

## The unexpected business case of answering a questionnaire on organizational transformation

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### Keywords

Employee polling, productivity, knowledge sharing, Guttman-Poll, business case

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### Abstract

*The input from managers and employees is vital for strategic decision-making. Yet, these people already have enough on their plates if not overwhelmed by their daily to-do lists. We measured how employees in an organizational transformation could save time by stopping to work on non-priorities and stopping to reinvent the wheel by sharing knowledge. First, we designed a new survey scale replacing a Likert survey to ask people for input objectively, reducing interpretation bias. Next, we analyzed survey input from over 32,000 respondents in more than 900 teams in 150 different organization transformations. To free up time, we compared were respondents' planned improvement deviated from their management priorities. To work smarter, we focused on knowledge sharing: how could one employee that already had improved on a specific topic help a colleague that still had to improve? On average, we found a productivity increase of 75 hours, or €2,500.- per respondent. This productivity increase of 75 hours required two things: an average time investment per respondent of max. 15 minutes to answer a questionnaire and an algorithm to indicate 1.) what priorities to focus on and 2.) which colleagues could help with each of these.*

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### Introduction

#### Managers and employees need some relief

With new technology and increased global competition, it has become customary to be on the clock 24/7. However, this has created more stressful employees who are more prone to burnout. In Kelly and Moen's book, *Overload*, this phenomenon is explored, along with ways to redesign and adopt ways to resolve the issue (Kelly and Moen, 2020). Hodson et al. (2014) argue that today's 24/7 work environment and the resulting overwhelmed employees are "undermining productivity and contributing to low employee engagement." Companies must realize that overwhelmed employees are detrimental to business practice. Not only are people all over the world working longer hours in toxic work environments, but these practices also do not even correlate to higher productivity or company performance (Pfeffer, 2018). A Kronos and Future Workplace study (2016) shows that employee burnout directly affects employee retention, with many companies still failing to address the issue before it is too late. A Gallup study found that every two out of three full-time employees experience burnout from work. A burnout directly affects the workplace environment; those who experience burnout are more than twice as likely to seek other jobs (Robinson, 2019) actively. Executives today are spending more than twice as much time in meetings compared to executives in the 1960s - about 23 hours, compared to less than 10 hours. Perlow et al. (2017) maintain that these meetings eat up more time than they are worth, harming an organization's performance, innovation, and employee retention.

**Their input is needed, yet employees also seem reluctant to give it**

In a study by Rose et al. (2007), receiving monetary incentives for completing an employee survey led to increased response rates from the group. A follow-up study found that neither the novelty nor incentive size had significant consequences, rather than the incentive itself. Fauth et al. (2013) assert that "Workgroup variables may play an important role in explaining non-response in employee attitude surveys." For example, they found that higher response rates were tied to groups with higher aggregate job satisfaction when analyzing group-level responses. A study done by Rogelberg et al. (2000) indicated that those who did not respond to employee surveys were more likely to leave their job, have lower job satisfaction, and less commitment to their organization, as well as "negative beliefs regarding how their organization handles employee survey data." A study of military and civilian workers found that employees are more likely to be discouraged from completing an employee survey if hosted online. Additionally, the top reasons given for non-response were that employees were too busy, they didn't see the need to respond since they are satisfied with the workplace, or employees saw it as a waste of time due to the belief that management wouldn't do anything with the results (Foster & Surface, 2007). Barr et al. (2008) observed that employees who experience work overload and generally higher stress levels are less likely to respond to employee surveys. Surveys done for academic purposes also suffer the problem of non-response.

A study about testing paper vs. electronic employee surveys showed that while paper surveys resulted in a higher response rate, the attitude toward electronic surveys was that these were easier to use. Overall, neither survey outweighed the other in data quality (Croteau et al., 2010). Saleh and Bista (2017) observed that response rates were "highly influenced by interests of participants, survey structure, communication methods, and assurance of privacy and confidentiality, and older participants were more likely to respond if they were promised a reward." Among executives in various Australian businesses, non-respondents listed a lack of time as the rationale for not completing the survey given to them (Falconer & Hodgett, 1999).

