

ORGANIZATIONAL PERFORMANCE: THE MEDIATING EFFECT OF THE KNOWLEDGE SHARING

DESEMPEÑO ORGANIZACIONAL: EL EFECTO MEDIADOR DEL INTERCAMBIO DEL CONOCIMIENTO

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Abstract

The aim of this scientific paper is to determine the extent to which knowledge sharing mediates the relationship between knowledge donating and organizational performance. Based on literature review and relying on the theoretical perspective "Knowledge Based View" the research hypotheses were formulated. Through a transactional study and with Mexican organizations of the Public sector through the perception of 239 public servants the hypotheses were supported. A multivariate analysis (SEM) was performed. The results of this research confirm that knowledge collecting influences knowledge sharing only when it is related to knowledge donating, and confirm that knowledge sharing is a mediating variable between knowledge donating

and organizational performance. This research leads us to prove that in the public sector organizations the strategic direction of organizations must be reoriented towards their internal resources as the source of organizational effectiveness.

Key words: Organizational performance, Knowledge, Public sector.

Resumen

El objetivo de este artículo científico es determinar en qué medida el intercambio de conocimiento media la relación entre la donación del conocimiento y el desempeño organizacional. Con base en la revisión de literatura y confiando en lo establecido por la perspectiva teórica del Recurso Basado en el Conocimiento se formularon las hipótesis de investigación. A través de un estudio transeccional y con organizaciones mexicanas del sector público mediante la percepción de 239 servidores públicos se soportaron las hipótesis planteadas. Se realizó un análisis multivariante (SEM). Los resultados de esta investigación confirman que la recolección del conocimiento influye en el intercambio de conocimiento solamente cuando se relaciona con la donación de conocimiento; además de que el intercambio de conocimiento es una variable mediadora entre la donación del conocimiento y el desempeño organizacional. Esta investigación nos lleva a demostrar que en las organizaciones del sector público la dirección estratégica de las organizaciones debe ser reorientada hacia sus recursos internos como fuente de eficacia organizacional.

Palabras clave: Desempeño organizacional, Conocimiento, Sector público.

INTRODUCTION

In 1945, Friedrich Hayek published an article entitled "The Use of Knowledge in Society" which stated that the allocation of available resources in the economy should be based on knowledge. It should be noted that Alfred Marshall argued that knowledge is the most important factor of production. Concretely, Marshall introduced organizational activity as the fourth factor of production (Marshall, 1890, quoted by Sanidas, 2005). It is also possible to find similar, perhaps not so obvious, arguments by Adam Smith regarding the importance of knowledge in economics being that he embarked the issue of knowledge production.

The transition from an industrial to a knowledge-based economy has generated changes in organizational theory. An example of this is that people who work with physical objects differ from those who do with intangible objects, the latter being the knowledge workers (Romer, 1998). From the point of view of a knowledge society, in a knowledge-based organization, employees are the most important resource and not the tools used to create and disseminate knowledge (Mahesh & Suresh, 2009).

From an organizational perspective, it is considered that the sharing knowledge is essential to maintain organizational effectiveness as long as the organization has so-called knowledge workers. In other words, knowledge is the most important resource and its creation, dissemination and use are the keys to successful organizational performance.

Therefore, the most prominent feature of intangible resources, and specifically of knowledge, in comparison to physical or tangible resources, is that they arise from human interaction. Knowledge is created by people in their interactions with others and with the environment (Nonaka, 1994; Nonaka & Takeuchi, 1995). Human beings gain new knowledge from subjective conformation and integration of experience (Aristoteles, 2007). Thus, knowledge, which resides in an individual, is amplified in organizational knowledge through an interactive process, defined by fundamental elements such as the relationship that its members have with their immediate bosses or with their own partners (Sirgy, Efraty, Siegel & Lee, 2001), and it is through the collecting, donating or sharing of knowledge that the employees of knowledge take care of potentiating it or diminishing its advantages within the organization (Lin, 2007; De Vries et al., 2006; Dysvik, Buch & Kuvass, 2013).

