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The Effects of Adoptive Knowledge Management Strategy in the Performance of Botswana Water Utilities Corporation

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ABSTRACT

This research attempts to explore the effects of adaptive Knowledge management strategy in the performance of Botswana Water Utilities Corporation. In this research paper, organizational performance is measured under the following: - (a) Customer satisfaction (b) Quality of service (c) Employee attraction and retention. The researcher used mixed methods in investigating the research problem which mainly revolves around the effect of adaptive knowledge management strategy. The findings in the research confirm that the recognition of adaptive knowledge management strategy if well utilized and managed will increase the organization performance in respect of quality of service, customer satisfaction, employee attraction and retention. In addition to the above, the research buttressed the various strategic measures that could be considered by the organization to improve its performance.

Keywords: Adaptive Knowledge Management Strategy, Organizational Performance, Water Utilities Corporation, Botswana.

INTRODUCTION

Background

Today, Botswana can be considered as one of the world's fastest developing nations in respect of its rapidly expanding economic activities coupled with its socio-political stability. The research work of Mogalakwe and Nyamnjoh (2017) attributed this growth to two main factors, namely, the established Southern African Customs Union (SACU) revenue distribution formula and the availability of diamond deposits. In view of these opportunities, the Botswana government halted domestic borrowing and began to accumulate foreign reserves value at P 85 billion or USD 7.9 billion in 2016 and the country had the highest real economic growth (averaging 9.2%) in the world for roughly 20 years (1975-1995) (government of Botswana, 2016).

Considering the fact that Botswana is a land-locked sub-Saharan country, a large proportion of the country is covered by the Kalahari Desert and because of this, the water distribution within the country is uneven (World Bank 2017). The effects of drought in Botswana is of a great concern. In view of this, rainfall is highly regarded within the culture and customs of Botswana.

According to Farrington (2015) the 'pula 'is often referred to and translated as 'rainfall' and the presence of rainfall is often seen as blessings from God. As observed by Grewald (2001), Botswana believe that the 'pula' brings not only blessings but prosperity to the nation and their superstitions with respect to rain are strengthened during seasons of drought.

It is on record that the average rainfall revolves around 450mm between the rainy period of the month of November and March each year. However, the work of Kenabatho and Montshiwa (2006) shows that the northern part of Botswana receives a relatively higher annual rainfall of about 600mm when compared and contrast with the Southern parts of Botswana.

In 2017, the World Bank statistics indicates the urgent need to improve water availability in Botswana. The measures to be taken will help to minimize the impact of drought. In the same vein, the World Bank clearly shows the need to adopt a strategy that will be able to manage and mitigate the current drought and this strategy must be aligned with the current climate change in Botswana in view of the above. The Botswana Government has planned to invest $1.2 million on water project. There is a general dictum among the public that the above investment will go a long way to minimize the current and future drought.

Considering the above analysis, this research paper will investigate the effects of adaptive knowledge management strategy in respect of the general performance of Botswana Water Utilities Corporation (WUC). In the same vein, organisation performance shall be measured in respect of the following dependent variables- (a) quality of service, (b) employee attraction, (c) customer satisfaction, (d) employee retention while the independent variable of this research is adaptive knowledge management strategy.

Problem Statement

From the above discussion in 1.1, it is now very clear that Botswana faces serious water challenges and beyond all shadows of doubt, these Challenges hinder the socio-economic development of the country. Botswana is recently experiencing limited water supply as the demand of water is on the increase. Several studies such as those by Gondo and Kolawole (2019). Nyandoro (2018); Lado (1997); Tlou and Campbell (1997) and Steemkamp (1991) have analysed Botswana's water sector with emphasis on themes such as water development supply and management. According to Nyandoro (2013), much of the research on water in Botswana is more focused on supply and demand and the role of the post-independence state in facilitating infrastructural development under water scarcity conditions. Nyandoro (2013) observed a dearth in research that tackles the history of water and how difficult management scenarios including strategic issues in Botswana. Nyandoro (2013) is of the view that the history of water and its management in Botswana since the declaration of the protectorate in 1885 was largely determined by the country's arid or semi- arid landscape together with conflicting state, civic, or community and private interests. Administrative focus in the 1880s was not on establishing an efficient water provision and management system through any strategic means or goals. This shows that Botswana had no clear water strategic document or policy under Bechuanaland protective (Colonial Botswana) administration which exacerbated the endemic problems of water shortages among the African populace.

