A Comparative Analysis of Organizational Structure and Effectiveness between Public and Private Universities: A Case of University Of East Africa-Baraton and Moi University in Kenya

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ABSTRACT: *The nature of services in institutions of higher learning requires that all stakeholders play positive roles in the sustainability of the institution's survival and effectiveness in giving quality teaching, research and learning. Structure and processes are core requirements for understanding organizational effectiveness. The actual scenario in the field, however, raises concerns as to whether cases of pending work, inefficiency, conflicts among others can be arrested by having proper structures and processes. The purpose of the study was to assess the effect of organizational structure on organizational effectiveness, in public and private universities in Kenya, using the case of Moi University and University of East Africa (UEA)-Baraton. Based on the study, this paper undertakes a comparative analyisis of organizational structure and organizational effectiveness between UEA-Baraton and Moi University and the extent to which the nature of formalization and level of horizontal integration are antecedents to level of communication and locus of decision-making. The study utilized a cross-sectional survey design that was descripto-explanatory in nature to identify attributes of the study population using a small sample of individuals. Independent samples t-test was used to test whether there was any significant difference in organizational structure and organizational effectiveness between public and private universities. Further, the study used hierarchical regression analysis to test the hypotheses. Based on the sample of 365 participants (300 from Moi University and 65 from UEA-Baraton), the independent samples t-test confirmed that there were significant differences in organizational structure and organizational effectiveness between public and private universities. The regression results indicated that the locus of decision-making had positive and significant effects on productivity, stability, resource acquisition and human resource satisfaction and development. The results highlight the need to improve organizational structure which has positive impacts on organizational effectiveness under the moderation of organizational processes. This move is necessitated by the accelerated pace of business complexity today.*

Keywords: *Organizational Structure, Effectiveness, Public, Private Universities, East Africa, Baraton, Moi University, Kenya*

I. INTRODUCTION

An organization is a structured group of interacting people equipped with skills, material resources, working together with the objective of fulfilling common needs. According to Bateman and Zeithaml (1990) and Gibson *et al.* (1994), organizations are social entities that are goal directed, deliberately structured activity systems with a permeable boundary. Hoy and Miskel (1991) and Nickerson (2008) state that a learning institution is a system of social interactions, organized wholes, comprising of interacting personalities bounded together in an organized relationship. As a social system, it has interdependent parts, a clearly defined population/differentiation from the environment, a complex network of social relationships and its own unique culture. As with all formal organizations, an analysis of institutions of higher learning as social systems calls attention to both planned, unplanned, the formal and informal aspects of organizational life.

Organizational effectiveness has been defined by various authors. Herman and Herman (1994) see an effective organization as one in which the conditions are such that student and employee achievement data show that all concerned have evidence of acceptable minimum mastery of their undertakings. Further, effectiveness stresses the point that factors at the different levels of the organizational system contribute to an outcome. Overall, as Vinitwatanakhn (1998) asserts, organizational effectiveness can be conceptualized as the extent to which an organization can adapt to the internal and external constraints and achieve the multiple goals of its multiple constituencies in the long run.

To increase organizational effectiveness, winning organizations create sustainable competitive advantage by aligning their talent and business strategies. The solutions to organizational effectiveness may involve, first, the strategy implementation. This involves the improvement of an organization's ability to successfully execute strategies to achieve organizational goals by focusing on structure, people systems and processes, and to deliver great customer experiences. Secondly, strategic workforce alignment is an interactive process in which executives can quickly assess and prioritize various workforce strategies, employee needs and investments. Thirdly, institutional solutions focus on the change effectiveness. In this case, strategies are designed to support change at all levels of the institutions. Executives drive the institutional change, empower managers to lead through change and enable employees to navigate and respond to change appropriately (Baker & Branch, 2002).

