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# CAN GENDER BE A DETERMINANT OF ORGANIZATIONAL PERFORMANCE AND KNOWLEDGE SHARING IN PUBLIC SECTOR ORGANIZATIONS?

¿PUEDE SER EL GÉNERO UN DETERMINANTE DEL DESEMPEÑO ORGANIZACIONAL Y DEL INTERCAMBIO DE CONOCIMIENTO EN ORGANIZACIONES DEL SECTOR PÚBLICO?

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## ABSTRACT

The objective of this scientific article is to determine if gender affects the relationship between organizational performance and knowledge sharing in public sector organizations. Based on the literature review and drawing from the theoretical perspective of a resource-based view, the research hypotheses were formulated. Through a cross-sectional study, of ten Mexican organizations from the public sector and through the perception of 239 public servants, these hypotheses were tested. A linear regression analysis was performed. The results confirm the importance of gender as a determinant variable in the management and administration of the organizations. This research also shows that the intervening management of valuable resources (knowledge) helps to generate strategies (organizational performance) that have no cost for public sector organizations.

## KEYWORDS

Gender, Differences in sex, Knowledge, Organizational Performance, Resources.

## RESUMEN

El objetivo de este artículo científico es determinar si el género afecta la relación entre el desempeño organizacional y el conocimiento compartido en organizaciones del sector público. Con base en la revisión de literatura y mediante la Teoría de Recursos y capacidades, las hipótesis fueron formuladas. A través de un estudio transeccional, con diez organizaciones del sector público y mediante la percepción de 239 servidores públicos, las hipótesis fueron probadas. Un análisis de regresión lineal fue desarrollado. Los resultados confirman la importancia del género como una variable determinante en la administración y gestión de las organizaciones. Esta investigación también muestra que la gestión adecuada de recursos valiosos tales como el conocimiento, ayuda a generar estrategias (desempeño organizacional) que no tienen ningún costo para las organizaciones del sector público.

## PALABRAS CLAVE

Género, Diferencias en sexo, Conocimiento, Desempeño organizacional, Recursos.

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## INTRODUCTION

The economy of knowledge is turning the intellectual and intangible assets of organizations into a drive to generate value (Kumar & Kaushik, 2008). Specifically, knowledge is a fundamental asset in any economy. If knowledge is created, applied and used, it will be a key factor in the competitiveness of nations and also in organizations.

Therefore, the economy of knowledge focuses on creating competitive advantages, that is, organizational efficiency based on knowledge and its application in the various areas of organizations (Montuschi, 2000). In addition, in a knowledge economy, the processes of social appropriation of knowledge are considered a public good that when shared, disseminated and applied, allows organizations to respond to the opportunities and challenges that the environment offers them (Stiglitz, 1998).

It is even considered that knowledge is a key determinant of organizational performance, innovative ideas and team effectiveness, and is the highest capability of the organization (Ryan & O'Connor, 2013; Balogun, 2014; Potra, Bacali, & Baban, 2016; Barney, 1991; Grant, 1991; Teece, Pisano, & Shuen, 1997). Public sector organizations are constantly confronted with various challenges arising from the internal and external environment, such as budget cuts, scarce resources, and therefore require strategies for efficient administrative functioning and a public management that responds to and that addresses social, political and economic spaces (Uvalle, 2004), without implying an increase in the economic expenses of organizations.

Public sector organizations require the standardization of administrative processes; with a high level of attention to citizenship and an adequate quality of service (GEM, 2011; GEM, 2012). For the above, it requires public servants who can attend to the changing reality and have an attitude of service. Public servants are a necessary and fundamental condition for a government to be effective and efficient, for which they are required to have the necessary skills (GEM, 2011).

The skills required derive (mostly) from knowledge and learning that public servants can acquire within their own organizations. Therefore, the objective of knowledge management will be to discover, capture, encode, validate, transfer and convert knowledge that can help the organization to be more efficient; moreover, it stresses the importance of the mix between human creativity and information to achieve organizational performance (Calabrese, 2006; Potra, Bacali, & Baban, 2016). In addition to the above, it is essential to recognize that other intangible resources, such as the variable gender, can determine management and administration in organizations. In the last thirty years there has been a great international advance in studies on gender relations in organizations in general and in management in particular (Broadbridge & Hearn, 2008). However, less attention was paid to the incidence of gender in the relationship between knowledge sharing and organizational performance (Balogun, 2014).

