

Universidad de Guadalajara

# **Environmental, Social and Governance Strategic Approach for Competitiveness**



**José Sánchez-Gutiérrez &  
Tania-Elena González-Alvarado  
(Coordinators)**

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# **Chapter four**

## **Knowledge Management and Organizational Performance: A Governance Approach**

Preciado-Ortiz, Claudia-Leticia and  
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# Knowledge Management and Organizational Performance: a Governance Approach

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## INTRODUCTION

**K**nowledge management is a buzzword in business. With the introduction of technology and the internet in all industry sectors, companies are changing their business model. As a result, Critical success factors previously accepted as plant, equipment, inventory, and financial capital (tangible assets), have already gone down in history, giving rise to the value of knowledge and information as the power base and competitive advantage of any company.

E-business has evolved the economic world into a new operational era, where the fundamentals and rules of the market change, presenting virtually unlimited opportunities and increasing the ability of organizations to do business and share information at a higher speed than ever before.

This channel has the power to connect people and organizations around the world, making it possible to create global relationships with partners, suppliers, and customers. It also clearly changes how these relationships are started, strengthened, and maintained. It is here where optimal knowledge management becomes essential for the company and value and competitive advantage.

Two of the most critical opportunities and risks in the new economy are taking advantage of knowledge as a corporate asset and building and maintaining solid relationships with clients, employees, shareholders, and other company personnel (Du Plessis and Boon, 2004).

This article aims to identify the knowledge management practices carried out in the Mexican banking sector and their impact on organizational

performance to establish the basis for future empirical works of greater scope and depth that relate this line of research and the banking industry.

## CONTEXTUAL FRAMEWORK

### *The banking sector in Mexico*

The Mexican banking system comprises 51 authorized and operating banks that comply with international regulatory standards and are supervised by the National Banking and Securities Commission (CNBV) under a risk-based prudential scheme. Its important work within the financial system is to contact suppliers and applicants of financial resources so that, through this financial intermediation function, the efficient functioning of the economy is supported (CNBV, 2020).

The banking sector in Mexico has had significant growth in recent years. According to the CNBV (2020) in the Multiple Banking Statistical Bulletin, during the period from December 2010 to December 2020, the following data is available:

- Assets have grown by 54.89%.
- Total deposits grew by 45.57%.
- The net result is positive, with a growth of 45.82%.
- Regarding the loan portfolio, growth has been 39.35%, and a delinquency rate fell from 2.33 to 2.20% in the same period.
- The coverage index closed in 2019 with 146.01.

However, despite the promising figures mentioned above, the banking sector faces a series of challenges that, like any company, to stay in the market, it must consider and face.

According to the CNBV (2019), one of the main challenges facing this sector is bank deconcentration. Most of the assets (78.34%) of the banking sector, as well as the majority of the portfolio (81.93%) and deposits (79.63%), are concentrated in only seven institutions (BBVA Bancomer, Santander, Banamex, Banorte, HSBC, Scotiabank, Inbursa).

Although the number of access points per 10,000 adults has increased continuously (1.9 more access points per 10,000 adults in 2018, municipal coverage of 51%, and demographic coverage of 92%; CNBV, 2019), Mexico is still lagged compared to other Latin American countries. Regarding credit, the level of credit penetration in the country is low (12% of adults with credit in 2017 below Chile, Brazil, and Colombia; CNBV, 2019, p. 45). Another challenge is to increase penetration through formal financial infrastructure and credit since the commercial banking sector still does not provide products and services to significant segments of the population.

Another challenge is to maintain the stability and development of the industry. This refers to the fact that international regulation standards must be implemented but paying attention and care to the sensitivity of the characteristics of the Mexican sector so that regulation guarantees stability and the sea conducive to its development.

### **WHY STUDY KNOWLEDGE MANAGEMENT IN THE BANKING SECTOR?**

The reasons for studying knowledge management in the banking sector are many; however, they can be summarized in the following three:

- Mandatory automation as part of financial sector reforms around the world and the use of technology gives rise to various information systems and, therefore, massive generation of information from the different products and services it offers and the points of interaction (ATMs, internet, mobile, among others).