While it has connotations of rational, technical analysis, effectiveness is not a neutral term. Defining the effectiveness of particular organization always requires choices among competing values. Learning institutions, like other organizations, operate in complex environments with multiple internal and external constituencies. Singh (1991) and Sagimo (2002) assert that in order to be effective and achieve its goals, an organization must successfully respond to environmental factors. Different organizations face different environments, deal in different products, with different kinds of people and are at different stages of development, hence there are various models of determining institutional/organizational effectiveness. Furthermore, according to Verma and Jain (2001), multi dimensionality of organizational effectiveness is a result of the multiple values and preferences with which an organization is approached. Zammuto (1984) observes that most organizations put substantial emphasis on performance management because it is the foundation of talent responsiveness. Spector (2007), in his research work looking at focus versus responsiveness, concludes that balanced responsiveness to multiple constituencies is more likely to lead to high organizational effectiveness than focused responsiveness to a single one.

The importance of defining and measuring organizational effectiveness is crucial because organizational effectiveness is a significant indicator of direction, position and future of the organization (Vinitwatanakhun, 1998). It is also vital in building and maintaining good relations among all the concerned constituencies (Ledingham, 2000). Organizational effectiveness is a multifaceted complex concept. Researchers have offered a variety of models for examining organizational effectiveness, but there is little consensus as to what constitutes a valid set of effectiveness criteria. Most researchers and practitioners agree that the necessary condition for an organization's success is survival. Cameroon (1978) identifies the problem of determining organizational effectiveness and asserts that organizations have unique characteristics that make the application of previous organizational effectiveness models problematic. In his later works, Cameron (1986) notes the need for organizational effectiveness to develop organization-specific models based on clear assumptions, which are appropriate to the specific organizational setting. Most scholars, however, prefer not to choose only one model among various alternatives to explain organizational phenomena. This is because each of these organizational effectiveness models have certain strengths and weaknesses of their own.

II. Organizational Structure

Organizational structure is the way responsibilities and power are allocated, and work procedures are carried out among organizational members. They designate the nature and means of formal reporting relationships as well as the groupings of individuals within the organization (Germain, 1996; Gerwin & Kolodny, 1992; Randall & Jackson, 1996).

According to Randall and Jackson (1996), different structures arise in response to a variety of internal and external forces, including technological demands, organizational growth, environmental turbulence, size and business strategy. Organizational structure institutionalizes how people interact with one another, how communication flows, and how power relationships are defined (Grant *et al.*, 1994; Robbins, 1996). An organization has to make a series of decisions about what activities to be involved in, its goals and objectives, the strategies for attaining those goals, division and coordination of work, and distribution of responsibilities. Every organization has simple and/or complex structure. Consequently, employees and their activities are grouped in ways that are unique to organizations.

Organization structure intervenes between goals and organizational accomplishments and thus influences organizational effectiveness. It is a framework of an organization that helps in determining individual responsibilities and task processes of delegation and the distribution of authority. It is a tool of management for achieving plans. As plans tend to change, the organizational structure should be responsive to change. Structures are designed to ensure that resources are used most effectively towards accomplishing an organization's mission. Structure provides managers with a means of balancing two conflicting forces: the need for division of tasks into meaningful groupings and the need to integrate such groupings to ensure organizational efficiency and effectiveness (Dess *et al.*, 2005).

According to Hinebaugh (2010), formal structure shows the intended configuration of positions, jobs, duties and line of authority among different parts of the enterprise. It outlines the jobs to be done, the person(s), in terms of positions, to perform specific activities and the ways in which the total tasks of the organization will be accomplished. Structure affects how effectively and efficiently group effort is coordinated. To achieve its goals, an organization has to divide labour among its members and then coordinate what has been divided. Griffin (1997) defines organizational structure as the set of elements that can be used to configure an organization. Generally, organization charts depict the formal structure of organization. A typical chart shows the various positions, the position holders and the line of authority that link them to one another. Daft (1995, 2004) is of the opinion that organizational structure is reflected in the organization chart. It is the visible representation for a whole set of underlying activities and processes in an organization. According to Gray and Starke (1984), organizational structure includes such organizational design issues, authority and responsibility relationships, organizational policies and procedures, decision-making systems, individual job design and formal control systems.

