The Role of Knowledge Management in Improving Individual Performance

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Abstract :
This research aims to study the existence of either a positive or negative relationship between knowledge management through its dimensions (knowledge acquisition - knowledge sharing - knowledge application) and individual performance.
In order to reach the goal, we relied on the questionnaire that was distributed to a sample of 80 employees of the SONALGAZ company, and we also relied on the method of the partial least squares method (PLS) to test the various hypotheses of the study, The results confirmed that acquiring knowledge and applying knowledge all positively affect the organizational and operational effectiveness of employees, in addition to planning and solving problems by updating and diversifying their knowledge. All this leads to improving the individual performance of employees.
Key Words: Knowledge Management, Knowledge Acquisition, Knowledge Sharing, Knowledge Application, Individual Performance.

JEL Classification : M12.

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Introduction:

The current rapid changes and contemporary intellectual currents have led to the emergence of factors that have affected the global economy, including globalization, information, and communication technology, as well as the trend towards the knowledge economy, where the view of economies and organizations has shifted towards intangible resources (knowledge resources), and interest in them has increased to become a source of wealth and survival, continuity and excellence, which raised the need to target balance in doing business, increase the quality of service and improve performance.

For all this, improving the performance of human resources has become an inevitable challenge and a complex problem that researchers specialized in management and business have been interested in solving and studying.

Since knowledge management is one of the modern approaches that help improve performance, serious attempts have emerged to measure and apply it in light of economic and social changes by focusing on creativity, achieving competitive advantage and improving individual and institutional performance.

Based on the foregoing, the following main question summarizes the problematic of the study as follows:

Does knowledge management have a positive relationship with individual performance?

Our research aims to answer this question and contribute to the total literature that dealt with the subject, by shedding light on the theoretical side of the study variables, and how to assume the relationship between them, then the stability of the relationship statistically and discussion of the results.

I. Literature review:

1. Knowledge Management (Knowledge Acquisition - Knowledge Sharing - Knowledge Application) :

Although there are multiple concepts and measures of knowledge management in the literature, but in this study we adopt the view that knowledge management is a process that reflects strategies for acquiring and creating knowledge (Song et al, 2007, p.54) (either externally or internally), dissemination and Sharing the knowledge stored within the company (Bij et al, 2003, p.165), and finally applying this knowledge (Song et al, 2006, p.175).

In our study we focus first on the acquisition of knowledge, as it is the most important resource owned by companies and therefore the creation of new knowledge constantly is extremely important (Liebeskind, 1996, p.97).

The term "knowledge acquisition" refers to the set of organizational procedures and strategic processes that highlight the organization's ability to identify, accumulate and benefit from knowledge (either internal or external), and which are essential to creating a dynamic capability (Gold et al, 2001, p.190).

Although knowledge acquisition begins as an individual activity (Kim 1993, p.38), its development usually requires a group of individuals, where knowledge acquisition results from individual participation and interactions with tasks, technologies, resources, and people within a specific context (Edmondson & Nembhard, 2009, p. 125).

There are two main means of accumulating knowledge, which are as follows:

- Searching for and acquiring entirely new knowledge.
- Creating new knowledge from existing knowledge, through cooperation between individuals and business partners, and the necessity of sharing knowledge to create new knowledge.

Knowledge sharing can be defined as a culture of social interaction that includes knowledge coding, knowledge transfer, the exchange of employee knowledge, experiences and skills within the company on a regular, free and easy basis for instant multifunctional communication (Song et al, 2007, p.55).

Other studies indicated that knowledge sharing is capturing, organizing, reusing and transferring knowledge based on existing experience within the organization and making it available to employees to build knowledge networks in the organization (Hogel et al, 2003, p.745).

It is difficult to understand tacit knowledge and transfer it to others, as (Coulson, 2004, p.85) indicates that the difficulty of transferring this type of knowledge is that it is experiences, practices, feelings and attitudes.

While explicit knowledge is easy to understand and transfer, because it can be expressed, recorded, coded, formulated and edited; It is not possible to share knowledge activities without the presence of a correct knowledge management, which enables it to effectively flow between members of the group with diverse and specialized expertise (Garcia-Sanchez et al 2019, p.202).

Some researchers have noted that the knowledge application is the most important stage in the knowledge management process. At this stage, the acquired and mutual knowledge is applied on the problem at hand (Alavi & Leidner 2001, p.43); Where (March 1991, p.74) defined knowledge application as the ability to make useful use of knowledge, and (Zahra & George, 2002, p.190) defined it as a set of organizational procedures that allow the assimilation, transfer, and application of knowledge.