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The colonial state with its capital situated outside the country, first at Vryburg, and later Mafikeng (now Mahikeng), was preoccupied with incorporating the protectorate into South Africa (Nyandoro, 2013). The role of the state in developing and augmenting water supply was minimal and water management was merely perceived as a social responsibility. According to Makgala (2012), during the pre-independence period the management of bulk water and its supply, to the large sparsely populated African areas was then provided by tribal administrations, the borehole syndicates and to some extent by the protectorate administration itself. The decade from 1885 to 1895 thus marked a quiescent phase in erecting water resource management infrastructure such as dams and piped water facilities. Wells became the main source of water supply and between 1902 and 1910, newly constructed wells at Serowe costed up to £250 each (Nyandoro, 2013). As such,until the 1920s water was provided through wells managed by traditional institutions such as tribal administrations which were allegedly characterized by rudimentary inefficient and poor management.

The pre-independence governments' failure to improve water provision/ delivery and management left the new government in independent Botswana and non-state actors with no option but to focus on improving water resource policy formulation and practice. Confronted with the inherited colonial water infrastructure which was grossly inadequate to address the escalating development demands of the country, the new government with the help of non-state actors embarked on a journey to address this challenge (Morapedi, 2006). While the colonial period was largely characterized by poor development in Botswana's crucial water sector.

In the post-independence period, both the agricultural and water sectors experienced little but significant expansion as a result the water Act 1967 (the first regulation of water use) which became effective in February 1968. From the attainment of independence in 1966 up to 2010, ample evidence exists in the form of a five -year national development plan (NDPS) to illustrate the extent of government investment in the water sector. In fact, in the post-independence period, governments' emphasis has been on how to improve their water supply. Therefore, faced with water scarcity and the imperative for astute management systems, the water Act culminated in the formation of the state agencies like the Water Apportionment Board (WPB) of 1968. All the new established agencies had their own failures since they were not strategically focused on how to promote knowledge management strategy within their structures. In view of the above challenge, this research paper attempts to find out how effective is adaptive knowledge management strategy which was totally absent in the pre-independence and post-independence era would help in improving the organization performance of the water sector in respect of (a) quality of service, (b) employee attraction, (c) customer satisfaction and (d) employee retention.

Consequently, the importance of knowledge management (KM) in the water sector has been discussed extensively by Guvernator and Landaeta (2020) and Sandelin et al. (2019). They both emphasized the need to guard against knowledge drain in organizations. In their research they explained that the operational workforce of municipal utility organizations has developed throughout the years a technical knowledge base related and maintenance of water systems. They argued that when this operational workforce leaves the organization due to retirement, death, chronic illnesses or transfers, the knowledge management strategy and capabilities of

the water utility organizations are negatively affected thereby putting its sustainability at great risk. It then becomes important for organizations such as Water Utilities Corporation to have an effective KM strategy to ensure knowledge retention and that knowledge is successfully transferred to the younger generation joining the workforce of the water utility for it to perform optimally.

Considering the above analysis, the objectives of this research are as follows:

Objectives of the Study

- To investigate and analyze how the implementation of adaptive strategic knowledge management (ASKM) can promote the general performance of the water utilities corporation.
- To investigates the relationship between adaptive knowledge management strategy (ASKM) and the quality of customer service.
- To investigate the relationship between ASKM and employee attraction.
- To examine the relationship between ASKM and customer levels of satisfaction.
- To examine the relationship between ASKM and employee retention.
- To examine the influence of the recognition of KM and the Knowledge Creation as intervening variable on the performance of WUC.
- To provide recommendations to Botswana's WUC on how to leverage ASKM to enhance organizational performance.

Research Questions

The research questions are aligned to the following research objectives:

- How do ASKM promote the general performance of WUC?
- Does the implementation of ASKM enhance customer level of satisfaction?
- In what ways does ASKM influence employee retention?
- How does ASKM influence the quality of customer service?
- How does the recognition of ASKM influence knowledge creation and the performance of WUC?

