

Does perceived top management involvement and knowledge sharing affect perceived project performance? Evidence from the banking sector*

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Abstract

This study explores the impact of perceived top management involvement and knowledge sharing on perceived project performance. Relationships are examined from a sample of CEOs, directors and project managers from one large international bank in Serbia. Our results confirm that the “human factor” is critical to project success because perceived top management commitment exerts the most relevant direct relation, in addition to having an indirect relation through perceived knowledge management. Moreover, a nontrivial proportion of perceived project success (35%) is explained through perceived top management involvement and knowledge sharing.

Keywords: knowledge sharing, performance management, top management involvement, project performance

JEL classification: L25, H43, O22

1. Introduction

Performance management has been a focal point for both scholars and practitioners for more than three decades. In today’s business environment, one characterized by tremendous competitiveness and the globalization of business, knowledge management has become an important issue for the long-term survival of organizations (Pemsel/Müller, 2012). Consultants and managers have explored and developed a variety of measures to improve performance management. They consider knowledge sharing a precondition for reaching goals, with literature taking a broad view of knowledge in organizational life (Pemsel/Müller 2012).

Accordingly, knowledge is viewed as a critical factor for success as well as one of the main sources of competitive advantage in different sectors. When compared to other industries, the banking industry invests a considerable amount of

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money and time in employee training (Cable 2014; Zapp 2017), which is also one of the main activities of the Association of Serbian Banks. Well-educated employees foster development, which is in line with the fact that banks hold a vital role in a country's economic and social development. Young and Poor (2013) suggest that involvement of top managers is a prerequisite for a firm's increased performance. Moreover, The Standish Group (1995) published a list of project success/failure factors in the CHAOS Report. Three major reasons for project success are: user involvement, executive management support, and a clear statement of requirements. Therefore, we can suggest that the key factor for enhancing knowledge sharing in the banking sector is top management involvement. An executive's competencies, such as those relevant to human capabilities and attitudes, affect knowledge management strategies (Pemsel/Müller2012). Hass and Hansen (2007) argue that poor implementation of knowledge-sharing practice may not lead to performance improvement. Taking all this into account, we argue that quality knowledge management practice, together with dedicated top managers, lead to better project performance.

Lok and Crawford (2004) argue that success of an organization can be predicted by leadership style, which is closely related to top management involvement. The objective of this study is to propose a research model that traces the path from perceived top management involvement to perceived project success, and reflects the relation between perceived knowledge sharing and performance. We have focused on the banking sector because of the high competition level in the Serbian market. Moreover, banks are quite big business entities, within which all activities need to follow certain procedures. Organization in the banking sector depends heavily on the type of organizational structure. The majority of banks in Serbia have a matrix organization and use projects in order to meet business objectives. A matrix organization brings together employees and managers from different departments to work toward accomplishing a goal. Moreover, Hobday (2000, p. 874) defined project-based organizations as "firms in which projects are the primary unit of production, innovation, and competition". Therefore, we argue that project performance directly predicts the organization's overall performance. Traditionally, project performance has been analyzed through a pre-set budget, a planned schedule, and an agreed scope, but today it has been recognized that the value of business should be taken into account (Reich/Gemino/Sauer2014). We argue that the value of business will be higher if there are specific know-how and knowledge-sharing practices within the organization.

The purpose of this research is to understand the association between perceived top management involvement and perceived project performance. Specifically, the study's objectives are (1) to analyze relations between perceived top management involvement and perceived bank performance and (2) to identify the relationships between perceived top management involvement, knowledge sharing, and perceived project performance within the banking sector.

Our paper differs from existing works in several ways. Firstly, while many papers discuss the relationship between top management involvement and performance, we would like to particularly focus on perceived project performance within the banking sector. Some authors call for more research on leadership and top management involvement through various levels of mediators and moderators at the organizational level (Waldman/Yammarino 1999, Kanwal/Zafar/Bashir2017). Secondly, our model tests the relationship between perceived top management involvement and project performance through perceived knowledge sharing. Although, Hermano and Martín-Cruz (2016) point out that top management involvement plays a crucial role in creating the conditions needed for project success, Kanwal, Zafar and Bashir (2017) come up with surprising results which show that top management support plays only a secondary role in project performance. Thirdly, we analyze the significance of project performance prediction through the interaction of perceived management involvement and knowledge sharing within the banking sector.

