

## A MODEL FOR KNOWLEDGE MANAGEMENT PRACTICES IN A PRIVATE HIGHER EDUCATION SETTING.

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### ABSTRACT

**T**his paper was intended to identify gaps in the Knowledge Management (KM) practices of selected private higher education institutions (PHE) in Botswana by determining the existence, or absence, of KM enablers and come up with a KM model for adoption by these and similar institutions, particularly those operating in a highly regulated environment, in order to enhance KM and business performance. Hundreds of literary sources were consulted in which the theoretical underpinnings of the study were firmly grounded. This study adopted the mixed methods approach and the triangulation research design bringing together different, but complimentary, data forms thus enabling the augmentation of quantitative and qualitative data to ensure reliability of research findings. The equivalent status/simultaneous designs (QUAN + QUAL) were adopted for this study through a questionnaire and in-depth interviews.

Results of the study revealed the absence of KM enablers that promote KM practices in PHE institutions operating in a highly regulated environment. For example, employees are poorly remunerated, and do not hold requisite academic qualifications for the job they are doing. Family ownership and management of these institutions were found to be critical in inhibiting KM practices. Organisational leadership was found to be paralysing KM practices. The culture of these institutions was found to be negatively impacting on KM practices by, for example, not recognising and rewarding employee effort in promoting KM behaviour, not involving employees in decision-making, and failing to cultivate trust among employees and between employees and management. The results also showed that the organisational structures of these institutions such as hierarchical structure, lack of infrastructure (internet, physical buildings, computers, social networks, and so on) do not promote KM practice. The results revealed little positive engagement of internal and external stakeholders to exchange information, knowledge and ideas and that little or no research activity is going on to generate and share new knowledge.

**Key words:** Knowledge management, strategic leadership, knowledge environment, family management, organisational structure, organisational culture, stakeholder involvement, organisational performance, KM model

## 1. INTRODUCTION

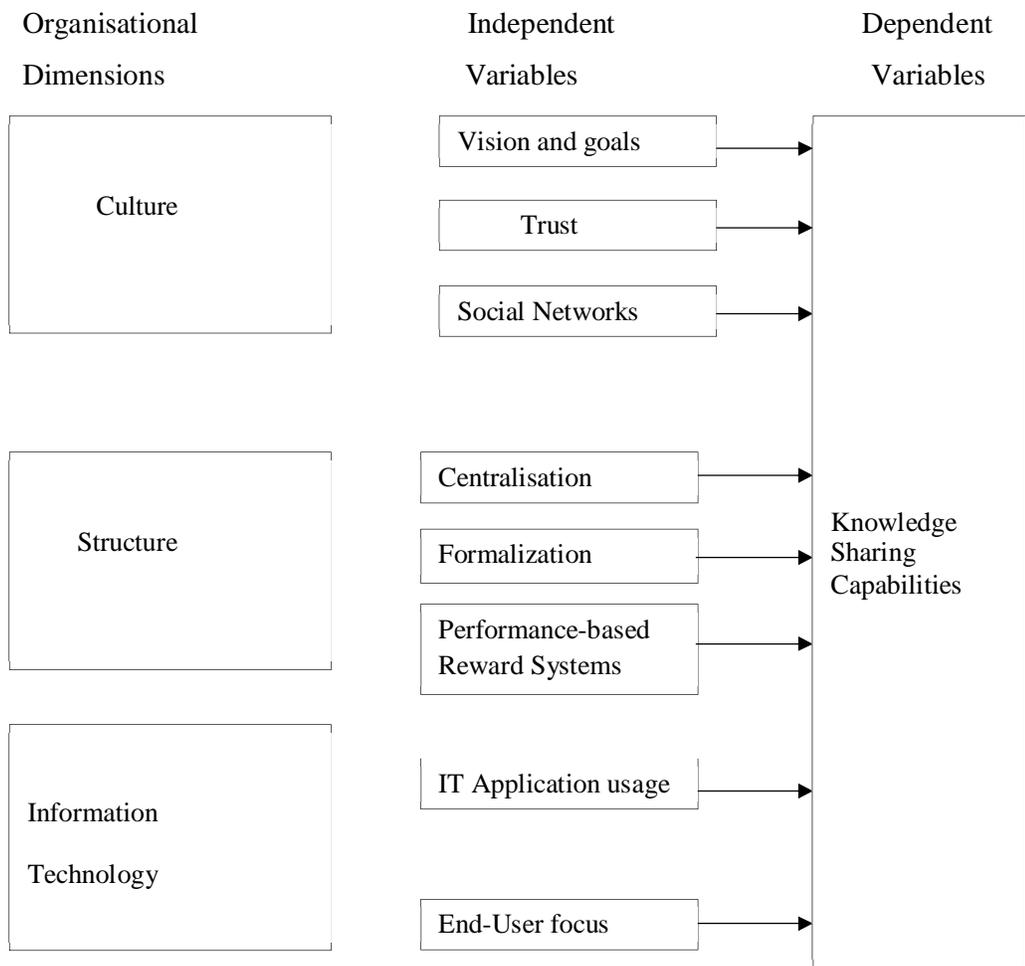
Business success in a knowledge-based economy hinges on proper harnessing and management of knowledge as a strategic resource that gives an organisation a competitive advantage over its rivals (Halawi, Aronson, and McCarthy, 2007). According to Nonaka and Konno (1998), empirical research in business operations has proved that sustainable competitive advantage is no longer entirely embedded in the availability and management of traditional factors of production such as capital (physical assets and finance), land, and labour but rests more firmly in effective mobilisation of intellectual capital. Yeh, Lai and Ho (2006) posit that Knowledge Management (KM) research has led to the identification of KM enablers which are mechanisms for organisations to develop their knowledge and stimulate the origination of new knowledge and its sharing. Such enablers include the methods of KM, organisational structure, corporate culture, information technology, people, and strategies. These authors maintain that it is the primary responsibility of top management in an organisation to ensure the existence of such enablers.