The rest of this paper is organized as follows: section 2 of this paper provides a brief review of relevant literature; section 3 discusses the research methodology; section 4 presents the research findings; section 5 analyses the research findings; and section 6 points out the limitations of the study and also suggests directions of related future studies.

LITERATURE REVIEW

Adaptive Strategic Knowledge Management

According to Visscher et al. (2006) the concept of knowledge management strategy is very important for both kinds of knowledge either tacit or explicit. Additionally, knowledge storing is not considered as a challenge but finding the relevant knowledge is always a dilemma for organizations (Krubu and Krub, 2011). Therefore, while organizations may have experienced personnel to store knowledge, identifying, knowing, and reaching a relevant person for a specific knowledge can be a major challenge. Furthermore, as knowledge has become a useful asset of organizations, sharing and transferring knowledge to correct people at the right time

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is the challenge that needs to be solved (Tuan, 2012). The challenges include knowledge fragmentation, overload, and de-contextualization (Liyanage et.al, 2009). Knowledge which is confide inside the heads of key employees in filling drawers and databases, is of little value if it is not supplied to the right people at the right time (Krubu and Krub, 2011)

In view of the above discussion, there is an urgent need for some strategy to ensure, pursue, preserve, and effectively use both tacit and explicit knowledge of an organization. What is important is to make use of organization knowledge easily by ensuring an efficient way of identifying relevant experts in a particular issue, relevant knowledge stored in documents and effectively sharing that knowledge. The community used approaches for preserving explicit and tacit knowledge are codification and personalization strategies, respectively (Visscher et.al 2001).

Codification Strategy

The goal of codification is the re-use of knowledge. This is achieved by extracting the knowledge from people and storing it somewhere. The approach is especially used by process- driven companies, which focus on documentation. Here, employees are supposed to fill out forms and create reports about on-going work or intermediate results. The company's processes intend to codify the gain of knowledge, to constantly build up a knowledge base with formalized content about specific tasks or problems. This knowledge base would then be accessed, when similar problems occur in future projects (Pretorius and steyn, 2005). The target is to learn from the past and approach current problems in similar ways as in the past (similarity-based). Hansen, Nohria and Tierneyet (1999) termed this approach the codified KM strategy or codification theory.

Two aspects are of high importance when making use of codified knowledge (Hansen et al; 1999). First, it requires an accurately described problem domain. In the absence of such a domain, finding a fitting report according to the current needs can become a very difficult and impossible undertaking. Second, pursuing the strict formalisms is a vital duty. The reported results can be problematic to locate if they do not follow the intended structure adequately. This is supported by fine grained and highly specific input fields. Employees of the organizations need to understand where they can find the desired information or enter their experiences (people-to-documents). The codification strategy's goal is to provide scaffolds that lead to standardized reports, and these then are collected in a knowledge base. The standardization makes it easy to search for the documentation of previous results, which, if similar enough, can help in the current situation.

Hansen et al. (1999) posit that a competitive strategy, which would apply the codified KM strategy, typically aims to provide high quality solutions that are reliable and specialized in certain field. A company that produces high end solutions to a specific problem for different customers is an example of this approach.

The codification process is often executed by higher organizational hierarchies. Creating reports is in many cases related to responsibilities and act like communication channel between the different hierarchy levels. These reports are commonly used as a controlling tool in crucial and complicated tasks such as project management, were previous reports act as guidance. So,

the reports follow two targets at the same time, to communicate between organizational hierarchies and to build up a knowledge base.

Adaptive Knowledge Management Strategy

The ability of the innovative organization to exploit its past depends on its ability to recall it. Organizations need to tag knowledge assets to associate them with a domain, a specific functionality, and a level of abstraction (Yang et.al 2010). Knowledge assets need tags to facilitate the process of linking them to other knowledge assets (Yang et.al 2010). A knowledge asset theory may be a generation of a specialization of another, like the best practices are an abstraction of the lessons learned from multiple deliverable (Bratianu and Orzea, 2010). A knowledge asset may be part of another, like a description and a diagram that are parts of a model or a theory.