Zammuto and O'Connor (1992) and Daft (1995) observe that "significant changes are occurring in organizations in response to changes in the society at large." They contend that the mechanistic paradigm is effective when environments have a high degree of certainty, technologies tend to be routine, organizations are designed for large-scale, and employees are treated as another resource. Internal structures tend to be vertical, functional, and bureaucratic. The organization uses rational analysis and is guided by parochial values reflected in the vertical hierarchy and superior-subordinate power distinctions. The organic paradigm recognizes the unstable, even chaotic nature of the external environment. Organizations are based more on teamwork, face-to-face interactions, learning and innovation (Daft, 1995).

Organizational structure is partly affected by the firm's external environment (Hrebiniak & Snow, 1980). Research suggests that firms organized to deal with reliable and stable markets may not be as effective in a complex, rapidly changing environment. The certain the environment, the more likely the firm's organizational structure will have a centralized hierarchy, with formalized rules and procedures. Organizations that operate with a high degree of environmental uncertainty may decentralize decision-making (Ruckert *et al*., 1985) and flatten their hierarchies.

Organizational structure have multiple dimensions, and Damanpour (1991) provides a rather thorough list as follows: specialization, functional, differential, professionalism, formalization, centralization, managerial attitude toward change, managerial tenure, technical knowledge resources, administrative intensity, slack resources, external communication, internal communication, and vertical differentiation, all of which have been used by researchers in their probe into the relationship between organizational determinants and innovation. Daft (1995) provides a list that includes formalization, specialization, standardization, hierarchy of authority, complexity, centralization, professionalism, and personnel ratios. Germain (1996) focuses on specialization, decentralization, and integration in describing the role of context and structure in adopting logistical innovations. Paswan *et al*. (1998) use formalization, centralization, and participation in explaining linkages among relationalism, environmental uncertainty, and bureaucratization in distribution channels. Lysonski *et al*. (1995) concentrate on the degree of centralization of decision-making, formalization of rules and procedures, and structural differentiation in their investigation of environmental uncertainty and organizational structure from a product management perspective. Among this variety of sub-dimensions for organizational structure, the five most commonly discussed are nature of formalization, level of horizontal integration, locus of decision-making and levels of communication. The five variables were used in the study due to the notion that performance can be achieved where decisions are made and communicated to the employees based on the type of formalization in existence and level of horizontal integration among staff.

III. Organizational Structure in Universities

Universities exist to provide quality education and thus while they share much in common their organizational structures vary distinctly, depending on their type (public or private), cultural, historical and environmental contexts. The majority of public and private universities are overseen by an organizational or system-wide governing board (Chacha, 2004; Nyaoga *et al.*, 2010). The organizational structure of universities is an important guide to organizational activity. Scholars of higher education have developed a variety of multi-dimensional models of organizational behaviour that also shed considerable light on university structure and process (Berger & Milem, 2000). The multi-dimension models, according to Berger and Milem, seek to explain organizational behaviour across organizational types, and in various organizational activities. The models vary somewhat in the number of dimensions incorporated, that is: bureaucratic, collegial and political; structural, human resource, political and symbolic; and bureaucratic, collegial, political, anarchical, and cybernetic.

The models are quite helpful in thinking about organizational structure and process within universities. For example, Boyne (2002) upholds that the same organization may evidence a bureaucratic, hierarchical decision-making process in its central administration, and a collegial process in its academic senate.

It is the combination of organizational structure and processes that shapes universities behaviour. This is further supported by Chande (2006) who contends that public and private universities of all types incorporate key authority structures, including a governing board, a cohort of administrative leaders, and an academic senate. In public institutions, these core organizational entities collaborate with such external authorities as government, community organizations, and members of the public as well as business interests. These external organizations routinely interact with and shape the policies and procedures of the university's internal organizational structures. Therefore, the increasingly complex organizational and governance structures require negotiating the ever-expanding task environment.

IV.   Linking Organization Structure with Organizational Effectiveness

Organizational effectiveness is one of the most critical functions of the higher education system. Providing quality service and programmes in every aspect of the academic environment, implementing various strategies for assessing quality, and developing necessary and appropriate corrective measures define the components of an organizational effectiveness process (Benedict College, 2010). According to the New England Association of Schools and Colleges (2011), an organization is a system of governance that facilitates the accomplishment of its mission and purposes and supports effectiveness and integrity through its organizational design and governance structure. The university organization creates and sustains an environment that encourages teaching, learning, service, scholarship, research and creative thinking and it assures provision of support necessary for the appropriate functioning of each organizational component.