Neto and Vieira (2011) further argue that an organisation should come up with an effective KM model to deal with the uncertainties of a knowledge economy which involves the whole organisation and is not imposed from the top. The model adds other dimensions like a suitable environment for successful KM practices such as the social, behavioural, cognitive/epistemic, and informational, which stimulate KM practices, and results which are the outputs in terms of tangible and intangible assets to the organisation such as knowledge, abilities, brands, products, and services (Neto and Vieira, 2011).

This study assumes the existence of gaps in KM practices of private higher education (PHE) institutions in Botswana owing to poor overall performance, bad reputation, staff turnovers, inappropriate organisational structure and culture, lack of collaboration, poor human capital strategies, lack of research capacity, and lack of stakeholder consultation and engagement. The study seeks to identify and develop a model that can be used to harness knowledge in order to add value to business processes in PHE institutions in Botswana.

## 2. LITERATURE OVERVIEW

In the 21<sup>st</sup> century knowledge economy, knowledge has become a crucial factor of production in the same manner as land, labour, and capital and is widely accepted as a strategic resource and the key to organisational survival and success (Neumann and Tome, 2011; Reilly, 2009; Chang and Chuang, 2009; Kim and Mauborgne, 2008). Many researchers have identified the methods of KM, organisational structure, corporate culture, Information Technology (IT), people and strategies, among others, as the critical KM enablers in an organisation and that ensuring these enablers exist in an organisation is the primary role of the organisation's top leadership (Yeh, et al. 2006; Neto and Vieira, 2011; Pawlowski and Bick, 2012). Some of these enablers are outlined in the figure below.



**Figure 1:** Organisational Dimensions that promote/hinder knowledge sharing capabilities Source: (Yeh, 2006, 101)

These enablers include culture, IT, organisational structure, people, trust, reward systems, the knowledge market, and strategic leadership and are discussed below.

Organisational culture is a social consciousness that can assist in shaping individual employee behaviour toward innovativeness and it may support or impede innovation and hence is a critical factor in the way employees of an organisation behave (Kao, Wu, and Su, 2011). Robbins (n.d) argues that in the context of knowledge-sharing, the missing link that exists in organisational culture is trust which leads to the concentration of knowledge among a privileged few. Ribiere, Arntzen and Worasinchai (2007) postulate that employees are not likely to share knowledge if they do not trust one another. Riege (2005) believes that in creating a desire to share knowledge as a guiding principle in organisational survival, there is the unresolved issue of trust which is arguably one of the most crucial success factors for creating a culture that facilitates knowledge sharing. Incentives and rewards that encourage KM activities among an organisation's employees (which are other aspects of organisational culture) play a critical role as KM enablers (Leonard and Sensiper, 2008; Yu, Kim, and Kim 2008; Gibbons, 2009; Iyer and Ravindran, 2009). Davenport, de Long and Beers (1998) posit that the organisational leadership needs to ensure that employees who support and promote the organisation's KM effort are properly and adequately rewarded.