By drawing relationships between knowledge assets, organizations can create new knowledge from knowledge already captured in a repository (Dewah and Mutula, 2014). New knowledge gained needs to be assessed relative to what already exists within the repository. The new knowledge assets may become part of a hierarchy of knowledge assets as it fills a gap within the structure, a case of aggregation; the new knowledge may provide more insights into a process by providing more details, an example of generalization; or it may abstract knowledge that already exists to increase the level of reuse across domains, a case of generalization (Dewah and mutula,2014) as new knowledge is assimilated, new relationships are defined and old ones may be modified or broken all together (sheriff,2006).

According to Sherif (2006), generating knowledge assets by identifying commonalities increase the probability of reuse outside the original domain.it is the cross-fertilization of domains (long jumps) where general knowledge assets are applied outside their domain, that new knowledge is created. Generalization, on the other hand, enables organizations to complement general knowledge assets with more specific assets (Dewah and Mutula, 2016). As the organization encounters new cases in a specific domain, it is likely that it gains depth and is able to discriminate against pieces of knowledge and create rules of when a specialized knowledge would better apply than the general or other specialized versions. As knowledge assets are applied to new situations, feedback should be collected on the perception of the strength and specificity of the assets. Only fit knowledge assets should be kept. Knowledge assets that are incapable of accurately defining a course of action for a specific situation lose the interest of the knowledge workers. Without feedback and evaluation, it becomes very problematic to emerge new knowledge as organizations interpret any new experience as an account of its past, reacting in the same way as it did before (Sherif, 2006). To a large extent, the process of innovation is incremental and significantly relies on knowledge gained in the past (Donate and Pablo, 2014). The theoretical and empirical underpinning here is that the greater the diversity and scope of the knowledge assets within the knowledge repository, the higher the possibility of generating new knowledge through aggregation, generalization, or cross fertilization across domains (Yang et al; 2010).

The process of creating new knowledge requires that organizations engage in creative thinking and reflection on past experience (Donate and Pablo, 2014). Through reflection, organizations may create new knowledge assets that aggregate a number of smaller ones in an effort to

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emerge a comprehensive business process. Companies of similar assets may result in eliminating redundancies or declaring some as specific to certain conditions. Higher benefits can also be achieved from the cross fertilization of ideas across domains (Nonaka and Takeuch; 1995).

Considering the discussion above, this research paper attempts to examine and develop a conceptual framework that would promote ASKM for WUC in order to achieve a better organizational performance. The promotion of ASKM at WUC and in the water sector in general will definitely be instrumental in helping Botswana to find the path to long term water security.

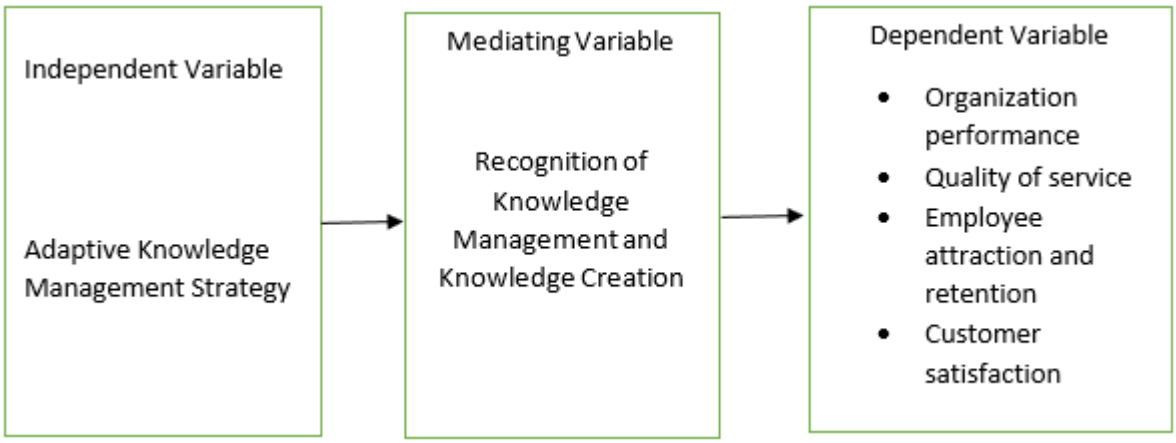


Figure 1: proposed conceptual framework for the study.

From the literature review and the above proposed conceptual framework, the researcher now developed the following hypothesis which will be investigated.