Additionally, Jeffrey *et al.* (2005) assert that the structure, decision-making processes and policies of an organization should be clear and consistent with its mission and support for effectiveness. As such the system of governance of an organization should involve the participation of all appropriate constituencies and include regular communication among them. Managers, through an appropriate administrative structure, should effectively drive the institution to fulfil its purposes and objectives and establish the means to assess its effectiveness.

Zheng *et al.* (2010) posit that knowledge management mediates the impact of organizational structure and strategy on organizational effectiveness. Bhargava *et al.* (1992) hold that the problems in organizations have been discussed from different perspectives and one of the perspectives focuses on organizational structure and design. Johari (2009) supports this idea asserting that formalized rules and procedures and centralized decision-making also hinder employees from "thinking outside the box" in performing tasks. Hence, employees do not put extra effort or take any initiative to improve the way their jobs are performed. Sparrow and Hiltrop (1997) also add that autonomy in decision-making is vital to organizational effectiveness.

In the context of research and development organization, Argyres and Silverman (2004) note "that so little research has addressed the issue of how internal research and development organization affects the directions and impacts on technological innovation by multidivisional firms" (p. 929). These observations are congruent with the view that organizational design – the field specifically devoted to studying the linkage between environment, organizational structure and organizational outcomes – despite its long history, is in many respects an emerging field (Foss, 2003).

V.   Statement of the Problem

Organizational effectiveness in the institutions of higher learning should involve an internal functioning that is smooth and without strain and which will earn credit for the services offered and enabling employee satisfaction (McShanne & Glinow, 2008; Gibson *et al.*, 1994). The nature of services in institutions of higher learning requires that all the stakeholders – managers, students, employees both teaching and non-teaching, suppliers – play positive roles in the sustainability of the organization's survival and progress towards giving quality teaching to their students and community as part of their corporate social responsibility.A growing body of research has shown that relationship management has a positive impact on organizational objectives (Grunig & Hon, 1999; Huang, 2001; Ledingham, 2000). Building favourable relationships between an organization and its public contributes to desirable organizational outcomes such as organizational effectiveness. An organization with poor leadership is like a ship on the high seas without a captain. In such an institution, resources become wasted in fruitless ventures. Typically, all managerial situations are significantly influenced by the structure and processes prevailing in an organization (McCann, 2004). Consequently, understanding the relationship between structure and processes is a core requirement for gauging organizational effectiveness. Organizational structure can spell the difference between success and failure for an organization, as well as for the individuals who work there. Whereas very little is known about the role of organizational structures in terms of level of horizontal integration and nature of formalization, it has also emerged that communication and decision-making could also contribute to the achievement of organizational effectiveness. The study, therefore, examined the relationship among various structural constructs (including level of horizontal integration, nature of formalization, communication and decision making) that are applicable to institutions of higher learning in Kenya and its impact on organizational effectiveness.

VI.   MATERIALS AND METHODS

The research was carried out in Moi University and University of Eastern Africa-Baraton both in Kenya. The two universities were targeted because they are both situated in a rural setting, accredited by the Commission for Higher Education (CHE), are members of the Inter-University Council of East Africa (IUCEA), Association of Commonwealth Universities (ACU), and the Association of African Universities (AAU). Moi University is a public university. Its Main Campus is endowed with ample land located in Uasin Gishu County, 310 kilometres northwest of Nairobi. The Main Campus is located 36 kilometres South East of Eldoret town on a 1,632.04 hectares of land which was originally a wattle tree plantation formerly owned by EATEC (Moi University Calendar, 1996/1997). Its other campuses include Annex Campus (School of Law) located 5 kilometres South of Eldoret on a 45.4 hectare land, Town Campus situated within Eldoret town, off Eldoret-Iten road, and Eldoret West Campus situated five kilometres on the Eldoret-Turbo road. The University also has eight satellite campuses and Constituent Colleges distributed across the country.