This paper makes an attempt to comprehensively explore the role of the board of directors in the Serbian banking sector. This study contributes to the literature in the following aspects. First, we extend the literature on bank top management involvement to a developing economy. Second, building on a sample of 32 respondents from one large international bank, the results display the relationship between perceived top management involvement and knowledge sharing and perceived project performance. These findings contribute to the literature by confirming that perceived top management involvement has a positive relation with perceived performance of bank projects. The results suggest that perceived top management and knowledge sharing account for 35.5% of the variance of perceived project performance. Third, this paper provides new evidence on the mediating role of perceived knowledge sharing on relation between perceived management involvement and bank performance, in the developing economy which is characterized by strong competition in the banking sector.

The remainder of this paper is organized as follows. Section 2 reviews the literature and outlines the main determinants of successful project management. Section 3 develops the theoretical model and hypotheses. Section 4 proposes methodology and evaluates the model analyzing single case data, and Section 5 shows the findings. We conclude the paper with Section 6, which includes a summary of the main contributions, limitations of the study, and future recommendations.

2. Literature review

To shed light on the topic, we have developed a model that draws on the social exchange theory (Emerson 1976) and the organizational development theory (Nonaka 1994) to analyze project success. Both theoretical approaches have

been widely used in the field of management performances and have proven to be valuable tools for examining how knowledge sharing and top management involvement relate to project performance (Bock/Zmud/Kim/Lee 2005). The social exchange theory explains social change and stability as a process of negotiation between parties which we link to willingness to share knowledge and to be involved. Moreover, we argue that organizational learning and knowledge sharing significantly contribute to performances. The key question this paper seeks to address is whether project performance is better when there is a strong focus on knowledge management and top management involvement. Due to the significance of top management involvement for the performance of an entity in general, we argue that it should also be significant for projects. When knowledge sharing is applied at the same time that top management involvement is ensured, the combined effect of both should enhance the project performance. Conversely, a low level of top management involvement can adversely affect project performance.

A growing body of evidence shows that top management holds a crucial role in every organization (Hernando/Martin-Cruz 2016; Davies/Brady 2016; Rezvani/Chang/Wiewiora/Ashkanasy/Jordan/Zolin2016). Top management involvement is defined as “devoting time to the [project] in proportion to its cost and potential, reviewing plans, following up on results, and facilitating management problems involved by integrating [project management] with the management process of the business” (Young/Jordan 2008, p. 715). Empirical evidence shows that managers are not willing to play an active role in the project’s life cycle (Young/Poon 2013). Moreover, during the last three decades, the focus has been on budget, schedule, and quality management as the main factors for success. Nowadays, it has been documented that top management involvement and decision-making processes are the real critical factors (Hernando/Martin-Cruz 2016). As one of management’s crucial components, human resource management practices exert a strong influence on organizational commitment (Paşaoğlu 2015). Bjornali, Knockaert and Erikson (2016) show that diversity and cohesion, among top managers, directly and positively affect the effectiveness of top management’s team. Moreover, organizations face the challenge of finding people with a “know-how” for specific projects. More than any other factor, top management support is necessary, and even sometimes sufficient for success (Young/Poon 2013).

Based on previous practical experience in the banking sector, we assume that banks define internal projects as their core of production, innovation, and competition similarly to project-based firms (Hobday 2000). Projects, not departments, become control units and the role of management is to manage the relationships between projects and their environment, both internal – within the company, and external – outside the company (Kwak/Sadatsafavi/Walewski/Williams 2015). ul Musawir, Serra, Zwikael and Ali (2016) point out that “the

concept of project success may be more complex than a binary outcome between success and failure". In addition, empirical results indicate that more innovative banks are managed by more educated teams who are different in their functional areas of expertise (Bantel/Jackson, 1989). Generally speaking, project teams are temporary, and a lot of learning may be lost when the project is finished (Ruuska/Vartiainen, 2005). Therefore, we assume that top managers hold a crucial role in motivating and promoting knowledge sharing in a sustainable manner.