The main approach of the "resource-based view" is that the efficiency, growth, and competitive advantage of organizations (Daft, 1995) derives from the potential

of internal resources (Penrose, 1959; Wernerfelt, 1984), as well as organizational capabilities when they are valuable, rare, imperfectly imitable and non-substitutable (Barney, 1991; Grant, 1991; Teece, Pisano, & Shuen, 1997; Eisenhardt & Martin, 2000).

Those resources that can be tangible and intangible (Barney, Wright, & Ketchen, 2001) and the organizational capabilities form a stage from which, when strategically managed, organizations can generate other capabilities (Eisenhardt & Martin, 2000) that permit and generate value and contribute to the performance of the organization (Bharadwaj, 2000; Tippins & Sohi, 2003; Conner & Prahalad, 1996; Chen & Huang, 2007; Fijalkowska, 2008; Ho, Kuo, & Lin, 2012; Davenport & Prusak, 1998; Diez-Pérez, Sáiz-Bárcena, Manzanedo, & Rodríguez-Monroy, 2014).

Therefore, a positive relationship between knowledge (intangible resource) and performance (organizational capabilities) is evident (Barney, 1991). That is, it is expected that the knowledge, when managed, will imply organizational performance and productivity, as well as organizational efficiency and effectiveness (Barney, 1991).

The theoretical perspective of this resource-based view, and concretely the knowledge based view of the firm that studies the different perspectives and stages that involve the use of the knowledge like strategic and intangible resource that gives rise, among others, to organizational variables like efficiency; and that consists in the determination of the characteristics of knowledge that entail important implications for the direction of the organization (Kogut & Zander, 1992; Grant, 1996). In order to predict the phenomenon of the research, this study will make use and rely on this theoretical axis to answer the research questions: Can gender be a determinant variable of organizational performance and knowledge sharing in public sector organizations in the government of the State of Mexico? Does knowledge sharing influence organizational performance?

This study contributes to current knowledge by establishing that sex is a variable that affects the relationship between knowledge sharing and organizational performance. That is, that knowledge sharing has a positive influence on the performance of organizations. However, when the organization is made up of men, knowledge sharing influences organizational performance to a greater extent in public sector, governmental organizations in the State of Mexico.

The rest of this document is organized as follows: First, a review of the relevant literature is presented with the objective of exposing the argument that leads to the assumption that gender affects the intangible resources of organizations, and secondly, that knowledge sharing influences organizational performance. Later in the study, the investigation hypotheses are established, followed by the method and the statistical results. This document concludes with a discussion of the findings and limitations of the investigation.

## REVIEW OF LITERATURE AND HYPOTHESES

Although the literature review has found individual, organizational, technological and social factors (Cho, Li, & Su, 2005; Lin, 2007; Kim & Lee, 2006), which

affect both organizational performance and the willingness of a member of an organization to share knowledge, no studies have been found that analyze whether sex is a factor that affects the relationship between knowledge sharing and organizational performance.

*Sex and gender in the management and administration of organizations*

The cultural and historical character of the gender category is widely accepted today, with a more essentialist place reserved for the category of sex. In other words, it is social inequalities (gender) that interpret and explain biological differences (sex) in a certain way, that is, the concept of sex can be defined as male and female characters (biological differences) of human beings (Esteban, 2006; Parga, 2013; Carranza, 2002).

There are two sexes that are attributed, in most societies, two genders with opposite characteristics that define what it is to be a woman and what it is to be a man (Carranza, 2002). Although this investigation does not place an emphasis on the cultural, ideological and symbolic conditioning that each society imposes on its members, it is important to comment that the study corresponds to the sex variable, but not forgetting that the concept is implicit in the concept of gender, which include the psychological, social and cultural differences between men and women that are learned among societies, and change over time (Pavlic, Ruprecht, & Sam-Vargas, 2000; Claes, 1999). Therefore, gender represents an important aspect of social organization (Jackson, 2006).

