

# Effects of Strategic Issue Diagnosis Process (SIDP) on Profitability of Private Universities in Kenya: Case of the Catholic University of Eastern Africa (CUEA)<sup>1</sup>

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## Abstract

The study analyzed the effects of strategic issue diagnosis process (SIDP) on the profitability of the Catholic University of Eastern Africa (CUEA). The study used a census survey design of the fifty members of the top management team (TMT) of the University. The survey data was analyzed using factor analysis and regression analysis. Factor analysis using principal components and varimax (orthogonal) rotation (to maximize variable loadings to each factor) was conducted to reduce the dimensionality and identify the factors (latent variables) and labels (constructs) of both the SIDP and profitability of CUEA. The regression analysis results showed that the joint effect of the six factors of the SIDP accounted for about 30 per cent of the total variance of the profitability of CUEA, implying that about 70 per cent of the variance could be attributed to excluded university specific, higher education industry and external factors. However, the joint effect of the factors of the SIDP on the institution's profitability was statistically significant ( $p < 0.05$ ). Although all the factors of the SIDP had theoretically expected signs, not all had statistically significant individual (partial) effects on the profitability of CUEA. The results show that all but the null hypotheses on communication systems and personality profile of the members of the TMT were rejected at  $p < 0.05$ . The study recommended conduct of additional studies with a larger sample of universities, inclusion of the excluded variables and use of structural modeling approaches.

**Keywords:** strategic issue diagnosis (SIDP), internal contextual factors, top management team (TMT), profitability, factor analysis, eigenvalues, varimax rotation, regression analysis, hypothesis testing

## 1. Introduction

In recent years, the number of universities has proliferated, especially between 2012 and early 2013 when polytechnics were converted into universities. In 2014, the public higher education system in Kenya counted 22 public universities (15 of them established between 2012 and 2013) and 9 public university constituent colleges in 2011.<sup>2</sup> It also included 17 Chartered Private Universities (10 out of 17 established after 2006) and 11 Universities with Letter of Interim Authority (LIA), with the latter not being authorized to grant their own diploma/degrees (Commission for University Education, 2013). Despite the growth in the number of private institutions at higher education level, private institutions enrolled only a fraction of total students (16% in 2012/13).

The recent phenomenal growth of the country's higher sector education has been attributed to a combination of four main factors: a rising demand for higher levels of education boosted by growing relevance of qualifications to enter and progress in the job market; a political commitment to education beyond only the basic levels and accompanying bold policy moves; key financing reforms which helped to shift the burden from households to government; and the active role of communities and the private sector in expanding supply of education services. The improvements that have occurred in gender equity have been driven through both 'bottom-up' and 'top-down' pressures. The bottom-up pressures came through women's rights groups who mobilized on a wide range of topics to move forward the gender

<sup>1</sup> The article was extracted from the full Case Report.

<sup>2</sup> According to Oketch (2004) there were 1 private and 1 state university in 1970/75; 8 private and 5 public universities in 1990/95; 15 private and 6 public universities in 2000/08.

equity agenda at the policy level. This has been in conjunction with efforts through government ministries and global institutions to achieve gender equity throughout schooling (Unterhalter, 2012).

## 2. Statement of the Problem

The contemporary business environment for universities in Kenya is characterized by increased competition. In order to survive in this increasingly competitive industry, the universities have adopted strategic management practices to improve quality and ensure sustainability. In order to meet the challenges of the dynamic and competitive environment, the Kenyan universities are being driven by competitive forces to examine the quality of their services, to redefine their products and to measure customer satisfaction alongside improving their competitive position and performance. The universities have adopted strategic plans, business plans and ISO quality standards. However, the survival of these institutions in the contemporary competitive market environment would critically depend on the characteristics of their top management teams (TMTs) to influence strategy and performance both positively and negatively (William et al., 2006; Daniel et al., 2007; Michael, 2010; Ran, 2011; Maria and Motwani, 2009; Stephen, 2012; Markus, 2011).

Despite extensive research on decision making and substantial knowledge on issue interpretation, research has yet to focus on the factors affecting SIDP and how they, in turn, affect expected performance outcome in private universities in Kenya. Understanding the factors that shape how top managers interpret their strategic environment is critically important since such interpretations; ultimately, affect organizational actions (Dutton, Fahey & Narayanan, 1983). Understanding interpretation - the process of translating data into knowledge and understanding - should also hold a prominent place in any attempt to understand organizational change (Daft and Weick, 1984).

Understanding the factors that shape how TMTs interpret their strategic environment is critically important since it, ultimately, affects organizational actions (Dutton et al., 1983). Through SIDP, the TMTs determine whether a significant gap exists between actual and desired results, creating a business problem. At times, the TMTs may translate this business problem into a strategic decision making problem. Clearly, SIDP deals with the early phases of strategic decision making, including identification of issues and the assessment of characteristics of these issues. The outcome of the SIDP is to give the most attention to those which entail severe consequences to the universities if they are not addressed (Heath, 1997).

## 3. Research Questions

The following research questions were used to guide the study.

- a) What factors affect SIDP in private universities in Kenya?
- b) To what extent do these factors affect profitability of private universities in Kenya?
- c) What can be done to improve SIDP in private universities in Kenya?