The hypothesis is aligned and have direct bearing with the problem statement, the objectives of the study and the research questions.

Hypothesis One

- Null hypothesis: Adaptive Knowledge Management Strategy does not affect organizational performance.
- Alternative: Adaptive Knowledge Management Strategy does affect organizational performance.

Hypothesis Two

- Null hypothesis: Adaptive knowledge management strategy does not affect customer satisfaction.
- Alternative hypothesis: Adaptive knowledge management does affect customer satisfaction.

Hypothesis Three

- Null hypothesis: Adaptive knowledge management strategy does not affect employee attraction and retention.

- Alternative hypothesis: Adaptive knowledge management strategy does affect employee attraction and retention.

RESEARCH METHODOLOGY

This research adopted a mixed method approach which is the concurrent application of both the quantitative and qualitative approaches. The main rational for using the mixed method approach is that it increases the overall strength of the study since the weaknesses in each one of designs is compensated for by the other design. A survey strategy was adopted in line with past studies. Data was collected from eight of the sixteen water supply Management Centers (MCs) in Botswana which were selected by a systematic random technique. This systematic random selection ensured that each MC had an equal probability of being included in the study. The target population of 1231 comprised of all the employees from the selected MCs, customers, contractors, suppliers, KM practitioners and academic experts in KM. a sample size of 278 was determined using Krejcie and Morgan (1970) formula and stratified random sampling was used to identify respondent of each group or stratum as shown in table 1. The main rational of using stratified sampling is that it helps to minimize the element of biasness in the selection of the respondent from each stratum.

Table 1: Selection of the respondents using stratified sampling techniques.

The Eight Management Water supply centers selected	Total number of employees in each Centre	% Total of employees in each Centre	Percentage (%) of the sample size in each Centre.
1. Each Centre			
Francistown	220	18	50
Lobatse	200	16	45
Kanye	85	7	19
Mahalapye	160	13	36
Mochudi	150	12	33
Palapye	168	14	39
Letlhakane	120	9	25
Ghanzi	88	7	19
2. Knowledge Management Practitioners.	20	2	6
3. Academic experts in the area of KM	20	2	6
TOTAL	1231	100	278

In soliciting for the necessary information from the respondents, a questionnaire with both closed and open-ended questions was used to collect data since it allowed collection of quantitative data (closed-ended questions on a five-point like scale) and qualitative data (open-ended questions). The reliability (correctness or accuracy) of the questionnaire was tested using Pearson Cronbach's alpha while validity was ensured through consultation with academic experts in KM research coupled with a pilot study. The statistical software for social sciences (SPSS) was used to analyze quantitative data and test the hypothesis. Qualitative data was analyzed through content analysis which entails extracting according to entailed systematic analysis of the occurrence of words, phrases, and concepts (see Creswell, 2009).

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RESEARCH FINDINGS

A Pearson Cronbach's alpha of 0.89 was calculated. According to Chui and Chen (2016), an alpha value greater than 0.7 shows that the data collection instrument is reliable, stable, and internally consistent. The results are discussed below in respect of the three (3) hypotheses.

Hypothesis One

- Null hypothesis: Adaptive Knowledge Management Strategy does not affect organizational performance.
- Alternative hypothesis: Adaptive Knowledge Management Strategy does affect organizational performance.

In testing the above hypothesis, a regression model was fitted for AKMS on the mediating variable, which is recognition of the importance of AKSM, and the Table 2 below illustrate the research findings (result)

Table 2: Recognition versus Performance

Obs	Parameters	RMSE	R-SQ	F	Prob
182	4	0.599	0352	32.217	0.000
Variable	**Coeff**	**Std Error T**	**Prob**	**Lower limit**	**Upper limit**
AKMS	0.458	0.079 5.13	0.000	0.303	0.614

In respect of organizational performance, the Table 2 shows that the fitted regression model (F=33.217, Prob=0.000) is significant. The R-square is 0.352 which means that the model explains 35.2% of the variation of the recognition variable. It indicated that AKMS with the following (values: t=5.83, Prob=0.001<0.01) is significant. The analysis also confirms that AKMS affect the recognition of the importance of AKMS positively.