Therefore, organizational knowledge is created, among other factors, through the synthesis and analysis of knowledge that emanates from the different points of view of the people that make up an organization, and it is possible to create it through its collecting, donating and sharing. Knowledge is the intangible part of the organization that gives value to it. The most valuable intangible assets are those based on the knowledge, skills and attitudes of workers, which symbolizes a systematic attempt to achieve the objectives of the organization (Ordoñez de Pablos, 2001).

In addition to the above, it is essential to recognize that the organization is an institution of the application of knowledge, and requires achieving the integration of the knowledge of each person with that of others; though its acquisition is individual, the organization must provide the incentives and the direction necessary to carry out such integration, that is, for its collecting, for its donation and for its sharing. Knowledge management, therefore, implies that an organization is capable of generating new knowledge, thus striving for the organization to become a community specialized in the creation and internal transmission of knowledge (Kogut & Zander, 1992). Hence the importance of identifying what happens with the knowledge donating and knowledge collecting, as well as with the knowledge sharing, and whether these are factors that influence organizational performance (Dysvik, et al., 2013; Barney, 1991; Kogut & Zander, 1992; Grant, 1996).

The main approach of the Resource Based View (RBV) is that the efficiency, growth and competitive advantage of organizations (Daft, 1978; 1983) derive from the potential of internal resources (Penrose, 1959; Wernelfelt, 1984), as well as organizational capacities when they are valuable, rare, imperfectly imitable and non-replaceable (Barney, 1991; Grant, 1991; Teece, Pisano & Shuen, 1997; Eisenhardt & Martin, 2000).

The Knowledge Based View is considered an extension of the Resource Based View that has incurred in the relevance of knowledge as an essential organizational factor, where those responsible for knowledge management within the organization are also responsible for achieving its increase. Also, this theory conceptualizes organizations as heterogeneous entities possessors of knowledge and in which knowledge is valued as the most valuable resource that they can possess (Hoskisson et al., 1999; Child & McGrath, 2001).

It is thus that when intangible resources are managed strategically, organizations can generate other capacities (Eisenhardt & Martin, 2000) that generate value and contribute to the performance of the organization (Bharadwaj, 2000; Tipner & 1996; Chen & Huang, 2007, Fijalkowska, 2008; Ho, Kuo & Lin, 2012; Davenport & Prusak, 1998; Sáiz, Diez, Manzanedo & Rodríguez, 2013; Barney, Wright & Ketchen, 2001).

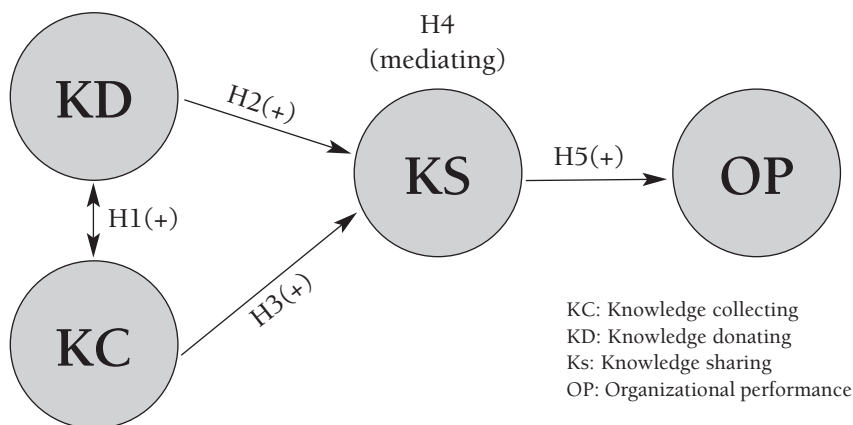
Therefore, a positive relationship between knowledge (intangible resource) and organizational performance is evident (organizational capacity) (Barney, 1991). That is, it is expected, that when knowledge is shared, collected and donated, it implies performance and organizational productivity, as well as organizational efficiency and effectiveness (Barney, 1991).

