International Journal of Business and Technology Studies and Research

ISSN: 2665-7716

http://www.ijbtsr.org

Volume 3, Issue 2, July 2021

Moderating effect of culture on the relationship between knowledge management and organizational performance in the university context

Ouail El KHARRAZ [1], Yassine BOUSSENNA [2]

[1] *Professor- National School of Business and Management Tangier - Abdelmalek Essaadi University - Morocco*

[2] *PhD student- National School of Business and Management Tangier - Abdelmalek Essaadi University – Morocco*

Abstract: The huge amount of information in our daily life and the continuous work to organize and use it in the best possible way has led to the emergence of knowledge management. This work has two main objectives, first we test the existence of a correlation relationship between the application of knowledge management and organizational performance of Abdelmalek Essaadi University, and secondly, we verify the moderating role of organizational culture on the intensity of this relationship, by collecting the views of the Abdelmalek Essaadi University teacher-researchers, through a hypothetico-deductive reasoning approach and a quantitative working method. Our questionnaire was administered to a representative sample of 88 teacher-researchers from the different institutions of the university under study. The results obtained show a strong correlation between knowledge management and organizational performance. Also, the results confirm the moderating and positive role of organizational culture, on the intensity of the relationship between the application of the K.M and (Training, research, publication, and governance) as indicators of organizational performance retained in this work for the university in question.

***Key Words*: organizational culture, knowledge management, organizational performance.**

Cite this Article as: *El KHARRAZ, O., & BOUSSENNA, Y. (2021). Moderating effect of culture on the relationship between knowledge management and organizational performance in the university context. IJBTSR International Journal of Business and Technology Studies and Research, v. 3, n. 2, 16 pages, ISSN 2665-7716.*

1.INTRODUCTION

Changes in the global economy have been the result of a different approach to value creation. However, the new global economy, the knowledge economy, recognizes the importance of knowledge resources as a key factor in maintaining competitive advantage. The shift from a manufacturing economy to a knowledge-based economy has significantly increased the importance of intangible capital in the value creation process (Aamoun & Sail, 2020 P 111).

Private companies, concerned about their competitiveness, have long adopted approaches to manage their intangible capital and exploit their knowledge to improve their performance. This is how Knowledge Management (KM) was born.

Universities, known as organizations responsible for the production, storage and sharing of knowledge, have seen the need to participate in the construction of a knowledge economy (El kharraz & Boussenna, 2020).

Today universities are subject to similar pressures like different organizations to gain a place in the markets. the government and stakeholders are more concerned with the performance of higher education institutions, therefore these important changes in competition have prompted professors and universities to adopt a management system similar to companies, where students are currently treated as clients, (Abubakar et al, 2018).

in developed countries, universities and higher education establishments already play a key role in the economic, social and human development of these countries, through the quality of scientific research, adaptation to new technologies, the development of human capital, innovation systems. and the training of elites capable of leading change in all areas.

In the Moroccan context, the higher education sector is constantly floundering with many problems, despite the progress noted and the multitude of reforms which followed one another, especially from the beginning of the third millennium. Always the quest for the performance of the university is at the heart of the Royal Speeches and government controversies (Bouayad et al 2017., p 386).

Many studies have addressed the issue of the importance of the application of K.M for organizations such as improving innovation and creativity, product quality, and organizational performance (le et al ,. 2009; Mills & Smith, 2011 ; Reich et al,. 2013 ; Lee & Tseng, 2014 ; Alaarj et al ,.2016 ; Novak , 2017 ; Adams, & Graham, 2017 ; Shamia et al.,2018; Abubakar ,. et al ,2018; Ernest et,. al 2020; Sahibzada et al ,. 2020; Salama , 2020; Wenjiao & Yang 2020; El kharraz & Boussenna , 2020).

On the other hand, and throughout the literature, several factors positively affecting KM initiatives in public organizations and specifically in universities are discussed.

For Ranjan and Bhatnagar (2008), these are factors or parameters necessary for the continued success of an organization and these factors represent the areas of management that require special and continuous attention to achieve high performance. Some are the same as those identified for private organizations and others are specific to public organizations. Most authors (Butler & Murphy, 2007; Cong , 2008; Ansari et al. 2012), cite several factors ; but in this article we will focus on the organizational culture.

Culture can also have a positive impact on performance, via the integration of values, beliefs and norms within the organization, which in turn helps shape the way members of the organization interact and engage with each other. Specific cultural values may be more or less conducive to effective decision making, responding to and learning from mistakes, teamwork, and creativity and interdepartmental synergies.

It's important at this level to note that the culture is a success factor of knowledge management and also a tool of performance, but how it can play a moderating role between the two is not well demonstrated and especially in university context. which leads us to the study of this problem and more specifically the moderating effect of the organizational culture on the relationship between the application of K.M and organizational performance organizational performance at Abdelmalek Essaadi University and from the point of view of teacher-researchers.

Thus, our reflection will focus on the treatment and analysis of the following three elements: (1) Literature review and development of hypotheses (2) Research methodology and (3) discussion of the Results of the study.

2. THEORETICAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

The enormous amount of information in our daily life and the continuous work to organize it, in order to organize it in order to exploit it in the best possible way, has led to the emergence of a new concept known as knowledge management.

In addition, the term "performance" has been much talked about. It is a widely used vocabulary in the field of management. The quest for performance was the ultimate goal of all organizations.

2.1 Knowledge management in the university context

With the rapidly changing economic environment, the role of universities or higher education institutions as knowledge providers have been examined and challenged by different stakeholders. Indeed Academic institutions, especially higher education institutions such as universities, are considered as "knowledge centers", where various activities are carried out for the generation, preservation, dissemination and application

of knowledge. Teachers, students and researchers are an integral part of academic institutions and all of them are engaged in the above activities.

Universities create knowledge through research, share knowledge through teaching and learning, and transfer knowledge to society through consultation and a well-trained workforce (Ramachandran et al., 2013). On the other hand, several researches have shown that the majority of universities do not have an explicit KM strategy even though they are aware of the importance of such a strategy, as its implementation remains difficult.

2.1 .1 Definition of knowledge management in universities

There is no one definition of knowledge management in universities. Several researchers have used different approaches to define university knowledge management.

According to (Abu Naser et al, 2016) It can be said that K.M in universities is similar to knowledge management in industry or services in terms of operation and focusing on the linkage between individuals, with the aim of achieving a competitive advantage in terms of performance and results.

Laal defined it as "the process of converting information and intellectual assets to a permanent value that allows individuals to use the necessary knowledge at the right time (laal, 2010).

Ramachandran et al. defined KM in universities as "a systematic attempt to develop and implement knowledge in universities through the support of strategic support factors (Ramachandran et al , 2013).

Also Petrides and Nodine defined KM in universities as a way for people working in educational institutions to develop a set of practices of creating and sharing what they know, which consequently allows improving the level of services and products offered by educational institutions (Petrides and Nodine , 2003).

2.1.2 The importance of the knowledge management for universities

In the past, (capital, natural resources and labor power) were the most important elements of production and the main sources of wealth. Today, knowledge has become the first and most important source of wealth.
According to (Ziyadat 2008, p 60) the importance of knowledge management for universities lies in the following points:
1. It is an integral systemic process to coordinate the activities of the organization towards the achievement of its objectives.
2. K.M is a powerful tool for organizations investing in their intellectual capital such as universities.
3. It enables universities to gain a competitive advantage, allowing it a large number of innovations represented in the launch of new products or services.
4. Knowledge management contributes to transforming academic institutions into knowledge societies, to adapt to the rapidly changing business environment, and to cope with its increasing complexity.
5. K.M can contribute to the flexibility of academic institutions by pushing them to adopt more flexible forms of coordination and design of organizational structure.