Knowledge sharing between different contexts in the banking industry is viewed as an essential source of competitive advantage. Cui, Griffith, Cavusgil (2005) defined knowledge sharing as a journey from having to sharing. Foss, Husted and Michailova (2010, p. 458) defined knowledge sharing as "an integral component of knowledge management that helps transform individual knowledge into organizational knowledge and improve firm performance". Navimipour and Charband (2016) pointed out that employees are related to project teams through knowledge sharing to reduce costs and increase project performance. Kanwal, Zafar and Bashir (2017) suggest that employees are willing to exert more effort on successful project execution if they feel that they receive support from top management.

Project performance is greatly influenced by individual performance. In the last three decades, measures of self-efficacy beliefs have made a significant contribution to fostering understanding of individual performance. It is believed that project management self-efficacy scales could be very helpful in predicting project performance (Blomquist 2016). Although contract types and incentives only indirectly affect project performance, it has been suggested that through better relational attitudes and teamwork quality, projects are likely to perform better (Suprpto 2016). Several empirical studies have analyzed how knowledge management affects project performance, subsequently demonstrating that knowledge management and knowledge alignment have a positive impact on project value without negatively influencing budget and schedule targets (Reich et al. 2014; Reich et al. 2012). In order to measure project performance, in this study we used the approach developed by Hermano and Martin-Cruz (2016).

Empirical findings provide results that mostly support the claim that higher top management involvement and knowledge sharing result in better project performance. However, these results have not been thoroughly tested within the banking sector. Based on previous practical experience, we noticed that bankers almost always lack time, due to the numerous projects that are outperforming. Liang et al. (2013) suggest that the board of directors plays a significant role in bank governance, especially in developing countries where corporate control is still underdeveloped. Authors point out that the board of directors might be a key mechanism to monitor and advise bank managers, which should result in better performances. In addition, Serbia is one of the CEE developing countries,

where competition within the banking sector is at a very high level, so there is constant pressure to reach goals and meet targets. This paper re-examines the role of top management involvement in the banking sector of emerging economies using a unique sample of one large international bank. Also, some top managers are not motivated to supervise all projects under their control (Hernando/Martin-Cruz 2016). Consequently, in a matrix organization, the goal to motivate all team members becomes a challenging task. We argue that top managers within the banking sector should be more motivated to foster positive changes, which will lead to the improvement of project performance. Asrar-ul-Haq and Kuchinke (2016) pointed out that long work hours, stress, employees' lack of commitment, job dissatisfaction and high turnover in banks have intensified the need for effective leadership. Top management has a crucial role in the banking sector because managers should understand the problems and make strategies which will be strong motivators for employees (Asrar-ul-Haq/Kuchinke, 2016). In addition, as the banking sector of Serbia is facing different problems, such as high turnover among employees, the importance of knowledge sharing has increased.

The objective of this study is to propose a research model that traces the path from perceived top management involvement to perceived project success, and reflects the relationship between perceived knowledge sharing and performance. Accordingly, this research seeks to answer the following research question: Do top managers, who are perceived as committed, enhance knowledge sharing within different bank departments, increasing perceived project success?

This research question is of practical importance because banks invest considerable time, money, and effort in creating employees' knowledge in order to achieve success at the end of the project's life cycle.

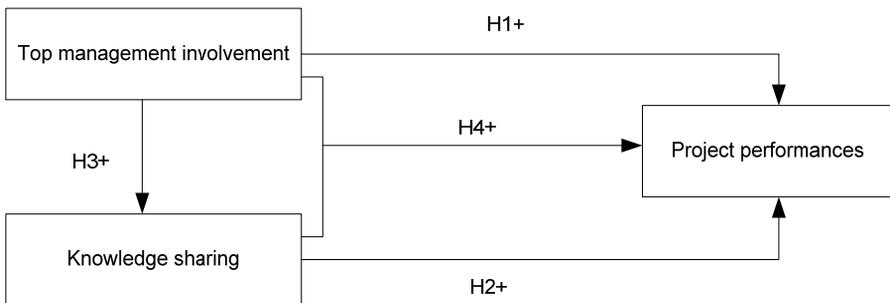
3. Research model and hypothesis

A bank's responsiveness to change provides added value in the process of economic transformation. Moreover, banks support societal development by not only employing people, but also concentrating on the improvement of their abilities and skills. Banks should therefore be considered an indispensable factor for creating a competitive, well-developed economy. For example, the Serbian financial market is underdeveloped and contains 30 foreign and domestic banks. With this strong competitive aspect in mind, we argue that the key differentiation factor for gaining a competitive advantage and a high level of performance is knowledge. In order to test our hypothesis, we use one large international bank and relationships are examined through a sample of 32 CEOs, directors and project managers. We argue that the sample can be considered as representative because we try to analyze perception of CEOs, directors and project managers within the same culture and matrix organizational structure. Moreover, it is a

very challenging task to find top and middle managers within the banking industry who have time and the willingness to take part in the research.