The theoretical perspective of the Resource Based View, and concretely from the Knowledge Based View (Kogut & Zander, 1992; Grant, 1996), and in order to predict the phenomenon of the research, this study will use and rely on this theoretical axis to answer the research questions: Does the knowledge collecting and the knowledge donating influence the knowledge sharing? To what extent do knowledge sharing mediate the relationship between knowledge donating and organizational performance?

This research contributes to the current knowledge by stating that knowledge collecting influences knowledge sharing only when it is related to knowledge donating, in addition to the fact that knowledge sharing is a mediating variable between knowledge donating and organizational performance (see figure 1).

The rest of this paper is organized as follows: First, a review of the literature is presented with the objective of exposing the argument that leads to the assumption that both the knowledge collecting and the knowledge donating

Figure 1. Hypothetical Model



influence the knowledge sharing; Second, that the knowledge sharing is a variable that mediates the effect between knowledge donating and organizational performance. Then, the research hypotheses are established, followed by the method and the statistical results. This paper concludes with a discussion of the findings and limitations of the research.

REVIEW OF LITERATURE AND HYPOTHESES

COLLECTING KNOWLEDGE AND DONATING KNOWLEDGE AND ITS INFLUENCE WITH THE KNOWLEDGE SHARING

Grant (1996) considers that the organization is an institution of application of knowledge, however, the integration of the knowledge of each person with that of others, although its acquisition is individual, will depend on the knowledge management; that is to say, it is the strategies that are implemented in the organization that provide the incentives and direction necessary to carry out such integration. In other words, management level employees are responsible for creating and maintaining an organization that is capable of generating new knowledge, thus striving for the organization to become a specialized community in the creation and internal transmission of knowledge, even from the focus of the vision of Knowledge Based View of Strategy, this new knowledge is a process carried out by middle managers, who are responsible for linking the vision of the executives with the vision of the operational personnel (Kogut & Zander, 1992; Takeuchi, 2013).

It is important to note that the literature has focused mainly on the role of organizations in the provision of knowledge sharing instead of emphasizing the efficient production of knowledge or capacities, or strategies that lead to such production. Therefore, an organization may have unique and valuable resources, but unless it has the ability to use them effectively, it may not be able to create or maintain a competitive advantage (Penrose, 1959).

For the knowledge sharing and the combination of knowledge to be effective, both the knowledge donating and the knowledge collecting are fundamental (De Vries et al., 2006; Dysvik, 2013). That is, the successful knowledge sharing between the people who donate the knowledge and the individuals who collect the knowledge will be the fundamental means through which the employees can contribute in the dispersion of knowledge (Ander & Bard, 2013; Lin, 2007).

Given the above arguments, it is hypothesized that to the extent that employees collect and donate knowledge, there will be a positive relationship with the knowledge sharing, as established in the following hypotheses:

H1. There is a positive relationship between knowledge collecting and knowledge donating.

H2. The knowledge donating is positively related to the knowledge sharing.

H3. The knowledge collecting is positively related to the knowledge sharing.

THE MEDIATION OF THE KNOWLEDGE SHARING BETWEEN THE KNOWLEDGE DONATING AND THE ORGANIZATIONAL PERFORMANCE

Probst, Raub, and Romhardt (2001) emphasize the importance of knowledge for the performance of organizations, therefore, in organizations, there should be generated new skills, products, ideas and more effective processes that impact on the knowledge sharing.

Because knowledge allows adding value to production resources and to the organization in general, it is necessary to comment that organizations create value at the moment when knowledge is created, developed, organized and used in its entirety (Lepak & Snell, 1999; Rumelt 1984; Barney 1984; Wernerfelt 1984; Teece et al., 1997). This knowledge defines the ability of an organization to efficiently convert its resources into valuable products or services (Arrow & Hahn 1971; Debreu 1959; Nelson & Winter 1982). Additionally, the development of knowledge is a pillar that complements the acquisition of knowledge itself, academics often assume that managers who invest more in knowledge, obtain greater benefits for their organizations (Eisenhardt & Santos, 2002).

