

AN EMPIRICAL STUDY ON KNOWLEDGE MANAGEMENT IN HIGHER EDUCATIONAL INSTITUTES: A CASE STUDY OF CHRIST CAMPUS, RAJKOT

BENNY JOSEPH

Research Scholar, Department of Business Management, Saurashtra University, Rajkot, Gujarat, India

ABSTRACT

In general, there are two types of knowledge: tacit knowledge and explicit knowledge. Put it very simply, knowledge management is the conversion of tacit knowledge into explicit knowledge and sharing it within the organization. *The present study is focused on studying the knowledge management on Christ Campus, Rajkot. Knowledge Management for this study has been classified into two categories, Tacit and Explicit Knowledge Management.* For testing the hypothesis Document Management and Knowledge Development & Audit are classified together as Explicit Knowledge Management and Collaborative Communication, Communities of Interest, Team Development and Cooperation within the Institutes are classified together as Tacit Knowledge Management. The empirical results show that Organisational Learning and Development is fostered by Document Management and Knowledge Development & Audit the most.

KEYWORDS: Christ Campus, Higher Educational Institutes, Knowledge Management

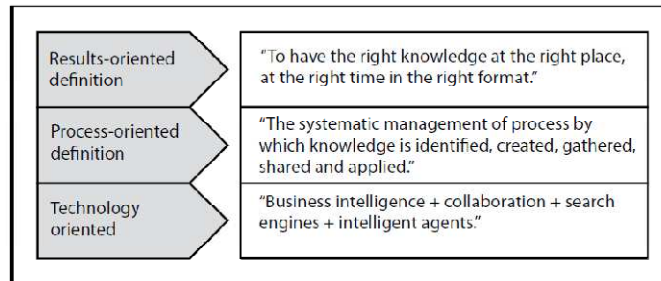
INTRODUCTION

Knowledge and Knowledge Management

Knowledge is progressively being known as the new strategic imperative of organizations. The most recognized paradigm is that knowledge is power. Therefore, one has to reserve it, keep it to oneself to preserve an advantage. The attitude of most of the people is to hold on to one's knowledge since it is what makes him or her asset to the organization. Today, knowledge is still considered power – an enormous power in fact – but the thought has changed considerably, particularly from the perspective of organizations. The new paradigm is that within the organization knowledge must be shared in order to grow. Knowledge Management (KM) is fundamentally about simplifying the processes by which knowledge is created, shared and used in organizations. In the modern economy, the knowledge that it is able to harness is the organization's competitive advantage. This competitive advantage is comprehended through the full exploitation of information and data coupled with the connecting of people's skills and ideas as well as their commitments and motivations.

In general, there are two types of knowledge: tacit knowledge and explicit knowledge. Tacit knowledge is that kept in the brain of a person. Explicit knowledge is that restricted in documents or other forms of storage other than the human brain. Explicit knowledge may therefore be stored or imbedded in facilities, products, processes, services and systems. Both types of knowledge can be produced as a result of exchanges or innovations. They can be the outcome of associations or alliances. They infuse the daily running of organizations and contribute to the attainment of their objectives. Both tacit and explicit knowledge enable organizations to respond to novel circumstances and emerging challenges.

Put it very simply, knowledge management is the translation of tacit knowledge into explicit knowledge and sharing it within the organization. Putting it more precisely and accurately, knowledge management is the process through which organizations create value from their intellectual and knowledge based assets.



Source: Benjamins, V.R., "Knowledge Management in Knowledge-Intensive Organizations", Intelligent Software Components (2001)

Figure 1

Christ Campus

Christ Campus epitomizes the quest for excellence in higher education. Established in 1998 and inaugurated by Dr. A P J Kalam (Former President of India) in 2001, Christ Campus has served as a temple of learning for the all-round development of students. Offering a wide variety of courses with English as the medium of instruction, the campus has rendered remarkable service and set increasingly higher academic benchmarks. It is characterized by an enduring legacy of holistic education and infinite opportunities.

Christ Campus derives its distinct character from the state-of-the-art infrastructure, technology-aided teaching-learning process and countless student development programmes. Well-qualified and experienced faculty members work towards the all-round development of the students. The clubs and associations of the college facilitate a host of creative co-curricular and extracurricular activities. Organized annually on a regular basis the seminars, workshops and symposia expose the students to the latest developments in the salient academic arenas.

