

Knowledge Management practices in Western Algerian universities: The use of digital tools, Microsoft TEAMS and MOODLE platform.

ممارسات إدارة المعرفة في الجامعات الجزائرية الغربية:

استخدام الأدوات الرقمية ، Microsoft TEAMS ومنصة MOODLE.

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Abstract:

The aim of this article is to examine the level of awareness and use of Digital tools, Microsoft TEAMS and MOODLE in knowledge management practices in Algerian Western universities . The study is guided by three (3) objectives: to identify Digital tools, Microsoft TEAMS and MOODLE platform used in knowledge management (KM) practices; ascertain areas of knowledge management practices where Digital tools, Microsoft TEAMS and MOODLE are applied and identify challenges associated with integrating them into knowledge management practices in university with reference to Western Algeria. Data for the study was generated through questionnaires that were administered to students and instructors. Findings revealed that knowledge management (KM) are practiced in the surveyed universities. The most predominant form of KM is knowledge organization (97.6%), followed by knowledge dissemination (92.6%). Most university students and instructors in the Algerian Western universities surveyed are yet to appreciate and integrate Microsoft TEAMS and MOODLE into knowledge management practices. Low bandwidth/slow internet connectivity, inadequate power supply and availability of too many tools to learn among others are the major factors affecting the use of Digital tools, Microsoft TEAMS and MOODLE in knowledge management in the surveyed universities. This paper concludes that knowledge management is an evolving phenomenon in the information and knowledge industry.

Key words: Knowledge management, Digital tools, Microsoft TEAMS, MOODLE platform, Algerian Western universities.

ملخص:

الهدف من هذا المقال هو فحص مستوى الوعي واستخدام الأدوات الرقمية و Microsoft TEAMS و MOODLE في ممارسات إدارة المعرفة في جامعات الغرب الجزائري. تسترشد الدراسة بثلاثة (3) أهداف: لتحديد الأدوات الرقمية ، Microsoft TEAMS ومنصة MOODLE المستخدمة في ممارسات إدارة المعرفة (KM) ؛ للتأكد من مجالات ممارسات إدارة المعرفة تم تطبيق الأدوات الرقمية و Microsoft TEAMS و MOODLE وتحديد التحديات المرتبطة بدمجها في ممارسات إدارة المعرفة في الجامعة بالرجوع إلى غرب الجزائر. تم إنشاء بيانات الدراسة من خلال الاستبيانات التي تم إجراؤها على الطلاب والاساتذة. أظهرت النتائج أن إدارة المعرفة (KM) تمارس في الجامعات التي شملتها الدراسة. الشكل الأكثر انتشارا لإدارة المعارف هو تنظيم المعرفة (97.6٪) ، يليه نشر المعرفة (92.6٪). معظم طلاب الجامعات والمدرسين في جامعات الغرب الجزائري الذين شملهم الاستطلاع لم يجربوا استخدام هذه الادوات ودمجوا Microsoft TEAMS و MOODLE في ممارسات إدارة المعرفة. يعد النطاق الترددي المنخفض / الاتصال البطيء بالإنترنت ، وعدم كفاية إمدادات الطاقة وتوافر عدد كبير جدًا من الأدوات للتعليم من بين العوامل الأخرى التي تؤثر على استخدام الأدوات الرقمية و Microsoft TEAMS و MOODLE في إدارة المعرفة في الجامعات التي شملتها الدراسة. تخلص هذه الورقة إلى أن إدارة المعرفة هي ظاهرة متطورة في صناعة المعلومات والمعرفة. الجوهرية المتوصل إليها.

الكلمات المفتاحية: إدارة المعرفة ، الأدوات الرقمية ، Microsoft TEAMS ، منصة MOODLE ، الجامعات الغربية الجزائرية.

