Connecting the Dots: KM Initiatives and Business Performance

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Abstract: For over two decades now, knowledge management (KM) has been an academic discipline, extensively taught, learned, and researched. It has been practiced in organizations for a similar period. However, demonstrating long-term improvement in business performance as a result of KM initiatives is not an easy task. KM processes and changes are rarely standalone and usually go hand in hand with other organizational changes. This in itself makes it difficult to demonstrate that said organizational changes originate from KM initiatives, and not from other changes in the organizational environment.

This research provides a case study in which shifts in organizational performance as a result of KM initiatives can be examined. This research is significant for KM researchers because it suggests a new research model for further studies. In addition, it provides organizations with an optimistic vision, namely that systematic management of organizational knowledge assets is not merely an idea that sounds good, but can actually be proven to be effective. Connecting the dots between KM and business performance is a known challenge. However, thanks to our research model, it is easier to overcome this challenge.

The research method is based on a qualitative and quantitative case study in which foster care activities in Israel underwent KM intervention for a period of eight years. During this period, failures of foster care cases resulting in unsuccessful placement dropped by 32%, with KM being a major factor contributing to this change.

The research has several limitations. Although KM was the main variant during the years covered by this research, there is no guarantee that other factors—unnoted by researchers and the people interviewed—did not also affect foster care services, and therefore influence fostering performance. In addition, any case study research based only on one case is limited in its ability to suggest a generalized hypothesis.

This research is original and somewhat unique. It is one of very few studies that demonstrate the relationship between KM initiatives and business performance.

1 CONNECTING THE DOTS: KM INITIATIVES AND BUSINESS PERFORMANCE

Knowledge is one of the most valuable assets in any organization. According to Peter Drucker, the first scholar who defined the Knowledge Worker: "knowledge is the only meaningful economic resource" (Drucker, 1995).

Research on how these knowledge assets can be managed is relatively new. The first studies were published in the early '90s. They included "The Knowledge-Creating Company" (Nonaka, 1991) and "A model of Knowledge Management and the N-form corporation" (Hedlund, 1994).

One of the significant challenges of research in the field of social studies in general, and specifically in Knowledge Management (KM), is evaluating the influence and contribution of KM interventions to business performance. As for KM, this is true both because it is a relatively "young" discipline and because of its affinity to social studies.

KM interventions usually take a long period. In many cases, it takes several years to complete a thorough organizational change.

In most organizations, KM processes are intertwined with other simultaneous processes, thus making it difficult to evaluate the influence of Knowledge Management as a standalone factor of organizational transformations, external or internal ones.

That being said, research on KM effects is very important: "the emergent literature in knowledge management speaks to the importance of being able to measure the impact of KM in the organization as an essential element in refining its efforts and justifying its expense" (Kern, 2008, pp. 57-58).

Connecting the dots between KM initiatives and business improvement is a motivation widely discussed in research. However, limitations exist as to the nature of the challenges, as described. The level of the type of linkage also varies among research papers.

This paper describes a unique case study of the foster care services in Israel, in which knowledge sharing and knowledge development led strategic and policy-based-decisions during the years of 2007 and 2015. Prior to this period, two major external changes took place in the foster care services: the privatization of the services in 1998-2001 and the amendment of the foster care services law in 2016. During the period in question (2007-2015), no major changes occurred, while internal decisions regarding policy, regulation, and working instructions were triggered by ideas and recommendations from the knowledge development teams. Cases that were triggered by factors other than KM were "translated" by the knowledge development teams in order to implement them in accordance with KM guidelines. As a result, there is a strong case for research and evaluation of the results, and for connecting these results to KM efforts.

The aim of this research is to learn whether and to what extent KM has affected the business results of the foster care services in Israel.

2 LITERATURE REVIEW

Shift In Performance as a Result of Knowledge Management Initiatives. Evaluating a shift in performance as a result of initiatives in social science studies is, in most cases, far from being an easy task. In KM studies, this has been an ongoing effort, starting from the first days of Knowledge Management as a discipline, and continuing to date. Even though the question of whether a significant shift in performance is a result of KM initiatives is of great importance, only a small percentage of studies explicitly aims to address this issue.

Dalkir in "Knowledge Management in Theory and in Practice" (2017) addresses the issue of proving this connection as a challenge: "Knowledge assets are a source of competitive advantage for firms that possess them. Yet the way the possession of knowledge translates into a competitive advantage is not well understood." (p. 313).