**Employees can help each other**

Oye et al. (2011) conclude that motivators and demotivators influence knowledge sharing in the workplace. More specifically, employees are motivated to share knowledge due to job security, obtaining a mutual benefit, and performance reviews. They are demotivated by job security, the need to protect "one's edge," and wanting others to ascertain the knowledge themselves. The results of a knowledge-sharing study in various workplaces in South Korea showed that factors like reward systems, open communication, and workplace support from leaders had a positive impact on knowledge sharing among employees (Kang et al., 2008). Haas and Hansen (2007) concluded that different types of knowledge had additional benefits in knowledge sharing. For example, sharing codified knowledge was timesaving but had no impact on the quality of work. On the other hand, sharing personal knowledge improved work quality but had no time-saving effects. Research done by Poleacovschi et al. (2017) suggests that when it comes to knowledge sharing, those closer in terms of their networks benefitted more from time savings after sharing their knowledge compared to those with weak connections. Wolfe and Loraas (2008) assert that an incentive must be offered to promote full knowledge sharing, whether monetary or non-monetary. That incentive must be deemed sufficient by the participants. Additionally, where there was individual competition in the workplace, there was less knowledge sharing. Wang and Noe (2010) discuss their knowledge-sharing framework, which includes five areas of emphasis: "organizational context, interpersonal and team characteristics, cultural characteristics, individual characteristics, and motivational factors."

**Objective**

It's beneficial to ask managers' and employees' input for the sake of strategic decision-making. Yet, they have enough on their plates if not overwhelmed by their to-do lists. So, is there a way to free up time? To work smarter. The purpose of this paper is to calculate the business case for answering a questionnaire along these two axes: do less and work smarter.

## Method

### Procedure and participants

We focused on working less by comparing employee ambition with management priorities. Any employee effort not directed at management's priorities is considered wasted time. We defined how to work smarter by stopping to reinvent the wheel: who could help whom to improve with what?

Hence, we needed to objectively compare employees' actual situation, ambition, and management target within one survey format. We first designed an alternative scale based on the Guttman scale (Guttman, 1950), specifically designed for employee polling ("Guttman-Poll," van de Poll, 2018).

Next, we researched 154 strategic assessments (questionnaires) that required managers and employees to focus on (top-) management's attention. These assessments included topics on - among others - employee engagement, innovation, work processes, competencies, digital transformation, work pressure, technology adoption, team effectiveness, and IT security. These assessments involved 928 teams from various industries (both profit and non-profit) in 18 countries. These teams were home to 32,772 employees giving approximately 2.9 million answers.

### Measures

We tallied teams on their progress towards a management target. That requires asking for verifiable facts or behavior, not opinions or agreements with statements. We needed 'numerical or categorical representations' for our intended calculations (Plewis & Mason, 2007). Therefore, we replaced the traditional Likert survey format for employee polls in favor of a Guttman scale survey, optimized for employee polling (van de Poll, 2018 and 2021). A Guttman survey scale shows the actual situation in a progressive format ("current status data" according to Diamond, McDonald, and Shah, 1986): a scale from not so good to better to even better ("breaking points" according to Uhlaner, 2002). For example:

Q. How do you celebrate successes?

*We don't*

*When there is a reason to do so, with whoever is involved*

*We make it a habit to celebrate successes with the entire team*

Now	In 6 months
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>

Such answers can be considered 'objectively real' or 'a testable proposition' (Ahrens & Chapman, 2006). We eliminated adjectives and adverbs that cannot be verified (e.g., "good"). And we added "proof-words" like, e.g., 'periodically,' 'formally,' 'measurable,' 'documented,' and 'described' to reduce self-reporting bias by the respondent (discussed by Donaldson and Grans-Vallone, 2002). Additionally, such "proof-words" help with verification and prevent employees from adding cognitive or emotional meaning (Frese & Zapf, 1988).

### Data analysis

Each of our Guttman-Poll survey questions had three answers. We assigned a score of 0 (zero) to the 'worst' answer (or most employees: the current situation). The 'middle' answer (the intermediate step) had a 5. The 'best' answer (often reflecting the content of the strategy that needed to be achieved) had a score of 10. We did not apply any weights among questions and answers. Each question of each questionnaire got, in the end, three scores. The respondent indicated the actual situation and their ambition in 6 months (so, giving two answers to each question). The third score was the management target (The method with which the management target had been calculated is out of scope for this article). Any improvement planned by respondents beyond the management target is considered a non-priority. We demonstrate our calculation method with a few examples in Table 1.

