline passenger. That can be achieved through proper check on pilot competence, check on safety of the aircraft and its appearance (as proposed by Ringle et al., 2011). There must also be clear, convincing procedural justice Ok, Back, and Shanklin, (2005). Impliedly, passengers' procedural justices, perceived safety increases passengers' satisfaction with service recovery, which in turn enhances their relationship with domestic airlines, thus making airlines to operate at a profit.

8. Limitations and future research direction

Beside the contribution of the study, it should be interpreted with its limitations. Firstly, the data for the study was cross-sectional. In the future, studies should try longitudinal designs given the fact that customer perception and attitude changes with time. Second, the study investigated data from domestic airline passengers' future studies should consider passengers of International airlines. The variances of 56 % indicate that several other factors also account for satisfaction service recovery in domestic airline services. Thus, the effects of constructs like controllability, purpose of travel, forgiveness and possibly the role of culture should be examined by future studies.

9. Conclusions

The present research consistent with the hypotheses, establishes that it will be of benefit for domestic airlines to improve on perception of safety during service recovery situations, in view of the enormous challenges of service failure facing the Nigeria domestic airline sector. Managers of domestic airline would benefit immensely from the insights regarding drivers of satisfaction in service recovery. Improve their financial performance through passenger satisfaction and retention.

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Corporate social responsibility and firm performance in Thailand

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Keywords

Corporate social responsibility, corporate governance, Thailand, public firms

Abstract

The purpose of this study was to investigate relationships between corporate social responsibility disclosure and firm performance in publicly-listed firms in Thailand using a stakeholder theory, proposed by R. Edward Freeman (1984). The theory identifies stakeholders in six groups: shareholders, customers, employees, suppliers, the local community and the natural environment. Data were collected based on the content analysis from annual reports published by the 394 companies in the Stock Exchange of Thailand 2014. Multiple regression analysis was used to identify the relationship between CSR and firm performance. The study found that all six group dimensions of CSR disclosure are positively related to return on assets (ROA), particularly disclosure in dimensions such as investors and customers. This study furthers understanding of CSR disclosure and its consequences.

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1. Introduction

The core focus of this research is corporate social responsibility (or CSR). CSR is a modern business perspective and strategy based on the idea of stakeholder theory, which posits that the firm exists for the greater good of society rather than just its shareholders (Kotler & Lee, 2011). Stakeholder theory was originally proposed and developed by Freeman (1984), and has been developed into a broader ethical position for firms. Freeman (1984) proposed that firms had an obligation to balance the needs of six groups of stakeholders, including shareholders, customers, employees, suppliers, the community, and the natural environment. This opposes the shareholder theory of the firm, proposed by Milton Friedman and others, which requires holds that the firm should only benefit its economic owners (shareholders) (Smith, 2003). However, the precise definition of CSR is widely contested in the literature, and different stakeholder groups may be identified. This research uses Freeman's (1984) original stakeholder framework as its analytical frame.

CSR can take many forms when actualized in firm strategy, including employer and supplier codes of conduct, community participation programs, philanthropic activity, cause-related marketing, and environmental impact assessment, and control of the firm's own activities (Kotler & Lee, 2011). As an example, the coffee firm Starbucks is known for its CSR activities, which include Fair Trade participation (supplier protections), well building and water supply programs, and ethical treatment of employees (Kotler & Lee, 2011). Regardless of the specific form, CSR is meant to be (and will be interpreted by customers as) a reflection of the firm's internal ethics and values. Thus, the most basic importance of CSR is that it demonstrates to consumers and potential consumers the value of the brand. Some studies have found that CSR can contribute to the bottom line, but this is not assured (Kotler & Lee, 2011).

Thailand is one of the strongest countries for corporate governance, or ethical disclosure of firm practices and policies, in Asia (Robinett, 2013). Evidence suggests that Thai firms are actively and effectively using CSR strategies, although firms are not as aggressive about reporting CSR initiatives as in some other countries (Chapple & Moon, 2005; Ratanajongkol, Davey, & Low, 2006). CSR has also been shown to directly affect on Thai customers' perceptions of firms that use it, including increasing perceived service quality, trust in the firm, and brand effect (Poolthong & Mandhachitara, 2009). These studies show that firms are using CSR and that consumers are responding.

This raises the question of what CSR can offer to the Thai economy more broadly. Studies have suggested that CSR can improve the profitability of firms, even in cases where it does not directly improve sales (Kapoor & Sandhu, 2010). A systematic economic survey found that CSR has an effect on consumer markets, with firms demonstrating CSR generally having a stronger performance within these markets (Kitzmueller & Shimshack, 2012). This survey also found that there was evidence that CSR induced innovation and encouraged labor market improvements. Given the dependence of Thailand on the export market, CSR may also have an effect on external consumer demand, particularly if it includes strong environmental sustainability measures (Kotler & Lee, 2011). Some consumers do respond poorly to CSR and even avoid it, and the shareholder theory of the firm holds that it is inappropriate to devote resources to CSR since it does not directly benefit shareholders (Kotler & Lee, 2011). On the balance, however, evidence suggests that CSR can improve performance on at the firm level, through improved processes, innovation, and customer response. When applied across an economy, it could substantially improve economic performance throughout industry industrial sectors.

2. Literature Review and Conceptual Framework

A few studies demonstrate the generally positive relationship between CSR and firm performance. A study in India used the six-dimensional stakeholder perspective to examine CSR impact on firms in India (Mishra & Suar, 2010). That study collected data about CSR and firm performance from 150 companies. The results showed that publicly-listed firms were more likely to use both CSR and report better financial performance than private firms. Additionally, CSR acceptance within the firm is associated with improved financial performance. Thus, the preliminary results of this that study do support a positive relationship between CSR and firm financial performance. A literature review on CSR shows that this effect can be generalized; a large number of studies have found that CSR generates indirect and direct positive effects on the firm's financial performance (Carroll & Shabana, 2010). These effects have been attributed to a variety of factors, including improved employee commitment and performance, better supplier relationships, less waste, and improved customer perceptions and loyalty (Carroll & Shabana, 2010). This Study also points that the benefits such as improved reputation and stock performance related to CSR. Thus, generally speaking, the research supports a positive relationship between CSR and firm performance.

A very recent study suggests that not all CSR has equal effects on the firm (Jayachandran, Kalaignanam, & Eilert, 2013). Jayachandran et al. (2013) identified aspects of CSR relating to the product and the environment, and compared these aspects of CSR on the firm's financial performance. They found that, while both types of CSR did affect financial performance, the product social performance aspects (related more to suppliers, employees, and customers) had a much stronger effect than the environmental performance aspects. Thus, firms may see different effects from CSR depending on their CSR focus, as well as the appropriateness of their activities to the preferences of their customer base. A study in the oil industry also finds that the effect of CSR on firm performance may be moderated by other factors (Lee, Seo, & Sharma, 2013). Lee, et al. (2013) studied the American airline industry to determine the effect of operational and non-operational CSR activities. They found that, in general, these activities had a positive effect on financial performance. However, oil prices were a negative moderating factor in the impact of operational activities on firm performance. Thus, it is too simplistic to say that CSR will definitely improve firm performance, since this could depend on a number of factors outside the direct control of the firm.

The literature on CSR's impact on the firm is not uniformly in agreement, as the studies discussed in brief above demonstrate. In particular, it appears that the relationship of CSR to firm performance depends on the CSR activity and industry conditions. Additionally, there has been relatively little research

on the impact of CSR on Thai firms in recent years, although, as previously noted, Thai firms are known to use CSR and Thai consumers respond to it (Poolthong & Mandhachitara, 2009) (Ratanajongkol, Davey, & Low, 2006). Thus, there is a clear research gap and this research will fill is determining how CSR policies have affected Thai firm performance within the most recent time period (2014), which corresponds with increasing economic growth and globalization.

Overall, the empirical evidence strongly supports the theoretical positive relationship between CSR and firm performance. However, there are aspects of the firm and the CSR program that can complicate this relationship.

2.1 CSR Stakeholder Analysis

CSR is inherently related to stakeholder theory, because stakeholder theory provides the foundation for CSR activities within the firm (Kakabadse, et al., 2005). Simply, without stakeholder theory, there is no justification for the firm to devote energy to fulfilling its ethical or philanthropic responsibilities. Thus, understanding the role of stakeholder analysis in CSR is key to understanding the concept of CSR itself. In this section, a definition of stakeholder analysis in CSR is presented. Next, the roles of various stakeholders in CSR are examined. Finally, approaches to the measurement of stakeholder perceptions of CSR activities are critiqued. In this discussion, six stakeholders (employees, suppliers, customers, owners/ (shareholders), the community, and the environment) are examined. This leaves out management, which was identified as a stakeholder group by Freeman (1984). However, the management perspective is difficult to consider in this case because of the management role in setting CSR policy.

The overall problem of measurement of CSR perceptions is not resolved, and it remains an active area for further research (Aguinis & Glavas, 2012). The development of such instruments is hampered because the underlying relationships between firms and stakeholder groups are not well understood. However, the research suggests that measuring stakeholder perceptions toward CSR is likely to be done most effectively using a survey, though external information (such as actions) could also be used. This is actually at odds with the process of stakeholder analysis, which is primarily qualitative (Harrison & Wicks, 2010). However, it also is a way to collect information about perceptions in a more standardized fashion.

2.2 Hypothesis Development

In order to examine the current research problem, two hypotheses have been proposed based on the existing literature and known findings. However, because some of the research is not as strong as it might be useful, directionality of relationships has not been addressed.

The first hypothesis addresses the relationship between CSR, stakeholder perspectives, and firm performance. The research clearly supports a relationship between CSR activities and firm financial performance, and, in most cases, this relationship is found to be generally positive (Carroll & Shambana, 2010; Golicic & Smith, 2013; Kotler & Lee, 2011; Mishra & Saur, 2010; Qu, 2009; Tang, et al., 2011). This is distinct from any non-financial performance measures, which are not considered in the current study. There are some subtleties, such as firm and industry structure (Hull & Rothenberg, 2008); CSR program orientation (Jayachandran, et al., 2013); and time-frame of the program (Lin, et al., 2009; Nelling & Webb, 2009; Tang, et al., 2011). Manipulative or dishonest use of CSR can also negatively impact firm performance (Fooks, et al., 2013; Janney & Gove, 2011). Overall, however, the empirical evidence suggests that good-faith CSR programs have a positive impact on firm financial performance.

The second aspect of this hypothesis is the difference in stakeholder perspectives. Stakeholder perspectives are inherently related to types or streams of CSR programs used by firms and these programs have a different impact on firm performance (Inoue & Lee, 2011). Thus, it is not just the existence of CSR programs that influences the firm's outcomes, but also how its stakeholders perceive it. A few comparative studies have identified differences in stakeholder group perceptions and outcomes on the firm's performance (Mahon & Wartick, 2012; Mishra & Saur, 2010). This evidence is not as strong as it might be, offering an opportunity for comparative research. However, a number of studies of individual perspectives have identified differential impacts of stakeholder groups on firm performance and conditions under which it occurs. For example, the impact customer perspective of CSR on consumer-facing firms such as retail firms is potentially very strong, but is not effective unless consumer awareness

is high (Servaes & Tamayo, 2013). Similarly, support for some perspectives may come from unexpected quarters; for example, evidence suggests that institutional investors (nominally representing the shareholder perspective) also improve environmental protections (thus, also representing the environment's perspective) (Walls, et al., 2012). Thus, there is substantial evidence that stakeholder perspectives have different effects on CSR. Based on this evidence, the first hypothesis is posed:

There is a positive relationship between CSR in stakeholder perspectives (community, supplier, employee, shareholder, customer and environment) and firm performance.

3. Research Design

The research design relies on secondary published information, specifically annual reports. Quantitative data will be used to model firm performance, specifically data from the firm's annual reports. However, there is no set quantitative metric that can be used to measure CSR. Instead, qualitative data were assessed and systematically condensed into a quantitative score or metric for CSR utilization. This approach can be described as a systematic approach to qualitative data. This index-building approach is commonly used to measure business outcomes where there is no specific single quantitative metric that could be used (Zikmund, Babin, & Carr, 2012). It is somewhat vulnerable to bias, given that the researcher will ultimately select the data for assessment, but this can be avoided by using a systematic and outlined approach to data collection and analysis (Zikmund, Babin, & Carr, 2012). This was preferable to as in some other studies relying on consumer or manager perceptions of CSR as a proxy for firm CSR activities, as applied in some other studies.

3.1 Independent Variables

There are six independent variables in the study. Each of these relates to one of the six dimensions of stakeholder theory as indicated by Freeman (1984). However, there is no direct quantitative indication of CSR performance in these areas. This means that an indexing system had to be found. However, the researchers preferred not to construct an indexing system, because of concerns about validity and reliability of a new scale (Zikmund, Babin, & Carr, 2012).

The recent research by Kapoor and Sandhu (2010), which studied CSR and firm performance in India, provided a solution for transforming qualitative observations of CSR activities to quantitative measurements that could be used for statistical analysis. The authors constructed a 44-item index of CSR items, each of which reflects an aspect of one of the six stakeholder categories (Kapoor & Sandhu, 2010), and plus more added 26 -items that relate to G4 from GRI. Disclosure of items is assigned a value of 1, and non-disclosure a value of 0. On completion of content analysis, there is an index score generated from each of the items that related to the appropriate stakeholder category. The index score represents the percentage of the total number of items in the category that were disclosed by the firm. This does have flaws, particularly in that it does not reflect the firm's view of the relative importance of a particular effort (Kapoor & Sandhu, 2010). However, it does provide a standardized representation of firm CSR activities, which is particularly useful. The items and scoring measures have been used as presented by the authors, in order to avoid introducing unreliable measures.

3.2 Data Collection

The population of interest in this research is Thai firms. The sample that was publicly-listed firms on the Stock Exchange of Thailand (SET) in 2014. The main sources of data were SETSMART, or the SET Market Analysis and Reporting Tool. This database includes annual financial reports and performance figures for all firms listed on the Stock Exchange of Thailand (SET).

The annual reports listed in SETSMART were also used to collect information about the CSR perspectives, as described above. However, test sampling has shown that annual reports do not always include comprehensive information about CSR activities. In order to fill this gap, further research was done using the firm's own website and corporate social and sustainability reports. This holistic approach allows the broadest possible capture of information about CSR activities and enables accurate CSR scoring using the method outlined above. All sources were listed and disclosed.

3.4 Data Analysis

There are two data analysis techniques used in this study. The first technique is factor analysis, while the second is multiple regression analysis. Factor analysis is used to provide a single consolidated

index variable to be used as an independent variable, while multiple regression analysis is used to test the relationship between dependent and independent variables.

The first step in the analysis will be is to consolidate the six independent variables into a single representative CSR index. One of the problems with the six independent variables is that they provide a divergent picture of the CSR activities when applied to multiple firms. Firms do not tend to pursue the same CSR activities, because of differences in operations, ethics, and stakeholder impacts (Kotler & Lee, 2011). Thus, to simply compare firms based on one dimension of the stakeholder theory is likely to not provide a fair comparison. In order to condense the six perspectives into a single composite index of CSR disclosure that will fairly represents all firms, factor analysis is used. Factor analysis is an analytical method that is used to uncover latent variables or factors from a data set (Fabrigar& Wegener, 2012). In essence, factor analysis identifies factors (or unobserved variables) based on relationships in variation among a set of observed variables.

Multiple regression analysis is the tool used to identify the relationship between CSR and firm performance. Regression analysis describes a relationship between the independent variable (styled X) and dependent variable (styled Y) (Crown, 1998). This relationship can be recognized as the line-slope equation. The line-slope equation represents the co-variation of the two variables (Crown, 1998). Regression equations can be used to understand the strength of a relationship between two variables using the R2 value, and can also be used to predict the dependent variable based on the independent variables. Multiple regression analysis includes more than one X variable.

4. Results

Table1: Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.844
Bartlett's Test of Sphericity	Approx. Chi-Square	1279.211
	df	15
	Sig.	.000

Table 1 show that KMO was equal .844 and were significant at P -value < 0.000. Factor Analysis result provided found that all six groups of CSR disclosure variables (: employee, employee, customer, environment, communication, investor and supplier) had significant relationships. Thus, it is appropriate for this study to can take apply fFactor aAnalysis technique.

In the regression model the ROA is regressed on the score in six groups of CSR disclosure variables, as per the following equation as follow:

$$ROA = \beta_0 + \beta_1 \text{employee} + \beta_2 \text{customer} + \beta_3 \text{environment} + \beta_4 \text{communication} + \beta_5 \text{investor} + \beta_6 \text{supplier} + e$$

Results of the descriptive statistics analysis provided are shown in Table 2 that present minimum, maximum, mead and Standard deviation of all variables. The Ccorrelation matrix is shown in tTable 3 is use for initial analysis, followed by then multiple regression analysis to test the s for enhancement hypothesis test from the data.

Table 2: Descriptive Statistics

	CSR - employee	CSR- Customer	CSR- Environment	CRS- Community	CSR- Investor	CSR- Supplier
N Valid	394	394	394	394	394	394
Missing	0	0	0	0	0	0
Mean	14.883	4.198	12.612	10.964	5.622	2.500
Std. Error of Mean	.0665	.0581	.0989	.0799	.0550	.0509
Median	15.000	5.000	13.000	10.000	6.000	3.000
Mode	15.0	5.0	12.0	10.0	5.0	3.0
Std. Deviation	1.3199	1.1531	1.9638	1.5852	1.0920	1.0095
Minimum	13.0	2.0	1.0	8.0	4.0	.0
Maximum	19.0	7.0	17.0	15.0	7.0	5.0
Percentiles						
25	14.000	3.000	12.000	10.000	5.000	1.000
50	15.000	5.000	13.000	10.000	6.000	3.000
75	15.250	5.000	14.000	12.000	7.000	3.000

Table3:Correlations

		ROA	Employee	Customer	Environment	Community	Investor	Supplier
Pearson Correlation	ROA	1.000	.400	.404	.325	.319	.411	.340
	employee	.400	1.000	.704	.525	.570	.640	.735
	Customer	.404	.704	1.000	.403	.362	.615	.750
	Environment	.325	.525	.403	1.000	.610	.438	.397
	Community	.319	.570	.362	.610	1.000	.435	.391
	Investor	.411	.640	.615	.438	.435	1.000	.557
	Supplier	.340	.735	.750	.397	.391	.557	1.000
Sig. (1-tailed)	ROA	.	.000	.000	.000	.000	.000	.000
	Employee	.000	.	.000	.000	.000	.000	.000
	Customer	.000	.000	.	.000	.000	.000	.000
	Environment	.000	.000	.000	.	.000	.000	.000
	Community	.000	.000	.000	.000	.	.000	.000
	Investor	.000	.000	.000	.000	.000	.	.000
	Supplier	.000	.000	.000	.000	.000	.000	.

Table4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				Durbin-Watson	
					R Square Change	F Change	df1	df2		Sig. F Change
1	.479 ^a	.229	.217	8.29273	.229	19.188	6	387	.000	1.851

a. Predictors: (Constant), CSR- Supplier, CRS- Community, CSR- Investor, CSR- Environment, CSR- Customer, CSR - employee

b. Dependent Variable: ROA

Table 5 ANOVAnova Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7917.370	6	1319.562	19.188	.000 ^b
	Residual	26613.723	387	68.769		
	Total	34531.093	393			

a. Dependent Variable: ROA

b. Predictors: (Constant), CSR- Supplier, CRS- Community, CSR- Investor, CSR- Environment, CSR- Customer, CSR - employee

Tables 4 and 5 provide a regression analysis result that with statistically significant at P-value < 0.000. The F-test was equal to 19.188 and Durbin -Watson was equal to 1.851. That means that CSR disclosure across all six groups has an effect on ROA. Therefore, this study accepted hypothesis.