## 4. Literature Review

A strategic issue is an emerging change factor in the external environment that has potential to affect an organization's ability to fulfill its strategic objectives (Julian and Ofori-Dankwa, 2008). Typical criteria used to classify an issue as 'strategic' include probable impact on the organization as whole, significant financial implications due to resources required to responding or resulting from failure to respond, and probability that the effects of the issue will be felt over several years. Strategic issues may result from legislative or regulatory action, changes in market dynamics, or other environmental jolts. Hence, SIDP refers to a structured process by which decision-makers (TMT) collectively interpret strategic issues and, subsequently, determine the organization's strategic policies, actions and responses (Julian and Ofori-Dankwa, *ibid.*)

There are principally two theoretical frameworks for SIDP, namely, the threat-opportunity (TO) and feasibility-urgency (FU) frameworks. The TO framework suggests that individuals use cognitive categories and linguistic labels to organize the world. Specifically, top managers appear to categorize many environmental issues as either "threats" or "opportunities" which entail different decision making processes and organizational outcomes (Dutton and Jackson, 1987; Jackson and Dutton, 1988; Chattopadhy et al., 2001). These categories are influenced by whether the issue is seen in positive or negative terms as a potential loss or gain, and as controllable or uncontrollable (Jackson and Dutton, 1988; Thomas and McDaniel, 1990). The "opportunity" label refers to "a positive situation in which gain is likely and over which one has a fair amount of control," while the "threat" label implies "a negative situation in which loss is likely and over which one has relatively little control" (Dutton and Jackson, 1987).

The FU framework, on the other hand, requires a more thorough process of decision making than the TO framework since the process requires much more effort in assessing the options (Dutton and Duncan, 1987; Julian and Ofori-Dankwa, 2008). The FU framework proposes that managers should assess strategic issues by applying two dimensions, namely, urgency and feasibility. The results of the assessment affect the magnitude and type of change which an issue triggers. The dimension of urgency captures the perceived importance of taking action on an issue and

the perceived cost of not taking an action (Dutton and Duncan, 1987). Assessment of urgency depends on the saliency of an issue, perceived time pressure, visibility of an issue, judgment of decision makers’ responsibilities for the occurrence of the issue. The second dimension of feasibility reflects TMT’s judgment about the possibility of resolving an issue (Dutton and Duncan, 1987; Ginsberg and Venkatraman, 1995). Evaluation of the feasibility dimension involves the judgment of issue understandability and issue capability, with the former capturing the extent to which decision making can identify means for resolving the issue and the latter indicating the extent to which the means for resolving issues are available and accessible.

Extensive literature abounds on the interaction among the factors affecting the SIDP (independent variables), environmental factors (moderating variables) and organizational performance (dependent variables). The interaction among the three sets of variables is summarized in Figure 1. Borrowing from organizational theories, management theory, cognitive psychological and operations management, personality theory and information literature, the determinants of the SIDP include organizational structure (Miller, 1987; Drazin and Howard, 1984), organizational strategy (Hambrick, 1981; Meyer, 1982), organizational culture (Schein, 1985; Thompson and Wildausky, 1986), top management characteristics (William et al., 2006; Daniel et al., 2007; Gallen’n, 2009; Ran, 2011), decision –specific characteristics (Dean and b Sharfman, 1993; Dutton, 1986), ICT infrastructure ( Ansof, 1991; Pitt, 2005; Jackson, 1996, 1997).

It has become increasingly important for organizations to develop systems of performance measurement which not only reflect the growing complexity of the business environment but also monitor their strategic response to this complexity (Johnson, 2005; Neely et al., 1996).The main rationale for measuring an organizations performance is to be able to manage it. Performance measurements can be used as a tool for evaluating an organization’s strategy (Kaplan and Norton, 1996). They are used to, translate an organization’s strategy into corporate objectives, guide and focus employees’ efforts. To control whether or not the strategic objectives are reached, a double – loop learning is used to challenge the validity of the strategy itself, and visualize how individual employees’ efforts contribute to the overall business objectives (Neely, 1998; Simons, 2000)

Performance measurement is usually carried out using performance measurement system, which consists of several individual measures. The most commonly used performance model is the Balanced Scorecard (BSC). Under this model, measures for performance are based on an organization’s vision and strategy (Kaplan and Norton, 1996). Measures are chosen to measure success factors from different points of view, such as that of customers, employees, business process, and financial success, as well as from point of view of past, current, and future performance. This way, all aspects of an organization’s performance can be measured and managed.

Finally, like other standard processes, the effect of SIDP factors on organizational performance is moderated by environmental factors including political-legal environment, economic environment, socio-cultural environment, technological environment and competition.

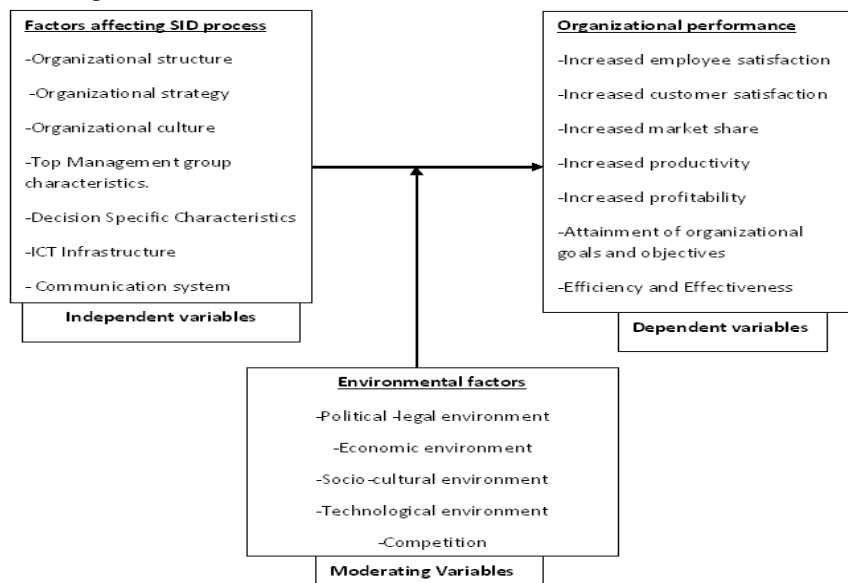


Figure 1. Conceptual Framework

Along with the increased interest in strategic, managerial and organizational cognition over the last decade (Meindl et al., 1994; Porac et al., 1996; Swenk, 1988; Walsh, 1995), a growing body of research by Dutton, et el. (1987) has paid particular attention to SIDP. Within the SIDP literature, most research has focused on how individuals in top