The process of applying knowledge enables the actual use of knowledge and benefit from it to improve performance, generate knowledge assets and create new products, where the value of knowledge assets is realized when converted into products or services and then selling and trading them. (Gold et al, 2001, p.191)

Knowledge application is the use of what has been learned in the stage of acquisition and exchange in improving processes and practices, solving problems, dealing with challenges and making decisions (Simeon et alk, 2017, p.4).

2. Individual Performance

Individual work performance is a central and urgent issue in different work environments, and it is verified with wide interest in scientific and research circles, such as organizational psychology, management and economics.

Reviewing studies on individual performance, it can be noted that there is no clear standard definition of individual performance (Koopmans et al 2011, p.1), but it is usually linked to procedures and behaviors (Rego et al, 2013, p.62), measurable results achieved by employees and related to organizational goals (Viswesvaran & Ones, 2000, p.217).

Individual performance according to (Rego et al 2013, p. 63) refers to a group of individuals' behaviors, or actions related to achieving the goals of the organization, because individuals who consider their work a desirable profession rather than a job to earn money show a better performance level.

According to (Ben Nawar 2010, p. 271) in its reliance on what was mentioned by the thinkers Andro sizlagi & Mark Ji walase, performance is defined as the basic measure for judging the effectiveness of individuals, groups and organizations, and is used to highlight the strengths and weaknesses of individuals, groups and organizations, in addition to adopt performance as a basis for incentives, punishment, development, and functions (job) design.

ECOSIP put forward a definition of performance as carrying out the job burdens of responsibilities and duties, according to the rate that is supposed to be accomplished by the trained competent employee.

(Koopmans et al, 2016, p.3) identified several dimensions of performance, including task performance and marketing performance according to the individual performance scale.

In terms of tasks, performance is defined as the efficiency with which individuals perform the essential and technical basic tasks of their jobs (Campbell 1990, p.692), and is inferred by some indicators such as the quantity and quality of work, job skills, job knowledge, planning and organization, management, Decision making, problem solving and oral and written communication (Koopmans et al, 2014,p.2).

In terms of context, performance is defined as behaviors, and additional actions, that go beyond the tasks of the main role (Koopmans et al 2011, p.1), and it is inferred by some behaviors such as showing and facilitating the performance of colleagues, team performance, cooperation and communication with superiors (Rotundo & Sackett, 2002, p.66), in addition to perseverance, creativity, interpersonal relationships and organizational commitment (Koopmans et al, 2014, p.3).

In general, the Koopmans model is characterized by its applicability and suitability for measuring employee performance in all types of jobs, as it can capture the potential impact of personal and environmental variables, and is suitable for examining the effectiveness of a wide range of interventions, procedures and strategies to maintain and improve individual performance (Koopmans et al, 2016, p.4).

II. Hypothesis Development:

1. Knowledge Acquisition and Individual Performance:

Although some studies concluded that there is no positive relationship between knowledge acquisition and individual and organizational performance, these same studies suggested that investment in research and development can create new perceptions and ideas in the organization, which may lead to a positive development of the level of performance in this organization. (Capon et al, 1992, p.167)

While other studies considered that knowledge acquisition is a critical process for developing abilities and behaviors that lead to a gradual improvement in performance. (Darroch, 2005, p.111)

As an example, acquiring knowledge leads to the accumulation and renewal of knowledge, which achieves a higher level of organizational performance and improves the skills, competencies and cognitive capabilities of employees, which earns the organization effective human capital (Seleim & Khalil 2011, p. 600).

(Sarin & McDermott 2003, p.710) found that companies that have a good ability to acquire knowledge, -both internal and external-, have less uncertainty and achieve a greater level of managerial and technological excellence; As the generation or acquisition of knowledge increases the amount of knowledge possessed by the company's human capital, and enriches its knowledge mix, as it leads to enhancing decision-making capabilities, learning capabilities and

creativity, and thus enhancing productivity and profitability (Chiu & Chen, 2016, p.6.).

The process of generating knowledge also helps us to mitigate or avoid problems caused by insufficient knowledge (Samina et al, 2015, p.45); As the process of acquiring knowledge allows obtaining information from various reliable sources, that would help employees to deal with work issues, and enhance individual and organizational productivity. (Moth et al, 2018, p.16). Based on the above, we formulated the following hypothesis:

H1: Knowledge acquisition has a statistically significant relationship with individual performance.