5. Discussion and Summary

This study examines the nature and measure of corporate social responsibility (CSR) disclosure in listed firms in Thailand in 2014. It investigated the relationship between CSR and firm performance. The result was significant in relation to the purpose. There is mixed evidence for the relationship of CSR and firm financial performance (as measured by ROA). In theory, the firm could recognize direct economic benefits like such as increased sales due to improved corporate reputation and consumer trust, and indirect effects like such as improved efficiency and employee commitment (Kotler and Lee, 2011). Several studies have also had empirical findings that supported a positive relationship of CSR and either ROA or ROE (Mishra and Suar, 2010; Golicic and Smith, 2013; Qu, 2009; Tang, Hull, and Rothenberg, 2011). These findings are not entirely consistent; an extensive review revealed that CSR is a complex construct and different CSR aspects had different effects on financial performance (Carroll and Shambana, 2010). However, there evidence strongly points to a positive relationship between CSR disclosure and related activities and financial performance. Studies of ROE (Mishra and Suar, 2010;

Golicic and Smith, 2013; Qu, 2009; Tang, Hull, and Rothenberg, 2011) which, matched with the results from this study. Thus, the research hypotheses is accepted and support.

There are some significant limitations to the methods that are chosen in this research. The first issue is that the research only included publicly-listed firms. This was required because of differences in financial information availability and CSR disclosure between publicly-listed and privately-owned firms in Thailand. However, it does mean that factors such as public and regulatory pressure may have an undetected influence on the outcomes of the study. The second limitation is that the time period of the study is relatively recent. This means that historical trends are not reflected in the findings. Given the redesign of Thailand's markets and financial structures following the 1997 financial crisis, this is not necessarily a negative factor, but it does pose a limitation. The use of SET as a data source also imposes a geographic and ownership limitation. In particular, the firms that are listed on SET are mainly domestic Thai firms, and most ownership of Thai stocks is also domestic. This means that the results of the study is directly linked to Thailand, though the findings might be applied in an analytical sense to other markets. A final limitation is that assessment of CSR scores is by its nature somewhat subjective. Although the researchers used a systematic approach, there is still an element of judgment that could not be eliminated, and that may introduce bias. The researchers were aware of this and will workstrived to avoid any such bias making its way into the analysis.

Future research could include a comparison of a cross-sectional study of Thailand and other members of the ASEAN Economic Community. To deepen our understanding, future research could compare the study of developed countries and developing countries in an attempts to understand the nature and extent of CSR disclosure and its relationship to financial performance. It is important to understand the extent of CSR components in other countries. Moreover, future research could apply a longitudinal method by using more years' of data and a larger sample size. This would increase the reliability of the results. Finally, our findings found that the disclosure of CSR information pays off has potentially far-reaching implications for corporate decision making and strategic management. In particular, companies may find it worthwhile to devote sufficient resources to developing and implementing their CSR strategy. From a broader perspective, this insight suggests an important, and perhaps unique, feature of CSR for stakeholder benefit—employees, customers, shareholders, environment, community and society-at-large. Therefore, the relevant authorities should be encouraged to do encourage more and CSR activities to cover all stakeholder groups.

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Consumer perception about the influence of online retail service quality on e-satisfaction, moderated by purchase volume and perceived value

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Keywords

Customer e-Satisfaction, Online Retailing, Online Customer, Online Retailer, Utilitarian Value, Hedonic Value.

Abstract

The Online retailing as a worldwide medium which is rapidly acquiring emphasis as the most advanced purchasing concept. Online purchasing for various consumers is being recognized as an innovative shopping mode compared to other modes of shopping. Understanding the influence of various service quality attributes on customer e-Satisfaction is very important for online vendors to bring-in suitable service strategies. If the vendors doing business in the online environment can analyze the factors influencing customer e-Satisfaction in online retailing and the relationship between these factors, then they can formulate influential strategies to retain existing customers for a longer period. This study is conducted to identify the association between the influential attributes and customer e-Satisfaction in the online retailing environment. The association between the service quality outcome and the perceived value attributes is analyzed in order to understand their influence on customer e-Satisfaction. The outcome of this study suggests that efficient implementation of web atmosphere by giving importance to both hedonic and utilitarian value can influence customer e-Satisfaction very proficiently in online retailing context.

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1. Introduction

In response to rising consumer needs, Online Retailers constantly need to develop new strategies to gain customers that are more loyal. The study of customer e-Satisfaction and various attributes of online retail shopping is gaining very importance due to the development of online shopping speedily. To achieve more sales, online retailers should adequately make consumers comfortable with their purchases in the online environment; to achieve this, an understanding of the influence of various attributes on customer e-Satisfaction is required with a special focus on online purchasing motive of the customer. This includes such things as, firstly, understanding how consumers prefer their shopping needs to be fulfilled especially in the online environment; these insights will strengthen the likelihood of their website being the desired platform for the customers for their shopping needs.

2. Conceptual Overview

Understanding the determinants of perceived value, customer satisfaction and repeat purchase intention is important for online vendors to plan their marketing strategies efficiently. Since online retailing is a new retailing format and online customer attitude is very different from a traditional customer; it is very important to recognize what influences the online customer to choose a website and consider it as a reliable shopping avenue. Establishing and maintaining loyalty is very fragile in online retailing, as the customer can easily switch from one website to another. Online consumer attitude towards shopping is influenced very strongly by both utilitarian and hedonic factors (Monsuwe, et al., 2004). Online consumers perceive hedonic and utilitarian value as important components in their

preference while choosing any online retailer. Hedonic and utilitarian values have some role to play in consumer's intention of future purchases (Overby & Lee, 2006). Buyers who purchase goods in online look for both hedonic and utilitarian values (Topaloglu, 2012).

2.1 Customer e-Loyalty

Customer e-loyalty can be understood as the behavioral intention of the customers to continuously purchase from the same website. Loyalty can be of significant value to both vendors and customers. Customer satisfaction positively influences the consumer e-Loyalty (Cristobal, et al., 2007). Customer e-Satisfaction is an essential requirement to gain e-Loyalty in the online environment (Valvi & West, 2013). E-satisfaction and e-loyalty are very positively related (Moon, 2016). Customer's perception about the shopping value plays a very significant role in achieving customer e-Satisfaction and e-Loyalty (Li, et al., 2015). Online vendors should continuously improve transaction security, credibility, and prompt service dimensions to retaining existing customers for long-term and attract new customers (Lee & Lin, 2005). Satisfied customers are very likely to become loyal to the vendor, expected to maintain the relationship for long-term and less likely to explore for alternatives. (Limbu, et al., 2011).

2.2 Customer e-Satisfaction

Customer e-Satisfaction occurs when the product and the associated retail services meet their expectations. Customer e-Satisfaction in online retailing context can be defined as the customer's valuation of that particular online retail website's service in terms of to what extent that meets their shopping needs and expectations. There is a substantial possibility that satisfied customers are expected to revisit the website and purchase repeatedly (Lien, et al., 2011). Improvement in the level of credibility, security, and quick services is required for both attracting new customers and retaining existing customers. These factors significantly influence customer e-Satisfaction and thereby purchase intention (Lee & Lin, 2005). Satisfaction is defined as the comparison made by the consumer between the initial expectation on a product and what they get as a final result (Cristobal, et al., 2007). Customer satisfaction depends on the overall fulfilment of the expectations of the customer (Casalo, et al., 2008). Perceived value has the positive and direct association with customer satisfaction (Valvi & West, 2013). Consumer shopping value shows a very significant influence on overall e-Satisfaction. Customization of products and services has significant importance to satisfy customer needs (Moon, 2016). It is very important for online retailers to create a very strong perceived value related to their products to satisfy the customers (Li, et al., 2015). The reliability aspect is a significant forecaster of purchase intention and customer satisfaction (Lee & Lin, 2005). Ethical values are very important in online retailing. Non-deception has the power to influence customer satisfaction. Customer satisfaction can influence customer loyalty (Limbu, et al., 2011). Utilitarian value shows influence on customer satisfaction greatly (Sangkoy & Tielung, 2015).

2.3 Purchase Intention

Online purchase intention can be defined as, the customer's willingness to get involved in some sort of online transaction to satisfy their shopping needs; it is one of the attributes of consumer's cognitive behaviour on how they plan to buy from a specific website. Re-purchase intention can be understood as the subjective probability that a customer will purchase from the same online vendor in future. Both utilitarian and hedonic values have the power to influence consumer purchase intention (Jang & Shin, 2016). Online shopping experience shows significant influence on re-purchase intention (Chiu, et al., 2014). Maintaining favourable relationship with e-customers, which can stay for long-term is very important. The online vendors should improve usefulness and self-efficacy; because these are the aspects valued greatly by the e-customer and will eventually boost their future purchase intention (Hernandez, et al., 2009). Both hedonic and utilitarian values show a very significant influence on consumer purchase intention in the online environment (Topaloglu, 2012).

2.4 Perceived Value

Consumer's overall valuation of the usefulness of a service based on the perception of what is received and what is given. Value can be defined as the increased benefits to the customer on the overall online transaction. Value-added strategies should be customer orientated and online vendors should identify whether they are positively valued by their customers and how their value perception influences

e-Satisfaction. Any organization trying to provide competitive value to its customers should gain an in-depth understanding of the needs of the customer which can establish the value for the customer (Ravald & Grönroos, 1996). There is a strong relationship among customer value, customer satisfaction and e-loyalty. It is suggested that online vendors should try to increase the benefits to their customers (Chang & Wang, 2008). Online vendors to focus continuously on perceived value and customer satisfaction (Valvi & West, 2013). Suggested that online retailers should improve shopping value which can boost e-Satisfaction and e-loyalty significantly (Moon, 2016).

2.5 Utilitarian Value

Utilitarian value can be defined as consumer's overall determination/assessment of functional benefits received and sacrifices. Utilitarian value is very much relevant for task-specific usage of online shopping channel, such as purchase consideration/deliberation and connected with the task-related value and the functional features of shopping. Consumers with utilitarian motive possess goal-oriented buying behaviour. Utilitarian buyers buy in online to meet a specific need or goal. Their most vital target in online purchasing is to purchase in very timely and efficient manner to achieve their shopping goals. Aspects such as enjoyment, self-gratification and social experiences are hedonic values of e-shopping. These hedonic aspects show some influence on consumer's shopping activities (Childers, et al., 2001). The utilitarian motive highlights goal-orientation, deliberate product procurement and impartial / rational where shopping is perceived as a necessity (Babin, et al., 1994). Consumers are very likely to do utilitarian purchase when they are considering more-than-one item to purchase together / simultaneously (Okada, 2005). Utilitarian value shows influence on customer loyalty (Sangkoy & Tielung, 2015). Utilitarian value has the power to influence consumer purchase intention very strongly (Topaloglu, 2012). Utilitarian value can influence consumer purchase intention (Jang & Shin, 2016).

2.6 Hedonic Value

Hedonic consumption in the online environment can be understood as the consumer behaviour which refers to the experience associated with the pleasure-oriented purchasing task. Hedonic value is viewed as emotional and experiential. Hedonic value is related to the consumer's shopping experience itself, rather than to the actual goods purchased. Consumers want to have pleasurable atmosphere when they do online shopping. The constructs relating to utilitarian and hedonic are not same, they should be seen separately (Voss, et al., 2003). Ease of shopping, competitive pricing, and greater access to information are related to utilitarian perspectives of online shopping. Hedonic motive relates to consumer shopping activity where the entertainment and fun of the shopping process may get a very prominent role while procuring the desired products (Childers, et al., 2001). Hedonic value to any customer focuses on playfulness and fun, representing the potential entertainment of shopping process and emotional benefit (Babin, et al., 1994). Consumers are very likely to do a hedonic purchase when they consider only one item to purchase singly (Okada, 2005). Hedonic value shows influence on consumer purchase intention indirectly (Topaloglu, 2012). Hedonic value can influence consumer purchase intention (Jang & Shin, 2016). Consumers who browse hedonically show the highest frequency of purchasing (Scarpi, 2012).

3. Literature Review

Website credibility is very important for online vendors in order to attract customers to purchase from their web store and to gain more loyal customers (Fei & Liat, 2015). Safety, credibility, security, continuity, etc, are very important. Ultimately these attributes can support and encourage customer satisfaction and loyalty. The ultimate aim of adding more value by the vendor is to increase customer satisfaction and loyalty. The vendor should provide the offerings to customers which they perceive as a greater net-value than the offerings of the other vendors in the market (Ravald & Grönroos, 1996). To increase customer perceived value and customer satisfaction, online vendors should improve the design of the website, provide exact services, strengthen the security of the e-transactions, and provide sufficient help to customers to solve any challenges that they face (Chang & Wang, 2008). Online vendors should improve the dimensions of reliability, such as the capability of delivering products as promised, providing recent and correct information, and strengthening the security of online transactions to boost purchase intention and customer satisfaction (Lee & Lin, 2005). Customer's perception of hedonic and

utilitarian values has the power to increase their reference towards a specific online shopping websites. Hedonic and utilitarian values influence e-satisfaction of online customers. Hedonic and utilitarian values can promote customer re-purchase intention significantly. Online retailers should provide a system which is easy to access, responds quickly to customers.

It is suggested to provide current information always which can be considered as utilitarian value to the customer. Providing diverse product information and speedy product delivery and quick returns mechanism are part of hedonic value (Kim, et al., 2012). Perceived value is an influential factor to e-Satisfaction and customer behavioural intention. Offering an extensive variety of products/services, evaluating price competition very cautiously, and easy ordering process are the ways to improve customer's overall perceived value (Lien, et al., 2011). Providing utilitarian value to the customer is largely under the control of the vendors. Online vendors should make sure that they provide sufficient utilitarian value. Buyers having successfully got the needed products from a particular online retailer, they will retain such a positive experience and are more likely to re-purchase from the same website again. It is important to provide hedonic value to online buyers. Online vendors should ensure that they provide social interaction and keep up with new trends. Providing such benefits has the power to increase their re-purchase intention. Hedonic and utilitarian value has the direct influence on re-purchase intention (Chiu, et al., 2014).

4. Research Methodology

This research paper is confined to study the consumer perception about the perceived value and associated attributes of service quality in online retailing. The study is based on both primary and secondary data. The sample consists of consumers who bought goods in online retail websites. The data for the study was gathered through a self-administered questionnaire. Respondents are selected from both male and female population. These respondents belong to different income groups. A random sample of 203 respondents from different age groups is selected to carry out the current study. Due importance is given to a fact that the respondents should be online buyers. The analysis was conducted by using the statistical analysis tool SPSS version 19.0 in order to identify the factors affecting customer e-satisfaction and the role of hedonic and utilitarian value in the online retailing environment.

4.1 Objectives of the study

- To study the importance of e-Satisfaction in Online Retailing.
- To evaluate the role of perceived value in generating customer e-Satisfaction.
- To analyze association hedonic and utilitarian value with Customer e-Satisfaction in online retailing.
- To offer possible suggestions relating to Customer e-Satisfaction in Online Retailing environment.

4.2 Hypotheses

H1: There is a significant relationship between purchase motive and perceived process quality.

H2: There is a significant relationship between purchase motive and perceived outcome quality.

H3: there is significant relationship between purchase volume and perceived process quality.

H4: there is a significant relationship between purchase volume and perceived outcome quality.

5. Data analysis and inference

	Cases					
	Valid		Missing		Total	
Purchase Volume * Perceived Process Quality	N	Percent	N	Percent	N	Percent
	203	100	0	0.00	203	100

Table 1: Data Processing Summary

		Perceived Process Quality			
		NO	YES	Total	
Purchase Volume	Single Product	Count	0	41	41
		Per cent within Purchase Volume	0.00	56.10	56.10
		Per cent within Perceived Process Quality	0.00	43.90	43.90
	Multiple Products	Count	2	160	162
		Per cent within Purchase Volume	0.62	58.64	59.26
		Per cent within Perceived Process Quality	0.62	40.12	40.74
Total	Count	2	201	203	
	Per cent within Purchase Volume	0.49	58.13	58.62	
	Per cent within Perceived Process Quality	0.49	40.89	41.38	

Table 2: Cross tabulation between Purchase Volume and Perceived Process Quality

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	4.743 ^a	4	.315	.392
Likelihood Ratio	5.162	4	.275	.374
Fisher's Exact Test	3.614			.369
N of Valid Cases	203			

Table 3: Chi-Square test results

Inference:

In order to test the hypothesis H1, Fisher's exact "p" value is considered. It is found that the "p" value is more than 0.05 ($p > 0.05$), that indicates there is no significant correlation value between 'Purchase volume' and 'Perceived Process Quality'. So, it is clearly indicating to reject the Hypothesis H1. Hence, online buyers of any 'Purchase Volume' consider 'Process Quality' with similar importance.

Purchase Volume * Perceived Outcome Value	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
	203	100	0	0.00	203	100

Table 4: Data Processing Summary

		Perceived Outcome Quality			
		NO	YES	Total	
Purchase Volume	Single Product	Count	0	54	54
		Percent within Purchase Volume	0.00	74.07	74.07
		Percent within Perceived Quality	0.00	25.93	25.93
	Multiple Products	Count	3	146	149
		Percent within Purchase Volume	0.67	63.76	64.43
		Percent within Perceived Outcome	1.35	34.23	35.57
Total	Count	3	200	203	
	Per cent within Purchase Volume	0.49	58.13	58.62	
	Percent within Perceived Outcome	0.99	40.89	41.87	

Table 5: Cross tabulation between Purchase Volume and Perceived Outcome Quality

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	1.742 ^a	4	.797	.941
Likelihood Ratio	2.795	4	.635	.923
Fisher's Exact Test	1.679			1.00
N of Valid Cases	203			

Table 6: Chi-Square test results

Inference:

In order to test the hypothesis H2, Fisher's exact "p" value is considered. It is found that the "p" value is more than 0.05 ($p > 0.05$), that indicates there is no significant correlation value between 'Purchase volume' and 'Perceived Outcome Quality'. So, it is clearly indicating to reject the Hypothesis H2. Hence, online buyers of any 'Purchase Volume' consider 'Outcome Quality' with similar importance.

Purchase Motive *	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Perceived Process Quality	203	100	0	0.00	203	100

Table 7: Data Processing Summary

		Perceived Process Quality			
		NO	YES	Total	
Purchase Motive	Hedonic value postulation	Count	0	32	32
		Per cent within Purchase Motive	0.00	71.88	71.88
		Per cent within Perceived Process	0.00	28.13	28.13
	Utilitarian value postulation	Count	05	166	171
		Per cent within Purchase Motive	1.17	70.76	71.93
		Per cent within Perceived Process	1.75	26.32	28.07
Total	Count	5	198	203	
	Per cent within Purchase Motive	0.99	86.70	87.68	
	Per cent within Perceived Process	1.48	10.84	12.32	

Table 8: Crosstabulation between Purchase Motive and Perceived Process Quality

	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	1.716	1	.176	.356
Likelihood Ratio	2.941	1	.059	.239
Fisher's Exact Test	1.653			.315
N of Valid Cases	203			

Table 9: Chi-Square test results

Inference:

In order to test the hypothesis H3, Fisher’s exact “p” value is considered. It is found that the “p” value is more than 0.05 ($p > 0.05$), that indicates there is no significant correlation value between ‘Purchase Motive’ and ‘Perceived Process Quality’. So, it is clearly indicating to reject the Hypothesis H3. Hence, online buyers of any ‘Purchase Motive’ consider ‘Perceived Process Quality’ with similar importance.