Christ Campus encompasses Christ Institute of Management (CIM), Christ College (CC) and Christ Polytechnic Institute (CPI). Christ College has the distinction of being the first multi-faculty co-ed English medium college in Arts, Science and Commerce in Saurashtra and Kutch region of Gujarat. It also has the distinction of being the youngest college to be accredited with Five Star status by NAAC in September 2002. It was re-accredited in January 2010. It also achieved ISO 9001:2000 certification from TUV Rheiland, Berlin-Brandenburg Group, Germany in September 2003. Thus it became the first college in Gujarat to achieve this quality benchmark.

Adding a new dimension to management studies, Christ Institute of Management came into being in 2010 which had been a long cherished dream of the Campus ever since its inception. With the distinction of being the first of its kind in the region, Christ Polytechnic Institute has rendered valuable service in the realm of technical education in the medium of English.

The Campus makes ceaseless endeavours to push the envelope with the introduction of Diploma studies, certificate courses, novel teaching methodologies and newer technologies, pursuing the hallowed ideal of empowering the young generation. Education on Christ Campus is a defining experience of a student's growth and development.

The present study is focused on studying the knowledge management on Christ Campus, Rajkot. Knowledge Management for this study has been classified into two categories, Tacit and Explicit Knowledge Management. The paper is attempted to find out if learning and development in the organisation can be fostered by managing tacit and explicit knowledge or not.

LITERATURE REVIEW

Cranfield and Taylor (2008) studied seven universities in UK for application of Knowledge Management. The researchers concluded that HEI leadership slowly prioritizing KM and 21st century management tools; The nature of academic staff and perceptions of the academic job have a direct impact on the culture of the institution and impose their own factors that contribute to the ability to adopt KM as a management tool; Evidence of the benefits of explicitly adopting KM principles within this context needs to be clearly understood by individual researchers and academics, as well as the administrators; The taxonomy for the application of KM within the HEI context should be considered; The management structure of a university affects its ability to respond quickly to external influences and pressures.

Pircher and Pausits (2011) in their paper Information and Knowledge Management (IKM) at HEIs concluded that IKM at HEIs is more the result of problem- oriented and decentralized IT development than a reflection of a strategic IT direction. Information management and the deployment of existing technologies to support the HEI are predominantly driven by administrative rather than management, executive or service-oriented needs. For a university to function as an integrated whole, it needs IT infrastructure that adequately handles all the institutional processes and administrative functions and that also supports strategic decision-making by management.

Rowley (2000) in her study “Is higher education ready for knowledge management?” studied the applicability of the concepts of knowledge management to higher education institutions in the United Kingdom. Researcher identified a number of existing facilities, systems or projects which contribute to knowledge management in higher education, such as libraries, and electronic collections of learning materials, networks for e-mail communication, and management information systems which provide data on the student profile. It was concluded by noting that although knowledge based organizations might seem to have the most to gain through knowledge management, effective knowledge management may require significant change in culture and values, organizational structures and reward systems.

Mládková (2011) conducted a study on Knowledge Management for Knowledge Workers. The study was done on knowledge management in organizations in the Czech Republic. The paper covers the results of 131 interviewed organizations. The results of research indicated that organizations in the Czech Republic do not create an environment and knowledge management systems supportive for their knowledge workers. 44% of organizations that participated in research reported a top-down organizational structure that inhibits knowledge sharing and knowledge management activities. The organizational structure of 23% of interviewed organizations does not match their knowledge strategy. The majority of organizations, 64% did not have functional knowledge markets; mostly due to blocked communication channels (44%) and limited flow of knowledge through organization (52%). The knowledge market can be functional only when employees share knowledge, the knowledge flow is free and communication channels are opened. All three requirements were met by only 36% of interviewed organizations. As for trust, the most reported type of trust is trust based on knowledge, 34% of organizations reported it.

The second most reported type is trust based on relationships, 18%. Only 5% of interviewed organizations reported identification trust, an important pre-requisite of corporate-wide knowledge sharing.