2. Knowledge sharing and Individual Performance:

Knowledge sharing is a good way for employees to generate solutions and develop competencies, and thus the organization gains a competitive advantage, because it has a direct impact on the productivity of employees (Butt 2018,p.15).

(lin 2007, p.320) highlighted that knowledge sharing results in the generation of new ideas, helping to develop organizational capabilities, while (Zhang et al 2012, p.342) stated that explicit knowledge sharing has a direct impact on financial performance and innovation performance; While sharing tacit knowledge has an impact on operational performance.

(Mardani, 2016, p.22) found that the acquisition and dissemination of knowledge results in the integration of knowledge, which has a role in improving performance and developing the learning process among employees, because the immediate and regular dissemination of knowledge enhances the chances of employees understanding the information necessary to perform their activities, such as the various methods, solutions, tools and skills necessary for communication skills (song et al, 2007, p.64).

(Wang & Wang 2012, p. 8905) found a positive relationship between knowledge sharing and operational performance in a group of high-tech Chinese companies, while (Muhammad et al, 2011, p.25) found that knowledge sharing has a direct impact on employee performance; For example, sharing knowledge results in a clear decrease in the proportion of conflicts between employees, and an increase in the speed of problem-solving and decision-making (Song et al 2007, p.64).

All this makes the organization's leadership motivate its employees to acquire knowledge, transfer it and apply it to develop performance. (Lopez & Esteves 2013, p.96).

The acquiried knowledge is of no use if it is not disseminated and shared with colleagues in the organization, because building competent and skilled human capital is based on the exchange of knowledge that develops new cultures, routine procedures, problem-solving techniques, and decision-making processes (Wangetal 2014 ,p.233).

For all this, this study proposes that the development of knowledge sharing behavior among employees of organizations achieves high performance results, and for this the following hypothesis was formulated:

H2:Knowledge sharing has a statistically significant relationship with individual performance.

3. Knowledge Application and Individual Performance:

Although many studies that dealt with the subject of knowledge management, shed light on the direct relationship between the application of knowledge and organizational outcomes, knowledge application can be a major driver of organizational re-learning and a means of knowledge creation (Bierly & Damanpour 2009, p.488), as the effective use of Appropriate knowledge also leads to new knowledge, new skills, new uses, thus enhancing human, relational, and structural dimensions (Seleim & Khalil, 2011, p.601).

Since knowledge application refers to the use of knowledge to solve problems (Zack et al 2009, p.394), incorporating new knowledge into technologies and operational processes helps companies improve the efficiency of their employees, and reduce costs resulting from misuse (Boyne & Walker, 2010, p.186).

According to (Kuah et al, 2012, p.9349), the use and application of knowledge measures the ability of employees to solve problems, make decisions, develop products and carry out activities more effectively and in less time.

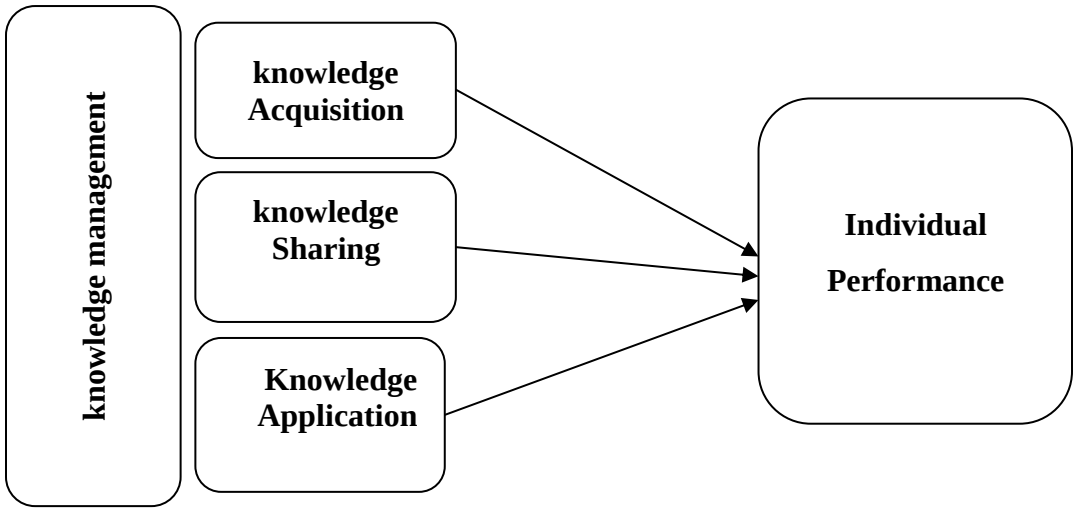
In addition, (Boateng & Agyemang, 2015, p.121) found that knowledge application allows the transfer and development of skills, knowledge and capabilities into effective processes and new products, meaning that it gives performance greater fluidity that allows the achievement of innovation.