- Banking has been considered the riskiest business that affects the economy (Goyal, 2007), so risk management is another area that requires banks to document, turn information into knowledge, and take advantage of it to make it more competitive.

- Banks are improving the speed of processes and supply. They are working with knowledge to create service innovations, new products, and customer focus. In this complex and challenging operating environment, their orientation to knowledge and their ability to harness it can only differentiate them to help them continue to grow (Goyal, 2007). Reasons for which it has been decided to carry out this work.

“To compete and be successful in their market, banking sectors must now learn to manage their intangible asset: knowledge” (Satish, 2012). To the extent that they collect, organize, share and analyze their knowledge in terms of resources, they will respond more efficiently and satisfy customer expectations at any time and place by positioning themselves above the competition (Manivannan and Kathiravan, 2016).

### **LITERATURE REVIEW**

#### *KNOWLEDGE MANAGEMENT*

Knowledge management has become an undoubtedly important component within the intangible assets of an organization. “Continuous change in market expectations and demand for new products has gradually replaced capital and labor with knowledge and the routine work of the knowledge worker” (Satish, 2012).

Therefore, companies must focus on knowledge management activities along with introducing new technologies. However, the banking sector has not been the exception in the financial panorama; it becomes somewhat more

difficult due to the nature of the activity and the type of resources it is direct to (Davenport, 1998).

Knowledge has been defined from different contexts to relate it to management, for example: knowing why, knowing what, knowing how to do, knowing who, knowing where, and knowing when (Satish, 2012).

Knowledge management is the conscious collection, organization, exchange, and analysis of knowledge regarding resources, documents, and people's skills.

While Bounfour (2003) defines it as the arrangement of a specific and administrative philosophy, systems, and gadgets designed to create, grant, use information and data within and around an association.

Knowledge management practices can be grouped into four large areas; knowledge acquisition, conversion, application, and protection process (Gold & Arvind Malhotra, 2001).

These knowledge management activities can be defined as:

1. Acquisition refers to obtaining information, achieving, searching, producing, developing, capturing, and coordinating are shared terms used to represent the knowledge acquisition process.

2. It refers to the procedures that make existing learning useful and are related to the capacity of an organization to assimilate knowledge (Grant, 1996), solidify it (Sánchez & Mahoney, 1996), and transmit it (Zander & Kogut, 1995).

3. It is the actual use of learning.

4. Learning or knowledge within the company can be printed or electronic. However, its protection must be guaranteed by licenses, copyrights, trademarks, among others. Moreover, as Barney (1991) mentioned, the organization must know that the basis of an advantage will be the premise that it is exceptional and cannot be duplicated.

## **KNOWLEDGE MANAGEMENT: PROCESS OR SYSTEM**

Dutt (2013) establishes that knowledge management can be seen as a process and a system. As a process that involves any systematic activity related to the organization's capture and exchange of knowledge (Nonaka & Takeuchi, 1996; Singh, 2008). It is a strategy, a cultural practice, a technology-driven process, and a leadership agent to harness and extract value from intellectual assets.

Table 1 shows the characteristics of the CG, its source, where to look for it, objective, focus, fundamental principle, evaluation scale, benefits, the role of the client, the role of the organization.

Table 1. Knowledge management characteristics

	Knowledge management
Source of knowledge	Internal knowledge, incorporated within the organization.
Where to look for knowledge?	Employees, team, company, business, colleagues.
Objective	Discover, use and share internal knowledge.
Whom is it focused on?	Employees who do not use and /or share their knowledge.
Basic principle	If we knew what we know.
Explanation	Integrating employee knowledge about customers, sales processes and R&D.
Business purpose	Increase return on capital, decrease economic cost, omit repeated processes, share lessons learned.
Evaluation scale	Efficiency versus budget.
Profits	Customer satisfaction.
Customer role	Passive, recipient of the product or service.
Role of the organization	Empower the employee to share her knowledge with their co-workers.

Source: Adapted from Gibbert, Leibold & Probst (2002).

### *Knowledge management in the banking sector*

In recent years, banks have made an effort to automate their processes by creating information systems to carry out their operations and improve services. However, while these systems have helped improve their processes, they have also generated extensive data and information. Therefore, applying technologies and knowledge management has become vital to obtaining a competitive advantage in this environment.