Based on the previous literature review, our model considers perceived top management involvement and knowledge sharing as crucial factors which are related to perceived project performance. The structure of the model is reflected in Fig. 1. Next, the interrelationships among the different variables and their theoretical meaning are justified.

Fig. 1. Hypothesized model. This figure depicts the suggested research model, including the three variables (top management involvement, knowledge sharing, and project performance) and the four hypotheses proposed.



3.1. Relation between perceived top management involvement and project performance

A growing body of evidence shows that top management holds a crucial role within every organization (Hernando/Martin-Cruz 2016; Davies/Brady 2016; Rezvani et al. 2016). Top management affects employees through numerous mechanisms such as leadership, managerial practices, resource allocation, organizational culture, and control (Ou/Tsui/Kinicki/Waldman/Xiao/Song 2014; Toivonen 2014). With the development of project management, there is a necessity for planning and controlling complex project landscapes more effectively and efficiently.

Young and Jordan (2008) pointed out that top management support is the most important factor for reaching any given goal. Moreover, the authors found that investors would not invest their money in projects to simply be on time, meet budgets, or satisfy users; they invest in projects to realize business benefits. Although the expertise of hard-working and devoted project staff is essential in terms of getting the opportunity to work on a project, it cannot be used to account for a project's success or failure. Accordingly, once a minimum level of employee competency has been reached, project success depends on top management involvement.

A performance-based approach is a very helpful mechanism for evaluating the performance efficiency of both projects and project managers (Xu/Yeh 2014). Moreover, objective-focused management holds a key role in measuring project performance, while it is strongly believed that proactive attitudes of top managers lead to a more successful performance evaluation process. Rezvani et al. (2016) pointed out that managers' emotional intelligence has a positive impact on a project's success. Moreover, the authors suggested that top management should be aware of the importance of project managers' job satisfaction and trust, in order to improve project performance. We argue that high-level plans and project methodologies contribute to overall project success only if they reflect the motivation and beliefs of top managers. Although many papers emphasize the positive role of top management involvement, results depend on leadership styles as well (Asrar-ul-Haq/Kuchinke 2016). Without stepping into leadership literature, we need to point out that top managers who follow their own interests might have a negative impact on project performance (Yang 2011). Moreover, if top managers have high expectations without proper communication and understanding of all potential risks, employees will not be motivated to give their best, which is just one example that might lead to low performance. Therefore, we decided to test the relationship between top management involvement and project success especially because there is no empirical evidence from the banking sector.

Thus, the following hypothesis is proposed:

Hypothesis 1: Perceived top management involvement has a positive relationship with perceived project performances within the banking sector.

3.2. Relation between perceived knowledge sharing and project performance

Knowledge sharing within a project team can be analyzed through the relationship between the project team leader and team members, as well as between project members themselves. Mueller (2012) pointed out that cultural manifestations as well as cultural values influence knowledge-sharing processes. The practical implications of Mueller's (2012) work suggest that managers and team leaders realize that knowledge sharing between project teams enhances the efficiency of project work and organizational learning.

Zhang and Jiang (2015) analyzed two types of knowledge sharing: responsive and proactive. The authors came to the conclusion that, in responsive knowledge sharing, a recipient's learning attitude and personal relationship with the knowledge sharer affected the sharer's willingness to share. In addition, in proactive knowledge sharing, a recipient's professional ability and personal relationship with the sharer significantly affected the sharer's willingness to share. With the

aforementioned in mind, we have investigated the relationship between top management involvement and knowledge sharing. The results show that a strong and positive correlation exists between these two variables.

Generally speaking, knowledge sharing is based on two strategies: codification and personalization (Hansen 1999; Ruuska et al. 2005). The first relies on databases where knowledge could be stored, while in personalization strategy, knowledge is closely linked to people. Focusing on the relationship between top managers and employees, we adopted the approach of the personalization strategy and used it as a trigger for our research.