2.1.3 The Knowledge Management Process in Higher Education Institutions.

Knowledge assets are managed in several ways, namely: through capitalization, sharing and knowledge creation (Ermine, 2008) .

There is no unified agreement among authors and researchers regarding the number of K.M processes, as different researchers define them in different ways (Costa & Monterio, 2016) and with several models as they are defined as three stages: knowledge generation, knowledge codification and knowledge transfer. Or four consisting of: Acquiring, storing, sharing and applying knowledge or it is a five-step process consisting of (knowledge acquisition, knowledge formation, knowledge transfer, knowledge storage and application) (Abidi et al 2018, p 5) .

Becerra el al, (2004) integrated the empirical research findings of Nonaka (1994) (socialization, externalization, internalization, combination), and distinguished four knowledge management processes: knowledge discovery, knowledge capture, knowledge sharing, and knowledge application.

On our part in this work we will opt for the most used model and the most adapted to the universities in four stages consisting of: acquiring, storing, sharing and using knowledge, (Alavi & leidner , 2001 , Laudon & Laudon, 2002, Douihi , 2009).

2.2 Organizational Performance at the University

Level Performance measurement is fundamental to all organizations including universities. Today universities are under similar pressures as different organizations to have a place in society. Significant changes in competition have prompted universities to adopt a new management system similar to businesses in that students are currently treated as customers. In addition, there are increasing demands from stakeholders (Hilman & Abubakar, 2017).

Universities must ensure and provide students with high quality service. They have an obligation to produce graduates who can adapt to the challenges of the developing society. Other research has focused on teaching and research as indicators of performance measurement in universities (Manjarrés et al.,2009 ; Lukman et al.,2010; Asif et al., 2013; Asif & Searcy, 2014).

Other researchers believe that the production of services for the community is an indicator of performance (Badri & Abdulla, 2004; Patel et al,. 2011). On the other hand, student graduation rate remains a primary indicator of university performance. Hilman & Abubakar, (2017) stated that the undergraduate loss rate should be taken into account when assessing university performance.

2.2.1 The need for performance assessment for universities

Performance evaluation is now at the heart of reforms in higher education and research in Morocco. It is part of the general revision of public policies which integrates project logics (objectives, means, results), where for a long time means logics prevailed. This question of measuring the performance of universities seems to have been partly resolved today by the evaluation systems set up by university supervisory bodies and international rankings. Indeed, these seem to define the fundamentals of the university by which it can be managed.

2.2.2 The axes of university performance

To this end, a successful university is one that responds optimally to the different needs of its stakeholders. It must seek a balance between the expectations and interests, which are sometimes contradictory, of its main stakeholders, following the logic already supported, to this end, the quest for performance is strongly linked to the reconciliation of stakeholders' interests in managerial decision-making (Elms et al, 2002). Similarly, in the case of the university, taking stakeholders' expectations into account - especially the most salient ones (following the logic of Mitchell et al. 1997) - is an obligation for steering the performance of this public institution. It is supposed to be efficient, effective and economical. Efficient in its organization; by making optimal use of the resources at its disposal. Effective in its actions; by achieving the pre-set objectives. Also, it must procure human and material resources at a lower cost. Thus, the Moroccan university must be responsible, before all the stakeholders, its management of allocated public funds, its successful results and its development guidelines (Bouayad et al 2017,. p 391).

Indeed, the performance of the university can be measured through its openness to the outside world. Also, this structure must ensure good quality teaching and a sustained research process, have good governance (transparency, integrity, ...), dematerialize procedures (use of ICT), meet the aspirations and societal challenges of our days, ensure a high rate of employability, make extensive use of Information and Communication Technologies (ICT), base its activities on the Public Private Partnership (PPP) as a lever for development ...

In addition, university performance is viewed from an integrated (multi-criteria) approach and not only in terms of governmental orientations. The government represents only one actor among a panoply of stakeholders. If we refer to the notion of governance. defined it as "a philosophy that would provide democracy with its true dimension because it would be turned towards the citizen", and Cartier-Bresson (2008, P.32) states that "governance is broader than just 'government', which often refers to the actors who make decisions". Therefore, talking about good governance firmly requires a refocusing on the base of the pyramid while taking into account the expectations of citizens (students, their parents,...), which is what we call in Organizational Sciences the "Bottom-up" logic. Today, we are talking more than ever about a socially responsible university, a citizen university, a university open to and on its external environment, an entrepreneurial university, ... The public university is called upon to work in what is called the "stakeholder society". It is then supposed to assert its responsibility to society and express implicitly or explicitly its concerns to promote its reputation and its brand image (Bouayad , et al , 2017 , p 391) .

As such, university performance can be revealed differently by its stakeholders. The future student of the university may refer to it essentially to the sole criterion of employability. As for the students, they can measure it through the quality of teaching, research, supervision and employability. Employers can evaluate it only through the competencies (knowledge, know-how and interpersonal skills) acquired by the graduates during their university studies, etc.

The consideration of university performance in its multidimensional aspect is strongly required, and taking into account only one dimension will certainly be biased. For example, we hold the following idea: a successful university is one that delivers enough diplomas in a given year N, i.e. we are only talking about the success rate of its students. To this end, the major concern of this institution will be focused only on its output: to make students succeed, and without focusing on other aspects so important, such as for example: the rate of employability of its graduates, the societal and ecological responsibility of the university, the quality of its services, ... etc. Therefore, university performance must be looked at from a multitude of angles (Bouayad ,et al 2017,. p 391) .

Thus, under the logic of stakeholders Freeman (1984), we deduce that this performance has a multidimensional character. There is not only one "university performance", a contrary, there is subsequently a panoply of university performances. To this end, we distinguish between 19 facets of performance (see figure below), each of which is materialized by a number of performance indicators.

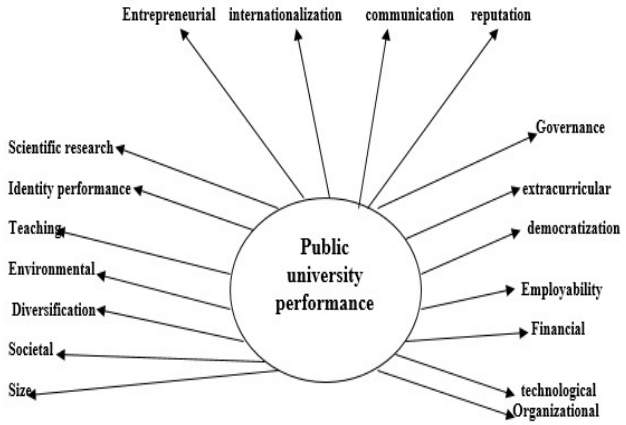

Fig -1: The axes of university performance

2.3 Organizational Culture

The concept of organizational culture is not new. For a long time, organizational leaders have sought to create an "in-house spirit", characterizing the specificity of their know-how against all competitors. In this first observation, organizational culture allows the organization to stand out from those around it. The organization is in fact a zone of conflict and tension between several cultures.

Organizational culture is both a motivating factor and the bearer of an image that enhances its value to the outside world. Organizational culture is a moving, living and complex concept that is attracting a lot of attention in the professional world today. Intranets, charters, seminars... There are many initiatives aimed at shaping it, whether to stimulate the feeling of belonging among employees or to drive a change in organization or method.

In light of the above, we can say that the organizational culture represents A set of features that characterize the organization of Other organizations, which strongly influence The behavior of individuals within the organization is constituted a framework that guides the behavior Human of individuals has certain values such as, laws, efficiency, effectiveness ....