Purchase Motive *	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Perceived Outcome Quality	203	100	0	0.00	203	100

Table 10: Data Processing Summary

		Perceived Outcome Quality			
		NO	YES	Total	
Purchase Motive	Hedonic value postulation	Count	2	57	59
		Percent within Purchase Motive	1.69	54.24	55.93
		Percent within Perceived Outcome	1.69	42.37	44.07
	Utilitarian value postulation	Count	4	140	144
		Percent within Purchase Motive	1.39	78.47	79.86
		Percent within Perceived Outcome	2.08	18.75	20.83
Total	Count	4	199	203	
	Percent within Purchase Motive	0.49	82.27	82.76	
	Percent within Perceived Outcome	1.48	15.76	17.24	

Table 11: Crosstabulation between Purchase Motive and Perceived Outcome Quality

	Value	df	Asymp. Sig.(2-sided)	Exact Sig. (2-sided)
Pearson Chi-Square	.734 ^a	1	.392	.509
Likelihood Ratio	1.549	1	.275	.549
Fisher's Exact Test	1.176			.329
N of Valid Cases	203			

Table 12: Chi-Square Test results

Inference:

In order to test the hypothesis H4, Fisher's exact "p" value is considered. It is found that the "p" value is more than 0.05 ($p > 0.05$), that indicates there is no significant correlation value between 'Purchase Motive' and 'Perceived Outcome Quality'. So, it is clearly indicating to reject the Hypothesis H4. Hence, online buyers of any 'Purchase Motive' consider 'Perceived Outcome Quality' with similar importance.

6. Findings

The current study empirically examined one of the important constructs of consumer perceived value in the context of online retailing. This consists of two vital elements: 'Perceived Process Quality' and 'Perceived Outcome Quality'. Consumer 'Perceived Value' is considered in the current study as a moderating factor for analyzing the quality attributes of online retail service. Purchase volume is taken as the second moderating factor to analyze the quality attributes of online retail service. It is found that online buyers with both hedonic and utilitarian shopping motives prefer 'Process Quality' with similar importance. Buyers buying goods with both hedonic and utilitarian shopping motives prefer 'Outcome Quality' with similar importance in online retailing. Both the groups of buyers of a single item and multiple items prefer the 'Outcome Quality' with similar significance. Process Quality has got alike importance from both the groups of buyers who bought single item and multiple items in the online retail environment.

7. Discussion

The results of the current study indicate that motivation of any consumer to engage in online purchasing includes both hedonic and utilitarian dimensions. Ease of use and usefulness demonstrate the utilitarian aspects of online shopping of the consumer. Enjoyment and fun illustrate the hedonic aspect of consumer motivation in online shopping. It is fairly important to provide similar kind of quality outcome to consumers whether the purchase volume is small or huge as it can influence re-purchase intention. The way online retailers deliver products, which is associated with the perceived outcome quality shows influence on the willingness of customers to return to the same retail website for their future shopping needs. Order fulfilment is an essential part of the consumer perceived outcome quality and plays very important role in generating higher perceived value and customer satisfaction. Customer e-Satisfaction is very important for online vendors as it can result in generating loyal customers. It can be achieved by providing very high level of product/service value (Yang & Peterson, 2004). Creating a positive value for customer purchase is an important factor or retaining customers for long-term. The online vendor should design strategies to improve trustworthiness, the aspects related to reliability and very importantly responsiveness feature to enhance customer purchase intention (Lee & Lin, 2005). It is identified that customer e-Satisfaction influences e-Loyalty significantly (Ngamkroekjoti & Zhao, 2014). Consumers/shoppers choose the online mode of purchases mainly for the utilitarian reasons, such as price saving and ease of shopping (Overby & Lee, 2006). It can be understood that utilitarian value has a lot of importance for the buyer and is profitable to the vendor in online market (Scarpi, 2012).

8. Conclusion

To understand the consumer perceived value, we tried to link the utilitarian and hedonic dimensions of consumer buying attitude. Consumer perceived value has a significant role in influencing consumer attitude towards the website and ultimately the purchase intention. Consumer's value derived in any shopping experience includes both hedonic and utilitarian benefits. The main aim of this study is to analyze the association between various attributes and their relative influence on customer e-Satisfaction. It is found that customer e-Satisfaction in online retail context is very important to retain customers for long-term. It is very essential that online shopping values should be assessed by

considering the role of both utilitarian and hedonic aspects. Consumer perceived value shows significant influence on customer satisfaction and re-purchase intention in the online shopping environment. Perceived value has a positive and strong association with online retailing services (Mwencha, et al., 2014). Enhancement in the level of security, credibility, and prompt services is required for both attracting and retaining e-customers, since these factors significantly influence purchase intention and customer satisfaction (Lee & Lin, 2005). Both hedonic and utilitarian values are the fundamental elements that support to understand consumer's assessment of the overall experience of their consumption (Vinerean, et al., 2015). Assured transaction security in response to perceived payment risk provided by online vendors may reduce consumer's perceived risk and increase their purchasing potential in online (Zheng, et al., 2012). To achieve customer satisfaction, it is suggested that online vendors should establish good measures for handling returned products (Lim, 2003). Posting explicit policies of security and privacy on the website by online vendors helps in gaining customer trust and loyalty (Hwang, et al., 2012). There is a substantial association between hedonic value and consumer's intention to revisit the same website for future purchase requirements (Scarpi, 2012).

The online retailers should incorporate animated images and aesthetically pleasing layouts with attractive colors to provide hedonic value to consumers. Effective and interesting product commentary with animated product representation can add value as potential hedonic features in online retailing. It is suggested that online retailers should constantly engage consumers by sending visually appealing emails with attractive content as a productive marketing strategy.

9. Recommendations

Online vendors should give importance to both hedonic and utilitarian value while designing retail service quality mechanism. It is very important for online vendors to consider the attributes of hedonic value while designing marketing strategies to attract various segments of customers in the competing market conditions. Providing quality outcome is essential to create a superior value to the consumer which can influence consumer buying behavior and re-purchase intention. The quality of delivered services formulates value for utilitarian facets of shopping. It is suggested that online vendors should invest all the possible effort to enhance the quality of their system, quality of information and quality of service to satisfy customer's hedonic and utilitarian values, which can ultimately lead to the success of their business (Kim, et al., 2012). Online retailers should give importance to both functional and hedonic values while designing and delivering to customers (Mwencha, et al., 2014). Online retailers should design their website by giving importance to the features, which can strengthen their user's hedonic potential (Scarpi, 2012). Online vendors should offer mistake-free services and security to online transactions to ensure that customers are comfortable using online shopping (Lee & Lin, 2005). Perceived value is an influential factor of customer e-Loyalty. It significantly influences customer e-Satisfaction in the online context (Yang & Peterson, 2004). Online Vendor should improve the dimensions of reliability such as delivering goods as per the promise, presenting latest and accurate information to enhance customer e-Satisfaction. Online transaction security is one of the important factors to gain customer e-Satisfaction. It is suggested to strengthen online transaction security in the online environment (Lee & Lin, 2005).

The primary focus of any online retailer should be achieving a higher level of customer e-Satisfaction. Strong ethical standards such as security and fulfilment can be considered as the significant elements of customer e-Satisfaction. These factors can influence positively the online customer attitude and buying intention, possibly lead to the improved frequency of repeat purchases (Limbu, et al., 2011). Online vendors that desire long-term customer loyalty should ensure that customers are satisfied with the website. It is suggested to provide the customers with a great shopping value (Ngamkroeckjoti & Zhao, 2014). It is very important for online retailers to provide sufficient utilitarian value to their customers (Overby & Lee, 2006). Online vendors should consider incorporating image with interactive features to the retail website. Image interactivity feature is very important to increase customer's approach response, such as willingness to buy from that website. More importantly, it has the power to encourage customers to re-purchase intention (Fiore, et al., 2005).

10. Limitations and Scope for Future Research

The current study is conducted is limited to the online buyers of the study area and can't be generalized to the entire population in the online market. Another limitation is this study did not consider the purchase frequency as a factor to analyze the consumer perceived value. Further research on the measurement of the hedonic and utilitarian constructs can focus on developing measurement framework which may be applied to a wide range of consumer attitudinal elements beyond the perceived value and attitude towards website alone. In addition to purchase volume, other potential moderators include product type, gender; as they can influence online consumer behaviour. Analyzing hedonic and utilitarian motive with purchase frequency as the moderating factor can bring more insights on consumer intention in the online environment. Purchase volume is one of the potential factors to be analyzed; which can be examined with both consumer hedonic and utilitarian values.

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Investigating the factors affecting University students' e-commerce intention towards: a case study of Jordanian Universities

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Key Words

E-Commerce, Culture, Unified Theory of Acceptance and Use of Technology (UTAUT),

Abstract

This study investigates the factors that significantly affect the acceptance e-commerce in Jordan. These factors were Culture factor and Unified Theory of Acceptance and Use of Technology (UTAUT) Characteristics. This study adopted the deductive approach to reach its objectives. It presents a theoretical framework for the construction of hypotheses. The hypotheses were tested to obtain the findings that may be generalized afterwards. 154 students from different universities in Jordan participated in this study. After reviewing several related studies, the Likert five- point scale questionnaire was constructed for gathering the required data, which were then analyzed using the SPSS software.

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1. Introduction

The problem of scarce e-commerce in Arab countries is not widely known in Western countries. Therefore, the paper gives quite a new insight into it. The problem may induce further discussions and research on the problem, especially what should be done to make e-commerce more popular in Arab countries. Thus, the paper may be considered as an introductory one. There has been a dramatic increase in the application of Web services and E-Commerce. Meanwhile, the once popular 'dot com era' is slowly declining (Chaffey 2007). Kalakota and Whinston (1997) describe E-commerce as the purchase and sale of information, products and services using computer networks. Thus, according to this definition, online shopping can be classified as E-Commerce.

There has been a steady growth of online shopping. It was estimated that in USA alone, online purchasing was worth \$217 billion in 2007 (Johnson, et al., 2002). Meanwhile, Nielsen (2010) reported that in developing countries including Korea and China, almost all of the Internet users (95%) intended to engage in online shopping. Somehow, Arab countries have less than impressive e-commerce development in comparison to their other developing counterparts. As noted by Nielsen (2010), almost half (48%) of the Internet users in Arab countries never did online shopping, making these countries the slowest adopter of online shopping.

In the context of Jordan, the Jordanian the Chamber of Commerce noted that the development of e-commerce is still in its infancy (Abbad, et al., 2011; Hasan, L., Morris, A., & Proberts, S. 2013; Yaseen, H., Dingley, K., & Adams, C. 2015). Nonetheless, many movements by business owners or companies as well as the government could potentially increase the expansion of ecommerce. These include the establishment of e-government websites even though most of these websites are far from perfect (Al-Soud & Nakata, 2010). In other words, the government of Jordan is seriously supporting the development of e-commerce.

2. Problem Statement

As high technology and internet are available today, the Arabic websites should indeed be promoted. Such move is crucial considering that using these Arabic websites based on Arab countries, the Arab customers can be served faster aside from reducing transaction cost and delivery problems (Pons, et al., 2003). Additionally, there are various factors that are found to contribute to the slow development of e-commerce in Arab countries (Jordan included) and the hesitancy of consumers to engage online shopping and these factors include risk, trust, quality of websites, and security (Nusair, 2011; Faqih, 2011). Furthermore, the factors of culture and technology have been highlighted in a lot of research on online transactions and e-commerce (Ruiz Mafé et al., 2013; Lacka, E., Chan, H. K., & Yip, N., 2014)

Most e-commerce was developed within the western culture and in fact, this is where a majority of users were gathered. Thus, it can be said that E-commerce is Western influenced. In relation to this, Morris & Proberts . (2013) mentioned the existence of numerous websites of e-commerce with design attuned to western cultures. The western countries embrace different cultures in comparison to those embraced in Arab countries including Jordan. In other words, what is tolerable in the one country might be unacceptable in others. Thus, owing to differences in cultures, the adoption of e-commerce websites can be impacted. It is therefore important to take into account the cultural values of a country when developing e-commerce.

3. Theoretical Background

The Unified Theory of Acceptance and Use of Technology (UTAUT) Model is explained in this part so that the determiners of user acceptance of e-commerce can be sufficiently understood.

Formulated by Venkatesh et al. (2003), the Unified Theory of Acceptance and Use of Technology (UTAUT) Model entails the merged past studies associated with technology acceptance model (TAM). In particular, the establishment of UTAUT was grounded on the constructs from eight models that past studies on IS usage behaviour had employed and from literature review. Using UTAUT allows researcher to explain user intentions to utilize an Information system (IS) and his forthcoming usage behavior. The theory highlights four (4) key constructs that are direct determinants of usage intention and behaviour of user: performance expectancy, effort expectancy, social influence, and facilitating conditions. Meanwhile, the mediators that affect these determinants include age, gender, experience and voluntariness of use (Venkatesh et al., 2003). Figure 1 shows the UTAUT.

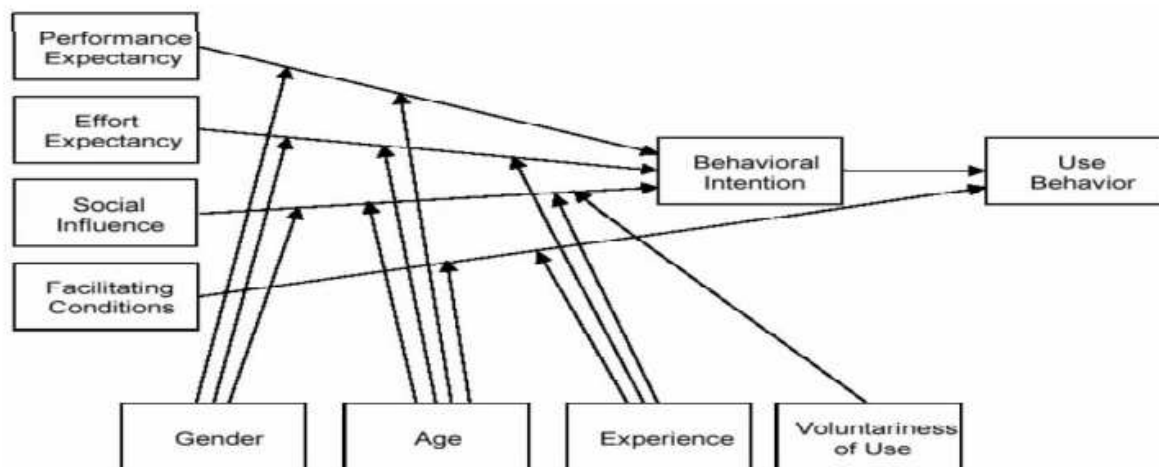


Fig. 1: Unified Theory of Acceptance and Use of Technology (UTAUT) Model Source: (Venkatesh et al., 2003)

4. Cultural Factor

Culture is a notion that can facilitate the comprehension of the issues relating to human diversity discussed expansively at current time. Culture is perceivable as multicultural societies marketing, or, scholars in the domain of business view culture as national culture that includes lively process that influences numerous behavior types particularly those associated with buying and consumption (Chang & Chuang, 2005). Culture is not a system of abstract values separate from

individuals and therefore it is inseparable (from the individual). Culture is hence inseparable from its historical context which comprises what happened in the past, shared beliefs, attitudes, norms, roles, and values possessed by a given language speakers coexisting in a certain geographic region at certain time frame (Triandis, 1995). He continues to explain that the shared elements of culture are usually transferred from one generation to other generations (Triandis, 1995). Thus, language, time, and place make up the crucial elements that contribute to explain culture.

Kluchon (1962) mentioned the primary elements of culture, which comprise patterns, explicit, and implicit behaviour attained and conveyed by symbols that denote human groups' distinctive achievements, which include ideas and attached values. As such, culture systems are describable as outcome of action and conditional elements of forthcoming actions. With respect to values contained within the culture, Hofstede (1991) has mentioned two value characteristics: values employed as guiding principles in life and values usable as preference for one mode of behaviour over another. Rokeach (1973) a permanent certainty that one way of conduct or end-state of existence is the preferred one in comparison to the opposing ones has described the concept of values. On the other hand, Mead (1996) perceives value as an abstract concept that a group or a society regards as good, right and desirable.

5. Research Framework and Hypothesis

Based on the factors that potentially affect acceptance of users of E-commerce, the cultural factor is included in the Unified Theory of Acceptance and Use of Technology (UTAUT). This will allow the examination on the factors that have the potential to influence the acceptance of university student towards e-commerce.

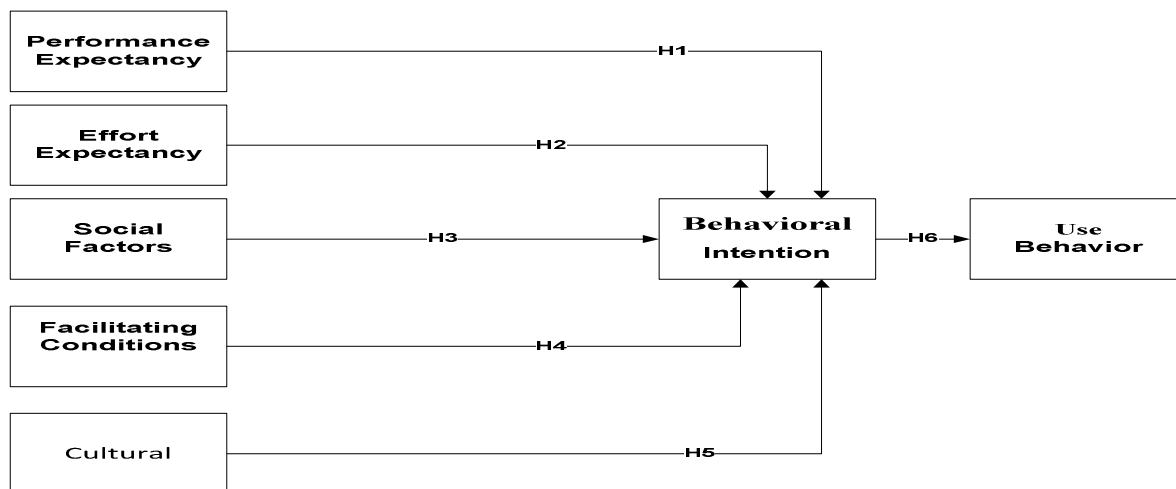


Figure 2: Research Framework

Research Hypothesis

H1: Performance Expectancy has a significant positive relationship with behavioral intention to use E-commerce.

H2: Effort Expectancy has a significant positive relationship with behavioral intention to use E-commerce.

H3: Social Factors have a significant positive relationship with behavioral intention to use E-commerce.

H4: Facilitating Conditions have a significant positive relationship with behavioral intention to use E-commerce.

H5: Cultural factors have a significant positive relationship with behavioral intention to use E-commerce.

H6: Behavioral Intention has a significant positive relationship with Use Behavior to use E-commerce.