Wickhorst in "Measuring the ROI on Knowledge Management Systems" (2002) states that "Illustrating the return-on-investment (ROI) for a portal solution or Knowledge Management (KM) system has proven an elusive target" (p. 96).

Muthuveloo et al., (2017) review the connection between tacit KM and organizational performance, and review evidence from Malaysia as to the connection between the four layers of tacit knowledge—socialization,externalization, combination, and internalization—and organizational knowledge (p. 196).

In Making cents out of knowledge management, Liebowitz (2008) cites an interview with Mike Anderson, the director of information systems at Buckman Labs: "it is difficult to put a dollar figure on the value of this resource" (p. 43). The book covers ten case studies, half of which deal with measuring business outcomes.

The collection Measuring the ROI of knowledge management (Roche, 2013) explores the challenges of ROI measurement from different perspectives. Howley, for example, suggests speaking in terms of 'justifying the investment,' while measuring benefits delivery and sharing success stories. Bostelman considers the positive influence of KM on financial drivers. Boisssonnet diverts the discussion to return on knowledge, arguing that potentially, "well defined KM strategies can influence innovation, performance and productivity" (p. 53). Few case studies directly aim to measure a shift in performance.

A number of studies, such as "Determining the Business impact of Knowledge Management" (Aaron, 2009), do analyze cases in which continuous KM interventions take place and the shift in performance or even ROI are measured. Additional research has studied the business outcomes resulting from integrated interventions, including intellectual capital, KM, human resources, organizational behavior, information technology and accounting (Bontis & Fitz-Enz, 2002). Several studies have evaluated knowledge retention projects, describing specific knowledge gained from knowledge transfer activities, as well as the savings resulting from those segments of knowledge (i.e., McManus et al., 2003).

Nonetheless, studies that include a chain of evidence involving complementary research, as well as both quantitative and qualitative evidence, are extremely rare.

2.1 The Case of Foster Care Services in Israel

The Need for KM. The state of Israel, like many other states worldwide, assumes responsibility for children whose biological family cannot care for them. As part of this responsibility, some children are assigned temporary placements, whether in institutes (popular placements in Japan and Israel) or in families (placement in foster care). Foster care services in Israel were privatized in 2001. Three years later, in 2004, the Ministry of Social Affairs and Social Services recognized that even though the change yielded a major increase in such services, the Ministry itself was losing knowledge and potentially stood to lose the ability to professionally lead policies and to effectively supervise the privatized service. Knowledge had become an asset of private bodies that might be financially driven. The need for governability increased as a result of privatization. At the same time, the ability to fulfill this mission decreased, as the knowledge was distributed. The professionalism of the discipline was at risk in all respects because of these changes (Korazim-Kőrösy & Leibowitz, 2005).

The Knowledge Management Intervention. In 2007 a continuous process was initiated, which lasted until 2015. This entailed the analysis of the processes undertaken by foster care services and the designation of ten teams. The aim was to develop a doctrine based on field knowledge and research, encompassing professional foster care services. Learning was based on the 'case study approach' and KM methodology described in Levy (2008) and Sabah and Cook (2010).

3 RESEARCH FRAMEWORK

The research described here aims to ascertain whether the influence of KM interventions can be evaluated and measured. The method chosen is a single case study. The research thesis is that the link between KM activities and business results can be proven in some KM interventions, especially in cases where the intervention is applied for a long period and where circumstances are such that all major changes are related to KM.

A linkage between change initiatives and business results can be proven if there is evidence of (a) significant change initiatives; (b) improved business results; (c) knowledge and implementation of the

changes discussed above; (d) linkage by main stakeholders between change initiative and results.
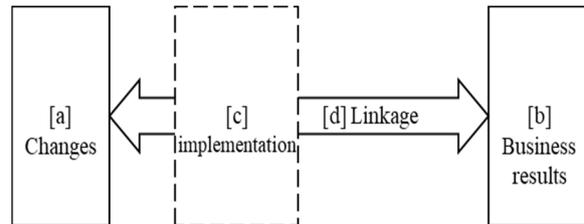

Figure 1: Research theoretical framework.

Hypothesis: KM initiatives performed [a], known and implemented [c], improve business results [b].