Offering a summary of the selected articles, Navimipour and Charband (2016) undertook a very comprehensive study outlining key areas for the improvement of knowledge-sharing function in project teams. The authors pointed out that good project management and communication practices foster a socially accountable project team environment, which furthermore yields more than just favorable project results. Moreover, the authors concluded that knowledge sharing improves communication within organizations, which has a positive effect on team member performance and job satisfaction.

Based on this, the following hypothesis is proposed:

Hypothesis 2: Perceived knowledge sharing in bank management has a positive relationship with perceived project performance.

3.3. Relation between perceived top management involvement and knowledge sharing

Lee, Shiue and Chen (2016, p. 466) defined top management as "an individual or a small group of critical individuals who influence employees' perceptions and willingness to engage in tasks". Wang and Noe (2010) pointed out that top management support has a very strong influence on the level and quality of knowledge sharing. An environment in which top management behaves in a strongly supportive way encourages employees to apply and share knowledge (Lee et al. 2016).

It is believed that higher levels of top management support can overcome organizational changes (Stelzer/Mellis 1998). Moreover, employees are more willing to give their best when there exists support from managers, in terms of rewards (Lee et al. 2016).

Since the main objective of this study is to explore the role of knowledge sharing on project success, we define top management support in terms of the degree of support provided to encourage employees to share their knowledge.

One of the responsibilities of top management in knowledge sharing is the promotion of knowledge sharing objectives for business-process and knowledge-sharing

integration (Oyemomi 2016). Using an experimental design, Iyer and Ravindran (2009) analyzed the effect of “usefulness” and “incentives” on the joint decision to share and use knowledge objects. The authors found that failures in knowledge-sharing practices can usually be attributed to a lack of commitment from leadership. Other reasons can be attributed to technological and knowledge management system weaknesses. Xue, Bradley and Liang (2011) pointed out that team climate and empowering leadership significantly influence individuals' knowledge-sharing behavior. The authors suggested that attitude toward knowledge sharing can be affected through supportive leadership, as leaders are capable of increasing team members' self-efficacy and control over their work environment. Prior research has highlighted the importance of the leader's role in organizational processes (Shao/Feng/Hu2017), particularly in knowledge management (Singh 2008; Crawford 2005). However, current project management and knowledge management literature does not empirically address the mechanisms by which top management support facilitates knowledge sharing in relationship to project success.

Thus, the following hypothesis is proposed:

Hypothesis 3: Perceived top management involvement has a positive relationship with perceived knowledge sharing within the banking sector.

3.4. *The mediating role of knowledge sharing on relationship between perceived top management involvement and project performance*

Although the empirical relationships between knowledge sharing and performance, as well as those between top management involvement and performance have been examined, to the best of the authors' knowledge, there is no research that considers the specific effects which knowledge-sharing practices and top management involvement have jointly on project performances. Although every project is unique, our study highlights the critical importance of top management involvement for practitioners. Our study indicates that an involved top manager is an important facilitator of project success and directly affects project performance in the banking sector. Thus, organizations may find it useful to emphasize that top managers create knowledge sharing atmosphere in order to ensure the success of projects. However, this might be challenging for both managers and organizations, as the transition from traditional forms of project management to a knowledge transparent one involves strong top management involvement. Hermano and Martín-Cruz (2016) discussed top managers' roles from three key perspectives: agency theory, upper echelons theory and organizational behavior theory. Although these theories improved our understanding of top managers' influence on firm performance, they have yet to examine fully the important aspects of top management involvement. Trying to fill the gap in literature, we argue

that knowledge sharing could be one very important aspect of top management involvement and, therefore, we propose the following hypothesis:

Hypothesis 4: Perceived knowledge sharing will behave as a mediator, meaning that it will change an existing correlation between top management involvement and project performance.

4. Sample and procedure

A survey that tests the research model was conducted in Serbia. A questionnaire was developed and pilot tested before the formal data collection. Whenever possible, measurement items were adapted from existing scales in literature. Some modifications were made to align the scales with the Serbian context and banking industry.