Gender and gender power relations are fundamental characteristics in the management and administration of most organizations, that is to say, they are not only gender-structured but impregnated and constituted through gender (Broadbridge & Hearn, 2008).

Indeed, the interaction between men and women within the organizational environment is very common and affects the functions and development of the organization (Alborch, 2002). As Gallego (1994) establishes, there exists a symbolic discrimination against women in the workplace that constrain opportunities for them to reach the level at which men find themselves. This creates a kind of glass ceiling that represents all of the organizational obstacles that inhibit the equal participation and the lack of value attributed to women within those organizations.

The perception of symbolic discrimination and inequality leads female employees to identify differences between work partners of both sexes, while competing against the other members of the organization (men and women indistinctly). This rivalry is based on the following elements: 1) Access to resources, as women perceive men to have an excess surplus valuation and seek to over qualify and to claim power; 2) Power of friends, considers that the female sex is more competitive that the male, and within organizations women compete against coworkers of both sexes with the goal of attracting attention, and 3) The social models that stablish that a woman has been socialized in such a way that power is not one of her goals (Gallego, 1994; Alborch, 2002; García, 2002).

Therefore, the perception of inequality by female employees leads them to look for ways to obtain an advantage over their male and female coworkers (competitors). This situation constrains the willingness to share knowledge and affects overall organizational performance (Alborch, 2002; García, 2002). According to Meier, O'Toole, & Goerdel (2006) there is no doubt that gender influences the impact of management activities on organizational development.

### ORGANIZATIONAL PERFORMANCE

It is clear that the way an organization manages people impacts and influences organizational performance (Delaney & Huselid, 1996), and it has even been widely accepted that people are the preeminent organizational resource, key to achieving outstanding results (Peters & Waterman, 1982; Pfeffer, 1994, Delaney & Huselid 1996).

Organizational performance has several definitions, such as efficiency, effectiveness, financial results, and employee satisfaction (Gopalakrishnan, 2000). The research indicates organizational performance as an adjunct objective measure of performance. Both have a significant correlation with objective measures of financial performance (Hansen & Wernerfelt, 1989; Lyles & Salk 1997; Bontis, Crossan, & Hulland 2002). However, this study analyzes the organizational performance from internal factors, that is, with objective measures of organizational performance. It should be noted that this performance will determine the degree to which an organization achieves its goals and objectives (Daft, 1995), with the finality of influencing in the same way the satisfaction of users (internal and external), and the satisfaction of the needs of other agencies that make use of the services of the organization in the fulfillment of the expected expectations, the proposed goals, and the performance objectives (Bontis et al., 2002; Delaney & Huselid 1996; Olson, Slater, Tomas, & Hult, 2005).

#### *Knowledge sharing*

When organizations have the ability to create, transfer, assemble, integrate and exploit knowledge, the organization is said to manage knowledge (Inkpen, 2000).

Managing the stock of knowledge in an organization that flows over time is called knowledge management (Kogut & Zander, 1992; Nonaka, 1994; Nonaka & Takeuchi, 1995). This knowledge management is comprised of several activities, such as sharing individual knowledge and its impact on the organization, and the transfer of knowledge outside the organization with its stakeholders (Rodríguez & Hernández, 2008).

Knowledge management is based on four key elements: leadership, organization, technology and learning. Within learning, an essential variable is knowledge sharing (Calabrese & Orlando, 2006).

Knowledge sharing is a conscious and voluntary act by which an individual participates in the knowledge sharing even though he or she is not obliged to do so (Davenport & Prusak, 1998).

In order to increase the added value of the organization's products or services, shared knowledge refers to the flow and dispersion of knowledge among people (Chen & Huang, 2007; Wensley, Cegarra-Navarro, Cepeda-Carrión, & Leal, 2011; Fard & Selseleh, 2010).

Knowledge sharing refers to the action of making available to others the knowledge that an individual has, so that it can be assimilated and used by them. It is considered that the process of generating knowledge value resides in people and their participation in the processes of knowledge sharing will be a key element in the creation of new knowledge; because if they are not willing to externalize their knowledge and integrate those of other individuals and units, the knowledge creation process will not be effective (Camelo, García, & Sousa, 2010).