4 METHODOLOGY

Multiple sources were chosen to investigate whether the hypothesis can be proven, establishing a chain of evidence:

- [a] Existence of significant change initiatives. Gleaned from documentation— evidence of learning activities, knowledge sharing activities, and new knowledge bodies. We examined 124 documents supplied by the Ministry of Social Affairs.
- [b] Existence of improvement in business results: Improved business results were assessed from three aspects: Was there a change in addressing children who were placed in fostering settlements? Are fostering families satisfied with the settlement (based on external research conducted before, during, and after the period of intervention)? Were there fewer non-successful endings of such settlements (based on quantitative data from the Ministry of Social Affairs regarding fostering settlements— quantities of children in the settlement, the period of time of foster care for each child—the duration of the child's stays, and how the foster placement ended).
- [c] Knowledge and implementation of the discussed changes: Determined using a survey and through interviews of the workers who are to implement the changes. Both managers and field workers were addressed (121 workers out of 170 answered the survey; 25 interviews were conducted). Questions addressed the familiarity of the knowledge, tools, and ease of use.
- [d] Linkage between change and results: One of the reasons for choosing the test case was the high probability for linkage due to the

following. First, the intervention period was long (7 years). Second, in this period, all policy changes within the organization were linked to the knowledge interventions. Third, the external changes that had effect, occurred before and after this period, not during it. As linkage has to be proved, a survey and a series of interviews, as described above, were conducted. Employees who were to use the knowledge and see its benefits in their work were asked if and to what level the knowledge contributed to the improvement of their work and their results. This indicated whether a linkage existed what the linkage was.

5 FINDINGS

We offer several major findings (described in alignment with the theoretical framework).

KM Change Initiatives [a]. Finding: From 2007 to 2014, an additional KM change initiative was initiated every 6-12 months. In all, there were 9 initiatives, each including the development and sharing of knowledge:

- selection of families to serve as foster families (knowledge developed in 2009);
- matching of children with foster families (knowledge developed in 2007);
- preparation and training of foster families (knowledge developed in 2010);
- supporting the safe re-attachment of the child with foster parents (knowledge developed in 2008);
- handling the issue of sexual assaults (knowledge developed in 2008);
- guiding the foster families (knowledge developed in 2011);
- handling children with special needs (knowledge developed in 2013);
- working with the parents while the children are in foster care placements (knowledge developed in 2014);
- predicting and handling warning signals as to fostering health (knowledge developed in 2007).

Business Improvement [b]. Finding: More children were sent to foster care placements. Operating bodies found the knowledge development teams to be a tool of cooperation, leading to mutual consultation and learning. A higher percentage of children were sent to

foster care placements. Table 1 includes details of the changes over the years. There was a 15.7% increase in the number of children sent to foster care placements (530 additional children in foster care, as compared to continuing previous assignment ratios). A contributing factor to this change, according to Korazim is the high rate of professionalism of the field workers, which is highly appreciated by the management of the Ministry of Social Affairs.

Table 1: Fostering preferred as a placement for children.

Year	Children placed away from home	Children placed in foster care	Percentage change
2006	27,373	3,323	12.1%
2007	27,704	3,418	12.3%
2008	28,470	3,392	11.9%
2009	28,695	3,402	11.8%
2010	27,125	3,548	13.0%
2011	27,680	3,738	13.5%
2012	27,126	3,812	14.0%
2014	(missing)	3,853	15.7%
Change in numbers	-247	+530	
Change %	-0.9%	+15.7	

Finding: Fostering families (parents) were highly satisfied with the professionalism of the foster care social services' (2014). A majority described their satisfaction level as 'satisfied' or 'very satisfied' in the following aspects, as presented in Table 2.

Table 2: Parents' Satisfaction.

Aspect	Percentage of satisfied parents
Having fostering-related knowledge	91%
Emotionally supporting	90%
Understanding family needs	89%
Understanding the child's needs	88%
Giving helpful advice	81%

Finding: The foster care placements were stable. We found that 68% of the children had remained in the same foster care family since they left home. Fewer foster care placements ended unsuccessfully.

The literature points to the fact that stability and duration of placement have a great influence on the chances of rehabilitation (Brooks et al., 2005; Rushton, 2004; Simmel, 2007; Wrobel et al., 2006; Sorek et al., 2014).

Stability is based on several factors, including moving between placements, between families, and unsuccessful placement ending.