Other studies showed direct and positive results of applying knowledge to organizational performance (Choi et al 2010, p.864) and individual performance (Mills & Smith 2011, p.160), as it provides more opportunities for evaluating alternatives, decision-making, and cognitive awareness. Better, and therefore the ability to map solutions (Acar & Ende 2016, p.693); For example, many organizations encourage organizational learning (Voss & Voss 2013, p.1463), in which individuals can apply the knowledge gained with the aim of improving their performance; While (Swan et al, 1996, p.1033) supposed that knowledge application can help in addressing the challenges facing companies in expanding the reach of individuals. All this leads us to formulate the following hypothesis:

H3:Knowledge application has a statistically significant relationship with individual performance.

III.Study Model:

Fig. 1 : « Research model »



Source : Achieved by researchers.

IV.Methodology:

Since the general purpose of this field study is to explore the existence of a positive relationship between knowledge management through its three dimensions (knowledge acquisition - knowledge sharing - knowledge application) and the individual performance of employees, we conducted the investigation based on the questionnaire in order to collect data, where the questionnaire contained in the first section the questions related to the demographic characteristics of the target group; In the second part, we focused on the various indicators that are related to the variables of the study.

In the formulation and design of the questionnaire, we relied on (Gold et al, 2001) to measure the knowledge acquisition variable, as for the knowledge sharing variable, we relied on (Donate et al, 2015, Fong & Choi, 2009), then we relied on (Gold et al, 2001) to measure the knowledge application variable, and finally (Koopmans et al 2014) was chosen to measure the individual performance variable.

As for the target sample, the target group was the workers of the Sonelgaz Company, where more than 80 of the total questionnaires that were distributed were retrieved, and they are acceptable and kind for the purposes of scientific research, and statistical analysis of the study.

After collecting the data, we analyzed it statistically using the program (Smart PLS, , EXEL), and as for the technique used in testing the hypotheses, we relied on the structural equations modeling technique, through which we can evaluate the effectiveness of the theoretical model, which includes the observed variables and Propositional constants.

Finally, and through our use of the factor analysis technique, relying on the method of principal component analysis, we have omitted some indicators, because the external loading of these indicators is less than 0.5, which does not contribute

to the composite reliability, not even to the Explained Average Variance (AVE) indicator.

V. Study Results

1. Descriptive Study:

To reach the main results and objectives of the study, and to identify the factors that affect the individual performance of Sonelgaz employees, a group of (80) employees of the organization was selected.

Their characteristics were distributed as shown in Table 1.

Table 1 : « The characteristics of the study sample »

	Category	Frequancy	Percentage
Gender	Male	40	50%
	Female	40	50%
Age	18 to 25	9	11.25%
	26to 35	24	30%
	36 to 50	35	43.75%
	More than 50y	12	15%
Education	Secondary	25	31.25%
	Licence/Master	22	27.5%
	University level	8	10%
	PFC	25	31.25%
Expérience	0 to 5 years	13	16.25%
	6 to 10	20	25%
	11 to 20	34	42.5%
	More than 20y	13	16.25%
Job category	Higher manager	20	25%
	Middle manager	20	25%
	Executive assistant	18	22.5 %
	Manual worker	22	27.5%

Source : Achieved by researchers.

2. Data Analysis:

Since the general model consists of the measurement model and the structural model, as the measurement model allows us to know whether the manifest variables have a high formative ability for the latent variables (variable reliability, convergence and differentiation validity), while the structural model deals with the relationships between various variables, we will start by talking first about How to obtain a general conformance to the measurement model, and then we move on to the structural model, which allows us to test the various relationships found in the study.