In addition, apart from the large volumes of knowledge, the use of information technology in knowledge management has given it another dimension. According to DeSanctis and Poole (1994), technology and the social process must be in harmony. Unfortunately, not all banks know this, as very few banks apply knowledge management principles (Blesio & Mognani, 2000). According to Satish (2012):

The first step for banks to start with the knowledge management process is to create the necessary mentality among employees regarding this issue, subsequently identifying the areas in which knowledge is required, acquiring knowledge, developing the knowledge bank within the organization, and constantly updating it.

Then make the appropriate updated knowledge available to employees (users) anytime, anywhere, and reuse it. Moreover, finally, define places of concentration of knowledge where new knowledge can be added.

Satish (2012) mentions that knowledge management in the banking sector involves the external environment (Regulations, financial system, competitors, clients, media, among others) as an essential element to be considered by any organization that wishes to maintain a competitive advantage.

In its turn, through the proper management of knowledge. Moreover, all the company personnel is involved in the internal or organizational environment, from the General Manager to the lowest level subordinate.

It is here where through the combination of people with technology (internet, intranet, email, mobile, computers, and other equipment), information is transformed (through the process of creation, retention, and dissemination in meetings, emails, discussions, among others) in knowledge (explicit: documents, reports, letters, emails, among others. And implicit: ideas, opinions, thoughts, plans, experience, among others) that produce services and products.

Performance within the organization is a common theme in most management-related areas. Performance can be characterized as: "a measure of the achievement of the organizations' objectives" (Daft, 2012). Organizational performance can be defined as efficiency related to money, operational efficiency, and productivity of an organization (Venkatraman & Ramanujam, 1986).

If organizational performance is associated with knowledge management, the benefits are many and can be individual and business (Cong & Pandya, 2003).

"At the organizational level, knowledge management provides two main benefits for an organization: improving the performance of the organization through greater efficiency, productivity, quality, and innovation and increasing the financial value of the organization by treating people's knowledge as active" (Satish, 2012).

Knowledge is the only input to help it cope with radical changes and take corrective action before it is too late. Knowledge alone can accelerate product innovation and increase revenue (Kalling, 2003; Darr, Argote & Epple, 1995).

Knowledge provides adequate decision support. Effective knowledge sharing of past successes, failures, projects and initiatives enables better decisions and creates more excellent economic value for the organization (Youndt, Subramaniam & Snell, 2004).

Directing the direct benefits to organizational performance, it can be mentioned that there is a reduction in costs, an increase in the flexibility to accept and change, a reduction in time to market for new products/services, an increase in sales, a reduction in the cycle times of the process and better decision-making, more excellent responsiveness to customers, improved innovation, greater customer satisfaction, and improved employee competence (Ofek & Sarvary, 2001; Tsai, 2001; Wiig & Jooste, 2003; Carmeli, 2004).

The literature shows that efficiency is influenced by knowledge management. Knowledge management is seen as the origin of performance (Darroch, 2005). The achievement of learning and dispersion does not have a specific direct or identifiable result on the efficiency of an organization; however,



a large part of organizations affirm that adequacy and productivity in knowledge management procedures are helpful for the performance of an organization.

When there is an improvement in technology and knowledge management capabilities, the organization is in a superior position to satisfy customer needs by offering better services (Hunt & Morgan, 1995; Satish, 2012). The literature shows that the security of learning and information exchange within a company led to improved profitability (Darr et al., 1995). Learning is the best variable for a company (Hendriks & Vriens, 1999; Schiuma, 2012).

One way to measure the effectiveness of knowledge management applications is to measure their influence on business performance (Yaşar & Kızıldağ, 2013).