There are several organizational practices based on the Knowledge Based View, such as: knowledge creation, which is the organizational capacity to generate new knowledge, disseminate it among the members of an organization and materialize it in products, services and systems (Moodysson, 2008); the acquisition of knowledge; the storage and application of knowledge (Karadshah, et al., 2009); the knowledge transferring, that involves both the transmission and the reception, that is, to receive the knowledge as a capacity of absorption by the recipient (Cohen & Levinthal, 1990); and the knowledge sharing, that is a process through which personal and organizational knowledge is shared (Frappaolo, 2006).

Specifically, the knowledge sharing is a process through which employees of the organization share their work experience, their *know-how* as well as their contextual information with other colleagues. This process of knowledge sharing consists of two actions: the employee's willingness to communicate knowledge actively with colleagues, that is, the process through which knowledge is communicated to others (knowledge donating); and actively consulting with colleagues to learn from them (knowledge collecting) (Lin, 2007; De Vries et al., 2006; Dysvik et al., 2013; Ander & Bard, 2013).

For the knowledge sharing to be effective, the knowledge donating and the knowledge collecting are fundamental so that this sharing can be generated in the organizations and, therefore, have organizational productivity. For the knowledge sharing to be effective, the knowledge donating and the knowledge collecting process is necessary (De Vries, et al., 2006).

The knowledge sharing between the emitter and the receiver is the fundamental means through which employees can contribute to the dispersion of knowledge, and therefore, to productivity and performance both at the work team level and at the organizational level (Dysvik, et al., 2013).

The knowledge sharing shows a positive relationship between organizational effectiveness and efficiency, so the application of knowledge is a fundamental aspect for this organizational process to be effective (De Vries et al., 2006; Ander & Bard, 2013; Lin, 2007).

Organizational performance contains, evaluates and measures key elements, such as efficiency, effectiveness, financial results, among others (Gopalakrishnan, 2000; Mouzas, 2006); and although the research conceives organizational performance as an adjunct to objective measures of productivity and that it has a significant relationship with objective measures of financial performance (Hansen & Wernerfelt, 1989; Lyies & Saik, 1997; Bontis, Crossan & Hulland 2002), this research analyzes organizational performance from internal factors. It should be noted that this productivity will determine the extent

to which an organization achieves its goals and targets (Daft, 1995), with the purpose of influencing in the same way the satisfaction of the users (internal and external), in the satisfaction of the needs of other organizations that make use of the services of the organization, in the fulfillment of the expectations, of the set goals and performance objectives (Bontis et al., 2002; Delaney & Huselid, 1996; Olson, Slater, Tomas & Hult, 2005).

Specifically, the literature is based on the importance of sharing knowledge among the members of the organization to achieve organizational performance (Lin, 2007; Huang, Davison & Gu, 2008). That is, performance in both profitable and nonprofit organizations will be defined by the various knowledge practices (Dysvik, et al. 2013; Grant, 1996; De Vries, et al., 2008; Kamasak & Bulutrar, 2009; Collins & Smith, 2006; Calantone et al., 2002), in addition to considering that the donating and the collecting knowledge will be the fundamental means through which the employees can contribute to the dispersion of knowledge, and therefore to the organizational performance (Dysvik et al., 2013).

Drawing on the arguments above, it is hypothesized that:

H4. Knowledge sharing mediates the relationship between the knowledge donating and the organizational performance.

H5. Knowledge sharing is positively related to the organizational performance

METHOD

SAMPLE AND DATA

Public sector organizations in emerging economies are prone to institutional and environmental uncertainty, therefore, it is necessary to ensure organizational performance through the efficient use of internal resources (knowledge, among others) which are available, hence the research has been carried out in organizations of the public sector, since in these organizations it is more likely to observe the phenomenon of this research. Sampling of public sector organizations was for convenience. However, these were chosen searching for the most representative and convenient units for the study. The data were gathered through the application of a written and self-administered instrument. The application of the questionnaire was carried out during a period of two months in 2016. Confidentiality and anonymity of the participants were guaranteed.