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1. INTRODUCTION

Emerging technologies such as social networking applications, web based forums, wikis, blogs which are often referred to as web 2.0 technologies, are transforming the way people share knowledge and ideas with each other (Dave & Koskela, n.d.). Emphasis on knowledge management has resulted from the economics, industrial and cultural development adding competitive value to products and services by the application of human knowledge (Chandran & Raman, 2009). Knowledge management is the deliberate and systematic coordination of an organization's people, technology, processes, and organizational structure in order to add value through reuse and innovation. This is achieved through the creating, sharing, and applying knowledge as well as through the feeding of valuable lessons learned and best practices into corporate memory in order to foster continued organizational learning. Businesses are now realizing the importance of knowledge management systems as a critical success factor in today's dynamic borderless society (Chandran & Raman, 2009). As aptly underscored by Smith (2001) throughout recorded history, some form of written language has been used to document their "know-what" or explicit knowledge. Pursuits of tacit, explicit and self-knowledge, self-renewal and innovation are timeless, endless and relentless. Knowledge management has existed for a long time, since people frequently come across and uses different forms of common wisdom which they acquired from one large-scale, social collaborative knowledge process (Dave & Koskela, n.d.). Knowledge management is an interdisciplinary field that draws a variety of business activities and academic specialization (Alegbeleye, 2010). Knowledge management focuses on knowledge processes, knowledge creation, acquisition, refinement, storage, transfer, sharing and utilization (King, 2009). KM comprises practices involving various activities which encompass theories, models, processes and technologies that support the protection, development, and exploitation of knowledge assets. Knowledge management is now recognized as an organization's most valuable asset and must be managed in different ways unlike other resources because knowledge is a complex asset ((Haslinda & Sarinah, 2009; Mosoti & Masheka, 2010). Though it is well acknowledged that digital tools have the capacity to transform the provision of university and information services in the knowledge economy, the extent to which institutions in developing countries are integrating digital tools to knowledge management practices is yet to be established based on empirical evidence. It is against this background that this study was carried out to investigate the use of digital tools, Microsoft TEAMS and MOODLE platform in knowledge management practices in Western Algerian universities.

2. LITERATURE REVIEW

Knowledge management has been described by Fontaine and Lesser (2002) as the ability of an organization to create, share and use the collective knowledge of its products, processes, and people to increase workplace productivity and reduce activities that "reinvent the wheel". Knowledge management according to King (2009) is a set of relatively new organizational activities that are aimed at improving knowledge, knowledge-related practices, organizational behavior and decisions and organizational

performance. The rationale for knowledge management can be inferred from the assertion of Smith (2001) Valuable human and knowledge resources will be wasted unless management openly accepts and supports efforts to gather, sort, transform, record and share knowledge. Priceless knowledge will continue to be lost unless organizations make better use of their prime resources - relatively unchallenged creative people who are eager to apply their knowledge. Having an effective knowledge management system would help the university in creating and sharing knowledge. Every organization has a slightly different knowledge base and organizational culture. Che, Tasmin, Takala and Norazlin (2012) contends that academic institutions should rethink and explore ways to improve their services and become learning organizations in which to discover how to capture and share tacit and explicit knowledge within the university.

Knowledge management (KM) enables effective collaboration by ensuring the efficient and timely flow of knowledge throughout the organizations, it narrows the gap between relevant information required and possessed (Prevou, 2011). Through KM, organizations seek to acquire or create potentially useful knowledge and to make it available to who can use it at a time and place that is appropriate for them to achieve maximum effective usage in order to positively influence organizational performance (King, 2009). Bhojaraju (2005) suggested that KM in the organization helps in acquiring, storing and utilizing knowledge for problem-solving, dynamic learning, strategic planning, and decision-making, of which the library is not an exception. This to him also prevents intellectual assets from decay, adds to firm intelligent and provides increased flexibility.

Technology according to Smith (2001) plays a key role in collecting and codifying knowledge for distribution. It is important to have a strong information technology (IT) framework to design and implement the systematic storage and dissemination of information. King (2009) stressed that organizational culture is believed to influence the knowledge-related behaviors of individuals, teams, organizational units and overall organizations because it importantly influences the determination of which knowledge is appropriate to share, with whom and when.

3.METHODOLOGY

The study was undertaken in Western Algerian universities (Tlemcen, SBA, Mostaganem, Mascara and Oran). The descriptive survey design was adopted for the study. A purposive sampling method was used to select 100 academicians from the selected universities. The questionnaire was used to collect data based on three research questions formulated on line with the objectives of the study. The generated data was analyzed using simple frequencies counts. Below is the table showing the various institutions and the number of questionnaires retrieved.