2.3.1 The components of the organizational culture

According to (Thévenet, 2006) the main components of the organizational culture are :

Symbols: these are signs (logo, style, dress code, etc.) that are responsible for the culture.
Values: these are the behavioral codes (operating values) that have forged cultural information that are linked to the essential values. They serve as elements of communication both internally and externally.

The history of the company and its management practices and declared values (those that are reflected in the organization's discourse).
Myths: stories, anecdotes, imaginary or symbolic narratives that circulate within the organization (e.g. the myth of social ascension).
Heroes: these are usually founders or charismatic leaders who are part of the company's myths and who serve as a reference for employees
Rites: specific behaviors resulting from customs and practices developed in the organization.
Taboos: these are the prohibitions in an organization (events, situations that should not be discussed, etc.).

2.3.2 Organizational Culture and Knowledge Management in the Public Sector

The culture in the public sector continues to be aligned with traditional models of bureaucracy. Moreover, public sector organizations are fundamentally different from private sector organizations on a number of dimensions, including the diversity of their goals, access to resources, and the nature of organizational constraints (Parker & Bradley 2000). De Long & Fahey (2000, p.122) discuss various characteristics that determine social interaction in an organization (El moustafid , 2015 , p 111) .

Organizations that do not face competition are not motivated to create efficient processes. In these organizations, the bureaucratic culture leaves little room for creativity and knowledge-based initiatives. The public sector, unlike the private sector, adopts an asymmetric reward logic: unsuccessful innovations are punished while successful ones are rewarded (Abdullah & Date 2009, p.7).

The culture in the public sector continues to be aligned with traditional models of bureaucracy. Moreover, public sector organizations are fundamentally different from private sector organizations on a number of dimensions, including the diversity of their goals, access to resources, and the nature of organizational constraints (Parker & Bradley 2000). De Long & Fahey (2000, p.122) discuss various characteristics that determine social interaction in an organization.

2.4 Hypothesis development

2.4.1 Arguing the first Hypothesis

The link between K.M and organizational performance has been highlighted in the the Knowledge-Bases View of the Firm (KBV) (Dudezert and Lancini, 2006).

First of all it is universally known that knowledge is an important weapon to maintain a competitive advantage (Choi & Lee 2014, p179) .

This is because organizations achieve superiority in performance through a combination of their tangible resources such as natural resources and intangible resources such as knowledge (Lee & Sukoco, 2007). The proper application of a knowledge management system can

make an organization self-dependent on knowledge, which can be helpful in surviving many obstacles it may face in the short and long term. In the same sense, the success of an organization often depends on its ability to accumulate knowledge and process it to enable organizational learning (Cohen & Sproul, 1991). Organizations also adopt K.M protocols for many reasons, including intensifying their efforts to create and share knowledge, improve internal collaboration, share best practices, provide competitive intelligence, and maintain a competitive advantage.

At the same time, the study of the link between the application of K.M and the performance of organizations has received particular attention.

Indeed, several researchers and practitioners have noticed the positive relationship between K.M and organizational performance such as improving innovation and creativity, product quality, and organizational performance (Schutte, & du Toit, 2012; Vila et al 2015; Alaarj et al , 2016;Novak , 2017; Adams, & Graham,2017; Abubakar et al 2019; Ernest et al 2020 , Sahibzada et al , 2020 , Salama, 2020 , Wenjiao & Yang, 2020 , El kharraz & Boussenna, 2020)

The elements presented above allow us to state the first hypothesis: **"there is a positive relationship between the application of knowledge management (creation, storage, sharing and use of knowledge) and the organizational performance of the University".**

2.4.2 Argumentation of the second hypothesis

The culture in the public sector continues to be aligned with traditional models of bureaucracy. Moreover, public sector organizations are fundamentally different from private sector organizations on a number of dimensions, including the diversity of their goals, access to resources, and the nature of organizational constraints (Parker & Bradley 2000). De Long & Fahey (2000, p.122) discuss various characteristics that determine social interaction in an organization.

Thus, there are many important and organizational culture-related factors that can affect the implementation and success of KM in public organizations. From the literature, the following main factors can be deduced (Ansari et al. 2012, p.214; Cong 2008, pp.110-111; Cong & Pandya 2003, pp.30-31; Abdullah & Date 2009, pp.6-8) :

- Trust, Collaboration, Learning from mistakes, Creativity and innovation, Knowledge sharing culture.

Also, culture can have a positive impact on performance, via the integration of values, beliefs and norms within the organization, which in turn helps shape the way members of the organization interact and engage with each other. Specific cultural values may be more or less conducive to: effective decision making; responding to and learning from mistakes; teamwork; and interdepartmental synergies and creativity.

After a review of a large literature, it turns out that organizational culture has a profound impact on organizational performance (Shahzad et al 2012).

At the same time, several researchers and practitioners have noticed the positive relationship between organizational culture and application of the knowledge management, also between Culture and performance (Jacobs et al, 2013 ; Valencia et al , 2016 ; Takac & Matko, 2017; Nikpour, 2017 ; Sunarsi , 2019).

The various theoretical arguments and empirical studies presented above allow us to deduce the second hypothesis: **"The organizational culture positively moderates the relationship between the application of knowledge management and organizational performance of Abdelmalek Essaadi University from the point of view of research teachers".**

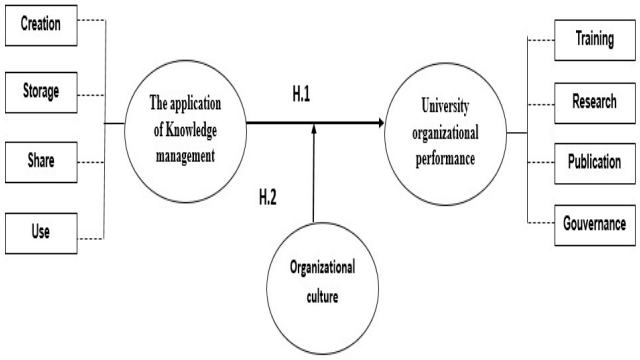

Fig -2: the research model

3. RESEARCH METHOD

3 .1 Methodological choices

Our research is influenced by the inscription of our work in an adequate epistemological paradigm according to the conceptual framework, the hypotheses, the objectives and the relationship between the variables.

In order to be precise, we will respond to all the points mentioned above which summarize our epistemological framework and our methodological choice through the table below:

Table-1: Epistemological framework and methodological choices

Methodological axis	Our choice
The Epistemological Paradigm	The post positivism
The current of thought	Scientific realism
the reasoning process	The hypothetical-deductive approach
The working method	It will be quantitative
empirical method of work	The Survey
Data collection tool	The questionnaire

The nature of the data	The data are interpretations of reality that can be considered as objective.
The nature of reality in relation to the actors	We admit that reality exists independently of us.
The relationship between the researcher and the object of the study	We admit that it has an independence between us and our subject of study because we can consider the data as objective .
testing process	The research is part of a model testing approach developed from theory.

Source: authors

3.2 The sample of our study

We administered a questionnaire to a representative sample of 88 teacher-researchers from the various institutions of Abdelmalek Essadi University, the survey was done between September and October 2020.

It seems necessary to us at this point to present an analysis of the sample of our study.