Knowledge sharing is one of the most important interactive processes of the human being and is the basis for an organization to progress and even have organizational performance. It is even considered that if knowledge is not shared, the creation of new knowledge is limited (Moon & Park, 2002).

Specifically, literature supports the importance of knowledge sharing among organizational members for organizational performance (Lin, 2007; Huang, Davison & Gu, 2008). In fact, it is still a challenge in the research to determine how, in organizations, it can be facilitated so that employees decide to share their knowledge in order to increase organizational performance (Cho, Li, & Su, 2007).

#### *Knowledge sharing and organizational performance*

To date, there have been numerous studies that have identified relationships between intangible resources in organizations. Specifically, several studies have shown the linkage between knowledge and organizational performance (Bontis et al., 2002; Bharadwaj, 2000). The relationship between knowledge management and organizational performance is implicit in the understanding that knowledge sharing and knowledge accumulation are necessary in order to arrive at better organizational performance (McEvily & Chakravarthy, 2002; Bontis et al., 2002). In fact, empirical studies have found evidence of the direct impact of knowledge on performance, i.e., knowledge leads to higher organizational performance and, therefore, to organizational productivity (Darroch, 2005; Tanriverdi, 2005; Decarolis & Deeds, 1999; Bharadjaw, 2000; Choi & Lee, 2003).

Drawing on the arguments above, the following hypotheses are proposed:

- H1.** Gender affects the relationship between knowledge sharing and organizational performance.
- H2.** Knowledge sharing influences organizational performance.

## METHOD

### *Research design*

The focus of this research study is quantitative; with a non-experimental, cross-sectional and descriptive-correlational scope. This study first examined the incidence of gender and its relationship between knowledge sharing and

organizational performance; second, the degree of association and the effect of knowledge sharing on organizational performance in public sector organizations in the government of the State of Mexico.

The data was collected through the application of a written and self-administered instrument. The application of the questionnaire was carried out for two months in 2016. The confidentiality and the anonymity of the participants were guaranteed.

#### *Participants*

In order to meet the objective, questions are answered in order to prove or disprove the research hypotheses. This empirical study carried out a non-probabilistic sampling process, sampling was for convenience (voluntary subjects) in ten public sector organizations in the government of the State of Mexico. The sample was comprised of 239 employees and managers who answered the questionnaire. The unit of analysis was managers, middle managers and operational personnel.

Regarding the characterization of the respondents, 49% of the were women. The largest number of respondents ranged in age from 30 to 39 years (30%). 20% of the respondents were young staff (20 to 29 years old) and one respondent was over 70 years old.

With respect to the job hierarchy (position), 21% were middle management and managers, and the majority of respondents (78%) were operational personnel.

In terms of seniority in the institution, the highest percentage (37%) were newcomers to the organization, that is, had less than five years in the organization. 16% from six to 10 years. The sample had a similar percentage (10%) of staff who had 11 to 15 years and 16 to 20 years of seniority. It is noteworthy that 5% had more than 30 years in the organization.

Regarding the type of employment contract, 57% were personnel with a definitive contract.

In relation to the degree of studies or schooling, 8% were nonprofessionals, 24% had a technical career, 56% had a bachelor's degree, 10% had master's degrees, and 12% of respondents said they were currently studying in a postgraduate study (master's degree). Less than 1% had a doctoral degree.

Finally, most respondents said they did not participate in any performance-enhancing program (65%).

#### *Procedure and measures*

The data was collected through the application of a written and a self-administered instrument, developed from the theoretical contributions of several authors. The dependent variable "organizational performance" was based on Bontis et al. (2002), Delaney & Huselid (1996) and Olson et al. (2005).

Regarding the independent variable, "knowledge sharing," was constructed from the theoretical basis of Chen & Huang (2007), Lin (2007), Wensley et al. (2011), Fard & Selseleh (2010), Kamasak & Bulutlar (2009) and Camelo et al. (2010).