Characterization of the sample

In order to meet the objective, answer the questions and prove or disapprove the research hypotheses, this empirical study carried out a non-probabilistic

sampling process, sampling was for convenience (voluntary subjects) in ten public sector organizations of the Government of the State of Mexico. The sample consisted of 239 employees (management and operational personnel) who answered the questionnaire. The units of analysis were executives, middle managers and operational personnel.

Regarding the characterization of the respondents, 49% of the respondents were women. The largest number of respondents ranged from 30 to 39 years in age (30%). Of the respondents 20% were young staff (20 to 29 years old). In terms of seniority in the institution, the highest percentage (37%) were newcomers to the organization, that is, having less than five years in the organization; it draws attention that 5% had more than 30 years in the organization. Regarding job hierarchy (position), 21% were executives and managers, and the majority of respondents (78%) were operational personnel. Regarding the type of employment contract, 57% were personnel with a definitive contract. Regarding the degree of studies or schooling, 8% were not professionals, 24% had a technical career, 56% had a bachelor's degree, 10% had a master's degrees, furthermore, 12% of the respondents commented that they were currently studying a postgraduate (master's degree).

Measuring instrument

Data were collected through the application of a written and self-administered instrument, elaborated 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); it was conformed of eight questions (items).

Regarding the endogenous knowledge sharing variable, it was built on the theoretical basis of Chen and Huang (2007), Lin (2007), Wensley, et al. (2011), Fard and Selseleh (2010), and Camelo, et al. (2010); it was conformed of four questions (items).

The exogenous variables (donating and collecting knowledge) were constructed from the theoretical basis of Kamasak & Bulutrar (2009); it was conformed of three and four items respectively.

The items were elaborated based on the context in which it is possible to observe the phenomenon of the investigation (organizations of the public sector in the Government of the State of Mexico).

The instrument was integrated into two sections: the first contains demographic and organizational data; the second includes questions to measure the four variables of the study (knowledge donating, knowledge collecting, knowledge sharing and organizational performance).

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

All responses are on six-point scale from 1, “strongly disagree,” to 6, “strongly agree.”

To determine the reliability and validity of the instrument (questionnaire), two statistical tests were performed. First, the test was run to validate the internal consistency of the questions by *Cronbach's* alpha; the knowledge donating presented a *Cronbach* alpha of 0.84; The knowledge collecting presented a *Cronbach* alpha of 0.88; the knowledge sharing presented an adequate reliability (0.85); and organizational performance presented a *Cronbach* alpha of 0.95. Second, an exploratory factor analysis was performed, where the Kaiser-Meyer-Olkin (KMO) sample adequacy index was calculated. This statistic is evaluated within a range of 0 and 1; this study reports a KMO = .952. 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 a sample adaptation.

An exploratory factor analysis was performed for each construct according to the principal components method with an orthogonal varimax rotation to establish the factorial structure of the instrument (Nunnally & Bernstein, 1995), with the purpose of making an evaluation of the scales of latent variables or constructs. No dimensionality problems were found in any variable. Considering that all data were collected from the same measurement instrument, it was necessary to verify the presence of bias of the variance of the common method through Harman's single factor test (Konrad & Linnehan, 1995). The results of the exploratory factor analysis reveal that the variables do not belong to a single factor and, therefore, it can be attributed that the variance of the study variables is due to the constructs that are evaluated and not to the evaluation method (Podsakoff & Linnehan, 1995).

In the factorial structures obtained, all the items presented loads or saturation superior to 0.5, criterion from which they are considered as acceptable (Castañeda, Cabrera, Navarro & DeVries, 2010); and an explained variance of 69.77%. This indicates that the internal consistency indexes and those of the exploratory factor analysis were adequate.