The importance of Information Technology (IT) infrastructure for the implementation and success of KM initiatives has been well accepted and IT has been considered the groundwork for implementation of KM practices and tools, leading to easier and faster adoption of KM practices (Bordoloi and Islam, 2012; Lehner and Haas, 2010; Hafeez-Baig and Gururajan, 2012). Organisational structure is a critical factor in KM and the management of knowledge workers and is the backbone of the organisation. According to Lee and Choi (2007), organisational structure plays a crucial role by encouraging or inhibiting practices of KM by influencing how an organisation conducts its business in terms of how knowledge is generated and shared among employees of the organisation. Nonaka and Takeuchi (1995) classify organisational structures into three categories:

- Top-down structures;
- Bottom-up structures; or
- Combined structures (the middle-up-down model).

From the perspective of KM and management of knowledge workers, the top-down structure is the least effective since it is based on a strict division of labour and limits cooperation and knowledge sharing (Nonaka and Takeuchi, 1995). Also, the power and decision making responsibilities and competencies are concentrated in the hands of top managers who create basic concepts, objectives and ideas and then distribute them as tasks to their subordinates in the organisation severely limiting the role of low level employees (Robbins; Millet, and Cacioppe, 2009).

Strategic leadership is another important KM enabler and plays a critical role in implementing KM for three reasons (Donnelly, 2006, Jain and Jeppessen, 2013):

- a. Establishment of vision for the organisation as well as developing an action plan for the implementation of that vision.
- b. Identification of opportunities that generate knowledge.
- c. Championing and influencing cultural and organisational transformation since KM involves modifying processes, practices, and organisational structures.

This research will determine the availability or otherwise of strategic leadership to champion KM policies and processes at PHE institutions in Botswana.

Donnelly (2006) and Rowe and Nejad (2009) emphasise the concept of strategic leadership in KM by suggesting that senior management support is vital in changing the behaviour of people and for introducing perspectives in KM. Leadership is one critical factor in the successful implementation of KM initiatives. Other factors such as culture and IT infrastructure come second but they are also the strategic leader's initiative. Since knowledge management involves changing practices, policy and often organisational structure, the senior leader must set the framework for the transformation.

### **3. METHODOLOGY**

Triangulation is the research design adopted for this study wherein an in-depth interview (qualitative) (focusing on a smaller, carefully selected and knowledgeable sample) was used to support and confirm the results of a representative survey (quantitative) for understanding the perspective of lower level employees in PHE institutions on the existence or otherwise of KM enablers in their institutions. The simultaneous, concurrent, or parallel design was used where the researcher gathered quantitative and qualitative data more or less at the same time for purposes of comparing them with the search for congruent findings. In terms of priority, this study gives equal priority, (that is, weight, or status) to the quantitative and qualitative aspects (equal weight designs) based on the demands of the research question and empirical research objectives.

This study adopted the equivalent status/simultaneous designs denoted as QUAN+QUAL where quantitative data was collected simultaneously with qualitative data and the two data forms had equal status or weight. Quantitative data (large sample) was analysed first and qualitative (small sample) data analysis followed to confirm and validate the findings of quantitative data.

This study's target population was all employees of PHE institutions in Botswana offering degree programmes at the professional level ranging from lower level to top management. The sample frame thus comprised, firstly, the list of all the five family owned PHE institutions in Botswana which offer bachelor's and master's degrees and which are strictly regulated by the Tertiary Education Council (TEC) and the Botswana Training Authority (BOTA) and have been operating for the past twelve months or more. Secondly, the sample frame also comprised the list of all academic staff members who have worked for the institution for at least 12 months. The units of selection therefore are the education institutions in the first instance and academic employees in the second instance. The total population surveyed (that is, all academic employees of these institutions including top management) came to 670.