6. Research Methodology

This study selected 154 students from the Jordan universities to be participants. Data were acquired online (online questionnaires at (www.surveymshare.com)). The questionnaire comprises one part and this part includes five key constructs that have association with behavioral intention to use E-commerce. This will allow the evaluation on the likelihood of level of acceptance. A number of items each

represents the constructs and the 5-point scale is employed to measure the level of acceptance of user. The relationship between the six main factors and usage of E-commerce is ascertained by the regression analysis.

7. Data Analysis and Results

The outcomes demonstrate the significance of all constructed hypotheses according to the zero-order correlation test. Each hypothesis is supported at this level. As for the predictive model, it entails 53.1% of the variance in behavioral intention (BI). This result is directly explainable by performance expectancy, effort expectancy, social influence, facilitating conditions, and culture as well. Moreover, the model accounts to 43.1% of the variance in Use Behaviour and behavioral intention and Use Behavior directly illustrate this. Figure 3 highlights the predictive models with R^2 alongside the path coefficients in the research model.

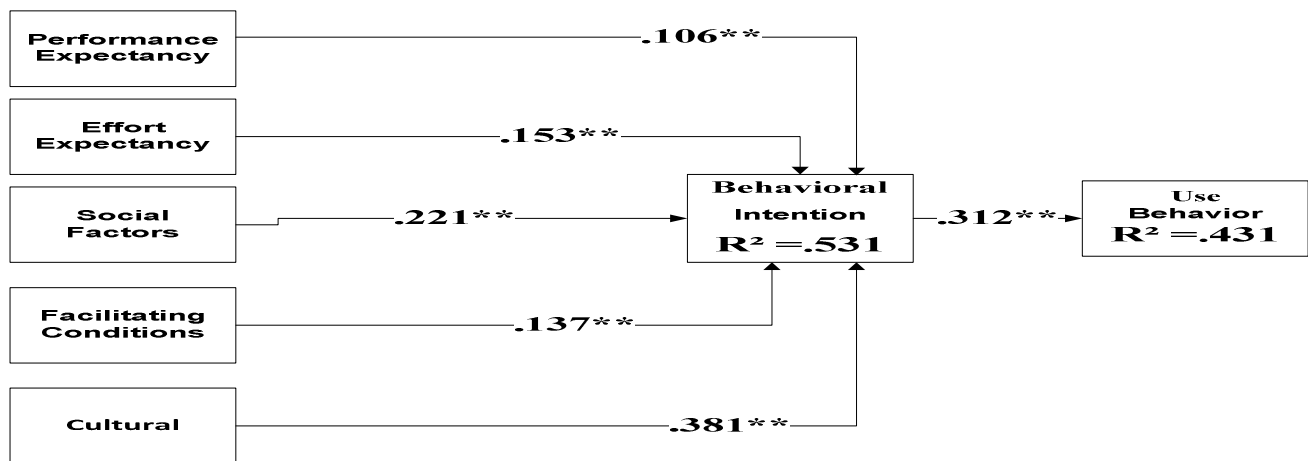


Figure 3: Measurement Model

8. Discussion and Implications

The level of Jordanians' willingness to employ e-commerce services is explored in this research. Performance expectancy, effort expectancy, social influence, and facilitating conditions and cultural ones were employed and explained. Thus, to assure that students' usage of e-commerce could be increased, these factors should be considered by the government. Data were obtained from citizens from numerous domains, making the generated results (from analyses) more representative of the population. For the context of Jordan, a model is proposed. This model contains the constructs from the Unified Theory of Acceptance and Use of Technology (UTAUT). Considering the factors of trust, perceived usefulness, perceived ease of use, attitude toward, behavioral intention, and actual system use, it can be said that citizen's intent to use e-commerce will increase with the belief that the internet would increase their efficiency in their interaction with the government, as they have better control, and when they gather information from the government.

The government must make effort to increase the awareness of the citizens about the service offered online. This is possible via the adoption of an awareness initiative. In addition, the government should make use of the present technology such as the social media. Switching to the use of modern medium from the conventional one can increase effectiveness as the government could provide information to the citizens in real time. It is suggested that the proposed model is used in the future researches with other constructs added. Among the possible constructs to be added are perceived ease of use and trust factor. In addition, sample in a future study should be obtained from other regions in Jordan.

9. Practical implications

The results provide useful contributions and implications to acceptance to use e-commerce among students. This study indicates that e-commerce marketing has positive effect on students. Moreover, the results suggest that online customer Performance expectancy, effort expectancy, social influence, and facilitating conditions and cultural positive influence on e-commerce marketing strategy.

10. Research limitations

The respondents in this study were chosen randomly. However, according to (Ruiz Mafé et al., 2013; Lacka et al., 2014 ; Morris & Proberts, 2013; Nusair, 2011 and Faqih, (2011) the main issues faced in ecommerce are various such as those that are related to security, trust, Internet experience, technology acceptance, social influence, performance expectancy, effort expectancy, social influence, facilitating conditions, and culture values which means that the choice of respondents is not merely based on the age and Internet experience only but also whether the respondents have the interest in shopping both online and conventionally and many other variables. Consequently, in a future study, the questionnaires must be distributed to more various backgrounds of respondents in more diverse locations. In this study, most of the respondents of the questionnaires were focused in students from the Jordan universities to be participants because it has many Internet cafes. In a future study, however, a researcher needs to distribute his/her questionnaires to students, homemakers, executives, teachers, and/or business people in malls, schools, housing complexes, or many other public places.

11. Conclusion

The last decade has seen the growth of E-Commerce in the developed countries. This has sparked interest among the developing ones especially those located in the Middle East region. These countries know that to be able to be a player in the domain of e-Commerce is crucial. Countries in the Middle East should apply the Internet technology in e-commerce particularly. The users of the Internet in a majority of countries in the Middle East are still lagging in their diverse use in comparison to those users in the developed countries such as South East Asia, America and Europe. Actually, E-Commerce sites in Arab countries are still really scarce. The main objective of this study was to increase the intention to use of Arab users of Jordan e-commerce websites. As such, the increase for Jordan e-commerce websites is expected to change the consumer's online buying intentions. Such change will lead to the improvement of the microeconomics of Arab countries. The study provides validation to the framework model on the Arabic Websites setting and the industry of online shopping in general.

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The effects of project-based learning in “systems analysis & design” subject on communication competence of University students in Korea

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Keywords

Project-based Learning, Communication Competence, Women’s University Students, Nonequivalent Control Group Pretest-Posttest Design

Abstract

This study aims to examine whether an improvement effect appears in communication competence of university students when applying the project-based learning to “Systems Analysis & Design” subject. The study conducted the analysis on the lowest communication competence of job-seeking students among various areas of basic occupation skills while thought to be the most important in the industry.

The study conducted the analysis on the lowest communication competence of job-seeking students among various areas of basic occupation skills while thought to be the most important in the industry.

From the study results, the project-based learning was shown to be generally effective in improving the communication competence of the university students. Among the sub-factors of communication competence, especially, the ability of listening, open communication, proactive communication, and understanding others’ perspectives revealed significant results. Through this study, it was identified that the project-based learning is a useful teaching-learning method in improving the basic vocational skills of university students; however, there is a need for new studies to improve some abilities belonging to the sub-areas of communication.

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1. Introduction

University education of Korea has been focused on cultivating student's personality and knowledge for a long time. But, the college education focusing on personality cultivation was faced with limitations in the situation that job-seeking is becoming difficult and students should explore their careers by themselves. According to the March 2015 Employment Trends published by the Korea National Statistical Office, the unemployment rate of 20s was 10.7%, which was shown to be at least two times higher (Statistics Korea, 2015). The importance of basic vocational skills have been emerged for college students in the situation of the times that it is difficult to get jobs. The basic job skills are the yardstick for gauging whether university students are equipped with the capacity needed to adapt proactively to changes in society. Education at university should also be interested in the improvement of basic vocational skills in addition to the knowledge and humanity development.

It is difficult to set up separate subjects for cultivating the basic vocational skills in the current university education. It is not easy to establish separate classes for extra basic vocational skills additionally under the circumstances that it is lack of time for the mandatory courses required by the Ministry of Education in Korea. In addition, communication skills, problem solving skills, interpersonal

skills, and other skills belonging to the vocational basic skills consist of different knowledge, skills, and attitudes. It is not easy to enhance the whole skills in a short period of time.

And there are limitations in improving the basic vocational skills of the students attending universities to the level desired by societies and companies through non-formal education programs and lectures. Therefore, it is necessary to explore the realistic education plan for continuously improving the basic vocational skills of university students through the reconstruction of educational contents and methods in the majors.

In this regards, the project-based learning can be a useful teaching-learning method for improving the basic vocational skills. It is possible to improve the ability to communicate with colleagues, interpersonal skills, collaboration skills, procedural knowledge and skills in addition to the acquisition of major knowledge when applying the project-based learning to the majors (Markham et al., 2003; Stanley, 2011). Considering these points, this study designed classes utilizing the project-based learning for improving the basic vocational skills and examined what effects it has on the improvement of the communication skills among the basic vocational skills. This study designed a teaching method in which students perform projects by teams in the "Systems Analysis & Design" subject which is a class using the project-based learning.

2. Theoretical Background

2.1 Effects of the project-based learning

The project-based learning is a teaching method in which instructors set up meaningful tasks in the classroom and students cooperates with fellow students while executing the tasks. The project-based learning can be the subject of interests in a situation where employment is becoming harder in that it enables the self-directed learning, and be able to improve the basic occupation skills such as communication skills and interpersonal skills. In the class using the project-based learning, learners organize teams and design projects for solving the practical problems. The project is designed for the learner to endeavor to extract performances according to the output format given by the teacher in advance. In the process, collaboration and communication between members of project team formed by learners and communication with instructors are made. Learner can learn the knowledge and skills as well.

In project-based learning, learners go through the formal procedures for deriving a clear and specific performances for the final products; and instructors carry out expert guidance and instructions for solving problems that the learners encountered in the project implementation process (Rhyu, 2015). Problem-based learning deals with complex and unstructured problems as the main target; it differs from the project-based learning in that learners look for alternatives and solutions by themselves and instructors perform the role of helpers (Savery, 2006).

The project-based learning sets meaningful issues or tasks specifically and can take advantage of instructors as experts in the process of solving them. And learners can cultivate skills and attitudes while learning about guides on the execution method of the projects and on how to create a form, etc. from instructors for deriving the results of project performance.

The project-based learning is a learning that is made focusing on the significant tasks integrating topics and concepts of learning in various areas for a relatively long period (Blumenfeld et al., 1991); the "System Analysis & Design" is a proper course to be designed using the project-based learning in the course characteristics. The project-based learning infer problem, exchange ideas, and go through a process of discussion in the project execution process (Laffey et al., 1998), in which collaboration skills, communication skills, and teamwork skills are important. (Krajcik et al., 1999) emphasize the importance of knowing how to work with people with different backgrounds for students to succeed in the real world.

During this ongoing collaborative learning among team members, learners can contact experts and experience actual research methods of researchers (Diehl et al., 1999); instructors should be able to perform the role of experts in the class.

The National Foundation for the Improvement of Education (NFIE) created by the American National Education Association (NEA) presents the following points for the advantage of the learning using the project-based learning (NCTM, 2000).

First, motivation will be increased. Students make efforts voluntarily to complete projects. Second, problem-solving skills are increasing. Learners will have ability to solve complex problems in a more active and successful manner. Third, research capacity will be improved. Most projects require utilizing a variety of materials, which encourage students to be independent researchers. Fourth, cooperative learning will be increased. Through a cooperative project, students will have the opportunity to gather the experiences of colleagues, evaluate the work of others, share information, and learn cooperatively. Fifth, the data operational capacity is getting higher. Students will have the responsibility to perform complex tasks; and have a capability of utilizing time, equipments, and other various resources.

Educational effectiveness of the project-based learning is appropriate in cultivating basic occupation skills in that it can induce active participation of learners by addressing tasks of activities that can excite interests of learners and emphasizes the practical experience that learners plan and execute on their own as the subjects of the activities.

2.2 Basic vocational skills

Basic vocational skills are the abilities required for all workers working in the society, which are the abilities needed to be continuously cultivated in accordance with the variation in the promotion and performing duties in the workplace. (Trilling & Fadel, 2009) conceptualize it, in more comprehensive perspective, as a lifetime skill necessary for humans to live their lives for a lifetime and a competency required for future talents. The basic vocational skills go through the process of being acquired, developed, sustained, and lost during the entire period of life; though it is difficult to stipulate simply (Park, 2006), the abilities need to be cultivated from schools. The studies on the basic vocational skills have been continuously conducted in Korea since the mid-1990; in the earlier stage, there were studies on establishing concepts and areas and the studies have been performed to develop standards later. And ways to utilize the basic vocational skills, program developments, and curriculum reforms have been continuously carried out in educational institutions. Recently, studies on the evaluation of the basic vocational skills have been actively underway focusing on the high schools and universities.

The basic vocational skills are dealt with under the name of core skills, employability skills, or essential skills. The term of key competency is used in companies as well. It is necessary to examine the areas to know more specifically about the basic vocational skills. Details on the areas and sub-factors of the basic vocational skills have been presented in a variety of ways depending on the states and scholars.

SCANS (Secretary's Commission on Achieving Necessary Skills) under the US Department of Labor created a scenario for the duties of workers in 5 industries (manufacturing, health services, retail, food and hospitality, public services) to derive the skills required for effective job performance and derived basic vocational skills under the name of 'Workplace Know-How' through interviews with workers in various fields and positions. The Workplace Know-How is the ability to be applied commonly to all positions; and means the basic technologies and competency for productive and satisfactory life. The basic vocational skills of SCANS, that is, the Workplace Know-How consists of 3 fundamental skills and 5 workplace competencies; there is mutual correlation between each area and the areas are also used at the same time. SCANS of USA classified the basic vocational skills into 5 levels ((Level 1-5) consisting of preparatory, work-ready, intermediate, advanced, and specialist level.

EFF (Equipped for the Future) of USA developed EFF Content Standards presenting the skills and qualifications needed for adults. EFF Content Standards classified adults into families, citizens and workers. In addition, NWRC (National Work Readiness Council) of USA derived the concept of NWR (National Work Readiness) by deriving the skills for students to have before employment based on the EFF Content Standards. NWR means the relevance as a role of an adult and a subset of the big picture of life-long career path, which is being utilized as a framework of qualifications referred to as National Work Readiness Credential.

The basic vocational skills of Korea are defined in the national competency standards (NCS) which was proclaimed as a standard in 2014, which is classified into 10 basic vocational skills (communication skills, numeracy skills, problem solving skills, self-management skills, resource management skills, interpersonal skills, information skills, technical skills, organizational-understanding skills, work ethic). The basic vocational skills are meaningful as requirements that job-seeking students should be equipped with in accordance with the needs of the industry. In the paper (Yang & Jeong, 2015)

studying on the case that the levels of actual job-seeking students are less satisfactory than the level considered to be important in the industry, the Engineering Department showed the highest figure in the communication competence when comparing the difference between the degree of importance and the degree of satisfaction (the degree of importance -the degree of satisfaction). That is, the basic vocational skill showing the largest difference in the capacity level of students compared to the requirements of the industry is the communication competence. From the result of the study by (Yang & Jeong, 2015) problem solving skill (1.04) and interpersonal skill (0.96) are next to the communication skill in the difference between degree of importance and degree of satisfaction.

2.3 Communication skills

The communication skills refer to the knowledge that people have relating to the social properties of communication (Lee et al., 2003; Rubin, 1982; Spitzberg & Cupach, 1989). The definition that is commonly accepted regarding communication is that the senders and recipients send and receive information by utilizing a certain channel. Many communications occur in the industry performing jobs or in the classrooms of schools where classes are conducted. Especially, the communication skills in the workplaces are directly related to the productivity (Kim & Lee, 2014). However, it is not easy to verify whether the senders and receivers perform effective communication with each other and whose communication skills contain problems in the case of poor communication.

(McKay et al., 1995) classified the communication skills necessary for improving interpersonal relationship and enhancing the effectiveness of communication in schools or workplaces or general societies into basic skill and advanced skill; and presented 3 skills of listening, self-revealing, self-expressing skill for the basic skill. Especially, listening is being emphasized in the industry in terms of communication activation and productivity improvement. Effective ways of listening proposed commonly in the literature are summarized as neutral response, interpretation of meanings of the other party's statements by putting them another way, additional questions, outlining the contents heard, checking with feeling of the other party (Bolton, 1979).

(Trenholm & Jensen, 2000) defined the communication competence as a capacity to communicate in the personally-effective and socially-appropriate way, and are focused on the capacity to be involved in the cognitive process of the senders and receivers who perform the communication. The sub skills of the communication competence presented by them are: 1) the skill to give meanings to the environment surrounding the involved in communications; 2) the skills to establish the communication goals strategically; 3) the skills to properly perform the social roles; 4) the skills to expose a visible image of their value; 5) the skills to create intelligent messages containing verbal and nonverbal communication and desirable relationship, etc. (Trenholm & Jensen, 2000).

This study set the sub areas of the communication competence as information collection, listening, overcoming the fixed mindsets, open communication, self-revealing, proactive communication, and understanding others' perspectives (Lee et al., 2003); and measured the communication competence through questionnaires.

3. Research Methods

3.1 Research overview

This study was conducted on the students of 2nd grade taking the "System Analysis & Design" course in the IT-related department of engineering college of A Women's University. Before proceeding with the project-based learning in earnest, the objectives and procedures of the study was explained for the students who participated in the study. Then, the questionnaire method for measuring the communication competence was explained and pre-diagnostic tests were performed. The project-based learning activities were conducted up to 12th week; and the post-diagnostic tests were conducted to see about improvement in communication competence in 13 ~ 14th weeks.

3.2 Research procedures

This study reconstructed classes to be in line with the research goal for pre-post study design of the same group. The class operation processes were structured for students to identify and solve topics and issues for analysis by referring to the prior studies relating to the project-based teaching (Lee, 2013). First, the students were let to form teams and to analyze the company's website under the analysis and to

design a new system regarding improvements. The objects under the system design are database, process and user interface; the problem situation of the projects that the students perform are set as the process of selecting, analyzing, and designing the company's website under the analysis in teams. Through this course, students will be able to recognize the overall situation of the organization and plan the specific system analysis and design direction to implement a system for the organization in the field since employment.

Stage	Instructor	Learner
Preparation stage (1st~3rd week)	Guide on the purpose for implementing the project-based learning Guide on the whole process of the projects Guide on the team organizing Guide on the pre-tests for communication skills Guide on the topics of the projects Guide on the project planning	Understanding the whole process of the projects Organizing teams and introducing team members with each other Ice breaking Understanding key learning concepts (personal learning) Conducting the pre-tests for communication skills
Planning stage (4~7th week)	Providing the related learning resources and information Guide on the team discussion Explaining the key learning contents and concepts Guide on how to perform projects	Collecting the related learning resources and information Team discussions for deriving the solutions Create the plans to perform projects Understanding key learning concepts (personal and team learning)
Analysis and design stage (8~12th week)	Guide on how to create outputs from the performed projects Explaining the key learning contents and concepts Guide on how to perform projects	Collecting, exploring, analyzing the learning resources and information Team discussions for deriving the solutions Creating the drafts of outputs and revising for complement Understanding key learning concepts (personal and team learning)
Evaluation stage (13~14th week)	Outlining the entire learning contents Evaluation and overall general comments Guide on the post tests for basic vocational skill	Announcing project results by team Reflecting Post tests for basic vocational skills

Table 1: project-based learning process

The process of the project-based learning structured in the study is as in <Table 1>. The first stage is the preparation stage for projects, which is configured by the orientation explaining the purposes for applying the project-based learning to classes and the educational meanings. The second stage is the project planning stage; students selected the website of the company considered to be of high interests and value by teams and collected the related information. The theories techniques for the analysis and design were conducted in lectures and practices for understanding the key concepts that instructors describe. The third stage is the analysis and design stage; the contents learned or collected information to date and work situations were reviewed and solutions for the tasks were derived through consultation with team members. The last stage is the evaluation stage; while comparing their presented solutions with ideas of others mutually, all teams had a time for reflecting on the project activities that performed to date.