Ramakrishnan and Yasin (2012) studied Knowledge Management System (KMS) and Higher Education Institutions. This study explored such uses of Knowledge Management System in Higher Education Institution. The paper was based upon a quantitative and qualitative study. It was produced after gathering feedback through questionnaires from twenty academic staff and eleven nonacademic staff in one of the public university in Malaysia. The researchers concluded that each HEI is unique in its scope, size, and priorities, and is a complex institution that balances both providing superior education and research opportunities, while simultaneously operating as an efficient and effective business in a competitive market. KMS efforts are not sustainable unless the organization implements a means of enhancing individual learning through the individual's own contributions. So, there is a need for KMS technology and systems to bridge the gap between present and prior contexts of knowledge creation, sharing, or application. KMS activities which are created for encouraging KMS processes must be in agreement with the organization's goals, social processes, organization behaviour, and organization strategy. If KMS is properly developed within HEI, it would improve HEI performance and productivity.

RESEARCH OBJECTIVES

- To assess the level of organisational learning and development in case of Christ Campus.
- To check if there is any significant difference between the organisational learning of three institutes which are parts of Christ Campus.
- To assess if there is any significant correlation between organisational learning and development with Collaborative Communication, Document Management, Communities of Interest, Knowledge Development & Audit, Team Development and Cooperation within the Institutes.
- To find out if there is significant difference between the tacit and explicit knowledge management practiced within the Campus.
- To assess if there is any significant correlation between Organisational Learning and Development with Tacit and Explicit Knowledge Management.

RESEARCH HYPOTHESES

- There is no significant difference in the organisational learning and development of three institutes which are parts of Christ campus.
- There is no significant correlation between organisational learning and development with Collaborative Communication, Document Management, Communities of Interest, Knowledge Development & Audit, Team Development and Cooperation within the Institutes.
- There is no significant difference between the tacit and explicit knowledge management practiced within the Campus.
- There is no significant correlation between organisational learning and development with Tacit and Explicit Knowledge Management.

RESEARCH METHODOLOGY

- **Population:** All the faculty members working on Christ Campus are the Population of this study.
- **Sampling:** Quota Sampling is done in which representation has been done from three institutes of Christ Campus, Rajkot. Quota was decided according to the number of faculty members in Christ College, Christ Polytechnic Institute and Christ Institute of Management.
- **Sample:** Responses are collected from faculty members working on the campus. The Campus consist of three different Institutes: Christ College offering UG courses affiliated to Saurashtra University, Christ Polytechnic Institute offering Diploma in Engineering courses affiliated to Gujarat Technological University and Christ Institute of Management offering PG courses in management education affiliated to Gujarat Technological University. A total of 140 faculty members are working on the campus. Out of them 55 responses were collected in total. 38 faculties are from Christ College, 12 from Christ Polytechnic Institute and 5 from Christ Institute of Management.
- **Data Collection and Instrument:** The required data on Knowledge Management on Christ Campus has been collected with the help of self-administered questionnaire. The Questionnaire was divided into 8 parts. First part was designed to collect demographic information of the respondents. The remaining 7 parts were designed to collect responses on Organisational Learning and Development, Collaborative Communication, Document Management, Communities of Interest, Knowledge Development & Audit, Team Development and Cooperation within the Institutes respectively. The respondents were asked to rate the provided statements w.r.t. different dimensions of KM on a five point Likert Scale.
- **Tools for Analysis:** The collected data was scored and entered into an excel sheet. One way ANOVA, correlation and t-test have been applied to test the Hypotheses.

DATA ANALYSIS

To fulfil the first objective descriptive statistics for Organisational Learning and Development (OLD) Scores are found with the help of MS Excel. The mean OLD for Christ campus as shown in the table below is 12.49 out of a maximum score of 22. So we can conclude that the OLD score is just 56.77%.

Table 1

Mean	Standard Error	Median	Mode	Standard Deviation	Sample Variance	Kurtosis	Skewness
12.49091	1.018308	15	17	7.551975	57.03232	-0.01477	-0.90178

Since the Skewness is approximately -1, the data is set to be negatively skewed and the distribution is not so symmetric.

Testing of Hypotheses

H₀₁: There is no significant difference in the organisational learning and development of three institutes which are parts of Christ campus.

To test the above hypothesis one way ANOVA needs to be done for the three institutes.

Table 2

ANOVA						
Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	109.3007	2	54.65036	0.956698	0.390817	3.175141
Within Groups	2970.445	52	57.12394			
Total	3079.745	54				

As shown in the table above there is no significant difference between the organisational learning and development of three institutes as $F_{cal} < F_{crit}$. So it is concluded that all the three institutes score approximately equal on OLD. So the null hypothesis is accepted.

H₀₂: There is no significant correlation between organisational learning and development with Collaborative Communication, Document Management, Communities of Interest, Knowledge Development & Audit, Team Development and Cooperation within the Institutes.