management teams cognitively interpret and behaviorally respond to strategic issues in their environment and how this affects the elaboration and implementation of organizational strategic responses (Daft and Weick, 1984; Dutton and Jackson, 1987; Dutton & Duncan, 1987; Gioia and Chittipeddi, 1991; Milliken, 1990; Schneider, 1994; Thomas and McDaniel, 1990; Thomas et al., 1997).

Further research on strategic issues and issue management systems has been focused on strategic issue diagnosis (Dutton et al., 1983); strategic issue categorization (Dutton et al., 1987b); forms, functions and contexts of SIMS (Dutton et al., 1987d); the role of uncertainty and feasibility on the patterns of interest around issues (Dutton et al., 1988); discerning threats and opportunities (Jackson et al., 1988) and selling issues to top management (Dutton et al., 1993).

#### 4.2 Review of Empirical Evidence

Knight and McDaniel (1979) suggested that information processing structures (IPS) influences top managers' interpretations of strategic issues. The way a top management team is structured to process information about strategic issue limits or enhances recognition of issue stimuli, impedes the search for data and mutes causal relationships associated with an issue (Staw et al., 1981).

Katz (1982) empirically demonstrated and supported arguments that the length of top management tenure lowers the likelihood of organizational and strategic change. He further stressed that organizational tenure was associated with increased commitment by top managers to their organizations established policies and practices. Hambrick (1990) equally demonstrated and found a negative relationship between top management organization tenure and strategic change.

Hambrick and Masons (1984) widely studied upper echelons theory and proposed that top manager's background, demographics, and experience are important influencers on psychological and cognitive 'givens' that shape their strategic decisions. This, in turn, will influence outcome of their actions taken in organizations. Eisenhardt (1989) found that management teams with the capacity to access and process information about strategic issues can cope with stress and anxiety. These teams impart a sense of mastery and control to decision makers, since the executives feel they have surveyed and processed the needed information.

Milliken (1990) showed that participation in strategic decision making responsibilities allows top managers to be exposed to the opinions of others who may be more active than others. Structural characteristics such as high levels of participation and interaction and low level of formalization were found to be conducive to a high level of information processing and facilitated extensive use of information.

Thomas and McDaniel (1990) examined how the top management team (TMT) information processing structure and strategy were related to managers' information usage and affect performance. In their study of 151 hospital top managers, they found that TMT information processing structures were positively related to information usage with potential positive gain and controllability of interpretations. The findings also indicated that both strategy and IPS are related to how chief executives label strategic situations and range of variables they use during their interpretations. Sutcliffe (1994), on the other hand, found a negative association between work history diversity and accurate detection of information related to the level of resources available in an organization's environment. Her results suggested that team interactions or other communication processes are represented in more diverse teams and this hinders the sharing of certain types of information among members.

Jackson and Dutton (1988) found that top managers perceive threats as having a clear negative connotation, as likely to bring loss without gain, and as associated with feeling of low control. They also revealed that top managers perceive opportunities as positive, as having a high potential to bring gain and as associated with feeling of control.

Goh and Ryan (2000), from a sample of for-profit Canadian companies, revealed that learning capability was positively related to a non-financial performance measure, job satisfaction. Size of firm was found to be negatively correlated with learning capability. An unexpected finding of the study was that formalization or bureaucratization has a significantly positive relationship to two financial performance indicators, namely, return on equity (ROE) and return on assets (ROA).

Kumar and Subramanian (2002) found that hospitals with strong customer focus have significantly higher performance in terms of success of new services and facilities and ability to retain patients. A study of 398 schools in Estonian secondary schools by Vadi (2003) revealed that managing and improving organizational culture contributes to the performance of schools. A study by Fuschs and Woessmann (2004), using international data from the programmer for International Students Assessment, revealed that the bivariate correlation between the availability of ICT and students performance is strongly and significantly positive.

Abdullah et al. (2008) studied managers' perceptions in 255 electrical and electronic (E&E) firms in Malaysia on

influence of soft factors on quality improvements and performance. Their results indicated that organizational performance was significantly influenced by management commitment, customer focus, and employment involvement.

In their study, Liu and Maitlis (2009) found out that issue type influences the emotions triggered in TMT strategizing discussions, and that it was consistent with SIDP literature. The research argued that strategic issues, because of their magnitude of gain and loss associated with them, are likely to garner more attention and generate more emotions in their discussion (Dutton and Dukerich, 1991; Dutton and Duncan, 1987; Dutton and Jackson, 1989). Existing literature also shows that emotions are likely to be generated around issues that require a decision and are expected to have an impact on an individual's or group's concern. Furthermore, the kind of emotion generated is likely to depend on whether an issue is perceived as an opportunity or a threat (Dutton and Jackson, 1987). In sum, issues that are strategic, have a direct impact and require an immediate decision trigger, more emotions than other issues, and the kind of emotion triggered will be influenced by team member construction of the issue as either threat or opportunity. The emotion, initially, triggered by issue type and, in turn, creates the foundation for the emotional dynamics that develop in a team member's interaction.