4. FINDINGS AND DISCUSSION

The results and findings of the study based on data generated from the questionnaire are hereby presented as follows:

Table 1: Knowledge management practice

	Variables	Frequency	Percentage
1.	Knowledge acquisition	61	71.8%
2.	Knowledge capturing	49	57.6%
3.	Knowledge organization	83	97.6%
4.	Knowledge dissemination	79	92.9
5.	Knowledge preservation	77	90.6
6.	Knowledge sharing	76	89.4
7.	Knowledge creation	66	77.6
8.	Knowledge transfer	71	84.2

Source: Author's

From table 1, 61 (71.8%) of the participants affirmed that knowledge acquisition is practiced in their universities. There is an indication that knowledge management is practiced in all the universities surveyed as all the items (1-8) scored above 50%. Knowledge organization is leading with 97.6%, followed by knowledge dissemination 79 (92.9%), knowledge preservation 7 (90.6%). Knowledge sharing has a score of 76 (89.4%). 66 (77.6%) of the participant also affirmed that knowledge creation is practiced in their universities.

Table 2: Digital tools used in knowledge management practices

	Digital tools	Frequency	Percent age
A	MOODLE	63	74.1
B	Zoom	26	30.6
C	Youtube	12	14.1
D	Blogs	40	47.1
E	Wikis	29	34.1
F	Microsoft TEAMS	67	78.8
G	Flickr	11	12.9
H	Twitter	22	25.8
I	Goole meet	15	17.6
J	Instant messaging	37	43.5
K	Online Discussing Forum	29	34.1
L	LinkedIn	14	16.5

Source: Author's

From table II, 63 (74.1%) of the participating academicians affirmed that they use MOODLE in knowledge management practice, 67 (78.8%) indicates that their university uses Microsoft TEAMS in knowledge management. All the other items in the table have a score below 50%. The findings, therefore, reveals that most universities in the five cities surveyed are yet to appreciate and integrate digital tools (SMTs) into knowledge management practices.

Table 3: Factors affecting use of digital tools in knowledge management

S/N	Variables	SA (4)	A (3)	SD (2)	D (1)	Total	Mean	Decision
1.	Low bandwidth / slow internet connectivity	33 (132)	45 (135)	4 (8)	3 (3)	85 (278)	3.27	Accepted
2.	Time constraint	9 (36)	29 (87)	2 (4)	45 (45)	85 (172)	2.02	Rejected
3.	Lack of ICT skills	10 (40)	22 (66)	5 (10)	48 (48)	85 (164)	1.93	Rejected
4.	Lack of privacy	6 (24)	24 (72)	18 (36)	37 (37)	85 (169)	1.99	Rejected
5.	Unwillingness of universities to adopt use of digital tools in KM.	6 (24)	24 (72)	8 (16)	47 (47)	85 (248)	2.92	Accepted
6.	Lack of knowledge about digital tools	18 (72)	36 (108)	8 (16)	23 (23)	85 (159)	1.81	Reject
7	Inadequacy of technical skills among academicians	17 (68)	54 (162)	4 (8)	10 (10)	85 (248)	2.92	Accepted
8.	Conservative culture adopting new technology	11 (44)	47 (141)	2 (4)	25 (25)	85 (214)	2.52	Accepted
9.	Poor perception of the potentials of digital tools	14 (56)	44 (132)	2 (4)	25 (25)	85 (217)	2.55	Accepted
10.	Lack of supportive policies	21 (84)	32 (96)	3 (6)	29 (29)	85 (215)	2.53	Accepted
11.	Low interest of academicians in learning and utilization of digital tools	16 (64)	46 (138)	3 (6)	20 (20)	85 (228)	2.68	Accepted
12.	Poor institutional support for staff ICT literacy training	11(44)	35(105)	4(8)	35(35)	85(192)	2.26	Accepted
13.	Lack of internet access	23 (92)	22 (66)	6 (12)	34 (34)	85 (204)	2.40	Rejected
14.	Lack of time to use digital tools	13 (52)	19 (57)	10 (20)	43 (43)	85 (172)	2.02	Rejected
15.	Availability of too many digital tools to learn	35 (140)	29 (87)	8 (16)	13 (13)	85 (256)	3.01	Accepted
16.	Organizational policy	15 (60)	36 (108)	25 (50)	9 (9)	85 (227)	2.67	Accepted
17.	Inadequate power supply	27 (108)	43 (129)	14 (28)	1 (1)	85 (266)	3.13	Accepted