To test the above hypothesis correlation between Organisational Learning and Development with the other variables (Collaborative Communication, Document Management, Communities of Interest, Knowledge Development & Audit, Team Development and Cooperation within the Institutes) needs to be calculated.

Table 3

	L&D	CC	DM	CI	KD&A	TD	CWI
L&D	1	0.382918	0.586993	0.476286	0.581447	0.517034	0.255648

As shown in the above table the correlation coefficient of OLD with DM and KD&A is strong. The correlation between OLD and CI, TD is moderate and correlation between OLD with CC and CWI is very low. So it can be concluded that to improve organisational learning and development the organisation should work more on Document Management and Knowledge Development & Audit. The null hypothesis is partially rejected.

H₀₃: There is no significant difference between the tacit and explicit knowledge management practiced within the Campus.

For testing the above hypothesis Document Management and Knowledge Development & Audit are classified together as Explicit Knowledge Management and Collaborative Communication, Communities of Interest, Team Development and Cooperation within the Institutes are classified together as Tacit Knowledge Management. The mean scores of these categories are tested for difference with the help of t- test assuming unequal variances as shown in the table below.

Table 4

t-Test: Two-Sample Assuming Unequal Variances		
	Average Tacit	Average Explicit
Mean	1.189051088	1.026969697
Variance	0.193351272	0.742645654
Observations	55	55
Hypothesized Mean Difference	0	
Df	80	
t Stat	1.242445331	
P(T<=t) one-tail	0.108850975	
t Critical one-tail	1.664124579	
P(T<=t) two-tail	0.21770195	
t Critical two-tail	1.990063421	

As shown in the table above there is no significant difference between Tacit Knowledge Management and Explicit Knowledge Management practiced in Christ Campus as $t_{cal} < t_{crit}$. So the null hypothesis is accepted.

H₀₄: There is no significant correlation between organisational learning and development with Tacit and Explicit Knowledge Management.

To test the above hypothesis correlation between Organisational Learning and Development with Tacit and Explicit Knowledge Management needs to be calculated.

Table 5

	OLD
OLD	1
TKM	0.530669519
EKM	0.654331804

As shown in the above table the correlation coefficient of OLD with both Tacit KM and Explicit KM is strong. But if we compare we can see that OLD is more strongly correlated with Explicit KM with coefficient of correlation being 65.43%. The null hypothesis is rejected.

FINDINGS

The findings of the study indicate that:

- 11 faculty members from the sample are Graduate Engineers, 20 faculty members from the sample are post graduates and rest 24 have post PG qualifications like M Phil and PhD. So we find that organisation focuses on recruiting faculty members with higher education qualifications.
- Out of total 55 faculty members, 22 faculty members from the sample are female and rest are male so we find that Campus provides equal opportunities to male and female.
- The organisational learning and development as felt by the faculty members of Christ Campus, Rajkot is 56.77%.
- The scores of three institutes' w.r.t. Organisational Learning and Development are statistically not significantly different.
- Organisational Learning and Development is found to be strongly positively correlated to Document Management and Knowledge Development & Audit.
- The correlation between Organisational Learning and Development with Communities of Interest within the organisation and Team Development is positively moderate which shows that team development will foster learning and development but only to an extent.
- Organisational Learning and Development is not much fostered by Collaborative Communication and Cooperation within the Institute Members. Thus we find that on Christ Campus Organisational Learning and Development is more Individualistic which is good for individual growth and development.
- Tacit and Explicit Knowledge Management on the Campus are statistically not significantly different.
- Organisational Learning and Development is fostered both by Tacit KM and Explicit KM.

- Organisational Learning and Development is fostered more by Explicit Knowledge Management than Tacit Knowledge Management.

CONCLUSIONS

In this study the researcher examined the dynamic linkages between organisational learning and development with six different variables. The variables are Collaborative Communication, Document Management, Communities of Interest, Knowledge Development & Audit, Team Development and Cooperation within the Institutes. The primary aim of this research was to investigate empirically the impact of these variables on organisational learning and development. The empirical results show that Organisational Learning and Development is fostered by Document Management and Knowledge Development and Audit the most. It is also fostered by Communities of Interest within the organisation and Team Development. It is also concluded that the organisational learning and development of the three institutes which are parts of the campus is almost equal. That means that on this Campus the level of education provided by the three institutes is not affecting organisational learning and development.

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