The sample size based on the sample size calculator was 132 (including two additional respondents) (The Research Advisors, 2006). The table below shows the population of academic staff in the PHE institutions in this study and the sample size from the different strata.

**Table 1:** Strata, population, and sample size

Strata	Limkokwing University	Botho University	Ba Isago University College	ABM University College	GIPS	Total	Sample size
Middle Management	33	28	13	9	8	$N_1 = 91$	$n_1 = 13$
Lower Management	39	33	15	11	9	$N_2 = 107$	$n_2 = 15$
Non-managerial teaching staff	181	142	58	47	44	$N_3 = 472$	$n_3 = 104$
<b>Total</b>	<b>253</b>	<b>203</b>	<b>86</b>	<b>67</b>	<b>61</b>	<b><math>N = 670</math></b>	$n = 132$

This study adopted the stratified sampling technique which is used when the population to be sampled does not constitute a homogeneous group. The researcher formed strata on the basis of common characteristics of the items to be placed in each stratum thus ensuring that elements in each stratum were most homogeneous within each stratum and most homogenous between the different strata implying that strata were purposively established based on the past experience and personal judgment of the researcher. Different strata comprised academic staff in middle management, lower management and non-managerial teaching staff and then units were selected from each stratum to comprise a sample as shown in the table (table 4.3) above. This is stratified random sampling using proportional allocation.

## 4. FINDINGS

### 4.1 The KM Model

#### 4.1.1 Correlations between the constructs

The relationship between the constructs KM enablers and the existing state of KM in PHE institutions is shown in Table 2 below. Using correlation analysis, the results for 4 out of the 5 constructs show that there is significant positive relationship between current KM status and KM enablers in the organisations. The most considerable correlation among all the variables is strategic leadership ( $r = 0.636$ ,  $P < 0.05$ ), followed by organisational structure ( $0.476$ ,  $P < 0.05$ ), stakeholder involvement ( $r = .450^{**}$ ,  $P < 0.05$ ), and lastly organisational culture ( $r = .350^{**}$ ,  $P < 0.05$ ). However, family influence has a negative correlation and p - value less than 0.05 level of significance ( $r = -0.209$ ,  $P < 0.05$ ). This shows that the family influence has a negative influence on the current KM status in the organisations. The results of correlation show the existence of the relationship between the variables but do not identify the most crucial variables for this relationship. To achieve this objective, the multiple regressions were conducted between KM enablers against the existing state of KM in the organisations and these are shown in the table below.

**Table 2:** Coefficient of correlation of the relationship between state of KM in the organisations and constructs strategic leadership, family management, organisational culture, and stakeholder involvement.

Correlations							
		q117	q118	q119	q120	q121	q122
q117	Pearson Correlation	1	-.209*	.636**	.476**	.350**	.450**
	Sig. (2-tailed)		.028	.000	.000	.000	.000
	N	115	110	111	112	111	109
q118	Pearson Correlation	-.209*	1	-.237*	-.294**	-.297**	-.033
	Sig. (2-tailed)	.028		.014	.002	.002	.739
	N	110	111	108	108	109	106
q119	Pearson Correlation	.636**	-.237*	1	.627**	.591**	.377**
	Sig. (2-tailed)	.000	.014		.000	.000	.000
	N	111	108	112	110	109	106
q120	Pearson Correlation	.476**	-.294**	.627**	1	.489**	.353**
	Sig. (2-tailed)	.000	.002	.000		.000	.000
	N	112	108	110	113	109	108
q121	Pearson Correlation	.350**	-.297**	.591**	.489**	1	.348**
	Sig. (2-tailed)	.000	.002	.000	.000		.000
	N	111	109	109	109	112	107
q122	Pearson Correlation	.450**	-.033	.377**	.353**	.348**	1
	Sig. (2-tailed)	.000	.739	.000	.000	.000	
	N	109	106	106	108	107	110
*. Correlation is significant at the 0.05 level (2-tailed).							
**. Correlation is significant at the 0.01 level (2-tailed).							

Q 117= State of KM in the organisation, Q118 = family management, Q119= strategic leadership, Q 120 = organisational structure, Q 121= organisational culture, Q122= stakeholder involvement.