Since the above regression results have indicated that there is a relationship between AKMS and the mediating variable, this implies that 'Recognition' explain the nature of the relationships between AKMS and organizational performance, and this then encouraged the researcher to go ahead to test these mediating effects. In this case, the dependent variable is organizational performance and AKMS is the independent variable.

Table 3: First Performance Model.

Obs	Parameters	RMSE	R-SQ	F	Prob	
185	4	.937	.182	13.453	0.000	
Variable	**Coeff**	**Std Error**	**T**	**Prob**	**Lower limit**	**Upper limit**
AKMS	.259	.123	2.12	0.036	.018	.501

With the AKMS 't' value of 2.12, it shows it is significant and this means that AKMS affects performance positively and good and it is implemented well, performance will increase in the organization.

Table 4: Regression model with Recognition of AKMS

Obs	Parameters	RMSE	R-SQ	F	Prob	
185	5	.938	.191	10.411	0.00	
Variable	**Coeff**	**Std Error**	**T**	**Prob**	**Lower limit**	**Upper limit**

AKMS	.203	.134	1.51	0.133	-. O62	.46
Recognition of AKMS	.126	.117	1.07	0.286	-.106	.357

The R-square now increased from 0.182 to 0.191. The implication is that recognition mediate the effects of Adaptive Knowledge Management Strategy on organizational performance.

Hypothesis Two

- Null hypothesis: Adaptive Knowledge Management Strategy does not affect Customer Satisfaction.
- Alternative hypothesis: Adaptive Knowledge Management Strategy does affect Customer Satisfaction.

Table 5: Recognition of Knowledge Management Strategy and Customer Satisfaction.

Obs	**Parameters**	**RMSE**	**R-SQ**	**F**	**Prob**	
181	4	0.627	0.292	24.282	0.00	
Variable	**Coeff**	**Std Error**	**T**	**Prob**	**Lower limit**	**Upper limit**
AKMS	1417	0.71	5.86	0.000	.277	.558

Table 6: First Regression model

Obs	**Parameters**	**RMSE**	**R-SQ**	**F**	**Prob**	
182	4	0.954	0.051	3.198	0.025	
Variable	**Coeff**	**Std Error**	**T**	**Prob**	**Lower limit**	**Upper limit**
Recognition of AKMS	.032	.108	0.30	0.768	-180	.244

Table 7: Second Regression model

Obs	**Parameters**	**RMSE**	**R-SQ**	**F**	**Prob**	
180	5	0.939	0.077	3.632	0.007	
Variable	**Coeff**	**Std Error**	**T**	**Prob**	**Lower limits**	**Upper limit**
AKMS	.117	.117	1.00	0.317	-113	.347
Recognition of AKMS	-242	0.113	-215	0.033	-465	0.020

The regression results indicated that there is a relationship between AKMS and the mediating variables, this implies that 'Recognition' explains the nature of the relationship between AKMS and customer satisfaction. This then encouraged the researchers to go ahead and test this modeling effect. In view of this, customer satisfaction was proxied by the use of the variable' current relationship between the organization and customers', which corresponded to the question, 'how you rate the current relationship between your organization and the customers', and this was not measured directly. In this case, the dependent variable is customer satisfaction, and the independent variable is the AKMS. Table 6 shows that the fitted regression model (F =3.198, Prob=0.025) is significant. The R-square is 0.051 which means that the model explains 5.1 % of the variation of customer satisfaction.

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Table 7 above indicated clearly that when the recognition variable was included in the regression model, there is a positive relationship between AKMS and Customer Satisfaction. The implication of this, is that Recognition mediates the effects of AKMS on customer satisfaction by increasing the level of satisfaction.

Hypothesis Three

- Null hypothesis: Adaptive Knowledge Management Strategy does not affect Employee Attraction and Retention.
- Alternative hypothesis: Adaptive Knowledge Management Strategy does affect Employee Attraction and Retention.

Table 8: Recognition versus Employee Attraction and Retention

Obs	Parameters	RMSE	R-SQ	F	Prob	
178	4	.596	.358	32.34	0.000	
Variable	**Coeff**	**Std Error**	**T**	**Prob**	**Lower limit**	**Upper limit**
AKMS	.542	.055	9.77	0.000	.432	.651

Table 8 above shows that the fitted regression model between Employee Attraction and Retention and AKMS is highly significant (F=32.34, Prob=0.000). The R-square is 0.358 which means that the model explains 35.8% of the variation of the recognition variable. The result further encouraged the researcher to test the issue of recognition as the mediating factor and its effects.