3.3 Measurement tools and analysis

For communication skill measurement tools, the measurement tools developed by Lee et al. (2003) to measure on the students and adults of Korea were used. Lee et al. (2003) developed the tools for measuring the communication skills, problem solving skills, and self-directed learning skills in order to measure the core capacities required over each life stage on the national level in terms of the Korea Education Development. The measurement tools for communication competence are configured to fill in the scores that the students perceive themselves considering the level of the actions that occur frequently to them, for 7 questions to which scores of Likert 5-point scale are granted for a total of 7 sub-areas.

Components	Sub-factors and contents	Number of questions
Information collection	Identifying the dialogue contents and intentions of the other party Inductive information collection and non-verbal information collection	7
Listening	Expressing understanding verbal and non-verbal information of the other party Proceeding with dialogues while checking with well understanding what the other party is saying	7
Overcoming the fixed mindsets	Overcoming the prejudices related to the gender, origin, physical conditions Overcoming the prejudices related to authority and expertise	7
Open communication	Accepting the difference due to the relation properties with the other party Dialogue in positive view	7
Self-revealing	Expressing their thoughts and weaknesses honestly Revealing their preferences that may cause inconvenience to others	7
Proactive communication	Outlining and presenting their own opinion clearly and timely Communicating actively with others and solving the questions	7
Understanding the others' views	Expressing your understanding what the other party is saying Thinking in the position of others and dialoguing while grasping the emotional changes	7
Total number of questions		49

Table 2: Components and sub-factors of the questions

Pre-post tests were conducted on the students who participated before and after experiencing the project-based learning to examine the level changes in communication skills depending on the time of diagnosis. The mean and standard deviation were computed on the data collected in this study and the paired sample t-test was conducted on the test results. <Table 2> shows the distribution of the questionnaire items.

3.4 Study results

From the results of the paired sample t-test for the pre-post diagnosing tests, the difference in communication competence (entire) was shown to be statistically significant as in <Table 2>. The t-value of the entire communication competence was shown to be -2.810 with 0.006 in the significance probability, showing the significant difference. It tells that the communication competence of the students was improved after the project-based learning. It can be interpreted that the project-based learning has a positive impact on the communication competence of students.

	N	Mean	SD	t	Significance probability (Both sides)
Pretest	105	3.4059	.29021	-2.810	.006**
Post-test		3.5269	.34063		

Table 3: t-test on communication skills (entire)

Analyzing the results of the pre-post diagnosing tests for each sub-areas of the communication competence

The paired sample t-test was conducted for each area to identify the difference for each of the individual variables; the results as in <Table 3> were obtained. The information collection skills, skills of overcoming the fixed mindsets, self-revealing skills were shown to be statistically insignificant; the skills are interpreted to have not improved by the project-based learning. However, listening skills and proactive communication skills were shown to be significant at the significance level of $p < 0.01$; the open

communication skills and skills of understanding others' perspectives were shown to be significant at the significance level of $p < 0.05$.

3.4.1 Information collection skills

From the result of measuring the information collection skills, which are the skills to grasp whether or not to be able to collect the inductive information collection based on the fact after identifying the dialogue contents and intentions of the other party in the communication process, the skills were shown to be insignificant. That is, the effects of improvement in the information collection skills thanks to the project-based learning showed a small upward change in the comparison of mean values; however, it is interpreted that the change is not significant enough to conclude that the information collection skills were improved.

Significant at the level of * $p < 0.05$, ** $p < 0.01$

Variables		N	Mean	SD	t	Significance probability (Both sides)
Information collection skills	Pre-test	105	3.9078	.42895	-1.898	.060
	Post-test		4.0190	.46769		
Listening skills	Pre-test	105	3.4525	.43438	-2.684	.008**
	Post-test		3.6245	.44227		
Skills for overcoming the fixed mindsets	Pre-test	105	3.6328	.54273	.610	.543
	Post-test		3.5824	.60735		
Open communication skills	Pre-test	105	2.9840	.37561	-2.044	.043*
	Post-test		3.0832	.36307		
Self-revealing skills	Pre-test	105	3.5001	.61020	-1.042	.300
	Post-test		3.5834	.59986		
Proactive communication skills	Pre-test	105	2.9903	.64886	-2.951	.004**
	Post-test		3.2636	.61954		
Skills for understanding others' perspectives	Pre-test	105	3.3754	.55704	-2.050	.043*
	Post-test		3.5335	.56733		

Table 4: t-test on individual variables of the communication skills

Information collection skills are highly likely to vary depending on who is the communication party. It seems not easy to improve the differences in opinions and grasping intentions between classmates in acquaintance for two years since the college enrolment by the project-based learning. However, in case of organizing a team with strange people in the real industry and performing works with them, it is possible to guess that this would show different measurement results. Or there is also a possibility that changes to a relaxed manner at the communication occurred as familiarity increased with projects in progress between learners who were sensitive to the information they collect. These cases are different issues separate from the presence or absence of improvement in the information collection skills. In addition, for the information collection skills, there is a possibility that collection is made more sensitively based on intentions and facts in the absence of sufficient sharing of emotion with the other party. There is a need for studying by forming a project team in members who had never met each other to identify it.

3.4.2 Listening skills

Unlike the information collection skills, the listening skills are the skills to understand and identify the intentions of the other party accurately and feedback them repeatedly sometimes. The effects of improvement by the project-based learning were shown to be significant at t-value of -2.684 and at the significance probability of 0.008.

Since the project-based learning requires students to form teams by themselves and derive the final outputs for performances, it is impossible to derive the target result without accurate communication. Many discussions and opinion coordination are necessary in the process of project execution. It is considered that the improvement in listening skills could be achieved in the process.

3.4.3 Skills for overcoming the fixed mindsets

Improvements in skills of overcoming the fixed mindsets were shown not to be improved by the project-based learning. The fixed mindsets mean that it is not possible to communicate objectively because of depending on the gender, area or appearance of the communication party. This study set the experiment environments to be the situation that makes it impossible to include a variety of communication parties into the project members. There is a limit of not providing an environment to improve the skills of overcoming the fixed mindsets due to the communication relationships with team members organized within a fairly homogeneous group such as classmates of the same school or same class. There is a need for conducting studies in the environments in which it will be possible to measure the presence or absence of the improvements in the skills of overcoming the fixed mindsets by constructing teams in members with a variety of areas, ages, and gender in the future.

3.4.4 Open communication skills

It is the open communication skills to understand a variety of viewpoints and have the attitude of listening to the opinions different from mine. From the measurement results, it was shown to be significant at t-value of -2.044, with the significance probability of 0.043. Open communication enables to raise the attitude of respecting the opinions of the other party, which can be seen to be improved as very meaningful skills through the project-based learning.

It is presumed that there was a need for listening to the opinions of classmates, with open attitude, who have the opinions different from the learner himself or herself in the team project execution process. It is necessary to exchange opinions candidly with each other to solve problems or derive a new solution through team work between learners. It is because it is impossible to reach the mutual coordination or agreement without open communication.

3.4.5 Self-revealing skills

In the social and cultural aspects, Korea has a culture very lacking in self-revealing skills. It requires quite a long companionship and time to expose oneself to the other. Especially, in Korea with customs in which it is not easy to reveal herself even among close friends for women, self-revealing is a kind of courage and ability.

From the result of the project-based learning, no significant effect was shown in the improvement in self-revealing skills. It is interpreted that the project-based learning showed a sufficient effect enough to overcome the cultural customs. Other learning methods may be necessary for improvement of self-revealing skills or it may not be the problem to be overcome by learning. And it is thought that it may be the area requiring longer-term training and learning than thought.

3.4.6 Proactive communication skills

This study showed that the biggest effects of the project-based learning were found in the improvements of the proactive communication skills. It was shown that there is the biggest effect among 7 sub factors with t-value of -2.951, and significance probability of 0.004. The proactive communication skill refers to the skill to clearly express one's opinions in an organized way and actively raise questions about what he or she wants to know about. It can be interpreted that students cultivated a highly active manner and became to be able to communicate proactively by this project-based learning.

The proactive communication skill means using expression or gesture as well as words actively. For Korea female students, it may not be easy to express themselves positively and proactively in the past, traditional culture. However, team construction and project performing only by female students could make them fairly free from these cultural constraints. Regarding this point, there is a need for further analysis through additional studies on whether female students can improve their skills for proactive communication in the case of co-ed as well.

3.4.7 Skills for understanding others' perspectives

The project-based learning also showed the significance in improvement of the skills for understanding others' perspectives with t-value of -2.050, and significance probability of 0.043. Understanding others' perspectives means the improvement in the attitude to consider other's position and identify difference from mine and try to find rooms for possible coordination.

This is the skill to be necessary by all means for cooperation and coordination in the implementation process of projects. It was confirmed that it was improved by the effect of the project-based learning.

4. Discussion and Conclusion

This study was conducted for the purposes of knowing about what impacts the project-based learning has on the communication skills, which is a kind of basic vocational skills of university students. From the result of pre-post diagnosing tests that were conducted in the "System Analysis & Design" class using the project-based learning, the related skills were shown to be improved in 4 areas (listening skills, open communication skills, proactive communication skills, skills for understanding others' perspectives) among 7 sub areas of the communication competence. However, the effects were not shown in the other 3 sub areas (information collection skills, skills for overcoming the fixed mindsets, self-revealing skills), which implies that further studies are necessary for a new learning design for the project-based learning to be utilized.

It was expected that the communication competence can be much improved through the project-based learning, but the larger improvement effects were not shown than expected. It is analyzed that the short-term improvement effects could not be easy because more sufficient time is needed for improving the communication skills than other skills. In a prior study on the effect of the project-based learning on the improvement in the basic vocational skills of the college students (Lee, 2013), the conclusion was that the communication competence was not improved; however, it could not clarify the specific areas having no effects because the study did not classify the communication competence into sub areas. However, this study checked with the presence of the improvement effects by separating the communication competence into 7 sub areas.

Limitations of the study are that the study objects are limited, above all. This study is the study targeting on the students enrolled in a particular course in a particular college so it is rather hard to generalize the results of the study. In addition, there is a room to be thought about the feasibility that the study intended initially since the size of sample was small because the subjects were limited only on the students enrolled in a certain course in the judgment that it was reasonable to complete the study within a course under the study design. In this regards, it seems to be necessary to synthesize the research results with the need for the further studies conducted pursuing the diversity of courses as well as expansion in number and expansion of the research subjects in the future.

However, this study is meaningful in that it attempted to exhibit the effect of improving the basic vocational skills by applying the project-based learning to a required course. The study also is meaningful in that it requires further verification through a variety of the additional studies in the future. Especially, the study elucidated the presence of specific improvement in learning effects before and after performing the project-based learning by each sub area of communication competence.

From the study results, it can be said that the application of the project-based learning to "System Analysis & Design" subject has a positive impact on improvement of essential capacities that the professionals leading the changing era should possess. In terms of the IT-related department of universities requiring quick adaptation to the rapidly changing era of participation, sharing, openness and cooperation, it is essential to raise the experts that can adapt effectively to this. It refers to the need for the composition of the learning environment in which students can solve problems by themselves and actively lead the proactive communication through the project-based learning focusing on the practices rather than theory-centric lecture-dependent learning for the learning of information technology-related courses. For this, there is a need for continuously conducting the case studies regarding development and application of the project-based learning model that can be utilized in a variety of different field-linked class as well as "System Analysis & Design" course.

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The problem of ensuring industrial products quality in Russia

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Keywords

quality, industry, machine-tool engineering, radio electronics, defense industry, quality management system.

Abstract

This paper deals with the problems of industrial products quality in Russia, its control and maintenance. Our analysis of the identified issues is industry-specific: we study how products quality is assured in machine-tool and radio electronics equipment manufacture; some specific features of these processes in defence industry are identified and described. We define the areas where quality management systems can be improved and further developed at machine-tool manufacture plants. We also suggest certain concrete recommendations for developing highly competitive companies that produce radio electronic devices. We propose a system of quality maintenance for defense enterprises.

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Introduction

Currently the Russian economy is in a difficult situation. This is facilitated by both a protracted economic crisis and political disagreements between states. The European Union and the United States have applied a package of sanctions against Russia, then additional sanctions restrictions were added in stages, which touched on the most competitive industries: machine-tool building, radio electronic industry, military-industrial complex. Whatever it was, the sanctions to a large extent spurred the efforts of the Russian industry to import substitution, although, of course, led to disruption of the implementation of projects, and somewhere to the rejection of plans.

It is important to bear in mind that under the sanctions regime, the share of imports of metalworking equipment from "unfriendly countries", for example, is 63.3% (60.8% of the market); the share of tool imports is 33.3% (30.4% % of the market). This situation leads to negative consequences from the point of view of technological safety.

Problems and complexities of Russia's economy manifest themselves not only in stagnation, occasionally in dropping industry outputs and instances of cross-default, but also in the level of quality of products being manufactured. The technology level of equipment and know-how generated in Russia are, sadly more often than not, considerably lower than those in industrially advanced economies (Vershinina et al., 2016). Investments in industrial modernisation and new technologies will be worthwhile only if products to be manufactured are competitive and in demand from customers.

The goal of this paper is to present to colleagues our view of the problem of ensuring industrial products quality in a range of manufacturing sectors of Russia's national economy.

The presented materials are designed to facilitate professional development of academic personnel and to set the pace for R&D work of young researchers and engineers.

The problem of quality maintenance in machine-tool engineering

The current state of Russian machine-tool engineering and manufacture does not give any grounds to hope for bringing out to the market sufficient amounts of competitive mechanical processing equipment, in many an area that would be import-substitutive. (Baurina, 2016). Due to this quantitative and qualitative setback - in the context of the sky-rocketing development of machine-tool engineering in the leading economies - Russian machine-tool industry has been gradually losing ground being incapable of competing with the growing imports (Fig. 1).

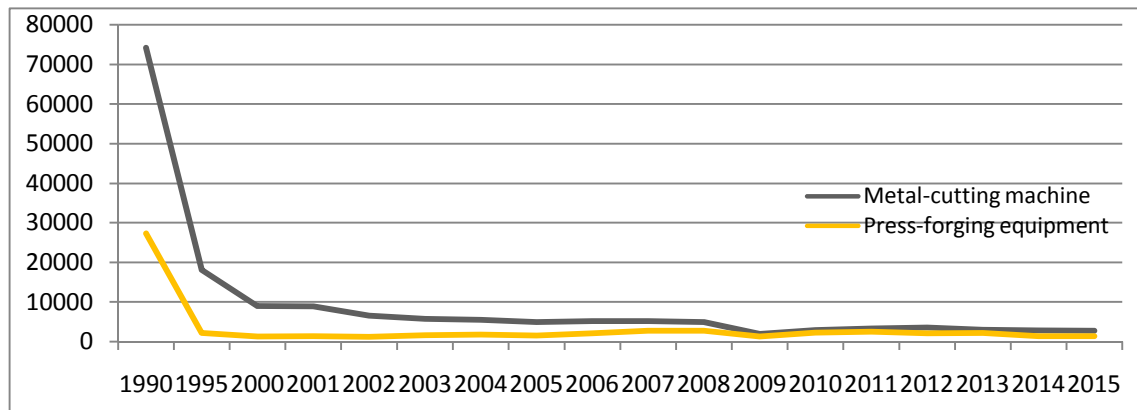


Figure 1. Manufacture of machinery and plants (pcs)

Introduction of new systems of quality management and voluntary certification at machine-tool building enterprises in Russia, that could solve issues of quality assurance of the machines and equipment manufacturing, despite the successes that have been made, are slow.

The long practice of using quality management systems at Russian factories and plants of the machine-tool building sector (OJSC "Volgodieselapparat", city of Marks, Saratov region; OJSC "Stankostroitel", city of Saransk; OJSC "Prommash", city of Saratov; OJSC "Elektroterm-93", city of Saratov; LLC EPO "Signal", city of Saratov; OJSC "Stanko Mash Kompleks", city of Tver; PTC "Stanko Stroitel", Moscow, etc), along with the latest research testify to sporadically arising problems, both of the global and local nature.

Let us now look closer at the problems indicated above.

1. The objectives and target performance indicators for developing and implementing quality managements systems seem to be insufficiently clear and well thought-out. First and foremost, it is due to a rather formal approach to the task: a) the object being pursued is chiefly to get a compliance certificate (which allows a company to enter the export market); b) the very goal of creating an effective quality maintenance system truly conducive to reaching a necessary products quality and competitiveness level is pushed to the sidelines (Nazarova et al., 2016). On balance, what we have is the ill-timed and tardy solutions to a range of important organizational and economic tasks that have long become "overdue".
2. Methodological problems of defining the context/boundaries of the evaluation model. Graded performance evaluation is sometimes lacking: performance evaluation for one workplace, for a business unit/subdivision/department, for the company as a whole. Many a specialist tends to think that the outcomes of the processes involved in quality management systems operation are to be defined more clearly. Besides, difficulties do arise in connection with setting performance criteria for quality management systems.
3. Considerable labour input and costs associated with financial accounting for the 'price' of quality maintenance. Such accounting requires introduction of modern forms of book-keeping (Nazarova et al., 2016). That is why many machine-tool manufacturing enterprises put first the task of making their documentation compliant with the mandatory requirements of the ISO international standard, whereas quality cost accounting becomes less significant.
4. Imperfections of the methods used for quality management systems' performance assessment at machine-tool building plants. There have been observed certain difficulties with estimating real

resource expenditure on a quality management system and with calculating the share of profits coming from the quality system's management.

In addition to the above, the practice of machine-tool building factories operation reveals the problem of balanced score card estimation of quality management systems performance (Kubela, Pochly and Singule, 2016). A robust solution to this is to be approached with regard to such an indicator as satisfaction of all stakeholders, i.e. comprehensively. A correct and reliable evaluation method is what will enable a factory's management to plan their governance activities and set criteria for performance assessment in order to reach all identified goals as per each and any indicator of quality maintenance systems' outcomes.

Quality management systems efficiency upgrade in machine-tool building is to be considered at both macro- and micro-level. The former implies development and implementation of a national quality maintenance policy along with regard to certified QMSs when allocating government contracts for purchase and supply of products to state demands. The latter means introduction of a requirement for additional training and qualifications in the area of quality management, along with meeting appropriate requirements for personnel and implementing staff incentive systems (Wan et al., 2016).

It is quite acceptable, in modern conditions, close cooperation with Asian manufacturers of machine tools and equipment (China, Taiwan, India, Singapore, Malaysia, Korea, etc.). First of all, we are talking about studying and actively using their positive experience in ensuring the quality of products. Despite the EU's sanctions policy, a number of investment projects of foreign investors are successfully implemented: a joint venture of Czech investors with Ekaterinburg's "KR Prom" for the production of horizontal boring machines and portal machining centers; The Pumori group together with the Japanese Okuma manufactures CNC machines, in Perm the machine assembly is carried out in cooperation with the Indian Ace Manufacturing Systems; The project of the German company "Hermle" provides for the creation of a machine-tool plant for the large-unit assembly of milling five-axis machining centers on the territory of the industrial park "Zavolzhye".