The questions were formulated based on the context in which it is possible to observe the phenomenon of the research (organizations in the public sector within the government of the State of Mexico).

The instrument was organized into two sections: the first contains demographic and organizational data, while the second contains the two research study variables: knowledge sharing and organizational performance.

To improve the quality and measurement accuracy of the questionnaire, a content validation was submitted by experts, who gave their suggestions and contributions to be incorporated.

Individuals used a scale ranging from 1, “strongly agree,” to 6, “strongly disagree,” to assess the extent to which they agreed with the statements in each scale.

To determine the reliability and validity of the measurement instrument, two statistical tests were performed. First, the test was run to validate the internal consistency of the variables through Cronbach’s alpha; the knowledge sharing presented an adequate reliability (.95), and the organizational performance presented a Cronbach’s alpha of .96. Second, an exploratory factor analysis was performed, where the Kaiser-Meyer-Oklin (KMO) sample adequacy index was calculated. This statistic is evaluated within a range of 0 and 1; this study reports a KMO = .953. Bartlett’s sphericity test, which contrasts the null hypothesis that the correlation matrix is an identity matrix, resulted in a significant test of  $p = 0.00$ ; which allowed for an adequate sample. The factorial structures obtained considered two factors, with all variable loads or saturation higher than 0.5, criterion from which they are considered acceptable (Castañeda, Cabrera, Navarro & DeVries, 2010); and an explained variance of 74.96%. This indicates that the internal consistency indexes and those of the exploratory factor analysis were adequate. The exploratory factor analysis yielded two components as can be seen in Table 1.

Table 1. Matrix of rotated components

Items	Components	
	(1) Organizational performance	(2) Knowledge sharing
@19	.837	
@18	.834	
@16	.822	
@14	.799	
@15	.784	
@21	.754	.430
@17	.749	
@11		.887
@13		.872
@5		.836
@4		.770
@8		.757
@6		.725
@2		.627
@7		.612
@3		.588
@20	.547	.583
@1		.567
@12		.567
@10		.553
@9		.543

Extraction method: Principal Component Analysis. Rotation method with Kaiser normalization

Source: Formulated by the authors.

In order to increase the added value of the organization's products or services, shared knowledge (independent variable) refers to the flow and dispersion of knowledge among people (Chen & Huang, 2007; Wensley, et al., 2011; Fard & Selseleh, 2010). The knowledge sharing refers to the action of making available to others the knowledge that one has, so that it can be assimilated and used by others. It is considered that the process generating added value to knowledge resides in the people and their participation in the processes of knowledge sharing which will be a key element in the creation of new knowledge. This is because if they are not willing to externalize their knowledge and integrate that of other individuals and entities,

the process of knowledge creation will not be effective (Camelo et al., 2010). This variable was measured with 13 items. The description of the variables can be found in Appendix 1.

The dependent variable (organizational performance) is an adjuvant to objective measures of performance and has a significant correlation to objective measures of financial performance (Hansen & Wernerfelt, 1989; Lyies & Saik, 1997; Bontis et al., 2002). This study analyzes the organizational performance from the internal factors, that is, with objective measures of organizational performance. It should be noted that this performance will affect the degree to which an organization achieves its goals and objectives (Daft, 1995) in order to have the same effect on the satisfaction of users (internal and external), in the satisfaction of the needs of other dependencies that make use of the services of the organization, and in the fulfillment of the expected expectations, the proposed goals and the performance objectives (Bontis et al., 2002; Delaney & Huselid, 1996; Olson Et al., 2005). This variable was measured with eight items. The description of the variables can be found in Appendix 1.

#### *Analysis*

Pearson's correlation was used to determine the relationship between the variables under study. Linear regression analysis was carried out to determine the predictive effect of knowledge sharing on organizational performance.

The statistical data were processed using a commercial statistical package.

## RESULTS

### *Analysis of normality, linearity, independence, heteroscedasticity and multicollinearity*

As observed in Table 2, when the normality assumption was verified by the values of asymmetry and skewness, the values were between  $\pm 2$  (Pérez, 2008). With the values of asymmetry and skewness it is verified that the variables (knowledge sharing and organizational performance) are distributed in a normal way.