Methods of estimation

A multivariate analysis, specifically the structural equation modeling (SEM), was used to verify the hypothesis of this research.

The convergent validity was obtained (construct reliability) and the average variance extracted from the measurement model.

Results

Table 1 reports the correlations for the variables used in this study. All correlations were statistically significant. The correlations between the constructs were from mean to high (0.706 to 0.864).

Table 1. Descriptive statistics and correlations (n=239)

Variable	Mean	Standard Deviation	Knowledge Donating	Knowledge collecting	Knowledge sharing	Organizational performance
Knowledge Donating	4.19	1.04	1	.864**	.750**	.707**
Knowledge collecting	3.94	1.16		1	.773**	.706**
Knowledge sharing	3.67	1.02			1	.725**
Organizational performance	4.03	1.06				1

Note: **Correlation is significant at the level of 0.01 (1-way).

In Table 2, all standardized regression weights of the latent variables are significant and consistent with the standardized coefficients of their items. This table also summarizes the squared multiple correlations of the measurements observed with respect to their constructs. Most of these questions have high R^2 values, suggesting acceptable reliability.

Table 3 indicates an acceptable convergent validity of the latent variables. Once the measurement of the model has been determined to be satisfactory, the next stage of the evaluation is to determine how much the theoretical model is adjusted to the data. The statistical ratio of verisimilitude chi square X^2 has a value of 455.59, which means that the observed and estimated matrices differ considerably; however, given the statistical sensitivity of this measurement to the size of the sample, it was complemented by other quality measures of adjustment. The RMSEA shows that the degree of freedom discrepancy between the estimated and observed input matrices is acceptable since it has a value of .093 and values ranging from 0.05 to 0.08 are considered acceptable. The NFI makes a relative comparison of the proposed model to the null model. It is observed that this index is adequate as it has a value of .895. The CFI and IFI represent comparisons between the estimated model and the null or independent model. The model presents a good quality of the adjustment, since its values are of .926 and of .927. The GFI has a value of .831,

Table 2. Factor Loadings and R²

Variable	Unstandardized Coefficients	Standardized Coefficients	Error Standard	P significance	R ²
Knowledge collecting					
X1	0.86	0.75	0.05	***	0.57
X2	1.01	0.92	0.04	***	0.84
X3	1	0.9		***	0.81
X4	0.84	0.7	0.06	***	0.49
Knowledge donating					
X5	0.79	0.75	0.05	***	0.57
X6	0.89	0.83	0.05	***	0.69
X7	1	0.86		***	0.75
Knowledge sharing					
X8	1	0.74		***	0.55
X9	0.87	0.72	0.07	***	0.51
X10	1.09	0.78	0.08	***	0.61
X11	1.18	0.83	0.09	***	0.68
Organizational performance					
X12	1.01	0.86	0.05	***	0.74
X13	0.93	0.84	0.05	***	0.71
X14	0.96	0.87	0.05	***	0.76
X15	0.94	0.83	0.05	***	0.69
X16	1.02	0.9	0.05	***	0.82
X17	0.96	0.89	0.05	***	0.80
X18	0.92	0.74	0.06	***	0.55
X19	1	0.84		***	0.71

*** (p < 0.001)

which means that its adjustment is adequate (Hair, Anderson, Tatham & Black, 2008). Therefore, the research model conforms to the observed data in an appropriate way.