First, we present our sample size calculation:

Table-2: Sample size calculation

Population size	confidence level	Margin of error	Formula	Our sample size
1000 teacher-researchers	95%	10%	$n = \frac{\frac{z^2 x p(1-p)}{e^2}}{1+\left(\frac{z^2 x p(1-p)}{e^2 n}\right)}$	n=88 teacher-from different institutions of the university

Source: authors

3.3 Our Data Collection Tool

In order to meet the needs of our study, a questionnaire with nine indices and 40 questions was designed. However, we feel it is necessary to ensure the validity and reliability of our tool.

3.3.1 Content validity

In order to ensure the content validity of our questionnaire, we followed the steps below: First, we conducted extensive research on the topic and then specified the structure of the field under study. Then we consulted specialists in the field of knowledge management and management control, primarily teachers and practitioners, and finally, we made the necessary corrections, we eliminated almost 20 questions and reworded a number of questions to finally have a questionnaire that was valid in terms of content.

3.3.2 Analysis of questionnaire reliability

To address the issue of the reliability of the questions asked in a test, we calculated Cronbach's alpha coefficient. The table below shows the value of the coefficient for all chapters of our research using SPSS software:

Table -3: The reliability of the questionnaire

Study Variables	Chapter	Cronbach's alpha coefficient
Creation	1-4	0.822
Storage	5-7	0.838
Sharing	8-11	0.784
Use	12-15	0.971
Knowledge management	1-15	**0.957**
Training	16-20	0.928
Research	20-25	0.936
Publication	25-30	0.972
Governance	30-35	0.977
Organizational performance	16-35	**0.973**
Organizational Culture	36-40	0.906

Source : authors

From the data in the table above we notice that the value of Cronbach's alpha for all chapters in our research is between 0.784 and 0.977.

For the independent variable the value of alpha = 0.957 while for the dependent variable alpha = 0.973 and 0.906 for Organizational Culture.

Therefore, these values are well above 0.7 which confirms the internal consistency and reliability of our questionnaire.

3.3.3 Normality test

We also performed a normality test of the distribution of the data through the Kolmogorov-Smirnov test.

Table -4: Test of normality using the Kolmogorov - Smirnov Test (K-S)

	Kolmogorov-Smirnov[a]		
	Statistic	ddl	Meaning
creation	,294	88	,000
storage	,153	88	,000
sharing	,152	88	,000
use	,239	88	,000
Training	,172	88	,000
search	,170	88	,000
publication	,263	88	,000
Governance	,173	88	,000
Culture	,220	88	,000

Source: authors

From the results in Table 5 we notice that the statistical value of sigma (sig) for all the axes of the study is greater than 0.152 (the level of significance $\alpha \leq 0.05$) which means that the data collected from all the axes of our questionnaire follows a normal distribution. This will allow us to perform the necessary statistical tests to address the hypotheses of our work.

4. RESULTS AND DISCUSSIONS

4.1 Descriptive statistics

4.1.1 the application of knowledge management

For the present research, we were interested in measuring the degree of application of knowledge management (creation - storage - sharing - use). For this we proceeded to the calculation of the averages, the standard deviations of the value of T Student as shown in the following table:

Table 5- : Summary of application of the K.M.

application of K.M	The mean	S.D	T	Level	Classification
Knowledge creation	2,23	1,05	19,84	low	2
Knowledge storage	2,07	1,33	14,65	Low	4
Knowledge sharing	2,71	0,98	25,88	Medium	1
Knowledge use	2,12	1,14	17,54	low	3
Overall average	2,29	1,12	19.48	low	-

The T value in the table = 1.96, with a significance level α=0.05, and a mean level between (2.34 and 3.67)

Regarding the application (KM) based on the table above we note that the application of the process of knowledge management in the various institutions of the University Abdelmalek Essaadi is weak for all operations (creation, storage, sharing and use of knowledge):
In first position we find knowledge sharing with a mean of (2.71) and a S.D of (0.98) .
- In second position we have the creation of knowledge with a mean of (2.23) and a S.D of (1.05).
- In third position there is the use of knowledge with a mean of (2.13) and a S.D of (1.14).
- In last position we find the storage of knowledge with a mean of (2.07) and a S.D of (1.33) .
-About the values of T of Student we notice that the values of T calculated for all the operations of K.M is largely superior of the value of T of the table (1.96) for a threshold of significance $\alpha < 0.05$ what proves the significance of the results to a threshold of $\alpha < 0.05$.

These results obtained clearly illustrate the lack of application of knowledge management at the different institutions of Abdelmalek Essaadi University from the point of view of teachers.

Thereafter we will present the descriptive results of each operation following the analysis of the various items constituting the indices of the independent variable knowledge management.

4.1.2 The organizational performance

Table 6- : Summary of the organizational performance variable

organizational performance	The mean	S.D	T	Level	classement
training and learning	2,12	0,94	21,05	low	3
research	2,26	0,96	22,07	low	2
publication	2,11	1,19	16,64	low	4
governance	2,29	0,92	23,42	low	1
Overall average	2,20	1,02	20.80	low	-

The T value in the table = 1.96, with a significance level α=0.05, and a mean level between (2.34 and 3.67)

Regarding (Table 6), we could show that the organizational performance of the various institutions of the Abdelmalek Essaadi University remains low and below average for all indicators (training, research, publishing, and governance) with some nuances:
- In first position we have governance with an average of (2.29) and a S.D of (0.92).
- In second place is research with an average of (2.26) and a S.D of (0.96).
- In third position we have the training with a mean of (2.12) and a S.D of (0.94)
- In last position we have the publication with a mean of (2.11) and a S.D of (1.19).

4.1.2 Organizational Culture

Table 7- : Descriptive results for Organizational Culture

Organizational culture	The mean	S.D	Classification	Level
The culture of the institution encourages teacher to generate new ideas.	2,09	0,79	1	Medium
The institution provides events that help teachers learn new knowledge.	2,00	0,85	2	Low
The values and beliefs that circulate at the institution allow errors to be seen as sources of learning.	1,81	0,57	3	Low
In the institution there is a philosophy of promoting collective action for the exchange of ideas and experiences.	1,80	0,83	4	Low
The culture of the institution motivates teacher to develop their skills and translate them into knowledge.	1,72	0,86	5	Low
Overall average	1,89	0,67	-	Low

According to the above results, we notice that the organizational culture existing at the different institutions of Abdelmalek Essaadi University does not favor knowledge management application initiatives.

From the results below we also note that the item, << The culture of the institution Encourages faculty to generate new ideas >>. got the highest weighted mean of 2.09 and a standard deviation of 0.79 followed by the item << The institution ensures the organization of events that help faculty learn new knowledge. >> with a weighted average of 2.00 and a standard deviation of 0.85. Third is the item << The values and beliefs that circulate in the institution allow for errors to be considered as sources of learning >> with a weighted average of 1.81 and a standard deviation of 0.57. fourth we find the item << At the institution it exists a philosophy of Promotion of collective action for the exchange of ideas and experiences.>> with a weighted mean of 1.80 and a standard deviation of 0.83. last we find the item << The culture of the institution Motivates teacher-researchers to develop their skills and translate them into knowledge >> with a mean of 1.72 and a standard deviation of 0.86.

4.2 Hypotheses Testing

4.2.1 Test of the first hypothesis

This section has two main objectives, firstly to test the first hypothesis using multiple regression. And secondly, to test the moderating effect of the organizational culture using hierarchical multiple regression.

In order to test this first hypothesis, we used multiple regression to measure the impact of the application of KM (creation- storage- sharing and use) on the organizational performance(training-research-publication-governance) of the Abdelmalek Essaadi University from the point of view of the research teachers.

Table 8- : Results of the multiple regression between knowledge management and organizational performance.