University of East Africa, Baraton was established on December 21, 1978 as a private university owned, managed and run by the Seventh-Day Adventist Church. It is situated in Kapsabet Municipality, Nandi County, 9km off the main Eldoret-Kapsabet-Kisumu highway. It is situated on 339 acres of land about 50km from Eldoret town in the western side of the Nandi County. The Eldoret International Airport is only 35km away, a forty-minute ride to the institution. Baraton University has five schools with 18 academic departments and seven administrative departments (Moi University Calendar, 1996/1997).

The study employed a cross-sectional survey design that was descripto-explanatory in nature since the study focused on constructing the causal relationships of variables as having explanatory objective that can be implemented by analyzing quantitative data or qualitative information (Saunders *et al.*, 2007; Zikmund, 2000). The study targeted both the teaching (934 in Moi University and 293 in UEA-Baraton) and non-teaching staff (1096 in Moi University and 130 in UEA-Baraton). All of these constituted 2030 employees and 423 employees from Moi University and UEA-Baraton, respectively.

In order to ensure a high rate of response, the research opted for a sample size of 365 which is approximately closer to the desired sample size of 344. Stratified random sampling proportionate to strata size was employed in the selection of the 365 respondents. Consequently, a total of 300 respondents were sampled from Moi University and comprised 138 teaching staff and 162 non-teaching staff. Similarly, a total of 65 respondents were sampled from the University of Eastern Africa-Baraton, and consisted of 45 teaching staff and 20 non-teaching staff.

The primary data for the study was obtained through a questionnaire. Secondary data was obtained from existing literature under the topic and title of study. These included written information such as organization policies obtained from records/reports and/or University Calendar, published and unpublished books, journals, theses and dissertations, Ministry of Education documents, the internet, and previous research works done by other scholars. Two main tools were used to collect data, namely the questionnaire and a document analysis protocol.

Organizational processes were measured indirectly using four domains, namely team work, information processing and technology, management support and quality improvement efforts. Organizational effectiveness was measured indirectly using four dimensions. These were: productivity, stability, resource acquisition, and human resource satisfaction and development. Institutional organization structure was measured indirectly using four dimensions. These were: nature of formalization, level of horizontal integration, level of communication and locus of decision making (Adapted from Nahm *et al.*, 2003 and modified by the researcher).

The data obtained was first screened and cleaned for missing values, normality and outliers. The missing values were replaced using the series means as suggested by Tabachnick and Fidell (2001). Moreover, univariate outliers were identified using standardized residuals with items with standardized residuals of more than+3.0 and less than -3.0 being considered outliers (Tabachnick & Fidell, 2001). Such items were deleted from further analysis. Multivariate outliers were assessed using Mahalanobis distance (D^2). First, the Principal Components Factor Analysis (PCA) was used to determine the factor structure of the constructs. Construct means and standard deviations were computed to examine the variance in responses within constructs. The Shapiro-wilk test together with the normal Q-Q plots were used to help explain the normality of the data. Inter-variable correlation was then used to establish the degree of linear relationship between the study variables. Independent samples t-test was used to compare the mean differences in organizational structure and organizational effectiveness between the two groups drawn from the two universities.

Firstly, multiple regression analyses were conducted to test whether nature of formalization and level of horizontal integration were antecedents of level of communication and locus of decision making respectively. Secondly, hierarchical regression analysis was conducted to test the predictive ability of organizational structure on organizational effectiveness while controlling for the influence of respondents background characteristics of gender, level of education and duration served in institution.

VII.   RESULTS
Organizational Structure and Organizational Effectiveness in the two Universities

The study sought to compare organizational structure and organizational effectiveness between private and public universities. Consequently, it was first postulated that there is no significant difference in organizational structure between public Universities and private Universities. Independent samples 't' test was, therefore, used to test for significance in the mean difference between mean scores posted by the UEA-Baraton sample (private university) and those posted by the Moi University sample (public university). The results, as presented in Table 1, indicated that there was a mean difference of 0.493 between the mean scores of UEA-Baraton and those of Moi University. This mean difference was significant at 0.01 level of significance {t (298) = 5.287, p<0.01}. Again, the results revealed that the mean difference of 0.457 in organizational effectiveness between UEA-Baraton and Moi University was significant at the 0.01 level of significance {t (298) = 4.352, p<0.01}. Clearly there were significant differences between the two universities in relation to organizational structure and consequently in organizational effectiveness. The hypothesis was, therefore, rejected at the 0.001 level of significance.