The questionnaire developed for the study was first subjected to a pretest that involved interviews with 3 experts from the banking sector and 2 persons with degrees in management from the University of Belgrade to ensure question readability. Following their suggestions and comments, the questionnaire was modified accordingly, the result of which was the final questionnaire used to collect data. The five-point Likert-type scales ranging from “1” (totally disagree) to “5” (totally agree) were used throughout the questionnaire. Top management involvement and project success were measured by the instrument developed by Hermano and Martín-Cruz (2016). Knowledge sharing is operationalized according to Wang and Noe (2016). The question items for the constructs are listed in Table 1.

Table 1. Scales and their components (A-C) (adjusted from Hermano and Martin-Cruz, 2016; Wang et al., 2016)

Scale	Cronbach alpha	Components
A Top management involvement	0.733	<p>A1. Top managers of the company are aware of the methodology used for managing projects.</p> <p>A2. Top managers of the company decide the projects that have to be developed.</p> <p>A3. Top managers of the company have an active role when defining the success criteria of projects.</p> <p>A4. Top managers of the company are responsible for establishing the project management methodology.</p> <p>A5. Top managers of the company are frequently informed about the progress of projects.</p> <p>A6. Top managers of the company are involved in the monitoring and controlling phase of projects.</p>

Scale	Cronbach alpha	Components
B Knowledge sharing	0.813	<p>B1. People in my organization frequently share existing reports and official documents with members of my organization.</p> <p>B2. People in my organization frequently share reports and official documents that they prepare by themselves with members of my organization.</p> <p>B3. People in my organization frequently collect reports and official documents from others in their work.</p> <p>B4. People in my organization are frequently encouraged by knowledge-sharing mechanisms.</p> <p>B5. People in my organization are frequently offered a variety of training and development programs.</p> <p>B6. People in my organization are facilitated by IT systems invested in knowledge sharing.</p> <p>B7. People in my organization frequently share knowledge based on their experience.</p> <p>B8. People in my organization frequently collect knowledge from others based on their experience.</p> <p>B9. People in my organization frequently collect knowledge from others based on their experience.</p> <p>B10. People in my organization frequently share knowledge of know-where or know-whom with others.</p> <p>B11. People in my organization frequently share knowledge based on their expertise.</p> <p>B12. People in my organization frequently collect knowledge from others based on their expertise.</p> <p>B13. People in my organization will share lessons from past failures when they feel it necessary.</p>
C Project performance	0.881	<p>C1. Projects meet their operational performance goals.</p> <p>C2. Projects meet their technical performance goals.</p> <p>C3. Projects meet their schedule objectives.</p> <p>C4. Projects stay within budget limits.</p> <p>C5. Project results meet stakeholders' expectations.</p> <p>C6. Stakeholders are satisfied with project results.</p>

The top management involvement scale has a good internal consistency, with a reported Cronbach alpha coefficient of 0.733. In addition, the knowledge sharing and project performance scales have good internal consistency, with a Cronbach alpha of 0.813 and 0.881, respectively. A principal component analysis (PCA) was conducted on 24 items with orthogonal rotation (varimax). Factor analysis

suggests 4 factors, but we kept 3 which were interpretable and contained enough saturating items. All three factors explain 45,741% of variance and they match those suggested in previous papers from which scales were originally taken (Hermano/Martin-Cruz, 2016; Wang et al. 2016).

The target population for the study is formed of CEOs, directors, and project managers from the banking industry in Serbia. After establishing initial e-mail contact with a presentation of the study, we then sent out a paper-based questionnaire. Initial contact was made on September 10th and the last filled-out questionnaire was collected on January 18th. The response rate was 45%, corresponding to a sample size of 32 cases out of the 70 paper-based questionnaires successfully sent out. The sample includes 3 banking sectors: Strategic Marketing, Retail, and Project Management Departments. The organization structure of the particular bank is a matrix. Bankers from different sectors are involved in specific projects according to their field of expertise. Project activities coordination is very complex and time-consuming, and top management involvement as well as knowledge sharing is crucial.

Concerning the age of respondents, we have data from 32 respondents, with ages ranging from 29 to 55 years, with a mean of 38.50 and standard deviation of 5.829. The survey includes 20 females and 12 males. Quantitative data was analyzed with demographic statistics: percentages, means, and standard deviations. The basic descriptive statistics relating to these questions are shown in Table 2.