As revealed in the correlation analysis above, the correlation between independent variables was not high so the values were acceptable, thus multiple regression was used to establish the contribution of the independent variables to the models. The output SPSS was concerned with three tables namely the summary model, ANOVA, and coefficient tables. The main hypotheses proposed to answer the research questions were tested using the multiple regressions as it was seeking to determine the relationship between the state of KM in the organisation and KM enablers. The main hypothesis is: *There is a significant relationship between KM enablers' constructs and the state of KM in the organisations.*

The regression model was applied to test how far the KM enablers in the organisation have effect on the current state of KM in the organisations. As shown in Table 3 (5.17), the coefficient of determination -  $R^2$  is the measure of proportion of the variance of dependent variable about its mean that is explained by the independent or predictor variables). Higher value of  $R^2$  represents greater explanatory power of the regression equation. The adjusted  $R^2$  is 0.51 which means that the study variables' contribution to the current state of KM in the organisation is 51% and the remaining 49% can be attributed to other extraneous factors not covered in this study.

The ANOVA analysis in table 3 (5.17) seeks to determine how much of the variance in the dependent variables is accounted for by the manipulation of independent variable and assesses the level of significance of the model. The results show that the model is significant ( $F(5, 49) = 19.569, p < .005$ ).

Table 4 (5.18) shows the beta value of each KM enabler that was investigated. The Beta value is a measure of how strong each of the predictor variables influences the criterion variable. The Beta regression coefficient allows for comparison of the independent variables and assesses the strength of the relationship between the predictor variables and the criterion variables. The Beta is measured in the units of standard deviation. The higher the Beta value, the greater the influence of the predictor variable on the criterion variable. In this study, the existing state of KM in the organisation is regressed against the independent variables (KM enablers) as shown in the equation of the model that can be formulated as follows:

$Y = \beta_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5$  and the Beta values in the Table 4 (5.18) below

where:

Y = State of KM in the organisation

$x_1$  = Family management and KM,

$x_2$  = Strategic leadership

$x_3$  = Organisational structure

$x_4$  = Organisational culture

$x_5$  = Stakeholder involvement

$Y = -.278 + -.0116x_1 + 0.456 + 0.196x_3 + -.149x_4 + 0.3495x_5$

The coefficient of strategic leadership 0.535 shows that 1% change of trust will contribute to 53.5% of existing state of KM with the 0.000 level of significance. Stakeholder involvement also has a coefficient of 0.241 which indicates that a change of 1% in engagement will contribute to a 24% change in the existing state of KM with a  $P < 0.05$ . The other three factors contributions are not significant namely organisational structure (Beta = 0.111, sig = .265), organisational culture (Beta = -.098, sig = .25) and lastly family management (Beta = -.105, sig = .172) and a small t-value (-1.375). As revealed in the descriptive statistics

that family management in the organisation was high, this finding clearly indicates that it has a negative influence on knowledge creation and sharing among employees, thus a 1% increase on this will contribute to a 10.5 % decrease in the state of KM in the organisations.

The tolerance value measures the correlation between the predictor variable and can vary between 0 and 1, (the closer to zero the tolerance value, the stronger the relationship between this and other predictor variables) which is undesirable. Table 3 shows that the tolerance values are reasonably high and the VIF is low.

Table 3: Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.714 <sup>a</sup>	.510	.484	3.934	.510	19.569	5	94	.000

a. Predictors: (Constant), q122 stakeholder involvement , q118 family management and KM , q121 organisational culture and KM , q120 organisational structure and KM, q119 strategic leadership and KM

$P < 0.0005$ , which is less than 0.05, and indicates that, overall, the model applied can statistically significantly predict the outcome variable.

Table 4: Regression Analysis model

#### ANOVA<sup>b</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	1513.990	5	302.798	19.569	.000 <sup>a</sup>
Residual	1454.520	94	15.474		
Total	2968.510	99			

a. Predictors: (Constant), q122 Stakeholders Involvement, q118 Family Management and KM, q121 Organisational Culture and KM, q120 Organisational structure and KM, q119 Strategic leadership and KM.