Table 1: T-test Results of difference between UEA-Baraton University and Moi University

		t-test for Equality of Means				
		t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Organizational Structure	Equal variances assumed	5.287	298	.000	.493	.093
Organizational Effectiveness	Equal variances assumed	4.352	298	.000	.457	.105

Source: Survey Data (2012)

Predictive ability of Nature of Formalization and Level of Horizontal Integration as Antecedents to Communication and Decision-making

The study further sought to establish the extent to which nature of formalization and levels of horizontal integration were antecedents to organizational communication and decision-making in the two sampled institutions of higher learning. To analyze this objective, two hypotheses were formulated. First, the study hypothesized that the nature of formalization and horizontal integration do not predict organizational communication. To test this hypothesis, a regression analysis was used. Responses to items measuring the nature of formalization, horizontal integration and communication were each averaged separately in order to develop the index for each variable. The indices for organizational communication were then regressed on the indices for nature of formalization and horizontal integration.

The research findings presented in Table 2 below indicate that the nature of formalization (β=-0.301, p<0.01) was a negative and significant predictor of level of communication, while the level of horizontal integration (β=0.454, p<0.01) was a positive and significant predictor of level of communication. The nature of formalization and the level of horizontal integration explained up to 41.8% (Adj. R^2 = 0.418) of the variation in level of communication. This implies that the nature of formalization and levels of horizontal integration were antecedents of organizational communication. Besides, the small values of variance inflation factors (VIF) confirm that there was no threat of multicollinearity between the antecedents and level of communication.

Table 2: Nature of Formalization and horizontal integration as antecedents to Organizational Communication

	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	.638	.176		3.630	.000		
Nature of formalization	-.253	.042	-.301	-6.069	.000	.790	1.265
Level of horizontal integration	.474	.052	.454	9.142	.000	.790	1.265
R	.649						
R^2	.422						
Adj. R^2	.418						

Dependent Variable: level of communication
Source: Survey Data (2012)

Second, the study hypothesized that the nature of formalization and horizontal integration do not predict organizational locus of decision-making. The index for locus of decision-making was developed by averaging responses on items measuring this variable. Locus of decision-making was then regressed on nature of formalization and level of horizontal integration. As shown in Table 3 below, the nature of formalization ($\beta = -0.314$, $p<0.01$) was a negative and significant predictor of locus of decision-making while the level of horizontal integration ($\beta=0.355$, $p<0.01$) was a positive and significant predictor of locus of decision-making. The adjusted R^2 value was 0.322, which implied that the nature of formalization and level of horizontal integration explain up to 32.2% of the variance in locus of decision-making. Thus the nature of formalization and levels of horizontal integration were antecedents of organizational locus of decision-making. Similarly, the small values of variance inflation factors (VIF) confirm that there was no threat of multicollinearity between the antecedents and locus of decision-making.

Table 3: Nature of Formalization and Horizontal Integration as Antecedents to Organizational Locus of Decision-making

Predictors	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.545	.143		10.828	.000		
Nature of formalization	-.199	.034	-.314	-5.859	.000	.790	1.265
Level of horizontal integration	.280	.042	.355	6.636	.000	.790	1.265
R	.572						
R^2	.327						
Adj.R^2	.322						

Dependent Variable: locus of decision-making
Source: Survey Data (2012)

Hypothesis Testing

Hypothesis Ho_{1a}: There is no significant difference in organizational structure between public and private universities.

Since the t-value of 5.287 was significant, the hypothesis was not supported by the data. This implies that there is a difference in organizational structure between public and private universities. The mean scores depict that organizational structure is perceived to be more elaborate in private universities as opposed to public universities.

Hypothesis Ho_{1b}: There is no significant difference in organizational effectiveness between public and private universities.