Barr and Glynn (2004) investigated cultural variations in the strategic issue labels of threat and opportunities using a survey of 276 American and international respondents. Overall, their findings indicate that perceptions of controllability in discriminating threats and opportunities exhibited cultural variations in accord with the culture placed on uncertainty avoidance (UA). They found that UA affects the degree to which individuals associate controllability attribute with threats and opportunities. As expected, this association is significantly stronger for individuals from high UA culture than from low UA cultures when it comes to associating the lack of controllability with threat. High UA culture, on the other hand, is more strongly associated the presence of controllability with opportunity. No significant associations were found for the other cultural values of power distance, individualism, and masculinity (Hofstede, 1980).

Papadakis (1995) investigated impact of perceived decision specific characteristics on the process followed in making strategic decisions. He found that the magnitude of impact was positively associated with rationality, hierarchical decentralization and lateral communication, while it was negatively related to the rule of formalization. Threat/crisis was positively related to politicization i.e. the issue in question may become a vehicle for political battles among participants. Strategic decisions perceived as pressure situations were positively related to rule of formalization and problem solving dissension, while they were negatively related to hierarchical centralization. Crisis situations led to high politicization. Frequency/familiarity issues tend to attract interests from various departments in the company (significant coefficient with lateral communication). Umokoro (2009) investigated the extent to which top management group characteristics interact with either organizational performance in order to bring about strategic change. The Study revealed that there is an inevitable interaction between performance and role played by organizations TMT in encouraging or inhibiting strategic change.

Although numerous studies have been conducted to explore the relationship between the factors of the SIDP, empirical findings seem to be mixed and inconclusive (Carpentern, 2011). For example, though well theoretically premised under the upper echelon theory, empirical evidence on effects of the top management team (TMT) demographic characteristics (i.e. age, functional background, gender, tenure, and educational background) on organizational performance is mixed (Hambrick and Mason, 1984). While William et al. (2006) validated the proposition of the upper echelon theory that TMT demographic characteristics have overall significant positive correlation with performance, the results of the studies with individual demographic characteristics are mixed and inconclusive.

While Akie et al. (2005), Khutula (2011), Carman (2005) and Ran (2011) validated a positive correlation between education and strategy and performance, Thomas et al. (2004) found that while education is positively correlated with differentiation strategy, it is negatively correlated with cost-leadership strategy. Nandakumar et al. (2011) also could not confirm a strong correlation between education and both the differentiation and cost-leadership strategies. While Stephen (2012) finds a negative correlation between age and organizational performance, Irene et al. (2008) found a positive effect of age on performance. While Stephen (ibid.) and Shamsie (2001) found a strong positive association between TMT tenure and performance, William et al. (2006) and Hambrick (2007) found a negative relation. However no study has either confirmed or contradicted the findings by Zheng (2012), Zhao et al. (2013), and Liquin et al. (2002) showing positive correlation between the degree of female participation and firm performance in Chinese privately owned firms.

Again, although numerous studies have been conducted to explore the relationship between organisational culture and performance, empirical findings seem to be mixed and inconclusive. Contrary to theoretical predictions, Yesil and Kaya (2013) found that organisational culture dimensions have no effect on firm financial performance. The finding was attributed to the limitations of the study, suggesting a need for further studies to provide conclusive results. Olanipekun and Abiola (2013), on the other hand, found that organizational culture positively affects organizational performance.

The mixed and inconclusiveness of past studies investigating relationship between SDP factors (i.e. organizational

culture, structure, strategy) and organizational performance has largely been attributed to four methodological weaknesses. First, these studies fail to control for mediating context specific variables including practices of knowledge management, environmental national contexts, firm size, ownership status, and organizational capabilities (Zheng et al., 2009; Elbana, 2011), which can influence organizational performance. Second, the studies are based on small sample or case study explorations (e.g. Al-Ghamdi, 1998). There exists very limited large-scale empirical study attempting to quantitatively assess the influence of the context specific control variables. Thirdly, the past studies have lacked an integrative framework for the four basic antecedent factor affecting the SIDP and performance, namely, TMT characteristics, the decision-specific characteristics, environmental characteristics, and the firm's characteristics.

Finally, most of the past studies have used basic correlation and/or reduced-form regression analysis to test the theoretical predictions of the SIDP on organizational performance. Few or no studies have used structural-form empirical methodology that is premised on structural (behavioral) economic model which, in turn, serves to interpret the estimated data.

## 5. Methodology

### 5.1 Research Design

This study adopted an explanatory non-experimental survey research design to investigate the internal contextual organizational factors affecting SID and their implications on organizational profitability. Explanatory research seeks to establish causal relationship between variables (Saunders et al., 2009 & Robson 2002). Kerlinger and Lee (2000) assert that an explanatory non-experimental research design is appropriate where the study is attempting to explain how the phenomenon operates by identifying the underlying factors that produce change without manipulation of the independent variable(s).

### 5.2 Target Population

Target population of the study was top management team (TMT) of CUEA. It consisted of Senior management (chancellor, vice chancellor, deputy vice chancellor (DVC) administration, DVC academic affairs), middle level management (faculty heads i.e. Deans) and operational management (heads' of departments (HOD's), directors). There were approximately fifty (50) members of TMT

### 5.3 Sampling

Owing to the small size of the population, a census survey design was preferred to sampling. Hence, the entire TMT was selected to participate in the study. However, only one branch of the university was considered i.e. the main campus which is its headquarters and is located in Langata, Nairobi. The selection of the main campus was based on the fact that more than 95% of the university's TMT is resident here.