**Table 5:** Analysis of coefficients**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
q117 Status of KM in the Organisation	-.278	4.746		-.058	.953		
q118 Family Management and KM	-.116	.085	-.105	-1.375	.172	.890	1.123
q119 Strategic leadership and Knowledge management	.456	.089	.535	5.144	.000	.482	2.075
q120 Organisational structure and KM	.196	.175	.111	1.122	.265	.530	1.887
q121 Organisational Culture and KM	-.149	.139	-.098	-1.074	.285	.625	1.601
q122 Stakeholders Involvement	.349	.115	.241	3.028	.003	.822	1.216

The above quantitative findings are corroborated by qualitative findings. On the impact of family management on KM, all the ten interviews indicated that this construct had a negative impact on KM. For instance, all the ten respondents indicated that top management closely monitors the activities of employees. On whether family managers are comfortable with employees who are good at their work, all the ten respondents indicated that family managers look at employees who are good at their work with scorn and disdain to the extent that they force them out of the organisation by frustrating them. They stated that because these managers are also full-time employees, they tend to compete with lower-level employees for recognition and influence.

When asked on the impact of the presence of the family on aspects such as exploitation of knowledge, professionalism, employee motivation, and staff turn-over, most interviewees indicated that because knowledgeable employees are viewed with suspicion and regarded as a threat by family managers, they tend to withdraw from participation in important professional activities by not contributing in staff meetings and claiming not to know things that they do know out of fear that their knowledge will result in them being hated even more. Most of them end up leaving the organisation in favour of organisations where they think their contribution will be valued.

On the question: To what extent do you think your top management is concerned with generating revenue from the business?, all interviewees felt that, while the institutions are justified in making money because they are in business and need profit to sustain their operations, there are many instances where it is clear top management of these institutions is overly preoccupied with making money at the expense of the quality of education and staff and students welfare. Asked whether family managers possess appropriate academic and professional qualifications to occupy the positions they hold, all the ten respondents indicated that family managers do not possess the requisite academic and professional qualifications at all.

Respondents were also interviewed on the impact of organisational culture on KM. On whether there is any link between rewards and knowledge creation and sharing, all interviewees stated that, since KM is unknown in these institutions, it is not possible for a deliberate link between rewards and knowledge creation and sharing. They all believe that rewards are rather linked to unprofessional and unethical behaviours such as back-biting, cheating and fraudulent activities (such as inflating student numbers for government to pay more money and enrolling students who fall below the cut-off points for government sponsorship), rumour-mongering, and other unprofessional practices. On whether employees are free to generate and use knowledge in the organisation, that is, experiment with new ideas, trial and error, and whether they are penalised for that or not, nine of the ten interviewees stated that employees in their organisations are not free to experiment with new ideas and trial and error are not tolerated at all. They added that anyone found doing things differently although more effectively will be punished.

Respondents were asked whether there are formal networks to facilitate dissemination of knowledge. All ten interviewees alluded to shortage of effective formal networks for knowledge dissemination. Some respondents stated that even when staff meetings take place, there is no meaningful exchange because of the culture of fear as in the past those who have attempted to offer views different from stated positions have been rebuked and even reported to senior management and reprimanded or even fired. On whether there is adequate infrastructure to facilitate knowledge-sharing, all the interviewees gave a straight 'no' in response to this question. According to the interviewees, all the institutions do not have functional meeting rooms with staff meetings being held in staffrooms (in the presence of other staff members who do not belong to the department). They do not have staff canteens with employees having to go home for lunch or to obtain lunch from nearby shopping malls. There are no tea rooms for staff to take tea with tea being taken in the staffroom where other employees not taking tea will be busy with their work.

On who holds crucial information in the organisations, all interviewees mentioned that not everybody who should have access to critical information does. At the same time one's familiarity with senior managers determines how quickly one will have access to important information such as examination time-table, pay-day, graduation day, salary increments, and so on. When asked whether trust exists among employees and between employees and management, all respondents indicated that there is serious lack of trust at all levels in their institutions especially between top management and lower level employees. They stated that there is mistrust between top management and well qualified and experienced employees with the former thinking that the latter are intent on exposing their shortcomings to low level employees while the former think the latter are bent on having them removed from the organisation due to fear of competition. Interviewees were asked whether employees take part in decision-making. All ten interviewees indicated that generally, employees, (including those in management), do not take part in decision-making at all. They stated that all important decisions are made at the top and even middle managers are not consulted when important decisions are taken, more so lower level employees. They added that bad decisions are taken without the input of middle managers, lower level supervisors and general employees yet such decisions directly affect these people.