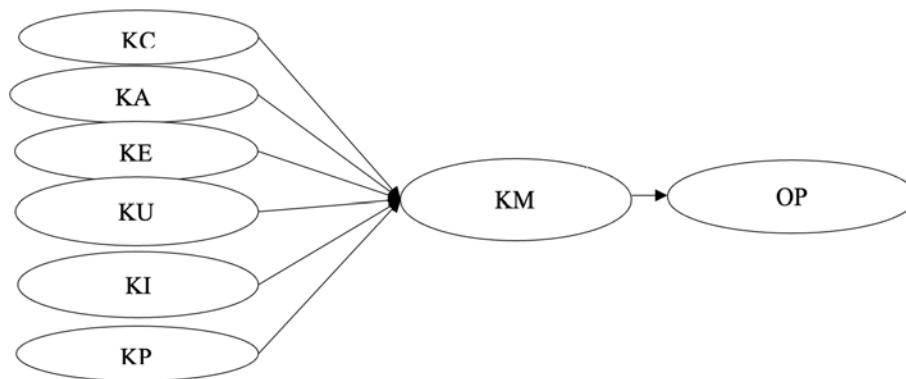
Some studies focus on financial indicators, and those that consider that these studies are insufficient to evaluate this variable to measure organizational performance. Studies such as that of Chakravarthy (1986), Kaplan and Norton (1996), and Robinson, Anumba, Carrillo, and Al-Ghassani, (2005), point out that considering only the classical financial measures is not enough to make a reasonable calculation of organizational performance (Tseng, 2015). Fliaster (2004) mentions non-financial measures such as client and employees relationships, satisfaction, and loyalty. They can be variables that positively or negatively influence organizational performance.

On the other hand, Pfeffer and Sutton (1999), Mentzer et al. (2001), Ribiere and Sitar (2003), and Tseng and Fang (2015) establish that the management of knowledge, as another non-financial measure, has a positive impact on corporate performance. Alavi and Leidner (1999) mention that in the financial aspect, the company can have an increase in sales and decrease in costs, which means higher economic returns.

However, they also establish that these benefits are given by good knowledge management with positive impacts on non-financial but visible issues, such as internal communication between staff is more excellent, better, and faster, reducing problem-solving, better customer service, improves project management, in short, there is greater overall efficiency in the company.

Given the above, the following model shown in figure 1 was proposed.

Figure 1. Proposed model



Note: KC - Creation of knowledge, KA - Accumulation of knowledge, KE - Knowledge exchange, KU Knowledge utilization, KI – Knowledge internalization, KP – Knowledge protection, KM- Knowledge management, OP - Organizational performance.

Source: Adapted from Tseng and Fang (2015), and Yaşar and Kızıldağ, (2013).

## METHODOLOGY

An exploratory analysis divided into two stages was carried out to conduct this study. The first stage consisted of holding a focus group meeting with bank executives to apply a structured questionnaire in which they were asked their perception of how much the knowledge above management practices was carried out within the company.

The instrument was structured in such a way that they evaluated, according to their experience, a Likert scale using five options, ranging from "never / not done / not have / not applied" to "always / applied / have / are done" The activities mentioned concerning knowledge management. Table 2 presents the variables with their definitions. Table 3 presents the indicators by variable.

For the data analysis of this first stage, the SPSS program was used. It started with the coding of all the answers. Subsequently, mean scores were established for each question, and in the same way, it was continued until obtaining a result per dimension and then in a general way. The results were located within one of the five levels of the following scale: 1 = very low, 2 = low, 3 = medium, 4 = high, 5 = very high. In this way, it was possible to describe the results obtained by the instrument.

In a second moment, with the coding of the responses, the statistical validation of the instrument was carried out, and finally, a multiple linear regression that allowed to find which dimensions of those analyzed exert the

most significant influence on knowledge management and how this variable impacts on organizational performance.

To carry out stage 1, 48 bank executives (28 men and 20 women) supported, whose age ranged between 22 and 49 years, the positions they held are executive of products other than traditional ones (n = 28), manager (n = 9), traditional bank executive (n = 5) and control desk analyst (n = 6). Years of experience working in the sector ranged from one to 29 years.