### 5.4 Data Collection

The study used both primary data and secondary data. The primary data was collected using a self-administered questionnaire. The questionnaire was pilot tested on a few members of TMT before being rolled out. This facilitated detection and correction of any errors. The secondary data was obtained from two main sources, namely, document analysis and Internet databases. The document analysis involved perusing information from the university's documents such as *Staff Handbook*, *Annual Financial Reports*, human resource reports, brochures, and others with relevant information. Information obtained from web involved reviewing data published including e-books, e-journals, articles

### 5.5 Data Analysis

#### 5.5.1 Empirical Model

The following regression model was adopted for the study:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} + \beta_5 X_{5i} + \beta_6 X_{6i} + \beta_7 X_{7i} + \epsilon_i; i=1,2,3,\dots,n$$

Where;

Y= organizational profitability.

X<sub>1</sub>= Organizational culture

X<sub>2</sub>= Communication system

X<sub>3</sub> = Personality profile of TMT

X<sub>4</sub>= Organizational structure

X<sub>5</sub>= Organizational strategy

X<sub>6</sub>= ICT infrastructure

$\beta_0$  = Constant term

$\beta_i$ 's = Coefficients of the explanatory variables

$\epsilon_i$  = Unobserved random error term ( $\epsilon_i$  is assumed to be IID)

The eight null hypotheses were formulated thus;

H1:  $B_1=B_2=B_3=B_4=B_5=B_6=0$  (i.e. All the explanatory factors have statistically insignificant joint effect on profitability)

H2:  $B_1=0$  (i.e. Organizational culture has statistically insignificant effect on profitability)

H3:  $B_2=0$  (i.e. Communication system has statistically insignificant effect on profitability)

H4:  $B_3=0$  (i.e. Personality profile of TMT has statistically insignificant effect on profitability)

H5:  $B_4=0$  (i.e. Organizational structure statistically insignificant effect on profitability)

H6:  $B_5=0$  (i.e. Organizational strategy has statistically insignificant effect on profitability)

H7:  $B_6=0$  (i.e. ICT infrastructure has statistically insignificant effect on profitability)

Prior to the estimation of the specified regression model, the collected data was subjected to factor analysis (data reduction) using principal components and varimax (orthogonal) rotation to reduce numerous independent variables in the SIDP and organization performance. The results of the factor analysis were then used to estimate the specified regression model. Specifically, the performance factor with the highest rotational loadings was regressed against the factor analysis results of the SIDP. The resulting multiple regression estimation results will be tested for both joint and independent (partial) statistical significance.

**6. Empirical Results**

*6.1 Factor Analysis Results*

The factor extraction results for the SIDP were summarized in Appendix 2. They reveal that six variables (with eigenvalues greater than one) accounted for about 75% of the total variance in the SIDP. Hence, out of the 29 initial factors of the SIDP we only retained six. The results of the varimax (orthogonal) rotation were presented in Appendix 3. Like previous studies, they showed that the variables in the SIDP tended to cluster on six factors, namely, as organizational culture, communication system, and personality profile of the members of the TMT, organizational structure, organizational strategy and ICT system.

The factor extraction results of the organizational performance of CUEA were presented in Appendix 4. They reveal that three variables (with eigenvalues greater than one) accounted for about 72% of the total variance of the organizational performance. Hence, out of the 10 initial factors of the organizational performance we only retained three. The results of the varimax (orthogonal) rotation were presented in Appendix 5. Again, like previous studies, they showed that the variables in the organizational performance tended to cluster on three factors, namely, profitability, customer satisfaction and number of graduates.

*6.2 Regression analysis Results*

The specified regression model was estimated with ordinary least squares (OLS) using the results of the factor analysis of the SIDP in CUEA. The overall results of the regression model estimation are presented in Table 1.

Table 1. ANOVA results of the effect of the 6 factors on Organizational profitability

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.307	6	1.718	2.030	.045(a)
	Residual	23.693	28	.846		
	Total	34.000	34			

The results show that the joint effect of the six factors of the SIDP (i.e. organizational culture, communication systems, personality traits of managers, structure, strategy, and ICT systems) accounted for about 30 per cent of the total variance of the profitability of CUEA. This implies that about 70 per cent of the variance of the profitability of CUEA was accounted for by other determinants. However, the joint effect of the factors of the SIDP on the institution's profitability was statistically significant ( $p < 0.05$ ). Hence, we rejected the null hypothesis that the joint effect of the six factors of the SIDP on profitability was zero or purely random. The results of the regression model estimation coefficients are presented in table 2.

Table 2. Coefficients of the predictors of organizational profitability

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.170E-16	.155		.000	0.050
	Organizational Culture	-.058	.158	-.058	-.365	.718
	Communication systems	.370	.158	.370	2.343	.026
	Personality profile	.355	.158	.355	2.253	.032
	Organizational structure	.091	.158	.091	.580	.567
	Organizational strategy	.091	.158	.091	.576	.569
	ICT systems	.142	.158	.142	.901	.375

Although all the factors of the SIDP had theoretically expected signs, not all had statistically significant individual (partial) effects on the profitability of CUEA. Empirical results of the tests of the null hypotheses of the individual effects of the determinants at  $p < 0.05$  is summarized in Table 3.

Table 3. Empirical Results of Tests of Hypotheses

Factor	Decision
Joint effect of all factors	Reject H1
Organizational culture	Accept H2
Communication systems	Reject H3
Personality profile of TMT	Reject H4
Organizational structure	Accept H5
Organization strategy	Accept H6
ICT systems	Accept H7

The results show that all but the null hypotheses on communication systems and personality profile of the members of the TMT were rejected at  $p < 0.05$ . These factors of the SIDP had statistically significant positive effect on the profitability of CUEA. Hence, the finding of the study reaffirms the findings of previous studies on critical role of these two factors on organizational performance. The null hypotheses on organizational culture, organizational structure, organizational strategy and ICT systems could not be rejected at  $p < 0.05$ .