The dependent variable	Summary of the model			The independent	Regression coefficients			
	multiple correlation R	R^2	Adjusted R^2		Correlation coefficient	Beta	T	Sig
Organizational performance	0,878[a]	0.841	0,768	Knowledge management	0,83**	0,87	17.01	0.000

The correlation is significant at the 0.01 level (two-tailed)

For the Pearson correlation coefficient, we notice that it is positive and strong (0.83) between the independent variable and the dependent variable which means the positive impact of the application of knowledge management on the organizational performance of Abdelmalek Essaadi University according to respondents.
For the coefficient of determination R^2 adjusted equal to (0.768), which proves the predictive strength of our model and which means that 76.8% of the variation in organizational performance at Abdelmalek Essaadi University it's due to the application of knowledge management, which leaves 23.2% of the variation in organizational performance at Abdelmalek Essaadi University to other factors not included in this study and which can positively influence the organizational performance.

We Note also that the value of β was respectively (0.87) which can allow us to predict the impact of the independent variables (knowledge creation-storage-sharing-and application) on the variation of the dependent variable (organizational performance).

For the values of student's test (t) calculated it was (17.01) higher than T in the table (1.96) which confirms the relationship between of the independent variable (Creation-storage-sharing and use of knowledge) and P.O at the level of significance ($\alpha \leq 0.05$).

From the above results, we can confirm that there is a positive relationship between the application of knowledge management (creation, storage, sharing and use) and organizational performance in Abdelmalek Essaadi University from the perspective of teachers which confirms the first hypothesis.

4.2.2 Test of the second hypothesis

In order to test the second hypothesis, we used hierarchical multiple regression, for Examining the moderating effect of organizational culture on the relationship between the application of knowledge management and organizational performance of Abdelmalek Essaadi University from the point of view of research teachers.

Table 9-: Hierarchical regression moderation analysis showing organizational culture on the relationship between K.M and organizational performance

The dependent variable	The independent variable	First model			Second model			Third model		
		Beta	T	Sig	Beta	T	Sig	Beta	T	Sig
Organizational performance	Knowledge management	0.878	17.012	0.000						
	organizational culture				0.425	44.93	0.000			
	Knowledge management * Culture							0.835	4.62	0.000
	R		0.91			0.62		0.98		
	R^2		0.77			0.61		0.97		
	ΔR^2		0.77			0.61		0.07		
	ΔF		289.40			124.92		511.33		
	Δ Sig		0.000			0.000		0.000		

Regarding the results of the second model that relates the organizational performance with the culture of each institution we note:

First that the value of the correlation coefficient R = 0.625 which implies a statistically significant relationship between the culture and organizational performance at the level of the various institutions of the University Abdelmalek Essaadi. Note also that the value of F = 124 showing a positive and significant effect of the K.M on organizational performance at a level of significance α less than 0.05, also the value of the coefficient of determination R^2=0.617 explains that 61.7% of the variation in performance at the level of Abdelmalek Essaadi University according to the teacher-researchers is due to the change in organizational culture. also the value of Beta = 0.425 which predicts the variation in organizational performance of 0.425 when there will be an increase in the culture of a degree at the level of Abdelmalek Essaadi University from the point of view of teacher-researchers.

About the third model we made added the organizational culture on the relationship between K.M and organizational performance we noticed a slight increase of 7%, so that the correlation coefficient with R = 0.984 and this increase and statistically significant with a T = 4.62 greater than 1.96 of a significance level ≤ 0.05.

This confirms the positive moderating role of organizational culture on the relationship between knowledge management and organizational performance at the level of different institutions of the University Abdelmalek Essaadi from the point of view of teachers researchers. with a degree of impact of 7% confirming the second hypothesis.

4.3 Discussion

4.3.1 Descriptive results

Overall the results obtained clearly indicate a lack of application of knowledge management at the level of different institutions of Abdelmalek Essaadi University for all operations (creation, storage, sharing and use of knowledge), This is in agreement with the results of the study of (Al-Mudallal, 2012) which concludes on a low degree of practice of knowledge management at the level of the first Ministry in Jordan from the point of view of the ministry staff. On the other hand, our results are discrepant with the results of the study of (Al ega & Firas 2012) which concludes on an average level of application of knowledge management operations at al-Quds University in Palestine from the point of view of a sample of 250 academic Staff of the said university.

Also The results collected clearly reflect a lack of presence of an organizational culture stimulating the application of knowledge management at the different institutions of the University Abdelmalek Essaadi from the point of view of teachers. It is reported that these results coincide with the findings of the study conducted by (Frey et al 2009), which proves the positive role of organizational culture in the success of knowledge management initiatives at the level of different German companies from the perspective of a sample of 495 participants.

Concerning the organizational performance, the results obtained clearly indicate a lack of performance recorded in the various institutions of the University in question from the point of view of research teachers. concerning all the indicators selected in our work (training, research, publication and governance). these results can be explained in large part by the low degree of application of knowledge management demonstrated previously at the level of the various institutions.

4.3.2 Discussion of the results of the hypothesis tests

4.3.2.1 Testing of the central hypothesis 1

The results obtained in this research have allowed us to confirm the central hypothesis on the relationship between the application of knowledge management (creation, storage, sharing and use of knowledge) and (training, research, publication and governance as indicators of organizational performance of Abdelmalek Essaadi University from the point of view of teacher-researchers. This result is consistent with the theoretical framework mobilized in this work, namely the theory of knowledge Knowledge Based View (KBV) which proposes to introduce a new vision of the firm. These theories have allowed us to highlight the link between knowledge management and organizational performance (Dudezert and Lancini, 2006).

Also with the help of multiple regression, we were able to demonstrate this relationship with a Pearson correlation coefficient R = 0.917 well above 0.5 confirming a positive link, strong and statistically significant. We point out to this effect that these results coincide with the results obtained by other research such as the study of (Sahibzada et al, 2020) which confirms this positive link between knowledge management and performance within academic institutions in China from the point of view of 536 teachers and administrators. Also these results remain in agreement with the findings of the research of (Shahzad,M et al in 2020) with 475 respondents of multinational companies in Pakistan which confirm the link between knowledge management process (acquisition, dissemination and application) and sustainable organizational performance (economic -social-environmental) with the integration of green innovation and organizational agility following the theory of resource based vision (RBV), also the study conducted by (Alaarj et al, 2016) indicate a significant positive impact of K.M processes on organizational performance of Malaysian public listed companies .

As well, the same sens of the findings drawn in the work of (Abu Bakar et al. In 2015) which proves a positive impact between the practice of knowledge management (creation-storage-transfer-use) is the development of performance on the construction companies in Malaysia.

4.3.2.2 Test of the second hypothesis

The results collected using the hierarchical multiple regression prove the validity of the second hypothesis on the presence of a positive moderating role of the organizational

culture on the relationship between the application of knowledge management and organizational performance of Abdelmalek Essaadi University from the point of view of teachers researchers.

As a result, we noticed a slight increase of 7% on the strength of the relationship between K.M and performance of the University, with a passage of the primary correlation coefficient of 0.917 to R = 0.984 with the addition of organizational culture as the third variable of the model, so this increase is significant with a T = 4.62 greater than 1.96 with a significance level ≤ 0.05 .

This confirms the positive moderating role of organizational culture on the relationship between K.M and organizational performance at the level of different institutions of Abdelmalek Essaadi University from the point of view of teachers, with a degree of impact of 7%.

These results coincide with the results obtained by other researchers including the work of (Salama, 2020), which confirms the direct impact of the availability of K.M infrastructure on the performance of the education sector in Libya from the point of view of 612 staff of the same sector.