Table 2. Conceptualization to measure the variables of knowledge management (KM)

Variable	Definition	Source
Knowledge creation (KC)	It is the production of knowledge by creating or finding new internal or external knowledge through the analysis of existing information.	Holsapple & Singh, 2001 Tseng & Fang, 2015
Accumulation of knowledge (KA)	It is the systematized management of stored knowledge by linking information and communication systems in a company.	Davenport & Prusak, 1998 Teece, 1998
Knowledge exchange (KE)	It is the exchange of knowledge and experiences between the company members testing the processes, tools, and platforms that promote learning its exchange and thereby improve productivity.	Nissen & Espino, 2000 Hung, Lien, Yang, Wu & Kuo, 2011 Lin, Su & Chien, 2006
Knowledge utilization (KU)	Knowledge application.	Tseng & Fang, 2015 Lehtimäki, Simula & Salo, 2009
Knowledge internalization (KI)	The relevant knowledge is selected, acquired, and then applied.	Holsapple & Singh, 2011 Du Plessis & Boon, 2004
Knowledge protection (KP)	Forms that protect information theft and illicit use within a company are part of the information security framework..	Liebeskind, 1996
Organizational Performance (OP)	Efficiency is related to money, operational efficiency, and productivity of an organization.	Venkatraman & Ramanujam, 1986

Source: Own elaboration with information obtained from the authors cited in the table.

Table 3. Description of the indicators by variable

Variable	Indicator	Source
KM	KM1. The company has developed methods to achieve financial results through knowledge.	Yaşar & Kızıldağ, 2013
	KM2. The company has developed a series of specific indicators for knowledge management.	
	KM3. The company has balanced hard and soft indicators and monetary and non-monetary.	
	KM4. The company allocates resources for actions that improve the knowledge base measurably.	
	KM5. The knowledge gaps found in our bank are systematically determined, and well-defined processes are used to compensate for them.	
	KM6. The company has developed an advanced intelligence compilation mechanism by progressive and ethical values.	
	KM7. Each member of our bank gathers opinions from traditional and non-traditional sources.	
	KM8. The company has defined a specific pattern for the best practices transfer process, including documentation and lessons learned.	
	KM9. The company values the knowledge of its employees that they know but do not express and transfer them.	
KC	KC1. The company has processes to acquire knowledge about customers, suppliers, and employees.	Ahmed, Fiaz & Shoaib, 2015
	KC2. The company has a process to generate new knowledge from existing knowledge.	
	KC3. The company has knowledge distribution processes throughout the organization.	
	KC4. The company has collaboration processes with other organizations.	Tseng & Fang, 2015
	KC5. The company has established a well-designed platform to provide the latest information.	
	KC6. The institution has processes to filter information.	
KA	KA1. The company has the information I need for my work stored in a database.	Tseng & Fang, 2015
	KA2. When doing my work, I search, analyze, and use the company's databases.	
	KA3. The company has processes for integrating the different sources and types of knowledge.	Ahmed <i>et al.</i> , 2015
KE	KE1. The company promotes the exchange of information and knowledge between the different departments.	Tseng & Fang, 2015
	KE2. The company offers a comprehensive network platform for accessing necessary information and knowledge sharing among staff.	
	KE3. The company has processes to convert knowledge into the design of new products and services.	Ahmed <i>et al.</i> , 2015
KU	KU1. The company provides a social knowledge system to improve the same application.	Tseng & Fang, 2015
	KU2. The company has promoted a culture of knowledge sharing.	
	KU3. The company has a reward system to encourage staff to generate new ideas and suggestions to use existing knowledge.	
	KU4. The company offers an excellent educational training opportunity to enhance staff knowledge and skills.	
	KU5. The company has processes for absorbing the knowledge of individuals.	Ahmed <i>et al.</i> , 2015

KI	KI1. The company has processes to apply the knowledge learned from mistakes and experiences. KI2. The company has processes for using knowledge in the development of new services. KI3. The company has processes for the use of knowledge to solve new problems. KI4. The company has processes to make knowledge accessible to those who need it.	Ahmed <i>et al.</i> , 2015
KP	KP1. The company has processes to protect knowledge leakage inside and outside the organization. KP2. The company has Incentives that promote the protection of knowledge. KP3. The company has technology that restricts access to some sources of knowledge. KP4. The company has processes to protect knowledge from theft inside and outside the organization.	Ahmed <i>et al.</i> , 2015
OP	OP1. The organization is growing faster. OP2. The organization is highly profitable. OP3. The organization is achieving higher customer satisfaction OP4. The organization provides higher quality services. OP5. The organization is efficient in the use of resources. OP6. The organization is using internal quality-oriented processes. OP7. The organization responds faster to requests.	Ahmed <i>et al.</i> , 2015

Source: Own elaboration adapting the information of several authors.