Table 3 also shows the convergent validity (construct reliability) and the average variance extracted from the measurement model. The values show a reliability of the construct with indices above the evaluation criteria (0.6) (Bago-

Table 3. Convergent validity and Goodness of fit measures

Variable	Convergent Validity (a)	Variance extracted of constructs (b)
Knowledge collecting	0.89	0.68
Knowledge donating	0.86	0.67
Knowledge sharing	0.85	0.61
Organizational performance	0.95	0.62
Goodness of fit measures		
X ²		455.59
X ² / GL		3.058
RMSEA (Root Mean Square Error of Approximation)		0.093
NFI (Normed fit index)		0.895
CFI (Comparative fit index)		0.926
IFI (Incremental fit index)		0.927
GFI (Goodness of fit index)		0.831

(a) Convergent validity is calculate with the formula: (Sum of standardized weights) 2 / (Sum of standardized weights) 2 + (Sum of indicator measurement error) (Hair et al., 2008)

(b) Variance extracted is calculate with the formula: (Sum of squared standardized weights) / (Sum of squared standardized weights + Sum of indicator measurement error) (Hair et al., 2008)

zzi & Yi, 1988). As for the variance extracted from the constructs, the three variables show values higher than the suggested minimum cutoff point of 0.50 (Fornell & Larcker, 1981; Hair et al., 2008). Therefore, the measurement model is adequate.

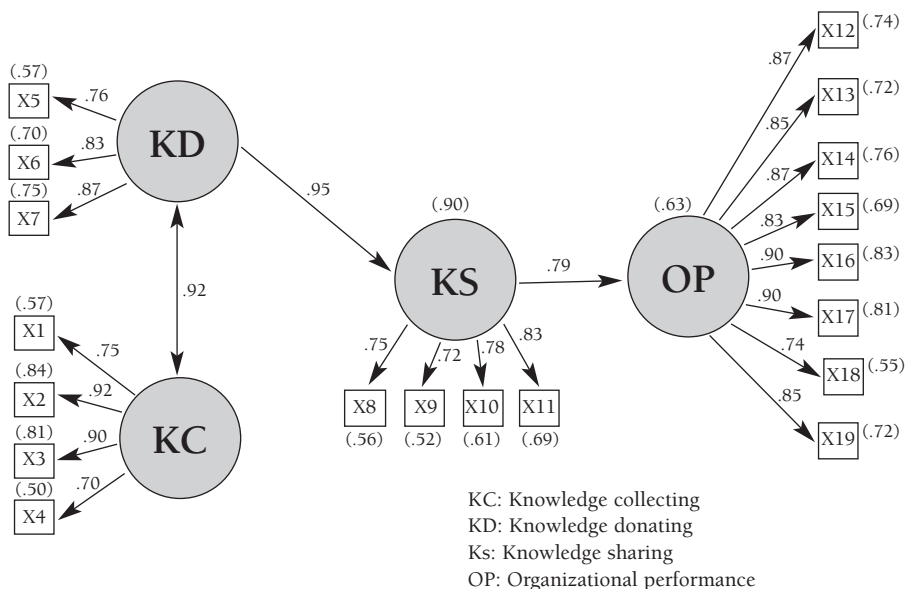
The results of the structural model used to test hypotheses shown in Figure 2. All standardized regression weights were statistically significant ($p < 0.001$) and greater than 0.50, which can be interpreted to assess the strength and significance of the model relationships.

As shown in Figure 2, the correlation between knowledge donating and knowledge collecting is high ($f = .92$; $p < 0.001$). This result provides backing to support hypothesis 1. The knowledge donating presents a positive and significant relation with knowledge sharing ($g = 0.95$; $p < 0.001$); so, this result also provides support for hypothesis 2.

The relationship between the knowledge collecting and the knowledge sharing was a non-significant relationship; therefore, hypothesis 3 could not be supported.

The structural trajectory of knowledge sharing on organizational performance ($= 0.79$ $p < 0.001$) is positive and statistically significant, a result that supports the hypothesis 5.

Figure 2. Structural Model



The variance explained is in parenthesis

In order to establish an interpretation of the size of the effects of the standardized coefficients an interpretation based on J. Cohen (1988): values less than .10 indicate a "small" effect; values around .30 a "medium" effect; and a "large" effect can be indicated for values greater than or equal to .50 (Kline, 2005:122.). According to the previous criterion, the knowledge donating through its previous effect on the knowledge collecting implies a large indirect effect on the organizational performance through the knowledge sharing.