Table 2: The means for project performance attributes

	Minimum	Maximum	Mean	Std. Deviation
Top management involvement	2.60	5.00	3.8688	.61300
Knowledge sharing	2.18	4.64	3.4877	.58656
Project performance	2.80	5.00	3.7625	.59120

5. Measures and results

The basic objective of this study was to determine the relationships between perceived top management involvement, perceived knowledge sharing, and perceived overall project performance. For this purpose, we used the Pearson correlation coefficients. Although our sample is relatively small, preliminary assumption testing was conducted to check for normality. We use Shapiro-Wilk test and show that knowledge sharing and top management involvement have normal distribution while project performance deviates. However, skewness and kurtosis for project performance variable are within accessible limits between -1.96 and +1.96 (Gao/ Mokhtarian/ Johnston2008).

As displayed in Table 3, the study identified a positive correlation between perceived top management involvement and perceived project performance

($r=0.506$, $p<0.01$). Thus, as predicted in Hypothesis 1, appropriate top management involvement is positively related to high levels of project performance. The relation also exists between perceived knowledge sharing and perceived project performance ($r=0.505$, $p<0.05$), which supports Hypothesis 2. Perceived top management involvement is positively related to perceived knowledge sharing. Hypothesis 3 is therefore supported.

Table 3: Pearson correlation coefficients for project performance attributes

	Knowledge sharing	Project performance
Top management involvement	.444*	.506**
Knowledge sharing		.505*

*Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

To examine intensity and possible prediction of perceived project performance through perceived top management involvement and knowledge sharing, the study uses multiple linear regressions. Regression coefficients for project performance prediction are displayed in Table 4.

Table 4: Regression coefficients for project performance prediction

	Unstandardized	Standardized			
	Coefficients	Coefficients	Beta	t	Sig.
Model	B	Std. Error			
top management involvement	.339	.160	.351	2.115	.043
knowledge sharing	.354	.167	.351	2.111	.043

The results suggest that the examined attributes explain 35.5% ($R^2 = 0.355$; $F_{2,29}=7.98$; $p<0.01$) of variance of dependent variable – perceived project performance. We get very similar results if we control for gender and experience in the banking sector (number of years). The results suggest that 35.5% ($R^2 = 0.355$; $F_{4,26}=3.561$; $p<0.05$) of variance of perceived project performance is explained by independent variables – perceived top management involvement and knowledge sharing.

To check the mediation effect of perceived knowledge sharing, we performed hierarchical regression analysis (Vaughn 2008; Cohen/Cohen/West/Aiken2013). In the first step (model 1), as predictors, we used perceived management involvement and knowledge sharing, while in the second step (model 2), we added the interaction of the two predictors. Tables 5 and 6 report the results of this analysis. As we can see in Table 5, both models show a significant prediction of perceived project performance (model1: $F_{2,29}=7.98$, $p<0.01$; model2: $F_{2,29}=7.33$, $p<0.01$). In model 1, both predictors, perceived management involvement and

knowledge sharing, are significant and have equal contributions in prediction. But, entering their interaction in model 2 shows a significant increase in prediction ($F_{change,1,28}=4.25, p<0.05$), by 8.5%. Also, entering interaction into the prediction model shows that both predictors individually are not significant, and that interaction remains the only significant predictor. This finding indicates that full mediation is present in the model; that is, based on our analysis and sample, perceived management involvement predicts perceived project performance through perceived knowledge sharing as a mediator. Hypothesis 4 is therefore supported.

Table 5: Significance of project performances prediction by management involvement, knowledge sharing, and their interaction

Model	R	R Square	df	F	Sig.	R Square Change	F Change	df1	df2	Sig. F Change
1	.596 ^a	.355	2; 29	7.980	.002 a	.355	7.980	2	29	.002
2	.663 ^b	.440	3; 28	7.332	.001 b	.085	4.248	1	28	.049

Table 6: Regression coefficients of project performances prediction by management involvement, knowledge sharing, and their interaction

	Beta	t	sig	Zero-order correlation	Partial correlation	Tolerance	VIF
1							
Top management involvement	.351	2.115	.043	.506	.366	.806	1.24
Knowledge sharing	.351	2.111	.043	.505	.365	.806	1.24
2							
Top management involvement	-1.683	-1.684	.103	.506	-.303	.019	51.63
Knowledge sharing	-1.718	-1.691	.102	.505	-.304	.020	49.95
Top management involvement*knowledge sharing	3.495	2.061	.049	.618	.363	.07	143.7