The second stage consisted of holding a meeting with high-level banking executives that allowed them to carry out a structured and straightforward interview that would yield valuable data on their perception of knowledge management practices in the banking sector due to the availability of their time. For this, they were asked to weigh from 1 to 100 the variables presented in table 4 in such a way that the sum gave 100—considering that more value would be given to the activities they considered most important due to their impact on organizational development.

Table 4. Weighting of variables

	Variable	Weighing
Knowledge Management Practices	Knowledge creation	
	Accumulation of knowledge	
	Knowledge exchange	
	Use of knowledge	
	Knowledge internalization	
	Knowledge protection	
Total	100 points	

Source: Own elaboration.

## RESULTS

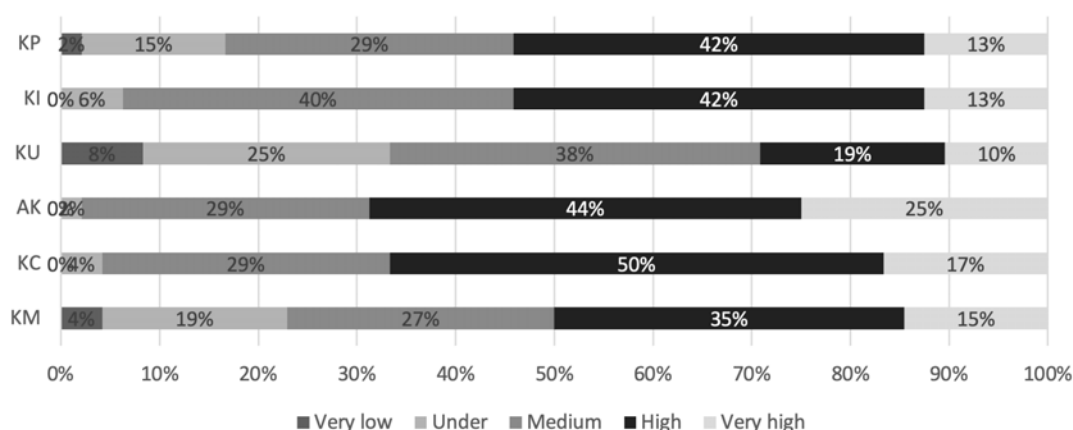
### *Results of the first stage*

Figure 2 presents the weighted results of the responses of the 48 executives regarding the knowledge management practices that they considered were

carried out within their company. It is observed that about knowledge protection practices, they considered that they are carried out almost entirely since the High category obtained 42% and the internalization of knowledge. Unlike the knowledge use practices, they are considered to be carried out at a medium level, which accounted for 38% of the total. Similarly, Alto is the highest for accumulation and creation of knowledge, with 44% and 50%, respectively.

Regarding the knowledge management variable in general, 35% answered that it was high, a sign that they are indeed being carried out, not entirely by the questions considered for its measurement, but mainly.

Figure 2. The weighting of knowledge management practices by executives



Source: Own elaboration.

When making the sum by level, it was obtained that the inclination is indeed positive, since for “Very low” it was 15%, for “Low” it was 71%, for “medium” it was 192%, for level 4 (High) 231% and level 5 (Very high) obtained 92%, which means that knowledge management practices are effectively being carried out within banking companies.

According to the variable value, the executives gave greater weight to the accumulation of knowledge with 69% between levels 4 and 5, followed by creating knowledge with 67%, which differs a bit from what was obtained in the following tests.

Linear regression was carried out, for which the exploratory factor analysis of the items considered to measure each variable was previously carried out together with the validity and reliability tests. The results are presented in Table 5.