The mixed and rather disappointing findings of this study could be attributed to the exclusion of key university-specific, higher education industry level and macroeconomic control variables and weaknesses in the methodological adopted to analyse the data. By focusing on only six internal contextual factors of the SIDP, the study excluded university specific control variables like size, ownership status (i.e. wholly local, wholly foreign or mixed ownership, and extent of government participation), and governance. The study did not include such industry level control variables like market structure/market power and shifts in regulatory regime. The study did not also include such key macroeconomic control variables as economic growth, inflation and exchange rate, all of which of which have important moderating impact on the profitability of private universities in Kenya. The exclusion of these key control variables not only explain the low overall explanatory performance of the estimated model but also complicates the accuracy of the interpretations of the estimated coefficients.

The non-rejection of the null hypotheses of most of the determinants in the study was also attributed to possible methodological weaknesses of data analysis. The study employed reduced-form regression model rather than the structural-form empirical methodology that is premised on structural (behavioral) economic model which, in turn, serves to interpret the results the estimated coefficient. Hence, the conceptual framework underpinning the study was only partially implemented without control for the moderating variables. Further studies should attempt to model the conceptual framework structurally and estimate it using appropriate software (s).

Furthermore, the use of OLS estimation technique of the specified regression model was not underpinned by diagnostic parametric tests of the classical linear regression model assumptions of the normality of the residuals, heteroscedasticity, multicollinearity and autocorrelation.

### 6.3 Results of Suggestions for Improvement of SIDP in CUEA

The results of the suggestions for improving the SIDP in the institution were presented in Appendix 6. Over 70% of the respondents suggested that the management should ensure good planning, administration, and control of ICT



infrastructure. Over 70% of the respondents also strongly agreed that TMT should ensure that the institution's organizational structure fits its goals and objectives and that they should ensure that suitable resources with right skills and competencies are produced and retained to undertake necessary roles in the organization.

## 7.0 Conclusions

The proliferation of universities, especially between 2012 and early 2013 when polytechnics were converted into universities has not only improved access to higher education in the country but also increased competition among the universities for students. It is estimated that there are about sixty universities in the country. These comprise public and private universities at various registration stages with the Commission for University Education (CUE). With the phenomenal growth in the number of universities, GER at higher education has more than quadrupled. The number of students enrolling in higher education grew by more than 60% over 5 years with about 20% of university students being enrolled in private institutions in 2010/11.

The contemporary business environment for universities in Kenya is characterized by increased competition. In order to survive in this increasingly competitive industry, the universities have adopted strategic management practices to improve quality and ensure sustainability. These practices have included the adoption strategic plans, business plans and ISO quality standards. Understanding the factors affecting the SIDP and how these factors, in turn, affected the profitability of these universities remains the focus of contemporary strategic management empirical literature.

The findings showed that respondents were aware of the factors affecting SIDP; this included organizational culture, communication systems, personality profile of managers, strategy and structure. The respondents were also aware of the impact these factors have on the institution's profitability. The most significant indicators of organizational performance in this study were profitability of the organization. Consistent with past studies, six factors, namely, organizational culture, communication, personality profile of the members of TMT, organizational structure, organizational strategy and ICT infrastructure were identified as affecting both the SIDP and profitability of CUEA. The suggestions for improving the institution's SIDP and, hence, on the institution's profitability also revolved around the four factors. These were identified as correctly analyzing existing culture, ensure organizational culture fits company's goals and objectives, ensure good planning, administration and control of ICT infrastructure etc.

## 8. Recommendations

Based on the conclusions, the study made the following recommendations to improve both the SIDP and its impact on profitability in CUEA and on future similar studies.

- i) Management should ensure good planning, administration, and control of ICT infrastructure; align organizational structure with the institution's goals and objectives; and should ensure that suitable resources with right skills and competencies are produced and retained in order to undertake necessary roles in the organization.
- ii) CUEA should develop programs for monitoring and evaluating SIDP in relation to performance indicators. TMT should come up with ways of identifying the factors that affect SIDP and also identify strategic responses. The organization can implement new policies and procedures to guide SIDP. Improvements in working conditions of TMT, fostering team work, realigning strategy to fit with goals and objectives, acquire new ICT systems, rewarding employees for success, and conflict resolution etc. can also be implemented. CUEA should also benchmark its SIDP with other institutions.
- iii) Further studies should be conducted with a representative sample of public and private universities. The focus of this study on only one private university (CUEA), clearly, limits the extent to which the results could be generalized to all universities, in general, and private universities, in particular. It is estimated that there about thirty three (33) private universities in Kenya.
- iv) Further studies should employ structural- form empirical methodology that is premised on structural (behavioral) economic model which, in turn, serves to facilitate proper interpretation of the estimated results. Even the reduced-form regression model employed in the study only partially captured the conceptual framework posited for the study. The regression model only captured the internal organizational contextual factors that have an effect on SIDP and their impact on organizational profitability. Specifically, the empirical model did not control for the effects of the intervening variables. In this regard, further studies should include additional firm (university) -specific, industry (higher education)-specific, and external (macroeconomic industry-specific and governance) factors.