The t-value of 4.352 was significant. Consequently, the hypothesis was not supported by the data. Evidently, organizational effectiveness differs significantly between the two types of universities. The positive mean difference in scores of 0.457 tends to suggest that organizational effectiveness in private universities is perceived to be higher than in public universities.

Hypothesis Ho_{2a}: The Nature of formalization and level of horizontal integration do not predict the level of communication.

As indicated by the significant standardized coefficient of -0.301 and t-value of -6.069 for nature of formalization, and the significant standardized coefficient of 0.454 and t-value of 9.142 for level of horizontal integration, the hypothesis was not supported by the data. The negative coefficient of 0.301 for nature of formalization implies that an increase of 1% in nature of formalization is likely to result in a 0.301% decrease in level of communication. Similarly, the positive coefficient of 0.454 for horizontal integration implies that an increase of 1% in level of horizontal integration was likely to result in a 0.454% increase in level of communication. This clearly confirms the assertion that nature of formalization and the level of horizontal integration are antecedents of the level of communication in universities.

Hypothesis Ho_{2b}: Nature of formalization and level of horizontal integration do not predict locus of decision-making.

The standardized coefficient of -0.314 and t-value of -5.859 for nature of formalization were significant, as were the standardized coefficient of 0.355 and t-value of 6.636 for level of horizontal integration. The hypothesis was, therefore, not supported by the data. Furthermore, the negative coefficient of 0.314 for nature of formalization implies that a 1% increase in nature of formalization was likely to lead to a 0.314% decrease in locus of decision-making and the positive coefficient of 0.355 for horizontal integration means that an increase of 1% in levels of horizontal integration was likely to lead to a 0.355% increase in locus of decision making. These results show that there exists a direct relationship between nature of formalization and locus of decision-making, as well as between level of horizontal integration and locus of decision making. This implies that both nature of formalization and level of horizontal integration are antecedents of locus of decision-making.

VIII.   DISCUSSION

Organizational Structure and Effectiveness between Public and Private Universities

The decision to compare organization structure and organization effectiveness in the study was informed by the continued trend to present research evidence pertaining to differences between public and private organizations. In one comprehensive review of writings about public and private organizations, Rainey (1983) have found that less than ten of the nearly one hundred papers and books cited provide propositions based on empirical research. On the contrary, Perry and Rainey (1988), nearly one decade later, found that nearly half of the studies cited in a later assessment presented some empirical evidence. According to Dixit (1997), Crewson (1997), Kurland and Egan (1999) and Nutt (1999), the stream of research on such comparisons appears to be accelerating.

Consequently, the current study was consistent with the acceleration of these researches. The study finding that there was a slight but significant difference in organizational structure between public and private universities tends to support findings of other studies. Bozeman and Loveless (1987), for example, observe that public sector research and development units differ only slightly from private sector units on a measure of formalization (the extensiveness of rules and formal procedures and their enforcement). Rainey *et al*. (1995) find little difference between public and private managers in their perceptions about rule enforcement in their organizations. Kurland and Egan (1999) posit that respondents in public agencies perceive less formalization of their jobs and of communications with their supervisors than do respondents in private firms.

The finding that organizational effectiveness was slightly but significantly lower in public than in private universities is consistent with findings of other studies (Khojastch, 1993; Kovach & Patrick, 1989; Lachman, 1985; Solomon, 1986). Such studies focus on work satisfaction, and report lower work satisfaction on the part of people in public agencies, especially at managerial levels. The consistency in these findings may, however, be due to the fact that the current study used measures of organizational effectiveness similar to those used by Khojastch (1993) and Kovach and Patrick (1989). These measures refer to specific facets of work, such as promotion prospects, autonomy in the job, pay levels, and many others. These tended to lower ratings of satisfaction by public university respondents.

Effect of Nature of Formalization and Level of Horizontal Integration on Level of Communication and Locus of Decision-making

Nature of formalization, as the degree to which workers are provided with rules and procedures that deprive instead of encouraging creative, autonomous work and learning, was conceptualized to have a bearing on level of communication and locus of decision-making. The study finding that nature of formalization had negative and significant direct effects on both level of communication and locus of decision-making is supported by other findings. According to Damanpour (1991), a high degree of formalization has a negative relationship with innovation.