Source: Author's

From table 3, low bandwidth/slow internet connectivity (3.27), inadequate power supply (3.13), and availability of too many digital tools to learn (3.01) had a mean score of 3.00 and above. In other words, these are the major factors affecting the use of Digital tools in knowledge management in the surveyed universities. Other identified factors include variables in item number 5, 7, 8, 9, 10, 11 and 16 that has a mean score above 2.50 but below 3.00. It is clear that knowledge management is practiced in the surveyed universities. The most predominant form of KM is knowledge organization (97.6%), followed by knowledge dissemination

(92.6%). All the other items i.e. knowledge sharing, knowledge transfer, knowledge acquisition and knowledge capturing has an average score above 50%. This is not surprising considering that the fundamental philosophy behind establishing digital tools in universities is to help the parent institution in the process of teaching, learning, and research which ultimately births knowledge creation and dissemination. It is obvious that universities in the cities surveyed have not fully integrated digital tools to knowledge management practices. The survey data reveals that 67 (78%) of the participants affirmed that Microsoft TEAMS is used in KMP. Also, 63 (74.1%) indicates that MOODLE is used in KMP. The participants were presented with various variables that are likely to affect usage of digital tools in knowledge management to some degrees. Using a Likert scale of 4 namely: Strongly Agree (SA); Agree (A); Strongly Disagree (SD) and Disagree (D). It is obvious that items 1, 15 and 17 has a mean score of 3.00 points. Low bandwidth /slow internet connectivity has the highest mean of 3.27, followed by an inadequate power supply (3.13) and availability of too many digital tools to learn (3.01). Other variables such as item 7, 11, 6, 9, 10, 8 also had a mean score above 2.50 and below 3.00 and were accepted. However, variables under item 2, 3, 4, 5, 12, 13 and 14 were rejected because they score below 2.50.

5. CONCLUSION

Knowledge management is an evolving phenomenon in the information and knowledge industry, it is, therefore, imperative that as university and information practitioners embrace it, they should be conversant with various tools that can be integrated into the sustainable knowledge management practices in universities. The implications of the findings of this paper are that there is a low level of utilization of digital tools in knowledge management practices in the universities in the western of Algeria. There is a clear indication that the universities surveyed are keeping to the mandate for which they were established as the fact that all the knowledge management variables are practiced in these universities. This research shows there is a need for re- alignment with modern trends of knowledge management practices as MOODLE and Microsoft TEAMS alone cannot be used in knowledge management practices. Other digital tools like Youtube, Slideshare, Blogs, Podcasts etc are viable platforms that should be explored by universities in the western of Algeria. It is imperative that academicians in the universities in western Algeria should extensively embrace digital tools in their knowledge management considering its cost effective characteristics. No doubt the level of integration of digital tools may be low but indications emerging from the study show that the western Algerian universities are gradually migrating towards that direction.

6. RECOMMENDATIONS

1. Increased bandwidth / improved internet connectivity: Most ICT-based services like the use of digital tools cannot be effective with poor internet connectivity. Therefore, the

government and heads of institutions should endeavor to put proactive measures in place that can help to improve the efficiency level of internet connectivity.

2. Steady power supply should be provided in these universities: This can be achieved by installing a standby power generating sets in the university.
3. Training of academicians on the application of various digital tools into university practices: The availability of too many digital tools instead of being a threat should be an advantage to academicians. Training of academicians would also enable them to acquire the requisite skills needed to integrate digital tools to knowledge management practices. This would further help to reorientate academicians and change their perception about the use of digital tools in university practice. Training would further help to awaken the interest of academicians in applying digital tools to knowledge management practices.

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