Table 2. Normality

Variables	Asimetry	Skewness
Knowledge sharing (X)	-.220	.003
Organizational Performance (Y)	-.582	.653

Source: Formulated by the authors.

The assumption of linearity and heteroscedasticity were evaluated by plotting the residuals (Levine, Krehbiel, & Berenson, 2006) against the independent variable: no apparent pattern was observed. In Table 3 it can be seen that the value of the significance of the relation between the independent variable (knowledge sharing)

and the dependent variable (organizational performance) is below .01, corresponding to the 99% confidence level. Therefore, it is also determined that the relationship between the dependent variable and the independent variable is linear.

For the independence assumption, it is considered that when data are collected at a single point in time, this assumption is not violated (Levine, Krehbiel, & Berenson, 2006).

The value of the FIV (Inflation Factor of Variance) shows values below three and the tolerance shown (0.99) for the independent variable is at an approved level (Martín, Cabero, & De Paz, 2008). In addition, the condition index (7.87) was less than 20 (Belsley, Kuh & Welsch, 1980; Belsley, 1982). Therefore, there is no presence of multicollinearity or correlation between the representative independent variables in the regression model.

#### ***Association between knowledge sharing and organizational performance***

In order to prove the association between knowledge sharing and organizational performance, in organizations of the public sector in the government of the State of Mexico, a bivariate correlation analysis was performed.

Table 3 reports the bivariate correlation analysis for the variables used in this study. The correlation between the variables was high ( $r = .765$ ,  $p < 0.01$ ). The correlation was statistically significant. This result supports hypothesis number two.

As can be seen in table 3, the participants consider a better organizational performance (mean = 4.09, s.d. = 1.06) than a knowledge sharing (mean = 3.95, s.d. = 1.00), although the consensus is higher in this variable.

Table 3. Descriptive statistics, correlations and reliability coefficient

	Mean	s.d.	1	2
1. Knowledge sharing	3.95	1.00	(0.95)	0.765**
2. Organizational performance	4.09	1.06	0.765**	(0.96)

Note: \*\*The correlation is significant at the 0.01 level (bilateral). The reliability indices appear in parentheses.

Source: Formulated by the authors.

#### **THE EFFECT OF KNOWLEDGE SHARING ON ORGANIZATIONAL PERFORMANCE**

To prove or disprove hypothesis 2, regarding the positive effect of knowledge sharing (IV) on organizational performance (DV), a statistical analysis of linear regression was performed. See Table 4. The model was significant ( $p < 0.00$ ;  $R^2 = .583$ ).

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Table 4. Linear regression analysis

Knowledge sharing (IV) Organizational performance (DV)	
R <sup>2</sup>	.585
R <sup>2</sup> adjusted	.583
Anova F	322.49**
Note: **p < 0.01.	

Source: Formulated by the authors.

As shown in Table 4, the knowledge sharing had an effect of almost 60% on organizational performance ( $R^2 = 0.583$ ), in addition to being a statistically significant model ( $F = 322.49$ ,  $p < 0.01$ ). This indicates that the variable knowledge sharing contributes to explaining about 60% of the variability of organizational performance. These data support the hypothesis number two.

*Does gender affect the relationship between knowledge sharing and organizational performance?*

To test or disprove hypothesis one, two models were developed with the sample of women and men separately, in order to identify if the coefficient of determination ( $R^2$ ) varied from sample to sample.

As shown in Table 5,  $R^2$  is higher when the sample is formed by males.

Table 5. Linear regression analysis by gender<sup>a</sup>

Knowledge sharing (IV)			
Male		Female	
R <sup>2</sup>	.668	R <sup>2</sup>	.510
R <sup>2</sup> adjusted	.665	R <sup>2</sup> adjusted	.505
Anova F	225.62**	Anova F	118.53**
<sup>a</sup> Gender was coded as 1 for male and 2 for female participants.			
Note: **p < 0.01.			

Source: Formulated by the authors.

When organizations are made up of men, the knowledge sharing had an effect of almost 67% on organizational performance ( $R^2 = 0.665$ ), in addition to being a statistically significant model ( $F = 225.62$ ,  $p < 0.01$ ). This indicates that the variable knowledge sharing contributes to explain 67% of the variability of organizational performance.