The business success analysis of unsuccessful endings is based on the issues dealt with and developed during the intervention. Unsuccessful endings can occur, triggered by unpredictable and unpreventable circumstances, but professional work can affect and lower the ratio of unsuccessful endings.

The ratio of unsuccessful foster care endings was found to be the most relevant business success indicator, with regard to the knowledge acquired and shared.

Finding: There was a decrease of 32% in the rate of unsuccessful placement endings (Figure 2).
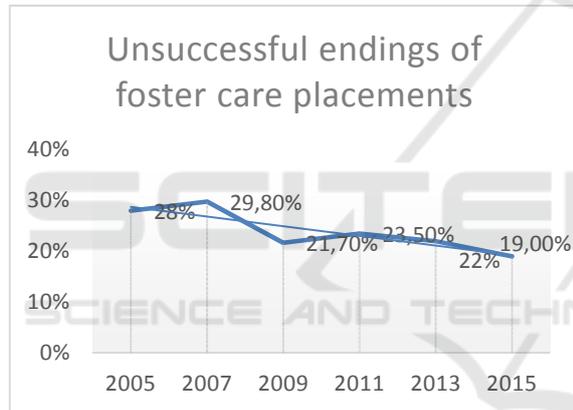

Figure 2: Unsuccessful Placement Ending Percentage.

Knowledge Was Acquired and Implemented [c].
Finding: The survey revealed that employees were familiar with the knowledge and tools of the field and used them. We found that 97% of employees are familiar with the knowledge and tools developed. 71% of employees find the knowledge easy to access. 78% find the tools easy to access. 68% find the tools professional and easy to use. 69% were trained based on the knowledge and tools developed.

Interviews support these findings and the usage of these tools in daily routine.

Linkage Between Performance Improvement and Knowledge Interventions [d]. Finding: The survey revealed that employees found the knowledge significantly contributed to their professionalism at work. The knowledge contributes to their work,

according to 95% of employees; of these, 51% stated that there was a high level of contribution and 7% stated there was a very high level of contribution. 99% of employees stated that the training course based solely on the knowledge developed contributes to their work; among them, 88% stated that there was a high or very high level of contribution.

Interviews strengthened these findings, although the level of contribution varied among the issues developed and studied.

6 DISCUSSION

Connecting the dots between a change and business results, as described in the literature, is not trivial. After proving an improvement in the results, these results must be linked to the change performed. The linkage is not easy to identify because in any given period we usually experience more than one change simultaneously. Therefore, a common method—demonstrated in the literature, and also used here—is to make this linkage by questioning stakeholders, using qualitative tools to capture their understanding of the contribution of the change to the results. In that manner, this research relies on the same strategy to validate the connection, including both a large survey and a set of interviews.

The findings in this research prove that there is a relationship between the change and business results and that the KM efforts were beneficial in terms of lowering unsuccessful endings of foster care settlements.

However, the case in research also demonstrates the strength of the test case: A criteria list can be defined based on the case, suggesting where there will be a higher chance of linkage between the change and the results:

Establishing a connection between KM activities and the improvement of business performance is valid when the following conditions exist:

- KM activities are performed for a decent period, enabling impact (at least several years).
- During this period, no major external factors change the characteristics of the business activity.
- During the same period, strategy decisions, policy decisions, and all other major decisions are based on KM initiatives, and their implementation is accompanied by KM activities.
- There is an applicable quantitative method to measure business performance.

- There is an applicable qualitative method to validate the connection between KM efforts and business results.

The research conducted has practical and managerial implications; it not only sheds light on a successful KM effort, but also enables further usage of the suggested model to test future links between changes activities and business results.

The research described offers a strong chain of evidence for these linkages, yet it has limitations that weaken its conclusions. These limitations include a lack of a control group and a comparison that is based solely on the dimension of time. Furthermore, the proposed model is based only on one case study, which naturally limits the ability to generalize our findings.

7 CONCLUSION

When dealing with real life, real people, and soft changes, proving connections between activities and results is not an easy task. There is no way to prove that changes are the result of a specific intervention. This research provides a strong chain of evidence regarding such a connection in the foster care services in Israel, triggered by KM interventions. This case study may be used as a model for additional research on linking KM activities and business results. It can also encourage organizations to apply KM activities, demonstrating the power of significant KM to business performance.

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