2.1 Reliability and Validity of The Measurement Model:

a. Reliability of Manifest Variables: According to (Nunnally and Bernstein, 1979), the reliability and validity of the measurement model is a basic measure that must be reviewed, as the first step to assess these aspects is to use Cronbach's alpha

coefficient and composite reliability to test the internal consistency and reliability of the proposed measures.

Whereas (Nunnally and Bernstein, 1979) say that the usual threshold level ranges between 0.69-0.79 in the case of Alfa Cronbach, and 0.66-0.78 in the case of composite reliability. This is what we notice in Table No. (2), where we note that all the latent variables (knowledge acquisition, knowledge sharing, knowledge application, individual performance), have an alpha-Cronbach coefficient greater than 0.69, and therefore there is an internal consistency between the manifeste variables that contribute to the formation of the latent variables; Also, when observing the composite reliability of the various latent variables (knowledge acquisition, knowledge sharing, knowledge application, individual performance), we find that it is greater than 0.66, and this is what achieves internal consistency as well, as this model as a whole contains manifest variables, characterized by internal consistency, allowing them to form a good and acceptable for the latent variables present in the model.

Table 2 : « Reliability scores for total variable bins »

Variable latente	Alpha Cronbach	Composite Reliability	Average variance Extracted(AVE
knowledge Acquisition	0.936	0.949	0.756
knowledge Sharing	0.905	0.909	0.570
Knowledge Application	0.936	0.945	0.723
Individual Performance	0.906	0.922	0.570

Source : Researchers based on SmartPLS outputs.

b. Convergence and Discriminant Validity: The validity of the convergence in the measurement model can be achieved if each measure indicator distributes more variance to the latent variable than its distribution on the scale line.). When also looking at Table No. (2), it becomes clear that the average value of the explained variance for all latent variables is greater than 0.5, and therefore the convergent validity has been achieved in the measurement model.

As for the Discriminant Validity in this model, we note it through Table No. (3), which shows that the values of the manifest variable in its box are greater than the values of the manifest variables that exist, and thus this reinforces that the data are well adjusted, and verify Validity of discriminant in this model.

Table 3 : « Discriminant validity : Cross Loading »

	PI	Ka	Kap	Ks
j1	0.236	0.875	0.281	0.386
j10	0.213	0.684	0.548	0. 744
j11	0.316	0.360	0.727	0.823
j12	0.286	0.231	0.608	0.717
j13	0.295	0.293	0.736	0.825
j14	0.209	0.266	0.690	0.746
j15	0.300	0.219	0.798	0.767
j16	0.315	0.287	0.818	0.611
j17	0.423	0.315	0.884	0.707
j18	0.368	0.416	0.882	0.764
j19	0.370	0.369	0.841	0.694
j2	0.228	0.902	0.315	0.479
j20	0.321	0.373	0.882	0.729
j21	0.259	0.330	0.804	0.712
j22	0.406	0.279	0.835	0.659
j3	0.262	0.845	0.242	0.403
j33	0.741	0.198	0.261	0.347
j34	0.803	0.250	0.362	0.370
j35	0.874	0.300	0.311	0.187
j36	0.786	0.202	0.340	0.366
j37	0.868	0.282	0.351	0.231
j38	0.870	0.288	0.433	0.328
j4	0.256	0.895	0.438	0.581

Source : Researchers based on SmartPLS outputs.

Second criterion: the evaluation of discriminative validity using the Fornell-Lacker criterion. This method compares the square root of the mean extracted variance (AVE) with the correlation of the latent structures; Whereas, the underlying construct should better explain the variance of its index rather than the variance of other latent constructs. Therefore, the square root of each construct's AVE must have a greater value than the correlations with other latent constructs (Tab.4).

Table 4 : « Square root of AVE across diagonal »

	knowledge Acquisition	knowledge Sharing	Knowledge Application	Individual Performance
knowledge Acquisition	0.870	…….	……..	20.31
knowledge Sharing	0.579	0.755	0.818	0.316
Knowledge Application	0.396	……	0.850	0.396
Individual Performance	….	…..	…..	0.825

Source : Researchers based on SmartPLS outputs.