When organizations are made up of women, knowledge sharing had a 50% effect on organizational performance ( $R^2 = 0.505$ ), in addition to being a statistically significant model ( $F = 118.53$ ,  $p < 0.01$ ). This indicates that the variable knowledge sharing contributes to explain 50% of the variability of organizational performance. This supports the hypothesis number 1.

## DISCUSSION

Empirical studies have found evidence of the direct impact of knowledge on performance, i.e., knowledge leads to higher organizational performance and, therefore, to organizational productivity (Darroch, 2005; Tanriverdi, 2005; Decarolis & Deeds, 1999; Bharadjaw, 2000; Choi & Lee, 2003); furthermore, empirical studies postulate that knowledge sharing and knowledge accumulation are necessary to result in better organizational performance (McEvily & Chakravarthy, 2002; Bontis et al., 2002). Thus, the purpose of these several studies was to investigate the factors that affect knowledge sharing in a public-sector organization (Titi, 2013; Kidder, 2002).

Several studies have focused on the research of organizational resource relationships as determinants of knowledge sharing. However, in the literature review, no studies were found that measured the incidence of gender in the relationship between knowledge sharing and organizational performance which researched their relationship with organizational performance with the gender variable as a consideration.

The aim of the investigation was to determine, first, if gender is a variable that affects the relationship between knowledge sharing and organizational performance, and secondly, to determine the degree of association and the effect of knowledge sharing in organizational performance in organizations from the public sector in the government of the State of Mexico.

Knowledge sharing can be one of the main foundational bases that generates value, efficiency, effectiveness and organizational performance. However, the effects of this intangible are different when the organizations are made up of men or women.

According to Meier, O'Toole, & Goerdel (2006), Kidder (2002), and Taylor (2017), this study found that gender influences the impact of management activities on organizational development. First, it was found that when organizations consist of men, the variable knowledge sharing contributes to explain 67% of the variability of organizational performance. Second, when the organizations consist of women, the variable knowledge sharing contributes to explain 50% of the variability of organizational performance.

This means a difference of almost 20% in the variability of organizational performance explained by knowledge sharing when organizations are made up of women or men.

Regarding the relationship between knowledge sharing and organizational performance, a high association ( $r = .765$ ,  $p < 0.01$ ) was found between knowledge

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sharing and organizational performance; likewise, an effect of almost 60% was found, explained by the linear regression model. This indicates that 60% of the knowledge sharing variability is explained by organizational performance. Therefore, middle managers, managers and operational level employees will increase organizational performance as long as a process of knowledge sharing takes place.

From the theoretical perspective of a resource-based view, what generates value to the organization, in addition to its intangible resources, are the capabilities that derive from the management, and they can intervene to achieve effective organizational results. That is, knowledge sharing, being an intangible, inimitable, valuable, unique and irreplaceable resource by other organizations, allows for the development of other internal capabilities with which it is also possible to generate organizational performance.

Therefore, this study also allowed for the ability to prove the theoretical foundation (resource-based view) on which the document was based.

## **CONCLUSIONS AND LIMITATIONS OF THE STUDY**

Our findings elucidate the influence of knowledge sharing on organizational performance through demonstrating that knowledge sharing had an effect on organizational performance in public organizations in an emergent economy. This contribution is due to the fact that organizations which are part of emergent economies (like that of Mexico), face institutional limitations associated with a myriad of restrictive factors that affect their strategies and structures. Complex value systems, corruption, nepotism, and the recalcitrant bureaucracies common in Latin American countries are among such limitations (Nicholls-Nixon, Davila, Sanchez & Rivera, 2011; Vassolo, De Castro, & Gomez-Mejia, 2011). These limitations, including gender elements (Taylor, 2017; Meier, O'Toole, & Goerdel, 2006; Kidder, 2002) have an influence on the type of resources that organizations can utilize and generate in order to improve their results (Khanna & Palepu, 2010). Based on this argument, it is possible to speculate that regardless of these limitations, organizational variables that may be influenced by knowledge variables generate positive results in these organizations, and which have been neglected in knowledge-sharing research.