According to the model of structural equations (figure 2), the level of organizational performance is expected to increase for each increment of a standard deviation of knowledge donating through its previous effect on the knowledge collecting; implying a large effect of the variable knowledge donating on organizational performance as long as the knowledge sharing is present. The direct effect of knowledge donating on organizational performance was not significant in the model; these results provide solid backing to support the hypothesis 4.

The squared multiple correlations represent the proportion of variance that is explained by the predictors of endogenous variables (Byrne, 2001). There-

fore, the level of organizational performance is expected to increase .63 deviations from the average for each increment of a standard deviation of the knowledge donating through its previous effect on the knowledge collecting as long as the knowledge sharing mediates the relationship.

The design of this research was transactional; therefore, it is not possible to establish a causality relationship between the variables under study since the interpretation of causality in the real world is not guaranteed (Kline, 2005). However, it is possible to establish with these results some speculations about the incidence of knowledge sharing practices (donating and knowledge collecting) on organizational performance.

Discussion and conclusions

Focusing on predictors of knowledge sharing, the empirical analysis of this research has highlighted the importance of knowledge sharing practices (knowledge donating and collecting) that influence the knowledge sharing, in turn, are the impetus of the performance of the organizations.

In addition to the above, this research was able to demonstrate the indirect effect of knowledge donating on organizational performance if the knowledge sharing takes place in organizations.

Based on the established literature that knowledge donating is a practice that consists of the employee's willingness to communicate knowledge actively with colleagues, or is the process through which knowledge is communicated to others; and the knowledge collecting that consists of actively consulting colleagues to learn from them (knowledge collecting) (Lin, 2007; De Vries et al., 2006; Dysvik, et al., 2013) and that these are actions that correspond to the knowledge sharing, this research proved that only the knowledge collecting will influence knowledge sharing practices as long as it has had an impact on knowledge donating, i.e., no direct relationship was observed between the knowledge collecting with the knowledge sharing; however, there was a high correlation between the knowledge collecting and the knowledge donating. These results agree with De Vries et al. (2006), Ander & Bard (2013) which establish that for the knowledge sharing and the combination of knowledge to be effective, both the knowledge donating and knowledge collecting are fundamental (De Vries et al., 2006; Ander & Bard, 2013).

This research agreed with the established by Dysvik, et al. (2013), who established that the knowledge sharing between the emitter and the receiver is the fundamental means through which employees can contribute to the dispersion of knowledge, and therefore, to productivity and performance, both at the work team level and at the organizational level.

Organizations in emerging economies face institutional limitations associated with constraining factors that affect organizational strategies. These limitations affect the types of resources organizations generate to achieve better results (Khanna & Palepu, 2010).

According to the previous criterion, this research leads us to prove that the public sector organizations can reduce these institutional limitations through the effective use of the internal resources with which it relies on, that is, and proving the theoretical approach that this research utilized (Knowledge Based View), the strategic direction of organizations must be reoriented towards the internal characteristics of the organization and consider its internal resources as the source of organizational effectiveness (Barney 1991; 1997; Takeuchi, 2013). Organizations are then responsible for creating, transferring and transforming knowledge to achieve objectives and achieving efficient organizational performance. The Resource Based View recognizes the transferability of an organization's resources and capacities as a determinant factor of its ability to confer a sustainable competitive advantage (Barney, 1986; Takeuchi, 2013), and in the public sector organizations, a sustainable organizational performance.

Limitations of the study

Like all studies, the one presented here has a number of limitations worthy of mention. Perhaps the first of these is the sample size (relatively small), which suggests cautioning the conclusions drawn in this research.

Likewise, the findings should be interpreted carefully in terms of their generalization to other contexts, since the study of organizational variables requires longitudinal and not transactional research design, as it was in the present investigation.

In addition, it is necessary the theoretical evaluation of future and present behaviors of the indicators of the scales in order to evaluate their validity of content (Martínez-García & Martínez-Caro, 2009).

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