Table 5. Validity and reliability tests

Variable	Indicator	Cronbach's Alpha	KMO & Barlett Test	Total variance explained	Factorial load
KM	KM1.	0,943	KMO 0,895 Chi-squared 370,758 gl 36 Sig. ,000	69.624 %	0,916
	KM2.				0,856
	KM3.				0,708
	KM4.				0,861
	KM5.				0,869
	KM6.				0,913
	KM7.				0,728
	KM8.				0,846
	KM9.				0,785
KC	KC1.	0,902	KMO 0,829 Chi-squared 178,962 gl 15 Sig. ,000	67.809 %	0,837
	KC2.				0,877
	KC3.				0,866
	KC4.				0,759
	KC5.				0,798
	KC6.				0,799
KA	KA1.	0,848	KMO 0,688 Chi-squared 64,336 gl 3 Sig. ,000	76.643 %	0,913
	KA2.				0,901
	KA3.				0,809
KE	KE1.	0,873	KMO 0,688 Chi-squared 83,912 gl 3 Sig. ,000	80.184 %	0,822
	KE2.				0,929
	KE3.				0,930
KU	KU1.	0,915	KMO 0,832 Chi-squared 183,884 gl 10 Sig. ,000	75.257 %	0,736
	KU2.				0,886
	KU3.				0,870
	KU4.				0,914
	KU5.				0,919
KI	KI1.	0,937	KMO 0,804 Chi-squared 174,072 gl 6 Sig. ,000	84.349 %	0,887
	KI2.				0,955
	KI3.				0,936
	KI4.				0,894
KP	KP1.	0,811	KMO 0,690 Chi-squared 76,244 gl 6 Sig. ,000	64.346 %	0,892
	KP2.				0,702
	KP3.				0,760
	KP4.				0,842
OP	OP1.	0,958	KMO 0,880 Chi-squared 379,237 gl 21 Sig. ,000	80.726 %	0,867
	OP2.				0,878
	OP3.				0,940
	OP4.				0,943
	OP5.				0,893
	OP6.				0,928
	OP7.				0,835

Source: Own elaboration.

Subsequently, the multiple linear regression was run, performing two models. Model one considered knowledge management a dependent variable and knowledge creation, accumulation, exchange, use, internalization, and protection as independent variables.

Model two considered organizational performance a dependent variable and knowledge management an independent variable. The results are observed in tables 6, 7, and 8.

For model 1, a corrected R squared of 0.768 was obtained, which means that the variables of creation explain knowledge management, use, accumulation, internalization, and protection of knowledge by 76.8%, being significant ( $<0.05$ ) the result obtained in the ANOVA test, and in the coefficients the significant variables were the creation of knowledge and the internalization of knowledge, with a beta of 0.554 and 0.210, respectively.

Model two explains that organizational performance is explained by knowledge management in 45.1%, being significant in the result of the ANOVA and a beta of 0.681.

Table 6. Multiple linear regression

Model	R	R square	R squared corrected	Standard error of the estimate
1	0,890	0,792	0,768	0,48198646
2	0,681	0,463	0,451	0,74062192

Source: Own elaboration.

Table 7. ANOVA

Model	Sum of squares	gl	Quadratic mean	F	Sig.
1 Regression	37,243	5	7,449	32,063	0,000
Residual	9,757	42	0,232		
Total	47,000	47			
2 Regression	21,768	1	21,768	39,685	0,000
Residual	25,232	46	0,549		
Total	47,000	47			

Source: Own elaboration.

Table 8. Coefficients

Model	Non-standardized coefficients		Typified coefficients	t	Sig.
	B	Standard error	Beta		
1 (Constant)	-1,000E-13	0,070		0,000	1,000
Knowledge creation	0,554	0,136	0,554	4,077	0,000
Accumulation of knowledge	-0,051	0,118	-0,051	-0,434	0,666
Knowledge utilization	0,136	0,113	0,136	1,201	0,237
Knowledge internalization	0,210	0,103	0,210	2,031	0,049
Knowledge protection	0,158	0,093	0,158	1,702	0,096
2 (Constant)	-1,000E-13	0,107		0,000	1,000
Knowledge management	0,681	0,108	0,681	6,300	0,000

Source: Own elaboration.