Table 1  
*How we calculated*

	Answer 1	Answer 2	Answer 3	→	Result
<b>Non-priorities</b>					
<i>Respondent 1 scores on:</i>					
Question 1	Actual/Target		Ambition		2 steps waste
Question 2	Actual	Target	Ambition		1 step waste
Question 3	Actual/Ambition		Target		2 steps short
<b>Knowledge sharing</b>					
<i>Two respondents score on Question 4:</i>					
Respondent 1			Actual/Target		
Respondent 2	Actual		Target		R2 can ask R1

We used the actual and target scores to calculate who could help whom. Someone who already had achieved the management target (or better) could help a colleague who still had to improve. Logically, a 'donor' on one question could be the 'recipient' with another question. This sharing is also briefly explained in Table 1. Working with such a questionnaire and calculating who can help can create an organizational knowledge-sharing network. Figure 1 shows a simplified version of such a network.

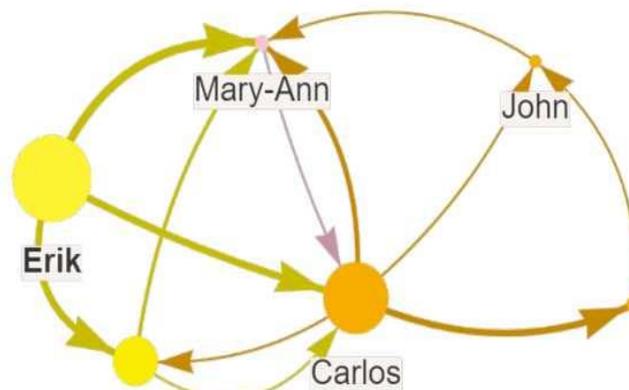


Figure 1. Knowledge sharing network

**Results**

Table 2 summarizes the circumference of the database available to us. It shows how we calculated the time saved (in money and hours) for not spending time on planned improvements that were not a management priority. We calculated the average number of questions per team member, where the ambition score was higher than the improvement target set by management. Next, we assumed the number of hours that would otherwise be spent on these non-priorities and settled for a - in our minds very conservative - three hours' timesaving. We then assumed an average day salary per person of €275.- This salary includes, for example, taxes, laptop, and staff overhead. The productivity gained amounts to the number of non-priority questions per person × the net hours saved per question × day salary ./ . 8. We refer to "net hours" as some (minor) time investment needed to communicate the need for a respondent to stop working on the non-priorities. The division by eight is to align with the net hours saved. We similarly calculated the time saved by sharing knowledge (rather than reinventing the wheel). The number of questions to share per person × the net hours saved per question × day salary ./ . 8.

Table 2  
Sample size and projected time saving

	N	Min	Max	Avg.	StDev.	→	Result	Share%
<i>Sample size</i>								
Number of questionnaires	154							
Number of teams	982							
Number of employees	32,772							
Teams per questionnaire		1	43	6.4	9.5			
Number of employees per team		5	677	33.4	59.4			
Number of questions per questionnaire		8	234	46.0	24.1			
<i>Non-priorities</i>								
Number of non-priority questions per person		0.0	101	20.9	17.1			
Nett hours saved per question*						3		
Day salary*						€275		
Average savings per person in €						€2,155		
Average savings per person in hours						63	84%	
<i>Knowledge sharing</i>								
Questions to share per person		0.4	20	6.0	3.3			
Nett hours saved per question*						2		
Day salary*						€275		
Average savings per person in €						€414		
Average savings per person in hours						12	16%	
<b>Total average savings per person in €</b>						<b>€2,569</b>		
<b>Total average savings per person in hours</b>						<b>75</b>		

Min.: lowest number. Max: highest number. Avg: average number.  
StDev: standard deviation. Items with an \* are our assumptions

We have expressed the productivity gain in both hours and money: on average, 75 hours or €2,500.- per respondent. The right-most column ("Share%") shows that the average contribution of stopping work on non-priorities is 84% of those 75 hours. Knowledge sharing covers the remaining 16%. Summarized as a rule-of-thumb: 15 minutes answering a questionnaire result on average in 75 hours productivity gain, of which 5/6 through working less and 1/6 by working smarter.

Figure 2 shows the combination of the monetary effects of working less (X-axis) and working smarter (Y-axis). Each dot represents the average productivity increase (in euros) per employee in that team.