2.2. structural analysis :

Before starting to analyze the structural model of the study, we must check whether this model achieves a good quality of conformity. In general, the quality of models is determined in the Smart PLS program by observing the value of R2 or by testing (Stone–Geisser, Chin, 1998). When observing the value of R2 in this study, we find an estimate of about 0.206, and this confirms that the degree of the proposed model in theory has the ability to reproduce the data, and that the latent variables are well explained, and therefore this model has a good quality of conformity. Moving on to the interpretation of the relationship between the various variables, we note through Table No. (4) that the probability value of the knowledge acquisition variable is 0.046, which is less than the level of significance 5%. Therefore, the knowledge acquisition variable has statistical significance with the individual performance, as well as we find that the value of (T) is greater than 1.65, with a positive value; Thus, the first hypothesis that states that there is a positive relationship between the acquisition of knowledge and individual performance has been achieved. As for the knowledge sharing variable, we find that it has no statistical significance with individual performance, where we find the probability value equal to 0.355, which is greater than 5%, and the value (T) equal to 0.373 which is less than 1.65, and therefore the second hypothesis which states that there is a positive relationship between knowledge sharing and individual performance has not been achieved. And by moving to the third hypothesis, which states that there is a positive relationship between knowledge application and individual performance, we note that it was achieved, because the probability value of the knowledge application variable was estimated at about 0.036, which is greater than 5%, as well as we find that the value of (T) is equal to 1.798, which is greater than 1.65 and its value is positive; Thus, the third hypothesis of the existence of a positive relationship between knowledge application and individual performance has been achieved.

Table 5 : « path coefficient »

	Original sample	Sample Mean	Standard deviation	T statistics	P value
Knowledge Acquisition - Individual performance	0.205	0.198	0.121	1.685	0.045
Knowledge sharing - Individual performance	-0.109	-0.050	0.292	0.373	0.355
Knowledge application - Individual performance	0.430	0.399	0.239	1.798	0.034

Source : Researchers based on SmartPLS outputs.

Conclusion :

When referring to our research question to explore and find out whether knowledge management plays a role in improving the individual performance of employees, it turns out that all the results obtained from analyzing the method of the Partial Least Squares method Smart PLS support the assumption that the dimensions of knowledge management represented in knowledge acquisition, and knowledge application are all factors that positively affect individual performance; As these results are also in the same direction as the majority of previous studies.

While we note that the hypothesis that the knowledge sharing variable affects individual performance has not been achieved, and this may be due to many reasons, including: the weak culture of dissemination and exchange of knowledge among employees in public institutions, and the lack of interest of the senior management of these institutions in promoting a culture of sharing for knowledge.

Finally, any research has its limits, and this research is not an exception to this rule, especially since we focused on three dimensions (knowledge acquisition - knowledge sharing - knowledge application), and for this we recommend conducting other studies that address more dimensions, or other dimensions for more comprehensive and diversified studies, to reach an analysis more accurate relationship between knowledge management and performance. Based on the foregoing, we suggest the following recommendations:

Recommendations :

- Seeking to create an organizational culture based on the effective management of knowledge within the organization, by instilling the mentality of sharing knowledge among employees, and applying successful experiences with courage, as well as seeking to constantly invent new knowledge.
- Activating the role of the members of the Board of Directors as the link between the institution and the employees, and ensuring the sharing of their knowledge to benefit from it.
- Involve employees at all levels in decision-making, or at least open channels for suggestions to benefit from their knowledge and diversify sources of knowledge.
- Giving more flexibility to the organizational structure for the possibility of adjusting it easily, in order to create an environment conducive to creativity and innovation, ease of communication, and knowledge sharing and application.
- Attracting and employing highly qualified and academic staff that allows them to play knowledge roles, and to control developments in knowledge such as technologies, performance methods, and modern systems.
- Linking motivation and rewards systems to the knowledge development of employees, and their improvement of knowledge abilities.
- Establishing a Research and Development department, given its great role in achieving strategic goals, raising individual and collective performance, and thus ensuring high competitiveness.

- Strengthening the relationship of the institution with its customers, by organizing forums in which the institution benefits from feedback, impressions and suggestions to enhance its level of performance.