Employee Attraction and Retention was proxied by the use of the variable 'relationship between Management and employees', which correspond to the question, 'how do you rate the relation between Management and other employees in the organization?' and it was not measured directly. In this case the dependent variable is Employee Attraction and Retention, and the independent variable is Adaptive Knowledge Management Strategy (AKMS).

This relationship is illustrated in the first regression model below which is shown in Table 9. The fitted regression model (F=7.309, Prob=0.000) is significant. The R-square is 0,114 which means that the model explains 11.4% of the variation of Employee Attraction and Retention. It also indicated the values of AKMS (t=1.92, Prob=0.051) is significant.

The results mean in practical terms that Adaptive Knowledge Management Strategy affect employee attraction and retention positively, and this therefore means that the more AKMS is utilized the more the attraction and retention of the employee. It should also be noted that effect of recognition as a mediating variable when included in this research, further buttressed the importance or significance of AKMS and this is further illustrated in Table 10.

Table 9: First Regression Model

Obs	Parameter	RMSE	R-sq	F	Prob	
175	4	.918	.114	7.309	0.000	
Variable	**Coeff**	**Std Error**	**T**	**Prob**	**Lower limit**	**Upper limit**
AKMS	.157	.107	1.47	0.143	-054	.368

Table 10 below shows that when the recognition variable was included in the regression model, the model gained more explanatory power, for R-square increased from 0.130. In addition to this, AKMS became more significant. This result indicates that recognition mediate the relationship between Adaptive Knowledge Management Strategy (t=1.47, Prob=0.143<.05) and employment attraction and retention.

Table 10: Second Regression Model

Obs	**Parameter**	**RMSE**	**R-sq**	**F**	**Prob**	
173	5	0.911	0.130	6.264	0.000	
Variable	**Coeff**	**Std Error**	**T**	**Prob**	**Lower limit**	**Upper limit**
AKMS	.157	.107	1.47	0.143	-054	.368

From the above statistical analysis, all the three hypotheses confirmed the importance of AKMS in improving the performance of the organization with special reference to customer satisfaction and employee attraction and retention in WUC of Botswana.
For the purpose of confirming the above statistical findings, the researcher applied content analysis (qualitative data) by using the Likert scale. The aggregated results are shown in Table 11 below.

Table 11: Adaptive Knowledge Management Strategy and Organizational Performance.

	Strongly agree (1)	Agree (2)	Don't know (3)	Disagree (4)	Strongly disagree (5)
Do you think a well-crafted Adaptive Strategy for Managing Knowledge will help in the performance of your organization	30.37	54.97	13.09	1.57	0
Do you think the recognition of the importance of Knowledge Management as an important aspect of adaptive strategy of the organization will help to improve the performance of the organization?	30.53	48.95	18.95	1.58	0
Do you agree that the use of Adaptive Strategy in managing knowledge will enhance quality of services?	48.92	40.21	9.52	2.12	0

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Do you agree that the use of Adaptive Strategy in managing knowledge will enhance employee attraction and retention in your organization?	44.68	28.72	23.4	3.19	0
Do you agree that the use of Adaptive Strategy in managing knowledge will enhance Customer satisfaction of its service?	19.05	47.09	27.51	5.82	0.53

The above Table 11 shows that over 80 % of the respondents are the view that AKMS affects the performance of the organization. According to the respondents, for the WUC of Botswana to achieve this, the following measures must be put in place. In the first place, there is an urgent need to develop a relevant strategic document that is fully aligned to the mission and vision of the organization. Departments and the various sectors must develop their own micro strategy document that is aligned with the main organization strategic document. By formulating strategies that are realistic, the organization will achieve its goals and objectives. The majority of the respondents pointed out that the organization must plan on how Knowledge can be disseminated by working well with people in other departments align the initiative with the goals and mission. "This is all about taking responsibility on whatever we do, because the main issue here is customer satisfaction, working as a team strategically will bevery useful for the organization. A Better knowledge and understanding is the best tool", a respondent said," By using the strategy the organization will be able to identify knowledge needs and attend to them" another one added. Majority of the respondents mentioned these methods below.