6. Conclusions and implications

The question of how management involvement influences performance matters in all organizations, from start-ups to banks, because managers have a very important decision-making role. Although, this topic has a high relevance for organizations, evidence on the top management involvement-performance relationship is still underdeveloped in empirical studies. It is proven that top management involvement is necessary, and in fact the most important factor for reaching goals. Additionally, knowledge management – a linkage between management involvement and performance, has become a priority for companies, and firms around the world are making large investments in human resources.

This study makes two important contributions: (1) it empirically displays the overall mechanism by which top management involvement and knowledge sharing successfully enhance project performance; (2) it provides evidence of the significance of project performances prediction by the interaction of management involvement and knowledge sharing within the banking sector. Each of these points is discussed in turn.

Our findings show that top management initiative, taking an active role, and proper communication have positive effects on project results, improving financial and non-financial outcomes. Although top managers usually underestimate the importance of cooperation and dedication during the project's life cycle (Young/Poon 2013), our results suggest that top managers' support leverages the impact of knowledge sharing, in turn enhancing project performance. Although previous literature has emphasized the relevance of knowledge management and leadership roles, no study has empirically shown how they improve project performance. Therefore, this study offers novel insights, applying the postulates of knowledge management within the banking sector. With respect to the role played by knowledge management, the results show how top management involvement represents a critical factor for reaching goals (Young/Poon 2013; Young/Jordan 2008)

The second contribution of this study is to highlight the importance of project performance prediction by the interaction of management involvement and knowledge sharing.

In environments in which top management supports employees, they will be willing to apply and share knowledge (Lee et al. 2016). One of the crucial roles of top managers is to foster cross-functional knowledge sharing among employees, while promoting performance objectives for business-process and knowledge-sharing integration (Oyemomi 2016). Our findings are consistent with related empirical evidence and indicate that the full mediation is present in the model. Therefore, the study contributes to recent calls to develop more complete models of knowledge sharing and to draw a more comprehensive picture of effective performance management.

In other words, this study highlights the mechanism through which top management involvement creates value for banks and how knowledge management contributes to project performance. An additional contribution of the paper is its examination of the phenomenon of project success within a banking context. Therefore, the results of this study provide innovative insight to researchers and practitioners in the banking industry. Although our study is general in terms of the importance of top management involvement and knowledge sharing, we choose the banking industry because it is usually project based and highly dependent on project performance in comparison to other industries.

This study also affords some interesting implications for managers, in that it provides a useful model for the successful implementation of knowledge-sharing practice. The study's results confirm that investing in training does not automatically lead to success; thus, the existence of top management support can be considered a necessary condition for achieving project goals. Different resources should be integrated throughout an organization to generate valuable results, whereas knowledge management needs to be fostered by top managers. Given the important role played by knowledge management, top managers should encourage employees to acquire, share, and use knowledge effectively.

This investigation presents some limitations that should be considered. First, the variables are measured as based on perceptions of general managers (single respondents), which consequently implies a certain degree of subjectivity. Second, this is a single case study, which means that managers are from one large international bank. Third, future research should focus on a larger sample, preferably one including other countries and sectors. Nevertheless, this study has produced empirical evidence to substantiate the hypothesized associations that top management involvement will contribute to project performance, whether directly or through knowledge-sharing mechanisms.

Despite these limitations, the study is the first to shed light on the importance of the top management involvement-knowledge sharing-performance relationship in banking practice. Organizational and financial performance constitute important elements of management control systems in all organizations and the study provides a more comprehensive view of how top management involvement and project performance relate to each other.

To sum up, the model analyzes only the relationship between top management involvement, knowledge sharing, and project success. An acceptable proportion of project success (35.5%) is explained by these variables, but other factors could also be considered, including IT infrastructure and software development (Lee et al. 2016), innovation management (Wang et al., 2016), and the strategic and operational capabilities of projects (Hermano/Martin-Cruz 2016). The findings are encouraged to bring more insight on how organizations should enhance their project performance with well-conceived knowledge-sharing practices and top management behavior.

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