Improvement of internal activities of Russian manufactories aimed at ensuring high products quality and bettering customer satisfaction will come from efficient practical management solutions, which, in its turn and in the long view, will be conducive to an increase in positive outcomes of deployment and operation of quality management systems at machine-tool building enterprises (Ministry of Industry and Trade of Russia, 2016).

Quality maintenance in radio electronics manufacture

An urgent issue for the current innovation-centred development of radio electronics manufacture is a solution to the problem of ensuring reliability and high quality of products (State program, 2014). Data on exports/imports turnover in the radio electronics sector is shown on Fig.2.

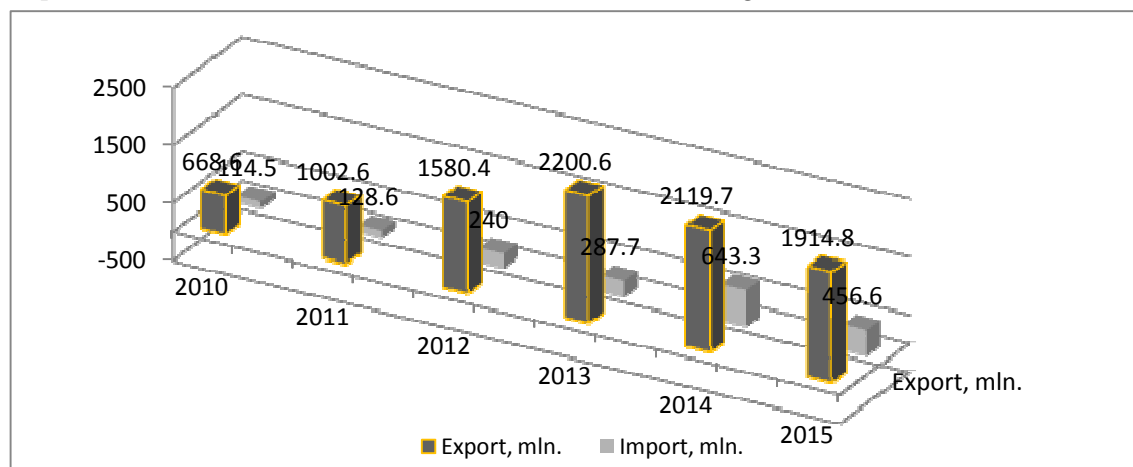


Figure 2 - Data on the volumes of exports and imports of radio electronic products, millions USD (State program, 2012)

Unsatisfactory attention to the issues of communications electronics quality and, due to this, low competitive ability of the products are what has caused a practically total ousting of Russian producers from the consumer market. Sadly, this situation is characteristic of other sectors, too, but in the area of radio electronics manufacture, overcoming product quality difficulties seems to be a much more urgent challenge.

Today, communication equipment manufacturers in Russia badly need substantial investments into fixed assets replacement, scale-up and implementation of new technologies, among other things. A faster modernization of industrial plants, with reliance on a new and novel engineering and technological basis, may be possible if and only if investments are utilized efficiently.

The fundamental goal of state policy now is the improvement of technology level in Russia's communications equipment sector to match the existing global standards, as well as competitive recovery of the products at both domestic and international markets (Vershina et al., 2015).

The recently obvious increase in the weight of the problem of communications equipment quality has been largely determined by the fact that radio electronic devices and gadgets have become highly sophisticated and at the same time universally used in all and any sphere of industrial production, research and management, leave alone special-purpose applications. The notion of 'quality' in relation to this type of equipment is viewed as an integral indicator determined by the general level of engineering research and development, by the quality of electronic products, by sophistication of know-how and available measurement/testing capabilities.

Let us now identify the key reasons for a drop in product quality demonstrated by Russian manufacturers of radio electronics:

- first, due to curtailed research programs in the field of quality and reliability of radio electronic equipment, the programs that had been active and efficient in 1980 - 1990s;
- second, due to reduced sharing of best practices between engineers, manufacturers and publishers of specialist and reference literature on the subject;
- third, due to the absent centres of expertise displaying high-accuracy analytical equipment capable of detecting and identifying the causes for and mechanisms of technical failures in communications radio electronics;
- fourth, due to now inexistent supplies of radio electronics from the Baltic states, Ukraine, Kazakhstan, etc. (over 30% of component), along with production curtailment at a range of Russian factories;
- Fifth, due to existing problems at the level of radio electronic manufacturers: outdated production and testing facilities, insufficiently rapid introduction of technological advances, a lack of appropriately qualified and trained personnel specialists. (Bobalo et al., 2016).

All the identified causes for a reduced quality of Russian communications equipment are due to the general downfall of the country's economy and a sizeable under financing of standardisation, quality maintenance and certification of the products.

Inadequate investment in the radio electronics sector affects, in an adverse manner, the development of hardware component by manufacturers: a range of component parts are not in production any longer. In connection with this, Russian producers are often compelled to purchase components from suppliers that are far from being reliable and trustworthy. At the same time, a proper acceptance control at full scale is in place only for a limited number of special application products. As a consequence, the key reason for equipment malfunctions is component failure.

It appears to be quite obvious that the problem of radio electronics quality must be solved at the very early stages of its lifecycle: i.e. during engineering research and development (Bobalo et al., 2016). However, it ought to be noted that even if a set of desired technological properties is in place, this does not necessarily speak of a 'quality' of equipment. Essential is also the quantitative assessment of the properties making up this 'quality'. The quality of modern radio electronic products is eventually determined by proper organization and management, by methodology and technology of quality control, measurements and testing throughout designing and production stages; none the less important role is also played by the level of metrology employed at the factory.

For a faster and more convincing growth of companies producing radio electronic equipment (subject to product type), a set of requirements are to be met:

- manufacturers in professional segments: flexibility in product development with regard to customer needs, in close integration with the latter; focus on key processes; powerful sales and distribution with a perspective for international operations; full-blown industrial cooperation;
- manufacturers in special segments: good balance between production and cooperation, operational effectiveness, a flexible supply chain structure; focus on key competencies and a high concentration of resources in these areas (Guerra, Sousa and Nunes, 2016).

Isolated and uncoordinated measures aimed at achieving individual targeted indicator values do not guarantee a solution to the problems of maintaining high quality of radio electronic products in general (Afefy, El-kamash and El-Sayar, 2015).

The quality of raw/engineering/finishing materials, of component parts, production tooling and equipment, infusion of high-end technology and implementation of science-based manufacturing process engineering and management, a better structuring of process operations, transition to a higher level of process automation, etc., etc., -- all this collectively is what determines the quality of radio electronics. Another important factor of communications equipment quality is its proper operation, the level of standardisation and unification, economic factors, etc.

Quality assurance in weapons industry

Defence industry in Russia is very R&D-intensive. Its frontline research and development is conducive to a technology spill over to other areas of national economy. But, despite the apparent successes, the problem of quality maintenance for military materials and equipment (MME) is more than acute.

The abundance of sanctions against a number of defense enterprises in Russia, broken connections between many manufacturers of military hardware components have put manufacturers in a quandary. However, there are examples of successful activities in the current conditions.

So, the American Defense News says about the holding "Almaz-Antey", which specializes in the production of anti-aircraft systems. At the moment, it ranks 11th among the world's largest arms producers, and over the past year has managed to increase its turnover by more than 10%. The Russian Helicopters holding (turnover increased by 16.3%) and the Tactical Missile Armament Corporation (plus 48.6% of turnover) achieved even more notable successes (<http://www.defensenews.com/>).

The key causes for insufficiently high quality of defence products can be categorized as technical, legal and organisational (Table 1).

Table 1. Key reasons for defence products' low quality

Types	Properties
Technical reasons	<ul style="list-style-type: none"> - obsolescence and physical wear of the fixed assets (FA) of defence contractors (DC), including outdated process engineering capabilities and a lack of modern machine-tools and measuring equipment and lab/test facilities; - use of outdated hardware component for MME manufacture; a low quality of components and materials; - in-existent state-of-the-art electronic tracking equipment in the development, production and operation of science-intensive MME at all stages of its lifecycle (CALS-technologies) which ensures a radical improvement of quality and competitiveness; - a lack of computer aided quality management systems (QMS) at factories and plants of MME exporters; computer aided QMS are systems that are decisive in carrying out a look back/routine/predictive analysis of causes for and repair costs of defects/failures of elements, components, parts and units of each item individually and all the products collectively throughout their lifecycle stages (a mandatory requirement of the new Russian GOST Standards R ISO 9000, version as of 2000); - a lack, at factories and plants of MME exporters, of state-of-the-art systems of metrological assurance of the quality of MME products and efficient quality management systems (QMS) ensuring production loss minimization at all stages of product lifecycle;
Legal reasons	<ul style="list-style-type: none"> - the framework of standards en force in the area of development, manufacture and operation of weapons and military equipment (WME) was adopted and introduced 25

	<ul style="list-style-type: none"> - 30 years ago and do not conform to the current economic conditions and technical production specifications any longer; <ul style="list-style-type: none"> - existing standardisation and compliance assessment systems do not comply with the requirements of Federal Law of the Russian Federation "On technical regulations" and international standards; - absence of a mandatory condition to have an effective QMS in place at factories (in developed economies) for procuring government defence contracts; - use of CALS-technologies in the process of their development, manufacture, operation and disposal
Organisational reasons	<ul style="list-style-type: none"> - incompliance by contractors with the procedure and methods of WMEs testing for their acceptance for service in the Russian army and for exporting them; - absence of effective QMS at factories and, as a consequence, poorer detection and shooting of troubles and defects in the design, production and operation of products; - Violations of previously en-force procedures of control and maintenance of WME's quality in the chain of cooperation among developers, manufacturers and users of defence products; absence of an efficient system of personnel training in the area of quality management.

Basic principles of state policy on development of the defence industrial sector (DIS) require that defence contractors have in place efficient quality management systems (QMS). State defence standards provide for special requirements from state contracting authorities along with the forms and the order of assessment of QMS's compliance with applicable requirements.

For companies producing and supplying defence materials and equipment there is a special industrial standard GOST RV 0015-002-2012 "A system of developing defence equipment and launching it into manufacture. Quality management system. General requirements" (GOST RV 0015-002-2012, 2012); the standard is obligatory. Compliance with its requirements guarantees the development, supply and servicing of products that can meet the standards applicable to military equipment supply, ensures its reliability and also implies measures of risk assessment and state secrets protection (GOST RV 0015-002-2012, 2012).

For the purposes of overcoming the existing problems in the defence industry sector and creating conditions for maintenance of the quality of defence products the following is to be implemented:

- Fundamental replacement of fixed production assets and experimenting/testing facilities at the industry's key companies and organisations;
- maintaining unique materials technologies used for modern weapons;
- protecting the defence potential of the weapons industry from unreasonable process re-engineering and dissolution of the production facilities that have strategic significance for the manufacture of end products with desired properties;
- maintaining the talent pool at defence companies and organisations; attracting young specialists and workforce, their training and qualification testing;
- increasing the role of company leaders in ensuring systems management and quality management in particular;
- improving the methods of defence products quality control by the state client and of certifying by authorized certification systems;
- ensuring appropriate work load for defence companies and organisations above the limits that are necessary for maintaining steady and sustainable production processes;
- A systematic development and improvement of the legal framework in the area of defence industry operation and state order fulfilment.

As of today, in order to solve the issues of military equipment and materials quality, what we need is not simply certification and control by the state client: we also need a comprehensive system of ensuring and guaranteeing the quality of defence products that (system) could unite in itself both the military technical policy and state procurement requirements, control and supervision over compliance with technical specifications and defence standard requirements, appropriate metrology methods and testing procedures, along with independent compliance assessment procedures. A visualisation of such a system can be seen on Fig. 3.

Findings and inferences

The present study of the three industry sectors (machine-tool engineering, radio electronics, defence materials and equipment) in Russia, in our view, is a proof of the existence of grave problems with maintenance of industrial products quality.

In addition to the identified specific problems and reasons of low level of quality manufactured products of analyzed branches of the national economy of Russia, it is worthwhile to pay attention to the insufficient level of professional skills of Russian industrialists due to modern requirements and functioning rules of the world economy and the active introduction of innovative industrial technologies.

A significant part of efforts of heads of national corporations and large enterprises should be focused on studying the best practical experience of quality assurance of worldwide leading manufacturers of industrial products and its active application. Great role also should be playing by system of Russian education, which is also interested in the preparation of qualified competitive personnel.

As a result improvement of activities aimed at ensuring higher products quality and bettering customer satisfaction will come from efficient practical management solutions, which, in its turn, will be conducive to an increase in positive outcomes of deployment and operation of quality management systems at Russian industrial enterprises.

Conclusion

Underestimation of the issue of industrial products quality and a need for systematic and focused efforts to improve it is what leads Russian industrial companies to a loss of ground in many a key sector. Only by facing up to the strategic importance of the problem of quality, by choosing and implementing appropriate systems of quality management at our plants and factories can we come closer to a perspective of ensuring a better competitive strength and sustainability to our business enterprises.

In conclusion, it would like to note that actions for solving problems identified in this article should have a systemic complex character. There is some degree of closeness and limited access to the analysis of the real situation at the enterprises industries in Russia. However, taking into account the importance of machine-tool construction, radio electronics and defense industries for the overall development of the economy, it is worthwhile to continue actively study and analyze the state of affairs in these industries, emphasizing quality assurance of products.

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Organizational culture and job satisfaction: a study Of organized retail sector

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Key Words

Organized Retail Sector, Organizational Culture, Autonomy, Trust, Pro-Action, Job Satisfaction

Abstract

Organizational culture has been characterized as the “glue that holds organizations together”. Culture can support linkages between technology adoption and organizational growth; it can be a critical success factor in organization growth strategy and play a crucial role in determining the success or failure of organization. The term ‘job satisfaction’ is quite frequently used for individual attitudes towards the specific aspects of total work situation. The purpose of the study was to examine the level of Job Satisfaction and Organization Culture in organized retail sector. To examine the relationship between Organizational Culture and Job Satisfaction and to offer suitable suggestions to stake holders for improving the Job Satisfaction and make better Organizational Culture in retail sector. The present study was conducted on 436 employees of organized retail sectors randomly drawn using questionnaire method. The results obtained indicates that the employees were experiencing moderate level of OCTAPACE culture and also moderate level of job satisfaction and dominant culture components includes Openness and Risk taking, Confrontation, Pro-action, Collaboration and Experimentation. It was further explored and found that there is significant positive correlation exists between organizational culture and job satisfaction.

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1. Introduction

Organizational culture has been characterized as the “glue that holds organizations together”. Culture can support linkages between technology adoption and organizational growth; it can be a critical success factor in organization growth strategy and play a crucial role in determining the success or failure of organization. On a more micro level, researchers have found significant relationships between the “fit” of employees and the prevailing organizational culture and a number of important outcomes such as job commitment and turnover. There are many unanswered questions remain regarding the meaning and content of organizational culture, the methods by which it should be measured and, more fundamentally, the feasibility of cultural management and change, especially when attempting to operationalize specific organizational goals. While debates around these issues continue, culture has been accepted as a “fact of organizational life” by managers and has become an integral aspect of many organizational development programs. Culture is a communication process for creating, sending, storing and processing information that is viewed from three perspectives: words, material things and behavior (Rothwell et al 1995). The OCTAPACE culture is characterized by the occurrence of openness, confrontation, trust, authenticity, pro-

activity, autonomy, collaboration and experimentation, it deals with the extent to which these values are promoted in the organization. (Pareek & Rao 1988).

Openness & Risk Taking: Employees feel free to express their ideas and the organization is willing to take risks and to experiment with new ideas and new ways of doing things.

Confrontation: Employees face the problems and work jointly with others concerned to find its solution. They face the issues openly without hiding them or avoiding them for fear of hurting each other.

Trust: The employees department and groups trust each other and can be relied upon to 'do' whatever they say they will do.

Authenticity: Authenticity is the value underlying trust. It is the willingness of a person to acknowledge the feelings he/she has, and to accept him/her as well as others who relate to him/her as persons.

Pro-action: Employees are action – oriented, willing to take initiative and to show a high degree of pro-activity. They anticipate the issues and act or respond to the needs of the future.

Autonomy: Autonomy is the willingness to use power without fear, and helping others to do the same. Employees have some freedom to act independently within the boundaries imposed by their role/job.

Collaboration: Collaboration involves working together and using one another's strength for a common cause. Individuals, instead of solving their problems by themselves, share their concerns with one another and prepare strategies, work out plans of action, and implement them together.

Experimentation: Experimentation as a value emphasizes the importance given to innovation and trying out new ways of dealing with the problems in the organization.

Bullock (2003) described that the job satisfaction as "an attitude which result from balancing and summation of many specific likes and dislikes experienced in connection with the job". Peptone (1999) defined job satisfaction as summation of employees feelings in four important areas namely, job, management, personal adjustment and social relations. Hop Pock (1996) defined employee satisfaction as any combination of psychological, physiological and environmental circumstances that causes the person truthfully to say I am satisfied with my job.

The term 'job satisfaction' is quite frequently used for individual attitudes towards the specific aspects of total work situation. Since the time when the occupation of individuals became a socially significant phenomenon, social scientists focused their attention on the problem of job satisfaction. Inputs affect the outputs via employees' ability and motivation. Job satisfaction is an important aspect for any organizations. Many employers or superiors do not hesitate to know whether or not their employees or subordinates are satisfied with their jobs. Generally, there are four factors that influence the degree of job satisfaction, namely personality, values, work situation and social influence. A research by Karim (2008) reported six variables that significantly correlate with job satisfaction –affective commitment, job autonomy, job performance feedback, role conflict, role clarity and organizational tenure. The research also found that out of these six variables, only two have predictive relationship with job satisfaction: affective commitment and organizational tenure.

2. Review of literature

Nazneen et al (2014) conducted a study on 350 employees-218males & 132 Females drawn randomly from different retail organizations and result shows that the most dominant components of culture in organized retail sector is Confrontation, openness, experimentation and proactively. It is observed from the study that if we create a good culture for the employees, retail would be the best found destination for new graduates and even for the existing employees.

Saleh (2012) analyzed 62 employees of retail organizations in Malaysia to study level of the job satisfaction, organizational commitment, and turnover intention of employees. The findings suggested that the respondents were moderately satisfied with job satisfaction facets such as promotion, work itself, co-workers, and supervisors but were dissatisfied with salary. They also had moderate commitment level with considerably high intention to leave the organization.

Sabri et al (2011) conducted a research on 347 teachers to determine the effect of organizational culture on job satisfaction level of teachers of public and private sector higher education institutes and universities of Lahore which is second largest city of Pakistan and a hub of higher education. Supportive

organizational culture may raise the level of job satisfaction of teachers and satisfied teachers may produce healthy, satisfied and creative minds. Empirical findings show that organizational culture is categorized into two components i.e. organizational culture related to managers and leaders (OCM) and organizational culture related to employees (OCE). In this study effect of both kinds of culture on job satisfaction is positive and significant

Tsai (2011) studied 200 hospital nurses in Taiwan to found out Job satisfaction, organization Culture and leadership behavior among them. He found that there is positive significant relationship between organization culture and job satisfaction. He further found that job satisfaction level among nurses is high and they endorse the culture as positive. Shah (2011) studied 215 faculty members to examine whether organizational culture affects the employee's job satisfaction of university faculty in Public Sector of Pakistan. Result indicated that organizational culture was negatively related to employees' job satisfaction. Thus, the study recommended that the efficiency of the faculty members of public sector universities in Pakistan need to be improved.