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## Appendix

### Appendix 1. Respondents perception on organizational factors that influenced SID process in CUEA

Statement	SD	D	N	A	SA	M
1. The organization has adequate systems to carry out administrative procedure?	1 (2.9%)	2 (5.7%)	5 (14.3%)	22 (62.9%)	5 (14.3%)	3.8000
2. The organization is diplomatic in how it handles aspects of operations?	1 (2.9%)	3 (8.6%)	11 (31.4%)	14 (40%)	6 (17.1%)	3.6000
3. The organization is authoritative in how it handles aspects of operations?	2 (5.7%)	7 (20%)	13 (37.1%)	12 (34.3%)	1 (2.9%)	3.0857
4. The organization has clear job descriptions	-	12 (34.3%)	9 (25.7%)	12 (34.3%)	2 (5.7%)	3.1143
5. The organization has a well- developed strategy to achieve its purpose?	1 (2.9%)	6 (17.1%)	4 (11.4%)	17 (48.6%)	7 (20%)	3.6571
6. The organization has a clearly defined purpose to which all concerned are committed?	1 (2.9%)	4 (11.4%)	8 (22.9%)	15 (42.9%)	7 (20%)	3.6571
7. The organizations management team members identify their own roles with organizational strategy?	1 (2.9%)	5 (14.3%)	10 (28.6%)	14 (40%)	5 (14.3%)	3.4857
8. The organization is moving in the right direction?	1 (2.9%)	2 (5.7%)	13 (37.1%)	12 (34.3%)	7 (20%)	3.6286
9. The organization shows respect for a diverse range of opinions, ideas, and people?	2 (5.7%)	5 (14.3%)	4 (11.4%)	18 (51.4%)	6 (17.1%)	3.6000
10. The organizations management team is diverse in nature?	2 (5.7%)	3 (8.6%)	4 (11.4%)	16 (45.7%)	10 (28.6%)	3.8286
11. The organization's management shares same values concerning the way it operates?	1 (2.9%)	3 (8.6%)	11 (31.4%)	16 (45.7%)	4 (11.4%)	3.5429
12. The organization values my opinion?	2 (5.7%)	4 (11.4%)	13 (37.1%)	13 (37.1%)	3 (8.6%)	3.3143
13. The organization celebrates success of team members?	2 (5.7%)	6 (17.1%)	9 (25.7%)	14 (40%)	4 (11.4%)	3.3429
14. The organization communicates effectively (written or verbal)?	1 (2.9%)	9 (25.7%)	12 (34.3%)	12 (34.3%)	1 (2.9%)	3.0857
15. The organization communicates all information in a timely fashion?	2 (5.7%)	13 (37.1%)	10 (28.6%)	10 (28.6%)	-	2.8000
16. The organization has an effective system for circulating information to all concerned?	-	8 (22.9%)	12 (34.3%)	13 (37.1%)	2 (5.7%)	3.2571
17. The organizations management group work as a team, not individually?	-	6 (17.1%)	7 (20%)	20 (57.1%)	2 (5.7%)	3.5143
18. The organization has a spirit of open communication?	-	8 (22.9%)	9 (25.7%)	13 (37.1%)	4 (11.4%)	3.3143
19. The organizations management team's personality profile affects decision speed?	-	5 (14.3%)	10 (28.6%)	20 (57.1%)	-	3.4286
20. The organizations management team members show high action orientation?	-	8 (22.9%)	15 (42.9%)	11 (31.4%)	1 (2.9%)	3.1429
21. The organizations management team shows high flexibility?	2 (5.7%)	8 (22.9%)	11 (31.4%)	13 (37.1%)	1 (2.9%)	3.0857
22. The organizations management team shows high achievement orientation?	1 (2.9%)	4 (11.4%)	13 (37.1%)	16 (45.7%)	1 (2.9%)	3.3429
23. The organization's management team member's background diversity affects timing of agenda – setting?	1 (2.9%)	4 (11.4%)	13 (37.1%)	16 (45.7%)	1 (2.9%)	3.3429
24. The organization's top management team members' background diversity affects the generation of strategic decisions?	3 (8.6%)	2 (5.7%)	13 (37.1%)	16 (45.7%)	1 (2.9%)	3.2857

25. The organization has a system for identifying problems?	5 (14.3%)	7 (20%)	10 (28.6%)	12 (34.3%)	1 (2.9%)	2.9143
26. The organization has a system for analyzing opinions, thus taking relevant decisions?	3 (8.6%)	10 (28.6%)	6 (17.1%)	15 (42.9%)	1 (2.9%)	3.0286
27. The organizations information, communication and technological (ICT) infrastructure is sufficient?	-	15 (42.9%)	1 (37.1%)	6 (17.1%)	1 (2.9%)	2.9714
28. The organizations ICT system assists in management of information i.e. collection of data, manipulation, processing and keeping it secure?	2 (5.7%)	13 (37.1%)	11 (31.4%)	9 (25.7%)		2.7714
29. The organizations ICT infrastructure assists in achievement of organizational goals and objectives?	2 (5.7%)	13 (37.1%)	12 (34.3%)	6 (17.1%)	2 (5.7%)	2.8000
Average						3.3011

Source: survey results, 2011 n=35

Appendix 2. Total variance explained by factor scores of internal organizational contextual factors that affect SID in CUEA

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	12.609	43.479	43.479	12.609	43.479	43.479	6.460	22.276	22.276
2	3.028	10.441	53.920	3.028	10.441	53.920	4.333	14.940	37.216
3	2.018	6.960	60.879	2.018	6.960	60.879	3.080	10.621	47.838
4	1.768	6.096	66.975	1.768	6.096	66.975	2.857	9.850	57.688
5	1.227	4.231	71.206	1.227	4.231	71.206	2.619	9.033	66.720
6	1.078	3.717	74.923	1.078	3.717	74.923	2.379	8.202	74.923
7	.973	3.354	78.276						
8	.907	3.128	81.404						
9	.746	2.574	83.978						
10	.673	2.321	86.299						
11	.602	2.076	88.375						
12	.512	1.766	90.141						
13	.474	1.634	91.775						
14	.396	1.365	93.140						
15	.362	1.248	94.388						
16	.271	.934	95.322						
17	.267	.920	96.242						
18	.224	.772	97.014						
19	.203	.701	97.715						
20	.164	.567	98.282						
21	.141	.485	98.767						
22	.102	.351	99.119						
23	.087	.299	99.418						
24	.058	.199	99.617						
25	.046	.158	99.775						
26	.032	.112	99.887						
27	.022	.077	99.964						
28	.007	.024	99.988						
29	.003	.012	100.000						



Extraction Method: Principal Component Analysis.