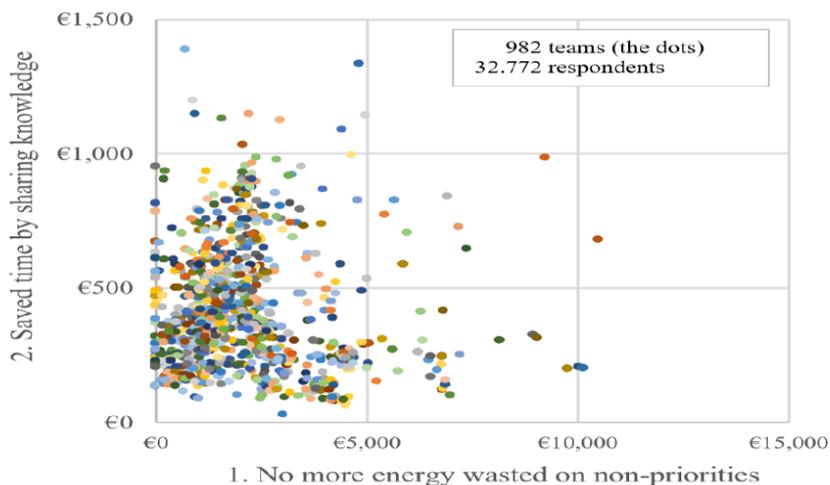


Figure 2. Improved productivity

## Discussion

The monetary amounts in extra productivity that we have calculated explain why employees need to answer a questionnaire. They contribute to a more efficient workforce: focus only on the priorities and stop reinventing the wheel. We deem our assumptions of time saved per non-priority question (3 hours) very conservative. Additionally, we haven't calculated other benefits of a more focused workforce. For example, a shorter time-to-value, more efficient spending of capital, fewer over-demanded employees resulting in less absence, to name a few. Our business case ("invest 15 minutes and get 75 hours back") would be even more positive in that light. Scholars could research whether employees regard this support (with fewer priorities and smarter working) as an incentive to participate in a questionnaire and, thus, organizational transformation. In other words, employees' reluctance to participate, as mentioned in the literature, now decreases. In the same token, by introducing an easy way to share knowledge among employees, additional benefits (other than productivity) can be unlocked. Our literature review mentioned a sense of belonging and work pride ("Other people need my expertise") and a lower chance of employee burnouts. On the other hand, there is the investment of setting up a questionnaire and the software's rental cost to calculate smart targets for everyone plus the organizational networks (who can help whom with what). Yet, where the benefits are in the range of a few thousand euros, the software cost is between 50 and 100 euros per person.

Theoretically, one could say that answering questionnaires for a few days in a row would mean that an employee is off for the rest of the year. Seventy-five hours equals two workweeks. So, it would only take 20 questionnaires to get a person's year of productivity in return? Of course not. Answering the questionnaire helps to guide employees to do their work. And obviously, there also will be diminishing returns. The first round of a questionnaire may, on average, yield 75 hours. The next iteration of that same questionnaire will undoubtedly yield much less. The 'low hanging fruit' in improvements will be captured by then. On the other hand, to counter this argument, management can upgrade the questionnaire by replacing high-scoring questions with new topics. Then the cycle starts anew.

## Limitations and future research

There are several cautionary remarks to be made about our research. Although we have worked with a relatively objective survey scale, there is always some subjectivity in the choice of questions and the composition of answers. We had access to a database of rather strategic assessments. The impact of such assessments on an organization is much more profound than answering a questionnaire about, say, where the next management team offsite will be. In that sense, the returns can still deviate significantly from the 75 hours we found.

We also had some debate about the calculation of the non-priorities. Logically, we could not measure whether employees would have begun implementing their planned improvements. No management team decided to have half of their teams improve as we suggested (do less, share knowledge) and leave the other half muddle through, just to hand us an A/B test in the name of science. More research is needed to calculate when and how much returns will deviate from our average. There are more aspects of the business case that we have not included. On the other hand, we focused on more strategic assessments. Different types of questionnaires will yield much less. Finally, the business case will be better when longitudinal effects are factored in (e.g., how much returns will diminish over time).

## Conclusions

In this study, we describe knowledge sharing as to how one employee who already had improved on a specific aspect could help a colleague who still had to improve. Towards this aim, we researched 154 relatively strategic assessments that include topics from employee engagement to IT security. These assessments involved 928 teams from various industries (both profit and non-profit) in 18 countries. These teams were home to 32,772 employees giving approximately 2.9 million answers. Each questionnaire question has three scores: one score for the actual situation, the other two scores for ambition in 6 months, and the management target. We used the actual and target scores to calculate who can help whom. Algorithms that give employees something back (less work, not reinventing the wheel) make good business sense. On average, we found a productivity increase of 75 hours, or €2,500.- per respondent. Of his productivity, 85% was due to stopping to work on non-priorities and 15% due to sharing knowledge.

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