Bake and Nalla (2009) studied the relationship between organizational culture and job satisfaction among police officers working in various cities in two Midwestern states in United States. Data for the study was gathered from 669 respondents in five medium and large sized police organizations in two adjacent Midwestern States. More specifically, police officers' (supervisors and non-supervisors) perceptions about organizational factors of job satisfaction was examined and suggested that organizational characteristics are better predictors of job satisfaction than individual factors. Askari (2011) conducted a study to find any relationship between organizational culture and job stress of personnel in government departments at Firozabad city and found that there is a meaningful and negative relationship between organizational culture and job stress and organizational culture is different between men and women.

Nazneen & Bhalla (2013) conducted a study on 218 male employees and 132 female employees of organized retail sectors and found that the employees of organized retail sectors having moderate level of job satisfaction. They also found that male and female both are showing same level of job satisfaction. They also found negative correlation with the entire dimension of organizational role stress and job satisfaction. Nazneen and Sayeed (2012) conducted a study on 215 faculty members of UP and Punjab and found that faculty members of Punjab are showing low level of job satisfaction than their UP counterparts. Singh & Dubey (2011) found that job satisfaction was negatively correlated with all the dimensions of organizational role stress among middle level executive. Organizational stress and organizational culture were also found to be negatively correlated among middle level executives and male and female staff of retail. Sector. Askari (2011) conducted a study to find any relationship between organizational culture and job stress of personnel in government departments at Firozabad city and found that there is a meaningful and negative relationship between organizational culture and job satisfaction.

Muzainah et al (2010) found that determining a culture which is appropriate for all organizations is an impossible task because characteristics of organization, its external environment and situational constraints dictate different values, beliefs and behaviors within tax administrations of Malaysia and other developing countries. Pool (1999) studied the organizational role stressors and its impact on job performance in predicting outcome and results indicate that a constructive culture will significantly reduce impact of role stress and thereby decreasing job stress, increasing job satisfaction and job commitment.

2.1 Hypothesis

We have not formulated any null or alternate hypothesis rather make our research exploratory in nature with following Objectives.....

- 1.) To examine the level of Job Satisfaction and Organization Culture in organized retail sector.
- 2.) To examine the relationship between Organizational Culture and Job Satisfaction.
- 3.) To offer suitable suggestions to stake holders for improving the Job Satisfaction and make better Organizational Culture in retail sector.

3. Research methodology

3.1 Sample

Employees working in the organized retail sectors with more than two years were taken as Sample and purposive random sampling technique were used to collect the data. Around 500 employees of various retail organizations were contacted in different cities of India and finally 463 employees of various designations, sex, and experience were used as sample.

3.2 Procedure

Retail employees from various designation level of different organized retail organizations located in various cities of India like Walmart India, Future Retail, Shoppers Stop, Reliance Retails and Spencer's were selected as a sample keeping in mind the availability of the data, cost and distance for the data collection. Only employees with more than two years of experiences were taken in to consideration. The data were collected using survey method. Each of the respondents was personally contacted in group by the investigator and the data was collected through questionnaire. They were asked to fill the questionnaire after going through carefully the given instructions on each scale separately. They were also assured of confidentiality of their responses.

3.3 Tools used

Job Satisfaction Scale: Scale on Job Satisfaction developed by Singh (1989) was used in the study. This questionnaire consists of 20 items that measures the degree of job satisfaction. Each item was rated on five point rating scale ranging from highly satisfied to highly dissatisfied with a weighted score of 5 to 1, the total score of an individual varies from 20-100.

Organizational Culture: Pareek and Rao (1983) developed OCTAPACE profile consisting of 40 items instrument that gives the profile of organizational ethos in 8 values, were used in the study. The total value of an individual will vary between 40 – 200. The reliability and validity of all scales are well within acceptable norms.

3.4 analysis of the data

The collected data were tabulated as per the research design to meet out the objectives of the study and suitable statistical tools like Mean, Median, S.D., Correlation, ANOVA and Critical ration (t-Value) were calculated using SPSS.

4. Result and discussion

Table 1: Showing Mean and SD Values on the Dimensions of Organizational Culture and Job Satisfaction (N = 463).

Components	Mean value	S.D.
Openness and Risk Taking	13.05	1.95
Confrontation	12.97	1.89
Trust	12.27	1.90
Authenticity	12.24	2.19
Pro -Action	12.78	2.82
Autonomy	12.53	2.08
Collaboration	12.99	2.34
Experimentation	12.84	2.19
Organization Culture	101.66	9.36
Job Satisfaction	61.08	14.15

It can be seen from the Table that OCTAPACE Culture in Organized retail sector of India were found to be at Moderate level and also the employees of organized retail sectors were shown moderate level of Job satisfaction. If we analyze further we can see that on the dimensions of Openness and Risk Taking means employees feels free to express their ideas and the organization is willing to take risks and to experiment new ideas and ways of doing, found to be at moderate level. Collaboration means working together as team and using strength of one another and sharing the problem and concerns with each other and making strategies to resolve those problems and issues together again found at moderate level. Confrontation means employees face the problems and work jointly irrespective of the task and without

hurting the feelings and ego of each other and also allowed by the top managers to put their ideas and feelings without any fear also found at moderate level. Experimentation were also found to be at moderate level means there is no much importance given to innovation and trying out new ways in dealing with the problems. Pro-action means the employees are action oriented and willing to take initiatives and anticipate the act or response which may need in future were also found at moderate level.

It was further found that the employees of organized retail sector feels Culture of Trust, Authenticity and Autonomy very poor or at low level. It means the employees, departments and group does not relying and trusting each other while doing any assigned task of the organization and at the same time it was also found that the element of authenticity were also found to be very poor means it is a value underlying trust and it is the willingness of the employees to acknowledge the feelings he or she has and to accept him or her as well as others who relate to him as person in other words we can say that trust whatever we are showing is not authenticated and since there is no elements of Trust operating in this case there is no point of having authenticity culture. The culture of Autonomy were also found to be very low in organized retail sectors here the Autonomy is related with the willingness of the employees to use their power without fear and help others to do the same, in other words employees has given full freedom to their job effectively no boundaries has been imposed on them. This factor is very crucial in retail sector because if employees don't have the freedom or autonomy at work they will not be able to generate and implement new ideas which are needed for the success of retail sectors.

Job satisfaction of the employees of the organized retail sector was found as moderately satisfied and this may be attributed to moderate level of organizational culture.

Table 2: Showing Mean and CR Values of Male and Female Staff on the Dimensions of Organizational Culture and Job Satisfaction

Components	Mean- Male (N-299)	SD- Male (N-299)	Mean- Male (N-164)	SD- Male (N-164)	CR Value
Openness and Risk Taking	13.10	1.97	12.96	1.92	0.738
Confrontation	13.02	1.87	12.87	1.93	0.786
Trust	12.11	1.94	12.55	1.80	2.38**
Authenticity	12.22	2.16	12.27	2.26	0.267
Pro -Action	12.91	2.81	12.52	2.82	1.422
Autonomy	12.33	2.06	12.88	2.08	2.708**
Collaboration	13.04	2.49	12.91	2.04	0.563
Experimentation	12.84	2.13	12.85	2.31	0.067
Organization Culture	101.57	9.60	101.82	8.91	0.276
Job Satisfaction	61.08	14.15	60.68	13.87	0.298

** : Significant at .05 level of significance

It is clear from the Table that Male and Female staff of organized retail sector is experiencing moderate level of Organizational Culture. It is also observed that among Male staff the dominant culture components are Openness and Risk taking, Confrontation, Collaboration and Pro-action while in the case of Female staff the dominant components are Openness and Risk taking, Confrontation, Autonomy and Experimentation. The significant difference of mean were observed on the dimensions of trust and Autonomy between Male and Female staff and it can be seen that in both the cases Female staff are experiencing more Trust and Autonomy in the organization means female staff are trusting and relying each other in individual as well group capacity and willing to do whatever is needed for each other without considering any doubt on the integrity of the co workers. Surprisingly Female staff were shown higher level of Autonomy than Male counter parts and they using they power and authority in more effective way without having any constraint on utilizing those given powers and also not having any constraint in term of utilizing their power and position but the fact is it is only moderate level not at the higher side in both Trust as well as Autonomy components.

No significant difference of means was found on the dimensions of job satisfaction and both male and female employees of organized retail sectors are showing moderate level of job satisfaction.

Table 3: Showing Mean and CR Values of Managerial and Non Managerial Staff on the Dimensions of Organizational Culture and Job Satisfaction

Components	Mean- managerial (n-160)	SD- managerial (n-160)	Mean- non managerial (n- 188)	SD- non- managerial (n-188)	CR value
Openness and Risk Taking	12.87	1.84	13.01	1.99	0.68
Confrontation	12.82	1.88	12.81	1.84	0.049
Trust	12.03	1.92	12.11	1.84	0.394
Authenticity	12.29	2.29	12.22	2.17	0.291
Pro -Action	12.32	2.89	12.74	2.70	1.392
Autonomy	12.56	2.03	12.59	2.11	0.134
Collaboration	12.71	2.35	13.14	2.25	1.734
Experimentation	12.54	2.06	13.03	2.31	2.091**
Organization Culture	100.14	10.25	101.64	8.13	1.633
Job Satisfaction	56.92	13.81	61.16	13.49	2.884**

** : Significant at .05 level of significance

As shown in the table that managerial and non managerial employees of the organized retail sectors were experiencing moderate level of organizational culture and no significant differences on organizational culture and their dimensions other than experimentation were found significant. Non managerial employees having greater experimentation than their counterparts mean they were given freedom to innovate new ideas and trying out new methods and techniques in resolving any issues or doing their normal routine work. While on the dimension of job satisfaction it was observed that both managerial and non managerial employees were having moderate level of job satisfaction. And a significant difference of mean was found between managerial and non managerial staff and non managerial employees were shown high level of job satisfaction than their counterparts.

Table 4: Showing Mean and CR Values of High and Low Experience Staff on the Dimensions of Organizational Culture and Job Satisfaction

components	mean high expr (n-133)	SD- high expr (n-133)	mean- low expr (n-330)	SD- low expr (n-330)	CR- value
Openness and Risk Taking	13.69	1.67	12.80	2.01	4.55*
Confrontation	13.53	1.76	12.74	1.90	4.11*
Trust	13.31	1.61	11.85	1.84	7.98*
Authenticity	12.17	2.14	12.27	2.21	0.449
Pro -Action	14.41	2.81	12.12	2.54	8.497*
Autonomy	12.35	1.64	12.60	2.22	1.190
Collaboration	13.02	2.59	12.98	2.23	0.138
Experimentation	13.32	1.64	12.65	2.35	3.011
Organization Culture	105.78	9.27	100.01	9.27	6.26*
Job Satisfaction	61.47	17.27	60.72	12.52	0.519

*: Significant at .01 level of significance

It is evident from the above Table that high experienced employees of organized retail sectors were experiencing moderately high level of organizational culture than the low experience employees who feel moderately low level of organizational culture supported the findings of Sayeed and Bhalla (2013). Significant difference of Mean was observed on the dimensions of Openness and Risk Taking, Confrontation, Trust, Pro-Action and total organizational culture. And in all the cases the high experienced employees are experiencing high level of Openness and Risk taking, Confrontation, Trust and

Pro-action it means as the time passes in the organization employees feel comfortable and act and perceives the things accordingly. No significance of differences between means were found on the dimension of Authenticity, Autonomy, Collaboration and Experimentation dimension of organizational culture in spite of the fact that there is significant differences of means between high and low experience employees on total organizational culture.

No significant of differences between means were observed on Job satisfaction between high and low experienced employees and the satisfaction level were found to be moderate.

Table 5: Showing Correlation between Organizational Culture and Job Satisfaction among Retail Employees (N 463).

OC	O	C	T	A	P	A	C	E	OCT
JS	.323*	.233*	.368*	.248*	.435*	.272*	.420*	.205*	.471*

*: Significant at .01 level of significance

It is evident from the above Table that all the eight dimension of organizational Culture are significantly (significant at .01 level of significance) and positively correlated with Job satisfaction. It means if we improve the level of perceived organizational culture the job satisfaction level of the employees will also go up and if the perceived organizational culture were found to be low it is expected that job satisfaction level of the employees will also be low. Here in this case both Organizational culture and job satisfaction were perceived as Moderate supporting the study of Bhalla and Nazneen (2014).

Table 5: ANOVA analysis in terms of their designation for the scores on the dimension of Organizational Culture and job satisfaction.

Components	Senior Level		Middle Level		Non Managerial		F - Test	p value
	MEAN N-160	SD	MEAN N-115	SD	MEAN N-188	SD		
Openness	12.87	1.843	13.01	1.996	13.39	2.007	2.508	0.083
Confrontation	12.83	1.879	12.81	1.843	13.42	1.942	4.423*	0.013
Trust	12.03	1.924	12.11	1.845	12.84	1.852	7.347*	0.001
Authenticity	12.29	2.286	12.22	2.172	12.20	2.112	0.066	0.937
Pro -action	12.32	2.889	12.74	2.703	13.46	2.786	5.576*	0.004
Autonomous	12.56	2.033	12.59	2.111	12.37	2.105	0.421	0.657
Collaboration	12.71	2.349	13.14	2.254	13.15	2.450	1.820	0.163
Experimentation	12.54	2.065	13.03	2.309	12.97	2.138	2.435	0.089
Organization Culture	100.14	10.24	101.64	8.130	103.81	9.596	5.227*	0.006
Job satisfaction	56.92	13.81	61.16	13.494	66.17	13.543	15.491*	0.000

*: Significant at .01 level of significance

ANOVA analysis was conducted for the significant difference between the scores on the dimensions of the organizational culture and job satisfaction among the employees of the retail sector categorized on the basis of their designation.

For the dimension *openness*, *authenticity*, *autonomous*, *collaboration* and *experimentation* as p values obtained were all greater than 0.05. This signifies that there was no significant difference between the employees categorized on basis of their designation, scores on the all dimension discussed above. For the dimension *confrontation* as $t = 4.423$, $p < 0.05$. This signifies that senior and middle level employees score i.e. 12.83 and 12.81 respectively was significantly lower than the scores of the sales representatives i.e. 13.42.

For the dimension *trust* as $t = 7.347$, $p < 0.05$. This signifies that senior and middle level employees score i.e. 12.03 and 12.11 respectively was significantly lower than the scores of the sales representatives i.e. 12.84. The dimension *pro-action* as $t = 5.576$, $p < 0.05$. This signifies that senior and middle level employees score i.e. 12.32 and 12.74 respectively was significantly lower than the scores of the sales

representatives i.e. 13.46. For the *Organization Culture* as $t = 5.227$, $p < 0.05$. This signifies that senior and middle level employees score i.e. 100.14 and 101.64 respectively was significantly lower than the scores of the sales representatives i.e. 103.81. For the *Job Satisfactions* $t = 15.491$, $p < 0.05$. This signifies that senior and middle level employees score i.e. 56.92 and 61.16 respectively was significantly lower than the scores of the sales representatives i.e. 66.17.

5. Conclusions

It can be concluded on the basis of above result and discussions that employees of the organized retail sectors are experiencing moderate level of organizational culture and job satisfaction. The dominant OCTAPACE culture dimensions includes Openness and Risk Taking, Confrontation, Pro-action, Collaboration and Experimentation. No significant differences were found between Male and Female employees and both the genders are experiencing moderate level of organizational culture and job satisfaction. The significant difference were observed on the dimensions of job satisfaction between managerial and non managerial employees and non managerial employees are more satisfied than the managerial employees and no difference were found on the dimensions of organizational culture in the same case. It was further found that high experience employees are experiencing high level of organizational culture than low experience employees but no difference were observed on the dimension of job satisfaction level and both the group were having moderate level of job satisfaction. Significant positive correlation were found among the dimensions of OCTAPACE culture components and job satisfaction means if we improve the organizational culture the level of job satisfaction will also go up among the employees of organized retail sector.

5.1 Suggestions

To improve the organizational culture it is the responsibility of the Leadership to explore the missing OCTAPACE factors and try to use different OD techniques to improve the organizational culture. Job satisfaction level was also found to be moderate and to increase the level of job satisfaction a more elaborative study should be conducted to know the exact reason beside poor or moderate organizational culture and the intervention should be implemented accordingly as it is very important factor to make an employee efficient and organization effective.

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Issues of mineral resources base restoration in Titanium consuming industries of Russia

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Abstract

Overview of actual problems in the reconstitution of Russian mineral resource base of titanium dioxide reproduction. Providing the Russian Federation economy with mineral raw materials after the collapse of the USSR, as a whole, has declined substantially, and some types of mineral raw materials became scarce. Among them are titanium-containing raw materials. Therefore, solution of the problem to ensure the long term raw material titanium industry of the country and to strengthen the overall mineral potential - becomes important issue. A comparative analysis of the mineral resource base structure of the USSR and the Russian Federation is carried out. A preliminary assessment of prospects for reconstruction of the mineral and raw material base for titanium consuming industries is presented.

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1. Introduction

In the USSR, on an industrial scale have been identified, explored and taken to the deposit balance of all known species of titanium-containing raw materials. The structure of the mineral resource base for geological and industrial types of deposits ores, by the degree of geological exploration and preparedness for industrial use showed the existence, at that time, of opportunity to fully meet current and future needs of the country in its own raw materials (Cherepovitsyn 2016).

All known deposits of titanium ores in their genesis, mineralogical and chemical composition, and technological properties are divided into two industrial types (USGS 2013):

- ores deposits, which after the enrichment process separates in concentrates of "simple" structure (ilmenite-magnetite, ilmenite, rutile, loparite, ilmenite ores of weathering crust, ilmenite placer, leucoxene);
 - ores deposits, during the enrichment of which are produced concentrates of complex composition (titan magnetite, perovskite, sphene).
-

For ores at enrichment of which can be obtained concentrate of "simple" structure, there are cost-effective processing technology or have already been developed and mastered on an industrial scale, their development is carried out without much difficulty (State Report of Russian Federation 2014). For ores at enrichment of which may be obtained concentrates of complex composition, There are no technological schemes of industrial processing of concentrates produced from them, providing a cost-effective extraction of all or most useful components. One of the main criteria for assessing the mineral resources base of titanium consuming industries in the country – is the degree of current and future needs security of the titanium-magnesium, chemical, paint and other industries (Hayes 2011).

2. Analysis of the USSR structure of titanium containing ores

After the collapse of the USSR, many deposits of titanium containing ores (55.4% of balance reserves of industrial development types of the ores) found itself outside the Russian Federation. Most of them are the largest ore deposits, which are exploited for the processing of cost-effective technologies (rutile, ilmenite placer ilmenite ores of weathering crust, ilmenite-magnetite deposits, rutile-zircon-ilmenite placer). Total balance sheet and off-balance sheet reserves of titanium dioxide in Russia have fallen at 17.5% in the USSR (Fedoseev 2015). As a result, supply of the national economy with titanium-containing raw materials has decreased so much that even with a relatively low volume of consumption at the present time in country - the production of titanium products provided with own raw materials only in a small extent. The pigment titanium dioxide has passed into the category of short supply kind of product and the need for it has to be covered by imports (Ritesh Tiwari 2014).