Also, this study highlights the incidence of gender in the relationship between knowledge sharing and organizational performance. Our findings elucidate the symbolic discrimination against women in the workplace that constrain their opportunities to reach the level at which men find themselves, or even that of other women from their competitors. For this reason, women decide to share less knowledge in order to continue with some advantages of knowledge with respect to their peers.

Although it is known that the advancement of women in organizations can be influenced by individual, organizational, social and systemic factors (Fagenson, 1990), it can also be said that sex and gender power relationships are key features in the management and administration of most organizations (Broadbridge & Hearn,

2008). From a broader theoretical perspective, these findings enhance the analytical value of knowledge sharing of public organizations in emergent economies.

This study concludes that gender determines the effect of an intangible asset (knowledge sharing) and its influence on the performance of organizations. That is, if the organizations were made up of men only, then knowledge sharing positively affects organizational performance by 20% more than when organizations are made up of women.

Based on the above, practical implications make it possible to identify factors that influence knowledge sharing. With this knowledge, practitioners could create a knowledge-sharing culture, an organizational culture and an organizational social interaction that is needed to support knowledge sharing and therefore knowledge management within public sector organizations. In the same way, the results of this study provide positive evidence regarding the influence of gender on organizational performance, factors that practitioners should take into consideration.

Organizations need to recognize diversity and gender differences in their knowledge management strategies, as an intrinsic disadvantage is likely to occur if these factors are not taken into consideration. This could be to the detriment of the organizational performance.

However, the challenge of future research is to determine what other intangibles would positively increase organizational performance and which positively impact women in order to improve organizational performance. The foregoing is made with the purpose of allowing intangible resources to affect the satisfaction of users (internal and external), and in the same way, in meeting the needs of other departments that make use of the services of the organization, in compliance with expectations, proposed goals, and performance objectives, regardless of gender.

In the same manner, this study demonstrates how important knowledge sharing can be as a fundamental factor to achieving performance in organizations. Public sector organizations are facing various challenges arising from the internal and external environment, such as budget cuts, scarce resources. As such, we should consider the application and management of intangible resources that do not imply an increase in expense to organizations.

This study has limitations worthy of mention. The first of these is the sample size (relatively small), which suggests careful consideration of the conclusions. Likewise, the findings should be interpreted carefully in terms of their generalization made to other contexts, since the study of organizational variables (as presented here) requires longitudinal and non-cross-sectional investigation designs. In addition, we suggest the replication of this study in other private sector organizations, as the relationships could differ in other sectors as well as even in other countries.

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## APPENDIX 1. DESCRIPTION OF THE VARIABLES

### Knowledge sharing

1. In my organization knowledge is shared among co-workers.
2. I consider that when information is required in my organization, it is usually received on time.
3. I believe that knowledge is shared throughout different public organizations.
4. I believe that employees share the same goal to which they feel committed.
5. In my organization knowledge is shared between employees and middle managers and managers.
6. I consider that the members of my organization share knowledge and experience when speaking with each of their colleagues.
7. I consider that among the various areas of work within my organization, there is usually an adequate knowledge flow.
8. When I have learned something new, I try to get my co-workers to learn it too.
9. When I ask my co-workers something, they usually share their skills with me.
10. When I ask my co-workers something, they usually tell me what they know.
11. When my coworkers ask me for information, I usually share it with them.
12. We use social software and communication tools that support the collection of information and knowledge in our organization.
13. When my co-workers ask for it, I share my skills with them.

### Organizational Performance

14. In general, my organization is highly responsive to the needs of its users (internal and external).
15. In general, the needs of other dependencies that make use of the services of my organization are met in high measure.
16. Last year, my organization's overall performance met my expectations.
17. It is generally considered that middle managers and managers are satisfied with the overall performance of the organization.
18. It is generally considered that the organization satisfactorily completes the proposed goals.
19. In general, within different areas of work, performance objectives are met.
20. Usually, the individuals who work here feel happy.
21. Do you consider that in the future, your organization's performance will be safe and efficient?

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