Also the study of (Shamia et al, 2018) which proves the positive impact of culture on improving the relationship between knowledge management and performance of universities in Palestine and especially Al Azhar University subject of the study.

Similarly, the results obtained are in line with the study of (Novak , 2017) , which had as its main objective to analyse the various works on knowledge management processes (creation, storage, transfer and application) and organizational performance, as well as the relationship between the elements of knowledge infrastructure (technology, organizational culture and organizational structure) . The majority of the reviewed studies revealed the positive impact of K.M practices and/or knowledge infrastructure elements on organizational performance.

4.3.3 Test of the theoretical model

Using multiple regression, and hierarchical multiple regression we were able to show that the knowledge management process has a positive impact on the organizational performance of the university, also that the organizational culture has a positive and moderating role on this relationship.

The figure below presents the results confirming the positive relationship between our variables (Pearson's correlation coefficient is greater than 0.5 for all relationships between variables). This validates both hypotheses of this research and proves the validity of our hypothetical research model:

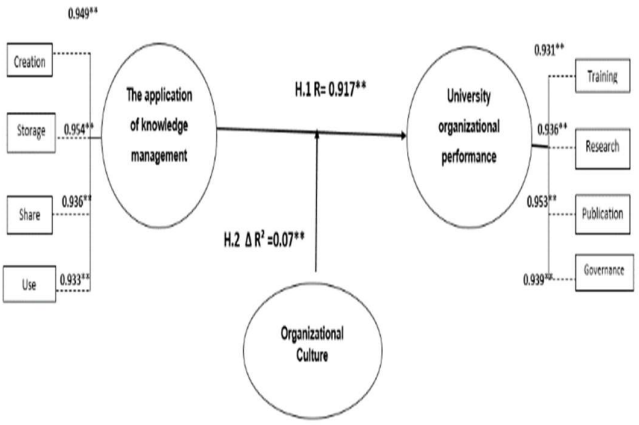

Fig -3: test of the theoretical model

5. CONCLUSION

This study had several objectives, mainly to assess the degree of application of K.M in Moroccan universities through Abdelmalek Essaadi University, showed the existence of a relationship between this application and the organizational performance of the university in question, verified the presence of key factor of success of knowledge management (culture), and the examination of the moderating role of this factor on the intensity of this relationship from the point of view of teacher-researchers of Abdelmalek Essaadi University .

One of the main theoretical contributions of our research lies in the fact that we relied on a multidisciplinary theoretical framework mobilizing theories from different disciplines, namely the Knowledge Based View (KBV), which proposes to introduce a new vision of the firm. These theories allowed us to highlight the link between knowledge management and organizational performance (Dudezert and Lancini, 2006).

From a methodological point of view, it is quite rare in the research on public organizations to see studies in which the authors have used multiple regression, as well as the use in the analysis of the method of testing moderating effects with the help of hierarchical multiple regression. We therefore suggest that the use of such tools, usually intended for the study of private organizations, is also possible in the study of universities.

In parallel The empirical phase of our research work offers originality in the study of public organizations and more precisely universities with a quantitative approach, an approach that is increasingly developed in management science.

We also believe that the triangulation of methods has made it possible to delimit the contours of the problematic, and consequently to bring more reliability to the results obtained.

At the same time, this work has not delved into the issue of organizational performance in the university setting, which is the ultimate goal of the application of knowledge

management. We believe that this aspect remains unexplored in the literature and deserves to be developed separately, given the complex variables that it may involve.

We also note a limitation related to the size of the sample which was relatively small with the choice of 88 teachers among 1000 teachers-researchers at the Abdelmalek Essaadi University, even if we proceeded to a scientific approach fixing the margin of error and the confidence level.

Also in our future work we will study other success factors of knowledge management initiatives such as: organizational structure , leadership , and information technology.

In addition, an increase in the size of our samples per establishment could perhaps better explain the influence of knowledge management for each establishment. In addition, the choice of a single region (Tangier-Tetouan-Al Hoceima) in this work, pushes us to expand our field of work for future work to cover the national territory in its entirety.

Moreover, it should be noted that this research has important implications for the leaders of Moroccan universities. The confirmation of the hypotheses of our work reminds us that each university must clearly define its strategy based on a better knowledge management as a cornerstone of any action aiming at excellence and organizational performance, and consequently the improvement of its competitiveness at the international level. Moreover, our research constitutes a line of thought for researchers wishing to strengthen research related to knowledge management and organizational performance in the university environment and especially in Morocco.

REFERENCES

Aamoun H,. & Sail, S. (2020). L'impact du capital immatériel sur la performance des entreprises : approche théorique , Revue du contrôle, de la comptabilité et de l'audit « Volume 4 : numéro 2» pp : 109 – 129.

Abdullah, H,. & Sarinah, A. (2009). A Review of Knowledge Management Models. The Journal of International Social Research Volume 2 / 9 .

Abu Naser , S ,. Al Shobaki, M,. Abu Amuna, Y. (2016) Intitulée Knowledge Management Maturity in Universities and its Impact on Performance Excellence" Comparative study". International Journal of Information Technology and Electrical Engineering, 6(2), 47-59.

Abubakar, A ,. Hilman ,H ,. Kaliappen , N. (2018). New Tools for Measuring Global Academic Performance , DOI: 10.1177/2158244018790787 journals.sagepub.com/home/sgo.

Adams, F,. & Graham, K .(2017). Integration, knowledge creation and B2B governance: The role of resource hierarchies in financial performance , Industrial Marketing Management.

Al Ega , E,. & Firas , M . (2012) Total Quality Assurance Management Practicing in Registration and Admission Sections of Al-Quds Open University-Gazza , Vol 5 (2012): Issue 1, the arab journal for quality assurance in higher education,https://ust.edu/ojs/index.php/AJQAH/article/view/591.

Alaarj , S,. Zainal, A, ,. Ummi,S . (2016). Turkey Mediating Role of Trust on the Effects of Knowledge Management Capabilities on Organizational Performance, 12th International Strategic Management Conference, ISM, Antalya .

Alavi , M ., & Leidner, D. (2001). Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues. MIS Quarterly, 25(1), 107-136. DOI: 10.2307/3250961.

Al-Mudallal, A. (2012). Impact of Knowledge Management Application on Performance Levels at Palestinian Governmental Institutions: Applied Study Carried at Prime Ministry, unpublished master's dissertation, Islamic University, Gaza.

Ansari, M., Youshanlouei, H,. Mood, M. (2012).A Conceptual Model for Success in Implementing Knowledge Management: A Case Study in Tehran Municipality. Journal of Service Science and Management, 05(02), pp.212–222.

Asif, M,. & Searcy, C. (2014). "Determining the key capabilities required for performance excellence in higher education", Total Quality Management & Business Excellence Journal, Vol. 25 Nos 1/2, pp. 22-35.

Asif, M., Raouf, A,. Searcy, C. (2013). "Developing measures for performance excellence: is the Baldrige criteria sufficient for performance excellence in higher education?", Quality & Quantity, Vol. 47 No. 6, pp. 3095-3111.

Badri, M,. & Abdulla,M. (2004). "Awards of excellence in institutions of higher education: an AHP approach", International Journal of Educational Management, Vol. 18 No. 4, pp. 224-42.

Becerra,. & Gonzales,I.(2004). A Knowledge Management, Chalanges, Solutions and Technologies .

Bouayad, A., Rouggani K., Lamchouat, M. (2017). La performance universitaire publique au cœur de la théorie des STAKEHOLDERS, Economie et Kapital, Numéro 12 / pp. 48-78, ISSN:2489-1282.