The structure of the reserves of titanium-containing ores by commercial types in the Soviet Union at 1 January 1991 (in terms of titanium dioxide) presented in Figure 1.

Industrial types and kinds of ores	Balance reserves		Off-balance sheet reserves
	A+B+C1	C2	
1. Ores, for which is assimilated technology of processing			
1. Ilmenite-magnetite	25,5	9,6	7,2
2. Rutile	0,3	0,6	-
3. Ilmenite ores of weathering crusts	2,4	3,3	0,1
4. Loparite	2,9	0,2	0,3
5. Ilmenite placer	7,9	1,7	5,4
6. Ilmenit-magnetite placer	0,8	1,0	0,6
7. Magnet-zirconium placers	5,2	0,3	4,3
8. Zircon, rutile, ilmenite placer	18,2	17,4	49,6
9. Leucoxene *	13,0	52,6	17,3
Total amount of ores with the presence of assimilated processing technology	75,2	86,7	84,8
2. Ores that do not have assimilated technology of processing			
1. Titanomagnetite **	6,5	0,1	15,2
2. Perovskite	17,3	13,2	-
Total amount of ores that do not have assimilated processing technology	23,8	13,3	15,2
Total	100,0	100,0	100,0

Fig.1 Structure of titanium containing ore reserves in the USSR (in terms of titanium dioxide),%

* There is technology of rutile processing, but there is no cost-effective technology of extraction rutile from heavy oil.

** The finely-disseminated ores, what enrichment with existing methods cannot provide successful identification and separation of magnetite and ilmenite concentrates.

Analysis of the industrial development of titanium ores deposits showed that in the USSR 14.5% of balance dioxide reserves of categories A + B + C1 belonged to the producing fields and 17% - prepared for operation. This suggests that, on the one hand, in the Soviet Union was created by a reliable mineral resource base for the reproduction of titanium products (metal titanium, ferrotitanium, titanium dioxide pigment), on the other hand, there was a "exploration too much" deposits of titanium-containing raw materials, what required significant investment costs, but has created a great potential for titanium

industry development in the future, which were able to meet fully the internal market as well as to ensure the production of competitive products to provide the country's access to the world market.

So, by the end of 2016, the import of titanium dioxide into our country decreased by about 33% compared to 2015 and amounted to 43.5 thousand tons, while the demand for industries in raw materials is about 80 thousand tons. The reduction in the supply of raw materials is primarily due to the increase in prices, due to political sanctions, the increase in export customs duties by countries of raw materials exporters, and the refusal to export to Russia the largest Ukrainian producer of titanium dioxide, Sumykhimprom.

Here is a brief look at some key issues of development and implementation of the development strategy.

An alternative to traditional types of titanium-containing raw materials, on the basis of which the mineral resource base for titanium consuming industries was formed in the Soviet Union, are now indigenous titanium magnetite and perovskite-titanium magnetite ores, titanium magnetite and sphene concentrates, which can be obtained at enrichment of Khibiny apatite nepheline ores. A variety of non-traditional forms of titanium raw materials largely united by common properties - in particular, they have a favorable quantitative and qualitative parameters to certain conditions while providing a basis for the formation of a reliable mineral resource base of titanium-consuming sectors of the Russian industry (Russian Academy of Sciences 2013). One of those conditions - is industrial development of efficient processing technologies. Developing of new types of titanium-containing raw materials is required by their complex use through advanced resource-saving technologies (Porter 2014).

The use of such technology - is the main decisive factor in the implementation of the new strategy for mineral and raw material base formation, and also, is the transition from resource-consuming to resource-saving type of mineral resource base reproduction. Implementation of this strategy will translate new types of titanium-containing raw materials from the category of inefficient or ineffective in the category of highly performed, to expand and strengthen the mineral and raw material base by engaging in industrial production new types of mineral raw materials, and to ensure acceleration of the reproduction process of mineral resource base for the titanium sector of the country.

The development strategy of the mineral resource base for titanium consuming sectors of Russian industry includes the following items:

1. A significant (two-three times) increase in the volume of exploration work with a simultaneous expansion of scientific and industrial research and development work in order to transfer to economically viable amounts probable reserves of discovered and explored deposits of titanium raw materials in reserves of industrial categories.
2. Alignment of the quantitative and qualitative parameters of the mineral resource base structure with the structure of titanium consuming industries.
3. The most complete extraction from subsoil and the integrated use of all, which are having industrial importance types of titanium-containing raw materials through the use of modern cost-effective resource-saving technologies.
4. The additional involvement in the turnover, along with traditional types of ores, new types of titanium-containing raw materials.
5. Conducting more proactive state policy in the field of development and implementation of the state preferential system in order to create favorable conditions for the reconstruction of the mineral resource base for titanium consuming industry in the country.

3. Analysis of the Russian Federation structure of titanium containing ores

Analysis of mineral resource base of titanium-consuming sectors of Russian Federation industry indicates that, in the first place, has sharply decreased resource potential overall of all mineral resource base (State report, Moscow 2014). Secondly, the structure of the balance reserves containing titanium ores, the ratio of ore classification for its industrial development, types and other parameters are not currently consistent with the structure of industries, which provide production of titanium products. Fig.2. In these circumstances, taking into account the need to ensure the sustainable economy of the Russian Federation, the titanium-containing raw materials and high inertia of the whole mineral resource sector there is a need

to develop and implement a new strategy of development of mineral resource base of titanium consuming industries.

Industrial types and kinds of ores	Balance reserves	
	A+B+C1	C2
1. Ores, for which is assimilated technology of processing		
1. Ilmenite sands	2,34%	0,00%
2. Ilmenite - titanomagnetite	1,46%	0,86%
3. Apatite-ilmenite-titanomagnetite	15,26%	2,41%
4. Loparite	9,12%	5,43%
5. Placer	1,81%	1,06%
6. Apatite nepheline	5,62%	3,29%
7. Titanomagnetite	25,75%	8,55%
Total amount of ores with the presence of assimilated processing technology:	61,36%	21,59%
2. Ores that do not have assimilated technology of processing		
1. Leucoxene quartz sandstone oil	24,59%	45,60%
2. Perovskite	14,05%	32,81%
Total amount of ores that do not have assimilated processing technology	38,64%	78,41%
Total	100,0	100,0

Fig.2. the structure of the titanium containing ores reserves of the Russian Federation as of January 1, 2014 (in terms of titanium dioxide), %

The deposit of ilmenite-titanomagnetite ores "Southeast Gremyakh", located 20 km south-west of the town of Murmashi and belonging to the Gremyakh-Vymers massif complex, with the ore quarry productivity, is attractive from the point of view of industrial development according to preliminary technical and economic estimates. In 2 million tons per year and obtaining 300 thousand tons of ilmenite concentrate. The existing technology for the production of titanium dioxide will produce highly profitable products and cover the country's domestic deficit. Fig.3.

The African giant deposit, located 1 km from the village of Afrikanda (Kandalaksha region), also belongs to the perspective for the development of titanium dioxide deposits, due to its favorable location near the Kola nuclear power plant and the October railway. Taking into account the variety of types of titanium-rare-earth raw materials, a complex of combined technological processing schemes has been developed at IHTREMS allowing to meet both economic and environmental safety requirements, availability of chemical reagents, and the possibility of obtaining the product of the required branded composition. According to preliminary calculations, the creation of the "Titanium Pigments" LLC of the integrated production of perovskite concentrate processing will yield 45 thousand tons of pigment raw material per year (Kalinnikov , V. T. and Nikolaev 1996).

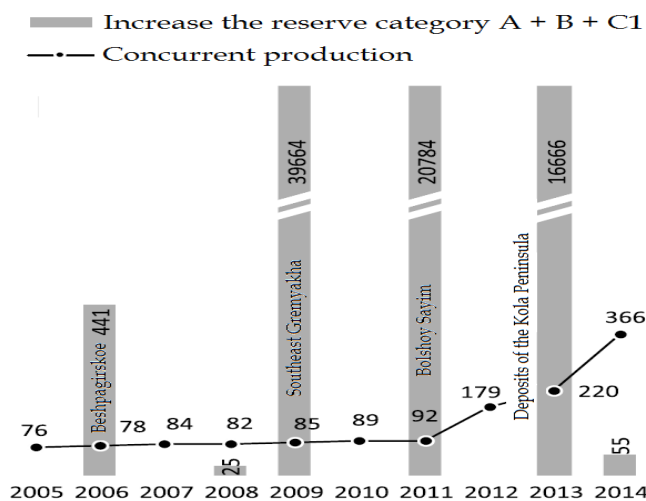


Fig.3. Dynamics of increase in exploration of titanium dioxide deposits in the Russian Federation, mln. Tons.

4. Discussion and conclusion

In the Russian Federation and abroad have accumulated many years of experience in the field of integrated industrial use of various kinds of titanium-containing raw materials and created a large scientific groundwork for the development and implementation of effective resource-saving technologies, the use of which may give intermittent, breakthrough effect (Middlemas 2016). In particular, the use of integrated technology indigenous titanium-magnetite ores, which is based on the principle of resource conservation, provides: ore concentration by dry and wet magnetic separation with separation of collective titaniferous magnetite (iron-titanium-vanadium) of the concentrate; pelletizing the concentrate and calcining it for pre-reduction of iron oxides (A review of the production 2014); electro melting metallized pellets in ore-thermal furnaces to produce a pig iron and vanadium-titanium containing slag; blowing BOF vanadium iron, thereby producing intermediate steel and vanadium slag (Gazquez 2014); intermediate processing of steel for the production of high-quality natural-vanadium alloy steel and titanium; processing of titanium containing slag by sulfuric acid technology with the release of the pigment titanium dioxide; processing of vanadium slag to produce ferrovanadium (Ponomarenko 2016).

Described technology has the following advantages:

- 1) Based on it - new types of titanium-containing raw materials are involved in the use;
- 2) The final products are of much higher quality compared to the quality of similar products manufactured by traditional technology from traditional forms of titanium raw materials;
- 3) The range of useful extracted components is quite expanding;
- 4) There are no resource-intensive processing, one-time and ongoing costs per unit of output are summed;
- 5) Applied technological equipment can be mass-produced by national industry.

Qualitative assessment of all open and explored deposits of titanium-containing raw materials are located in the area, which is available for development, according to the position of the value of stocks, the development of mining conditions, mineral and chemical composition, development degree of its integrated use technology - allows to conclude that a cardinal solution to ensure stable production of high quality raw material titanium dioxide pigment production is the creation of a new type of artificial titanium raw materials - high-titanium slag produced during pyro metallurgical processing of titanium-magnetite ores (Sahu 2006).

Thus, the final solution to the problem of reconstruction in the Russian Federation, reliable mineral resource base to provide the production of high-quality competitive titanium products in the volumes, which could cover the internal market and possible export, could be accomplished by industrial development and integrated use based on the modern efficient technologies of open indigenous titanium magnetite deposits, perovskite titanium-magnetite ores and concentrates of titanium-magnetite sphene, which can be extracted at enrichment of Khibiny apatite-nepheline ores (Tronox 2014).

It became necessary to revise the stereotypical views on types of titanium-containing raw materials, which can play a decisive role in the reconstruction and development of a reliable mineral resource base of titanium consuming sectors of the Russian industry.

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CALL FOR PAPERS

INTERNATIONAL JOURNAL OF BUSINESS & ECONOMIC DEVELOPMENT (IJBED)

(Print) ISSN 2051-848X (Online) ISSN 2051-8498

The IJBED, a scholarly and refereed journal, provides an authoritative source of information for scholars, academicians, and professionals in the fields of business and economic development and is published four times a year. The journal promotes the advancement, understanding, and practice of business & economic development. It is peer reviewed and is the main research platform of The Academy of Business & Retail Management (ABRM). Scholars across borders are encouraged in advancing the frontiers of management education, particularly in the area of economic development. Contributions should therefore be of interest to scholars, practitioners and researchers in management in both developed and developing countries targeting a worldwide readership through electronic medium.

Authors are invited to submit their original research papers, case study, review, work in progress, reports within the broad scope of the journal. Although broad in coverage, the following areas are indicative and nurture the interests of the Academy with an “economic development” underpinning:

- ☐ Agriculture and development
- ☐ Economic development
- ☐ Behavioural Economics
- ☐ Diversification and business performance
- ☐ FDI, Free trade - theory and practice
- ☐ Econometrics
- ☐ Economic History
- ☐ Globalisation, liberalisation and development
- ☐ Financial Institutions & Markets
- ☐ Industry sectors and development
- ☐ Fiscal policy
- ☐ Financial services
- ☐ International economics & trade
- ☐ International finance
- ☐ Macro economic parameters and growth
- ☐ Microfinance and development
- ☐ Monetary policy
- ☐ Public policy economics
- ☐ Regional economics

Preference will be given to papers which are conceptually and analytically strong and have empirical relevance. All papers will be reviewed according to the Journal’s criterion. The Journal’s website is www.ijbed.org. For further information please write to Editor via editor@abrmr.com

CALL FOR PAPERS FOR THE FORTHCOMING CONFERENCES

7th ICBED 2018, New York-USA

Joint conference in association with Medgar Evers College of the City University of New York, USA

9-10th April 2018

7th International Conference on Business & Economic Development (ICBED)

8th ROGE 2018, Said Business School, University of Oxford, UK

9-10th July 2018

8th International Conference on Restructuring of the Global Economy (ROGE)

4th ILTTL 2018, London, UK

5-6th November 2018

4th International Conference on Institutional Leadership, Teaching & learning (ILTTL)

9th ITARC-2018, London, UK

5-6th November 2018

9th International Trade & Academic Research Conferene (ITARC)

Authors are invited to submit original research papers, case studies, review, work in progress reports, abstracts, students' papers or research projects within the broad scope of each conference. All papers should be professionally proofread prior to submission. These conferences will be jointly organised by the *Academy of Business & Retail Management* and the *Journal of Business & Retail Management Research*.

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CALL FOR PAPERS
International Journal of Higher Education Management (IJHEM)
(Print) ISSN 2054-984 (Online) ISSN 2054-9857

Aims and Objectives

IJHEM is a peer reviewed journal and is a research publication platform for international scholars. Their research can be in any aspect of teaching & learning covering the interests of developed and emerging countries alike. The Journal seeks to reach a worldwide readership through print and electronic media. The main aims of the Journal are:

- Publish high quality and scholarly empirical based research papers, case studies, reviews in all aspect of teaching & learning, education management and leadership with theoretical underpinnings.
- Offer academics, practitioners and researchers the possibility of having in depth knowledge and understanding of the nature of teaching and learning practices and.
- Create a forum for the advancement of education management research for the High Education sector.

Subject coverage

- Educational policy and Policy impacts on education
- Management of education and Relations between lecturers and students
- Psychology of education, Psychology of student and teacher/lecturer
- Quality of education and Improvement method
- Global education and Its challenges and opportunities
- E-teaching/E-learning, Educational software and multimedia for education
- Teacher education
- Distance education and Education quality
- Methodology of educational research, Adult and continuing education
- Special education, Gender, diversity and difference, Vocational education
- Assessment processes and mechanisms
- Language Education, Listening and acoustics in education environment
- Education History
- Innovative teaching and Learning methodologies; Multi-virtual environment
- Application of educational technology
- Education reforms and Practical teaching reform

Frequency:

Twice a year: February & August

Review process: Blind peer review**Indexing with:** EBESCO Host, ProQuest, Open J-Gate

Preference will be given to papers which are conceptually and analytically strong and have empirical relevance. All papers will be reviewed according to the Journal's criterion. The Journal's website is www.ijhem.abrmmr.com. For further information, please write to Editor at editor@abrmmr.com

CALL FOR PAPERS

INTERNATIONAL JOURNAL OF BUSINESS & CYBER SECURITY (IJBCS) (Print) ISSN 2059-660X (Online) ISSN 2059-6618

IJBCS is a scholarly and refereed journal that provides an authoritative source of information for scholars, academicians, policy makers and professionals regarding business and cyber security. It is peer reviewed journal that is published twice a year and serves as an important research platform. IJBCS is committed to publishing articles that provide insight and informs best practice. Contributions should therefore be of interest to scholars, policy makers, practitioners and researchers internationally. The Editors and Editorial Board of the IJBCS are committed to championing original academic papers that demonstrate academic rigor, originality and integrity. IJBCS seeks to minimise cyber-risk through insight and vigilance.

Authors are invited to submit their original research papers, case study, review, work in progress, reports, abstract, students' papers or research proposals within the broad scope of the journal. Although broad in coverage, the following areas are indicative and nurture the interests of the Academy with a "cyber security" underpinning:

- Business & Cyber Security; Risk awareness & mitigation
- eCrime and Cyber Terrorism
- Identity Fraud & Access Management; Information hemorrhage
- Cryptosystems and Data Protection
- Compliance, Legal Safeguards and Obligations
- Foresight Leadership and Planning; Industrial Espionage & Counterfeiting
- Critical Infrastructure Protection; Building and maintaining cyber resilience
- Security architecture and network defense
- Vigilance and scrutiny; Attitudinal change
- Knowledge transfer & training; Addressing the skills deficit
- Brand Protection; Pre-transaction customer verification
- Customer protection, reassurance and recovery
- Information Risk Management & Governance
- Digital Forensics, Evidence and Intelligence
- Costing cyber-attacks; Ethical Hacking
- Financial Analysis & Control Systems
- Privacy, Surveillance and Control; Identity, Trust and Trustworthiness
- Security Economics, Incentives and Liabilities

Preference will be given to papers which are conceptually and analytically strong and have empirical relevance. All papers will be reviewed according to the Journal's criterion. The Journal's website is: www.ijbcs.abrmm.com For further information please write to Editor via editor@abrmm.com

Frequency: Twice a year
Review process: Blind peer review
Indexing with: Ebesco Host, ProQuest

PRESS RELEASE!**Academic Powerhouses Forge Strategic Partnership**

One of New York, USA's most prestigious academic institutions, Medgar Evers College of the City University New York has signed a strategic partnership with the Academy of Business & Retail Management (ABRM), London. This agreement will see both institutions working together to establish Medgar Evers College of the City University of New York as a long term collaborative partner of *The Academy of Business & Retail Management* to **register the** University's academic staff and postgraduate/graduate students at International Academic Conferences organized by the Academy and be the Gold sponsor of *the 7th ICBED-2018* in New York, USA.

The signing of this partnership Dr P. R. Datta, Director of ABRM paid particular tribute to the USA academics; *"This joint initiative will enable the wider world to gain a better insight into ground breaking and innovative research being undertaken by many Western academics, especially those from USA."* His London-based institution has built up a formidable reputation based on its trinity of services, namely the production of academic journals, **organization** of international academic conferences and the delivering of high impact training to institutional, business and legislative leaders. Dr Jo-Ann Rolle, Dean of *the School of Business at Medgar Evers College*, New York, USA was equally enthusiastic about this development; *"There is considerable synergy between our two institutions, and for our staff and students, this partnership sends out a strong message about shared values and the desire to work together for the betterment of mankind."*

The two institutions are also in discussions about the possibility of providing specialist training and publications. In an increasingly uncertain world they are eager to demonstrate that trust and partnership is the way forward.

Press Release jointly issued by:



Medgar Evers College of the City University of New York, USA (<http://www.mec.cuny.edu>)



Academy of Business & Retail Management (ABRM), London (www.abrmr.com)

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