The findings regarding nature of formalization support the findings by Fredrickson (1986) that a formalized structure is associated with reduced motivation, as well as slower pace of decision-making. According to Adler and Borys (1996), attitudinal and behavioural outcomes among employees are attributed to the type of formalization enforced in the organization and hence a conceptual understanding of this construct among top managers is deemed crucial. Consequently, an accurate selection process, which takes into account job congruence or person job fit element, may mitigate negative attitudinal or behavioural outcomes. In concurring with these views, Nahm *et al*. (2003) argue that, depending on its nature, formalization may be restrictive or supportive of decentralization, flexibility and autonomous work.

Jimenez and Lockheed (1995), on the other hand, point out that the nature of formalization that involves layers of hierarchy increase links in communication channels, making communication between levels more difficult and inhibiting the flow of innovative ideas that could lead to effective organizations. This, therefore, means that increase in nature of formalization would then result in reduced levels of communication. Jimenez and Lockheed (1995) further contend that while hierarchies are preferred for optimal coordination, they lack agility due to the high formalization of rules and procedures characteristic of hierarchical structures.

The level of horizontal integration as the degree to which department and workers are functionally specialized against integration in their work skills and trained is conceptualized to have a bearing on levels of communication and locus of decision-making. The finding in the present study that the level of horizontal integration was a positive and significant predictor of both level of communication and locus of decision-making was expected. This is because, according to Vonderembse (1994), in accordance with the spirit of division of labour, industrial firms usually separate functional departments so that work may be carried out in a sequential manner. Thus, in order to respond to the changing environment, and to provide value to customers, workers are being brought together as cross-functional teams cross trained to understand processes better and to respond to changing needs of customers. Consequently, an increase in horizontal integration should then result in increased communication levels and locus of decision-making.

IX. CONCLUSION

This research builds on literature from organizational behaviour, innovation, team cohesion and group potency, organizational structure in the academic discipline among others. It describes a framework for understanding the relationships between dimensions of organizational structure and indicators of organizational effectiveness. Organizational structure has both objective and subjective elements and factors existing together, and this impact the organizations decision and ability and develops and applies effective approaches in communicating organizational shared values and ideas.

All hypotheses were not supported, which indicates significant relationships between organizational structure and organizational effectiveness. The findings of the study suggest that the four constructs – formalization, horizontal integration, communication and decision-making – are important for organizational effectiveness. The study also suggests that for effectiveness to be positive, organizational processes, which include teamwork, information technology, management support and quality improvement efforts, must be facilitated.

X. RECOMMENDATIONS

Universities occupy an indispensable position in the social sphere of any country. There are particular crucial requirements for organizational effectiveness in universities, specifically the structural dimensions discussed in the study, that is, formalization, communication, decision-making and horizontal integration. High performing organizations will move beyond conventional approaches and will continually re-examine their approach to effectiveness assessment in the context of current and emerging market forces. There is need to document performances using indicators that reflect the needs and expectations of multiple stakeholders.

The appearance of constraints, negative consequences, and the focus on peripheral areas will further limit positive outcomes. Organizational improvements are a combination of changes in the organizational structure variables and organizational processes that culminate in organizational effectiveness. The outcomes generated by organizations are the ultimate measure of effectiveness.

Based on the findings of the study, the following recommendations are offered to improve the four organizational structure dimensions:

i. Organizational structures arise as reflections of rationalized organizational rules which account for the expansion and increased complexity of formal organizational structures, hence formal procedures make it difficult for employees to be creative. Therefore, there is need to put procedures in place that can help ensure that all members have the opportunity to present their ideas. There is also a need to compile and report information on work and education outcomes to enable the commitment of resources to ailing units. This means that the models and measures for assessing effectiveness must be flexible and dynamic and ones that can change to fit the demands of the market.

ii. External forces are driving heightened expectations for technology in organizations. The large scale movement towards online communication has fuelled an expectation among employees that technology can resolve pressure capacity problems for less money and less paper work. This need**s** to be facilitated to provide for more effective services.

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