Butler,T., Murphy, C. (2007). Implementing Knowledge Management Systems in Public Sector Organisations: A Case Study of Critical Success Factors. In H. Österle, J. Schelp, & R. Winter, eds. 15th European Conference on Information Systems. University of St. Gallen, pp. 612–623.

Cartier-Bresson J.,(2008). Economie politique de la corruption et de la gouvernance, L'Harmattan. Paris,.

Choi, B., & Lee, H. (2014). Knowledge Management Enablers, Processes, and Organizational Performance: An Integrative View and Empirical Examination, Journal of Management Information Systems / Summer 2003, Vol. 20, No. 1, pp. 179–222.

Clarkson , M.(1995). « A stakeholder Framework for analyzing and evaluating corporate social Stakeholder theory » , Accounting, Organisation and Society, Vol.17, N°. 6, pp. 595-612 .

Cohen, M.D., & Sproul, L.E. (1991). 'Editors' Introduction', Organization Science 2(1): 1–3 (Special issue on Organizational Learning – Papers in honor of [and by] James G. March).

Cong, X., & Pandya, K. V. (2003). Issues of Knowledge Management in the Public Sector. Electronic Journal of Knowledge Management, 1(2), pp.25–33.

Cong, X., (2008). Towards a framework of knowledge management in the chinese public sector: a case study of china customs. Northumbria University.

Costa , V., Monteiro. (2016). Key knowledge management processes for innovation: a systematic literature review, VINE Journal of Information and Knowledge Management Systems , ISSN: 2059-5891.

Abidi, W,. Sanchez, M,.Aoiz,G,.(2018), Phenotypic and biochemical diversity in peach [Prunus persica (L.) Batsch] cultivars. Journal of New Sciences. Agriculture and Biotechnology 51 (5): 3171-3178.

Doueihi, M. (2009). La grande conversion numérique Seuil, Paris, 271 , https://doi.org/10.4074/S0336150009002129.

Drucker, P. (1993) ."The rise of the knowledge society." The Wilson Quarterly, vol. 17, no. 2, p. 52+.

Dudézert, A., & Lancini, A . (2006). Performance et Gestion des Connaissances : contribution à la construction d'un cadre d'analyse. Journées des IAE, Congrès du cinquantaire, Montpellier, https://doi.org/10.1007/BF01384902.

El Kharraz, O., & Boussenna, Y. (2020). Knowledge management and organizational performance: Abdelmalek Essaadi university cases. International Journal of Accounting, Finance, Auditing, Management and Economics, 1(3), 149-168. https://doi.org/10.5281/zenodo.4281558.

El moustafid , S . (2016) , la gestion de la continuité des connaissances dans les organisations publiques, thèse de doctorat, disponible sur ghttps://www.groupeiscae.ma/wp-content/uploads/2015/05/Th%C3%A8se-LA-GESTION-DE-LA-CONTINUITE-DES-CONNAISSANCES-DANS-LES-ORGANISATIONS-PUBLIQUES-de-Said-EL-MOUSTAFID.pdf

Elms H., Shawn B., Wicks A. (2002). « Ethics and Incentives: An Inductive Development of Stakeholder Theory in the Health Care Industry », Business Ethics Quarterly, n°12, pp. 413-432,.

Ermine,J,.(2008). Management et ingénierie des connaissances : modèles et méthodes , disponible sur HAL Id: hal-00986764 https://hal.archives-ouvertes.fr/hal-00986764.

Ernest, E ., Ngamoe, B ., Villeneuve , A . (2020). L'influence des pratiques de gestion des connaissances dans le processus de gestion stratégique des TI , International Journal of Business and Technology Studies and Research , ISSN: 2665-7716 , Volume 2, Issue 1.

Fahey, L., & Prusak , L. (1998). The eleven deadliest sins of knowledge management. California management review, 40(3), pp.265–276.

Freeman , E . (1984) . Strategic Management: A Stakeholder Approach,.

Frey,P., Linder,F., Muller ,A . (2009). Project Knowledge Management Organizational Design and Success Factors - An Empirical Study in Germany , Hawaii International Conference on System Sciences DOI: 10.1109/HICSS.2009.356

Abu Bakar , H., Rosli, M.,Nik, I. (2015) . Effects of Knowledge Management and Strategic Improvisation on SME Performance in Malaysia , Asian Social Science; Vol. 11, No. 9; 2015 ISSN 1911-2017 E-ISSN 1911-2025 Published by Canadian Center of Science and Education.

Higgins, J. C. (1989). Performance measurement in universities. European Journal of Operational Research, 38, 358-368. International Social Research, 2(9), pp.187–198.

Jacobs , R., Mannion,R., Huw D .(2013). The relationship between organizational culture and performance in acute hospitals , pg 115- 125 , www.elsevier.com/locate/socscimed.

Johnes, J., & Taylor, J. (1990). Performance Indicators in Higher Education: UK Universities. Open University Press and the Society for Research into Higher Education.

Laal,M,.(2010), Knowledge management in higher education ,Procedia Computer Science 3 (2011) 544–549 doi:10.1016/j.procs.2010.12.090.

Laudon, K. C., et Laudon, J. P. (2007). Sistemas de Informação Gerenciais. São Paulo: Pearson Prentice Hall.

Lee, L.T., & Sukoco, B.M. (2007). The effects of entrepreneurial orientation and knowledge management capability on organizational effectiveness in Taiwan: the moderating role of social capital, International Journal of Management, 24(3), 549- 73.

Lee, Sh., & Tseng, P. (2014). The Effect of Knowledge Management Capability and Dynamic Capability on Organizational Performance, Journal of Enterprise Information Management, 27: 1-43.

Li , Y ., Huang, J ., Tsai, M. (2009). Entrepreneurial orientation and firm prformance: The role of knowledge creation process , Industrial Marketing Management.

Lin,. & lee . (2005). Spoken document understanding and organization , IEEE Signal Processing Magazine (Volume: 22, Issue: 5) , PP: 42 – 60 ,
DOI: 10.1109/MSP.2005.1511823.

Lukman, R., Krajnc, D., Glavič, P. (2010). University ranking using research, educational and environmental indicators. Journal of Cleaner Production, 18, 619-628.

Lytras, M,. pouloud ,N,.poulymenakou,A.(2002), Knowledge management convergence: Expanding learning frontiers , Journal of Knowledge Management 6(1):40-51 , DOI: 10.1108/13673270210417682.

Manjarrés, l. , Carrión , A ., Vega , J. (2009) , The Effects of University–Industry Relationships and Academic Research On Scientific Performance: Synergy or Substitution? , https://doi.org/10.1007/s11162-009-9142- .

Mills, A., & Smith, T. (2011). "Knowledge Management and Organizational Performance: A Decomposed View", Journal of Knowledge Management, 15(1): 156-171.

Mitchell, Ronald K., Bradley R. Agle ., Donna J. Wood. (1997). « Toward a theory of stakeholder identification and salience : defining the principle of who and what really counts ». Academy of Management Review, Vol. 22, No. 4,.

Naranjo-Valencia , j ., & al (2016) , Studying the links between organizational culture, innovation, and performance in Spanish companies _ , http://dx.doi.org/10.1016/j.rlp.2015.09.009.

Nedwek, B., Neal, J. (1994). Informational cultures: Facing challenges of institutional research within cross-continental settings. Res-High-Educ 35, 429–442. https://doi.org/10.1007/BF02496381.

Nikpour , A. (2017). The impact of organizational culture on organizational performance: The mediating role of employee's organizational commitment , International Journal of Organizational Leadership 6(2017) 65-72.