Appendix 3. Rotated Component Matrix (a)

Question	1	2	3	4	5	6	Interpretation
Q13 Celebrates success of team members.	.809						
Q7 Management team work as a group	.696						
Q12 Organization values opinions	.689						
Q18 Organization has a spirit of open communication	.676						
Q21 Management team show high flexibility	.675						
Q25 Organization has a system for identifying problems	.668						
Q26 System for analyzing opinions, thus taking relevant decisions.	.661						Organizational culture
Q22 Management team show high action orientation.	.627						
Q9 Respect for diverse range of opinions, ideas and people.	.602						
Q6 Clearly defined purpose.	.591						
Q2 Diplomatic in its operations.	.548						
Q3 Authoritative in its operations.	-.519						
Q14 Organization communicates effectively		.907					
Q15 Organization communicates all information in a timely fashion.		.817					
Q16 Effective system for dissemination of information.		.686					Communication system
Q4 Clear job descriptions.		.655					
Q11 Management team shares same values		.619					
Q24 Background diversity affects generation of strategic decisions.			.761				Personality profile of managers
Q19 Personality profile affects decision speed.			.704				
Q23 Background diversity affects timing of agenda setting.			.609				
Q10 Management team is diverse in nature.			.603				
Q1 Adequate administrative procedures.				.782			Organizational structure
Q5 Well developed strategy				.633			
Q8 Moving in the right direction					.744		
Q7 Identify own role with right strategy.					.607		
Q27 ICT system is sufficient					.531		Organizational strategy
Q28 ICT system assists in management of information.						.804	ICT systems
Q29 ICT infrastructure in achievement of organizational goals and objectives.						.734	

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. A Rotation converged in 15 iterations.

Appendix 4. Total variance explained by factor score of the impact of Factors affecting SID on performance of CUEA

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.863	48.626	48.626	4.863	48.626	48.626	3.141	31.407	31.407
2	1.320	13.199	61.825	1.320	13.199	61.825	2.881	28.815	60.222
3	1.040	10.398	72.223	1.040	10.398	72.223	1.200	12.001	72.223
4	.886	8.857	81.080						
5	.608	6.081	87.161						
6	.422	4.222	91.383						
7	.320	3.200	94.583						
8	.264	2.638	97.221						
9	.206	2.057	99.278						
10	.072	.722	100.000						

Extraction Method: Principal Component Analysis.

## Appendix 5. Rotated Component Matrix (a)

Factor	1	2	3	Interpretation
Q37 Achievement of organizational goals and objectives.	.845			
Q38 Organizations ability to things in the right way	.761			
Q34 Level of student enrollment in CUEA	.696			Profitability
Q35 Rate of return on investment	.696			
Q39 The ability of the organization to do the right thing	.652			
Q32 Rate of staff turnover.		.893		
Q33 Staff morale		.796		Customer satisfaction
Q30 Number of student complaints.		.774		
Q31 Rate of student transfers		.736		
Q36 Number of student graduants from CUEA.			.905	No. of graduants

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. A Rotation converged in 5 iterations.

## Appendix 6. Respondents perceptions on what can be done to improve SID

Statement	SD	D	N	A	SA	Mean
1. Management team SHOULD correctly analyze the existing culture by evaluating it against the cultural attributes needed to achieve strategic objectives?	-	-	2(5.7%)	10(28.6%)	23(65.7%)	4.6000
2. Management team SHOULD ensure organizational structure fits company's goals and objectives?	-	1(2.9%)	1(2.9%)	8(22.9%)	25(71.4%)	4.6286
3. Management SHOULD develop organizational strategy/ initiatives that convert strategic intent into suitable results?	-	-	2(5.7%)	9(25.7%)	24(68.6%)	4.6286
4. Management SHOULD ensure good planning, administration and control of ICT infrastructure?	-	-	2(5.7%)	7(20%)	26(74.3%)	4.6857
5. Management team SHOULD ensure that suitable resources with right skills and competencies are produced and retained to undertake necessary roles in the organization?	-	1(2.9%)	-	9(25.7%)	25(71.4%)	4.6571
Average						4.6

Source: survey results, 2011

n=35

## Appendix 7. Biographies of Authors

1. Aloys Ayako is an Associate Professor of Economics at the Catholic University of Eastern Africa (CUEA). He holds a PhD and Masters of Political Economy (MAPE) degrees from Boston University in the USA and Masters of Economics degree from the University of Nairobi (UON) in Kenya. He has over thirty years of teaching, supervision of PhD and Masters Degrees' theses and research projects and research experience. He has published widely in peer reviewed journals.
2. Annette Ayako is a Compliance Officer at the National Social Security Fund (NSSF). She has recently completed her Masters of Business Administration (MBA) from Faculty of Commerce of CUEA and is currently enrolled for PhD studies at the Jomo Kenyatta University of Agriculture and Technology (KUAT).



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