- Continuous review of the existing strategy. The argument here is that this will help to align to the dynamic and evolvement of the modern technology to fully meet the customer expectation in terms of quality and service delivery to accept world standards
- Effective communication and proper planning will motivate employees. According to a respondent, "by informing and communicating with all employees will be fully aware how they fit their expected role in the implementation of the strategy ".
- Integration and employees' clear role. They are of the view that, this full integration will ensure that people are aware of their well-defined role in the organization.
- Adopt to changing business environment and customer needs on the "this can be achieved by encouraging employees to be innovative. They would be encouraged to read too much so as to get the knowledge from the books or papers. In this situation, knowledge will be retained and help in imparting knowledge to other employees" a respondent said. Another one added, "this can be achieved through an initiative to develop the strategy by engaging with relevant consultants that are experts in knowledge management strategy."
- The above qualitative results support the research findings of the quantitative data in respect of the test of the three hypotheses, and it confirms the importance of AKMS in the performance of organization with reference to WUC of Botswana. Both results

(qualitative and quantitative) indicated that AKMS will affect organizational performance of WUC in respect of customer satisfaction, quality of customer service and employee attraction and retention.

DISCUSSION AND CONCLUSION

This study confirms the work of Hansen et al (2009) which emphasized the importance of knowledge management strategy in enhancing organizational goal through personalization strategy. He is of the view that the strategy for managing knowledge in organizations rely on person-to-person interaction i.e., contacting the relevant person directly who has relevant knowledge. In addition to the above, the work of Yang et.al, (2010) also has a direct bearing with the researcher's finding on AKMS. Yang (2010) is of the view that the ability of the innovative organization to exploit its past depends on its ability to recall it and work on it strategically. Organizations need to tag knowledge assets to associate them with a domain, a specific functionality, and a level of abstraction.

Furthermore, Dewah and Mutula (2014) hold the opinion in their research work that organizations can create new knowledge strategically from knowledge already capture in a repository. This new knowledge asset may become part of a hierarchy of knowledge assets at it fills a gap within the structure of the organization and as one of the strategic goals to be achieved.

From this discussion, this study confirms the three hypotheses investigated in this research; namely (a) there is a positive relationship between adaptive knowledge management and organizational performance (b) there is a positive relationship between adaptive knowledge management strategy and customer satisfaction (c) there is a positive relationship between adaptive knowledge management strategy and employee attraction and retention.

The researcher also observed during this research that a well-crafted adaptive strategy will act as a reference point in enhancing efficiencies. It will help the organization to make informed decisions and improve its interactions with both customers and employees. A well thought adaptive knowledge management strategy will ensure that no knowledge is lost and that all generated knowledge is put in optimizing future decisions.

In conclusion, it is suggested here that for WUC of Botswana to promote and enhance its general performance, the following must be considered urgent. In the first place, there is an urgent need for WUC to develop a strategic alliance such as MOU'S with universities in Botswana, WUC can derive value from research insights that speaks to the water sector focus areas. If the strategy is well explained and exercised through monitoring to the relevant officers, coupled with resources required, it is possible to improve performance.

Secondly, the strategy must define the tools and methods for delivery. This will lead to a knowledgeable team within the organization focusing on key areas to improve. Thirdly, every work executed should be aligned to the strategy. In addition, assessment of employees' performance should be done based on whether they have achieved the objective of the strategic goal assigned to them. Finally, all employees must be involved in any strategic planning within the organization even if they are implemented at different levels. This, together with clearly

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defined employees' roles will ensure that all past knowledge is utilized in making present and future decisions and that the strategy fits the prevailing conditions in the organization.

LIMITATIONS AND DIRECTION OF FUTURE RESEARCH

This main limitation of this study is that it only considered Botswana's WUC and only three (3) variables were used in the research analysis. There is an urgent need to extend this study to other water department in African countries so as to generalize the results. Further research in the field of KM strategy in Botswana and other developing countries should also consider the use of more or different independent, dependent, and mediating variables so as to get more insights on the significance of Adaptive Knowledge Management Strategy in the water sector. The future studies in this area will highlight how best organization's performance can be improve in respect of customer's satisfaction and employee attraction and retention.

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