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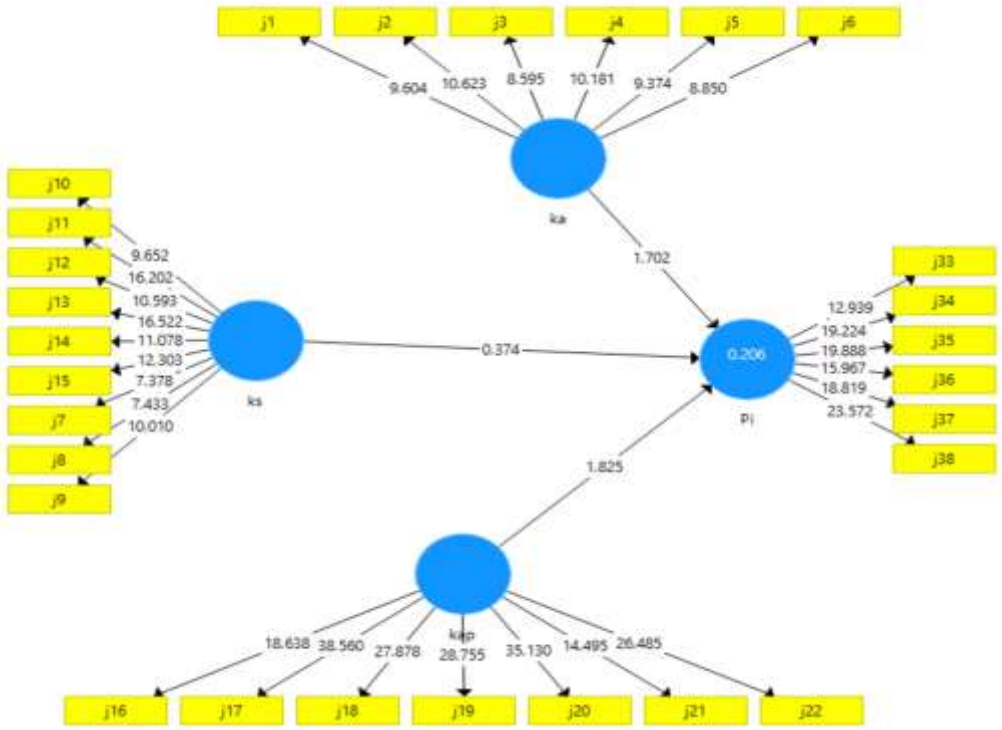
Appendixes:

Appendix 1: Structural Model Results



Source : SmartPLS outputs.

Appendix.2: Measurement of research constructs.

Variabls	Construct indicators	Items	References
knowledge Acquisition	My organization has processes for acquiring knowledge about our customers	KAC 1	Gold et al 2001
	My organization has processes for generating new knowledge from existing knowledge	KAC 2	
	My organization has processes for acquiring knowledge about our suppliers	KAC 3	
	My organization uses feedback from projects to improve subsequent projects	KAC 4	
	My organization has processes acquiring knowledge about new products/services within our industry	KAC 5	
	My organization has processes for acquiring knowledge about competitors within our industry	KAC 6	
knowledge Sharing	In my organization information technologies (internet, intranet, e-mail, etc.) are used to encourage information flows and improve employees' communication	KSH 1	Donate et al 2015
	In my organization the firm's objectives and goals are clearly communicated to all the organizational members	KSH 2	

	In my organization there are frequent, well-distributed internal reports that inform employees about the firm's progress	KSH 3	
	Experienced staff in my workplace is encouraged to mentor new or less experienced staff.	KSH 4	**Fong and Choi (2009)**
	Knowledge gained from different projects is made accessible to all in my workplace.	KSH 5	
	Knowledge is shared by daily interaction with colleagues in the workplace, e.g. in the corridor, during lunch, in the pantry, at social functions.	KSH 6	
	Staffs who share knowledge receive rewards/recognition in my workplace.	KSH 7	
	Knowledge sharing is a measure of employees' performance in my workplace.	KSH 8	
	Remote access to the workplace's database is provided	KSH 9	
Knowledge Application	My organization has processes for applying knowledge learned from mistakes.	KAP 1	**Gold et al 2001**
	My organization has processes for applying knowledge learned from experiences.	KAP 2	
	My organization has processes for using knowledge in development of new products/ services.	KAP 3	
	My organization has processes for using knowledge to solve new problems.	KAP 4	
	My organization uses knowledge to improve efficiency.	KAP 5	
	My organization makes knowledge accessible to those who need it.	KAP 6	
	My organization quickly applies knowledge to critical competitive needs.	KAP 7	
Individual Performance	I was able to plan my work so that I finished it on time	IP1	**Koopmans et al 2014**
	I kept in mind the work result I needed to achieve.	IP2	
	I was able to distinguish main issues from side issues.	IP3	
	I was able to carry out my work well with minimal time and effort	IP4	
	I worked on keeping my job-related knowledge up-to-date	IP5	
	I came up with creative solutions for new problems	IP6	

Source : Achieved by researchers.