### Stage two results

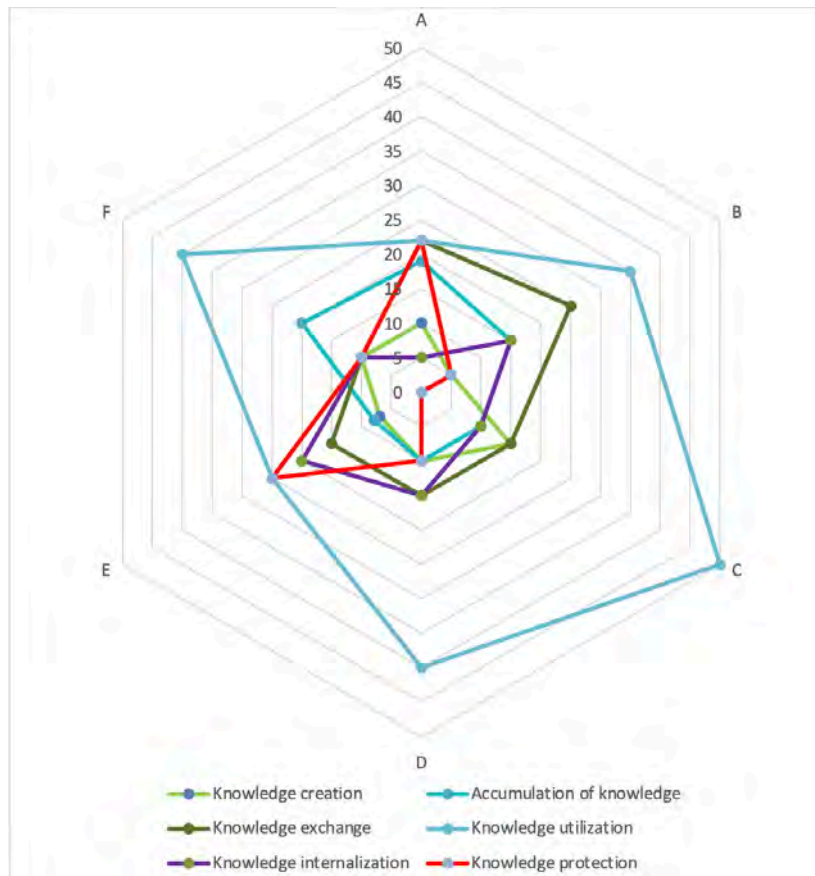
The stage 2 results are in table 9 and figure 3. For its elaboration, the sum of the points awarded per variable assigned by each interviewee. In this case, the CEOs gave greater weight to the use of knowledge, followed by the exchange of knowledge and, thirdly, its internalization.

Table 10. The weighting of knowledge management variables for bank CEOs

Variable	Points						Total
Knowledge creation	10	5	15	10	7	10	57
Accumulation of knowledge	19	15	10	10	8	20	82
Knowledge exchange	22	25	15	15	15	10	102
Knowledge utilization	22	35	50	40	25	40	212
Knowledge internalization	5	15	10	15	20	10	75
Knowledge protection	22	5	0	10	25	10	72
Total	100	100	100	100	100	100	

Source: Own elaboration.

Figure 3. The weighting of knowledge management variables for bank CEOs



Source: Own elaboration

The views between senior managers and executives are different; however, it is redeemable that even though they do not coincide, both recognize that knowledge management practices are carried out. To a greater or lesser extent, they are present.

## CONCLUSIONS

Technology, new reforms, and innovations are generating essential changes in financial systems, promoting new strategies that favor expanding and digitizing products and services to increase financial inclusion. However, one of the challenges is maintaining the stability of these systems, where knowledge management has become an indispensable factor for data analysis and its transformation into valuable information that allows to understand customers better and offer solutions to companies. Organizations must now learn to manage their intangible asset, "knowledge," on which their competitive advantage in the market increasingly depends. Diverse individual needs and achieves lifetime customer loyalty.

The proposed model contributes to the literature on the subject without omitting that this study has limitations. The study is descriptive, which means that, although there is an excellent theoretical basis for the research propositions, more extensive and in-depth empirical tests must be performed shortly to validate the model.

In addition, future researchers can expand this study through a comparative analysis of the sectors that best perform knowledge management in the financial industry in Mexico or comparative within the same banking brands. In addition, empirical studies can be undertaken to validate or identify the distinguishing factors of knowledge management in Mexico in the banking sector, cooperatives, or any type of organization and compare it with other countries to develop them.

In addition, it should be mentioned that this study was carried out before the COVID 19 pandemic began, so it would be essential to evaluate what changes this sector experienced and how technologies in a certain way cushioned all the changes and restrictions established to monitor the safety of the employees and customers.

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