Respondents were asked whether there is any interaction with regulatory authorities outside policing and how often (stakeholder engagement). All the respondents indicated that there is very little interaction with regulatory authorities outside policing especially with employees who do not hold managerial positions. They stated that Tertiary Education Council (TEC) officials rarely visit institutions except when they make sporadic raids to check on compliance. In those cases, they meet only with senior management or those

whose programme they will be coming for. They indicated that once a programme has been accredited, there is very little effective engagement with regulatory authorities unless there is a crisis (for example, students have complained) or during sporadic raids on institutions where they will be meeting selected staff, Students Representative Council (SRC), class representatives, or top management. On linkages that exist between institutions and industry, all ten respondents indicated that there is very little link between their organisations and industry or none at all. They stated that her only link with industry is once a year when they follow up students who are on industrial attachment (internship). She added that this link is not very beneficial for knowledge exchange because the purpose of the visit is to meet the student and there is very little interaction with the industry manager.

Respondents were asked whether there is promotion of research in their organisations. Only two of the ten respondents mentioned some form of research being promoted in their organisation (the two respondents are from the same organisation) although one stated that the research output is poor due to lack of capacity building. The other eight respondents stated that there is no research worth talking about at all.

## 5. CONCLUSION AND RECOMMENDATIONS

The need to constantly ensure that businesses are compliant in a highly regulated environment, coupled with the complexity, diversity, and pace of regulatory change, make an effective KM model imperative because of the obvious lack of creativity in highly regulated environments. There is a need for leadership to devise an effective KM initiative by focusing on how knowledge enhances organisational capacity and by identifying useful KM enablers in that environment such as: culture, Information Technology, organisational structure, people, trust, reward systems, the knowledge market, and strategic leadership. Leadership also needs to foster a work environment where knowledge creation, sharing, and application is enhanced.

Viall (2012) argues that conducting compliant business in a highly regulated environment is a huge burden hence regulated organisations need appropriately experienced and well-resourced personnel and infrastructure, and a compliance team working alongside responsible and effective senior managers to fulfil the requirements of that environment. The leadership and the business organisation must be kept informed and up to date with relevant regulatory requirements and change so as to be able to implement required action befitting that change. In a highly regulated environment, institutions are subject to laborious and bureaucratic processes. These institutions, therefore, require the model developed in this study to be up to date and effective in the performance of their tasks, that is the right organisational culture, an appropriate organisational structure, a professional corporate and academic management that replaces family management, and so on.

The study revealed that critical KM enablers that lead to effective KM initiatives are missing in the operations of these institutions. Research findings have proved that leadership has failed to ensure the existence of KM enablers necessary for effective KM practices. The research also revealed the impact of family management on the performance of organisations operating in a highly regulated environment. This study also revealed that the leadership of institutions in this study has failed to put in place appropriate organisational structures that promote effective KM practices such as appropriate and user-friendly IT infrastructure, physical infrastructure, and organisational typologies thus resulting in the unavailability of effective KM initiatives. The leadership has not created an organisational climate for KM activities to flourish. They have failed to establish the right organisational culture which is one that facilitates knowledge creation, sharing, and utilisation. Elements of trust, organisational reward systems, learning, employee

involvement in decision-making, and so on are largely absent. Also, the results of the study show that leadership has not established effective mechanisms for internal and external stakeholder involvement and/or engagement to ensure the smooth flow of information from the institutions to the stakeholders and back – or even knowledge exchange with these important stakeholders such as government, industry, student leadership, staff associations, regulatory authorities, parents, and industry.

In order to enhance the state of KM, any organisation in a highly regulated environment should ensure that managerial positions are occupied by well-qualified and experienced professionals, whether they are family members or not, who will run the institutions professionally, who will motivate staff resulting in enhanced performance making continued regulation unnecessary. Leadership should also ensure that appropriate organisational structures that promote KM practices are established. An organisational culture that is conducive to KM practices needs to be established to promote knowledge generation, sharing and use. That culture must ensure effective employee involvement and participation in decision-making. There is need for leadership to establish effective mechanisms for internal and external stakeholder engagement and/or involvement to ensure the establishment of rapport and continuous flow of information and knowledge exchange between the organisation and its significant publics.

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