Nonaka, I., (1994). A Dynamic Theory of Organizational Knowledge Creation. Organization Science, 5(1), pp.14–37.

Novak , A , (2017) , KNOWLEDGE MANAGEMENT AND ORGANIZATIONAL PERFORMANCE – LITERATURE REVIEW , Management, Knowledge and Learning , International Conference 2017 Technology, Innovation and Industrial Management.

Parker, R., & Bradley, L.(2000). Organisational culture in the public sector: evidence from six organizations International Journal of Public Sector Management , ISSN: 0951-3558.

Penrose, E. (1959). The Theory of The Growth of The Firm, Basil Blackwell.

Petrides, A.. & Nodine, R. (2003). Knowledge Management in Education: Defining the Landscape , ERIC Number: ED477349, disponible sur : https://eric.ed.gov/?id=ED477349.

Ramachandran, S., Chong, S., Wong, K. (2013), "Knowledge Management Practices and Enablers in Public Universities: A Gap Analysis, Campus-Wide Information Systems", 30(2): 76-94.

Ranjan , J,. & Bhatnagar, V,. (2008). Principles for successful aCRM in organizations, Direct Marketing An International Journal 2(4):239-247, DOI: 10.1108/17505930810931035

Reich ,B ,. Gemino , A,. Sauer , C . (2013). How knowledge management impacts performance in projects: An empirical study, ScienceDirect International Journal of Project Management 32 (2014) 590–602 .

Sahibzada, U., Jianfeng, C. & Latif, K. (2020). Interpreting the impact of knowledge management processes on organizational performance in Chinese higher education: mediating role of knowledge worker productivity, Studies in Higher Education, Volume 45, Issue 11 .

Shahzad, M., Jamilab, M. & Zubaire, S. (2020). Exploring the influence of knowledge management process on corporate sustainable performance. through green innovation, Journal of Knowledge Management, ISSN: 1367-3270.

Salama , S ., Isaac, O., Habtoor, N. (2020). Impact of Availability of Knowledge Management Infrastructure on Improving the Performance of The Education Sector Staff in Libya: Organizational Loyalty as a Mediating Variable , International Journal of Management and Human Science (IJMHS), eISSN: 2590-3748 URL: http://www.ijmhs.org.

Schutte, E., & Toit. (2012). Knowledge creation processes as critical enablers for innovation , International Journal of Information Management , Volume 32, Issue 4, August 2012, Pages 354-364

Shahzad, F., Luqman, R.., Khan, R.,Shabbir, L. (2012). Impact of organizational culture on organizational performance: An overview. Interdisciplinary Journal of Contemporary Research in Business, 3(9), 975–985.

Shamia et al., (2018) (Using the Asian Knowledge Model "APO" as a Determinant for Performance Excellence in Universities- Empirical Study at Al -Azhar University- Gaza.

Sunarsi , d .(2019) .The Analysis of The Work Environmental and Organizational Cultural Impact on The Performance and Implication of The Work Satisfaction , Jurnal Ilmiah Ilmu Administrasi Publik: Jurnal Pemikiran dan Penelitian Administrasi Publik Volume 9 Number 2, July– December 2019. Page 237-246 p-ISSN: 2086-6364, e-ISSN: 2549-7499.

Takacs,T,.& Matko,M, (2017). EXAMINATION OF THE RELATIONSHIP BETWEEN ORGANIZATIONAL CULTURE AND PERFORMANCE , Int. Rev. Appl. Sci. Eng. 8 (2017) 1, 99–105 DOI: 10.1556/1848.2017.8.1.14

Thévenet, M (2006) , La culture d'entreprise, 5e édition.

Vila , L ., Cabrer, B,. Pavía, J. (2015). On the relationship between knowledge creation and economic performance , https://doi.org/10.3846/20294913.2013.876687 , PP 539-556

Wenjiao D,. & Yang H . (2020) . Research on Performance Evaluation of Knowledge Management Innovation in Colleges and Universities , https://doi.org/10.2991/aebmr.k.200708.054 , Proceedings of the 4th International Symposium on Business Corporation and Development in South-East and South Asia under B&R Initiative (ISBCD 2019) , ISBN 978-94-6252-983-0 .

Wiig, K.. (1997).'Knowledge Management: an introduction and perspective', The Journal of Knowledge Management.

Ziyadat, M. (2008) . «Tendances contemporaines de la gestion des connaissances», Safa House for Publishing and Distribution, Amman. 3 .

Annex: The questionnaire used in this work

1. The independent variable: the application of knowledge management

Index (knowledge creation)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
the institution recruits the brightest executives to benefit from their knowledge.					
The institution benefits from the successful experiences of other institutions.					
Scientific dialogue among the university brainstorming.					
The institution promotes continuous learning and development of teachers' skills and abilities.					

Index (knowledge storage)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
the university store the knowledge in Papers and documents.					
At the institution, there are databases providing information on different subjects.					
The institution has a system of knowledge retrieval.					

Index Knowledge sharing	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The dissemination of knowledge in the institution is done through the publication of articles, journals, and courses...					
the university shares Knowledge through holding internal meetings, seminars, and workshops.					
The knowledge at the institution is shared through e-mails and various means of communication.					
Knowledge at the institution is distributed through a computer network helping teachers to access databases.					

2 The moderating variable: organizational culture

Index (Organizational culture)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The culture of the institution encourages teacher-researchers to generate new ideas.					
The institution ensures the organization of events that help teachers learn new knowledge.					
The values and beliefs that circulate in the institution allow considering mistakes as sources of learning. .					
In the university, there is a philosophy of promoting collective action for the exchange of ideas and experiences.					
The culture of the institution motivates teachers-researchers to develop their skills and translate them into knowledge					

Index use of knowledge	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
the institution has the human, material and logistical resources necessary for the use of knowledge					
The institution is interested in the application and use of knowledge.					
the institution relies on various teams of internal experts for knowledge use.					
The institution uses standards and criteria for the mastery of the knowledge used.					

3 The dependent variable: university organizational performance

Index Training and learning	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The institution offers interdisciplinary educational programs in line with technological developments in the workplace.					
The quality of the didactic equipment and the practical laboratories of the establishment help the teachers to offer quality training.					
The management of the school wishes to develop the mechanisms and methods of teaching by involving you and calling on experts.					
The management of the institution provides teachers-researchers and students with a sufficient number of physical computers and a sufficient number of books and journals.					
The ratio "Number of teachers / Number of students" of the institution allows the teachers to offer a quality training					

Index (Research and innovation)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The institution organizes a sufficient number of national and international scientific meetings.					
The institution has a sufficient number of laboratories and independent research teams.					
The direction of the institution provides professors with the equipment and premises necessary for research activities and a budget dedicated to research activities.					
The institution has a sufficient number of contractual research projects carried out for the benefit of public and private organizations.					
The institution has a sufficient number of inter-university and international research networks.					

Index (publication and scientific production)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The institution has a sufficient number of papers in ISI indexed conferences.					
The institution encourages teachers to initiate co-publications of articles with foreign researchers in indexed journals.					
The institution motivates teachers to increase their citations by ISI (Institute for Scientific Information) journals.					
The institution encourages teachers to produce a sufficient number of papers in national and international meetings.					
The institution has a sufficient number of articles in indexed publications.					

Index (Governance)	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree
The university allocates a significant portion of its resources to establish international cooperative relationships.					
The university seeks to obtain a prominent position at the national level.					
The university makes efforts to improve its local and international image.					
The direction of the institution is engaged in a system of evaluation of training, teaching, and research activities periodically.					
The management of the institution organizes a sufficient number of in-service training for the benefit of teachers annually.					