TOP MANAGEMENT TEAM INTERNATIONAL ORIENTATION AND INTERNATIONALIZATION OF UNIVERSITIES IN UGANDA: THE MEDIATING EFFECT OF THE INTERNAL ENVIRONMENT

Dennis Nuwagaba¹, John Yabs² Kennedy Ogollah³ and Gituro Wainaina⁴

Abstract

The paper examined the mediating effect of the Internal Environment (IE) on the relationship between Top Management Team International Orientation (TMTIO) and Internationalization of Universities (IUs) in Uganda. The study used the sample of 36 universities of which only 30 universities responded. Data was collected from members of Top Management Team (TMT) and about 133 questionnaires were collected and used for analysis. Correlation results indicated that TMTIO was significantly related associated with IE and IUs. The regression analysis also indicated that TMTIO affects IE and in turn IE affects IUs. However, IE had no mediation effect on the relationship between TMTIO and IUs as the Sobel and Medigraph tests showed that, there was a null mediation effect of the IE on the relationship between TMTIO and IUs in Uganda. This meant the effect of the IE on the relationship between TMTIO and IUs was not strong enough to affect the basic relationship between the independent and the dependent variable. The study, therefore, establishes that both TMTIO and IE have both a direct effects on the internationalization of universities in Uganda. It recommends, that universities need to recruit top managers who are internationally oriented with international negotiation and communication skills who are willing to communicate the global vision to the rest of the staff. The IE in most universities should be improved to facilitate staff to carry out international activities. Universities are more likely to internationalize if top managers who are internationally oriented are employed to run universities.

Keywords: Top Management Team, International Orientation, Internal Environment, Internationalization of Universities, Uganda

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1.1 Introduction
For universities to easily internationalize, their Top Management Team (TMT) requires an international orientation that can propel them into the international market. Universities also ought to have a suitable Internal Environment (IE) that favors the implementation of activities and policies related to internationalization (Jiang & Carpenter, 2013).

Firms including universities are engaging in internationalization in response to the global interconnectedness, competition pressure and the desire to remain relevant and produce products that are globally competitive (Malhotra, Agarwal & Ulgado, 2003). Universities seek to produce graduates who can think and act in a global context and research that is relevant in solving global challenges (Tadaki & Tremewan, 2013). However, the degree of internationalization in many African universities is notably low (Jowi, Knight & Sehoole, 2013) with meagre levels of international students, cross-country research and a near absence of international staff within the ranks of the university faculty. Researchers have not well explored the role of top management international orientation and the IE in explaining this process. Knight and Kim (2009) explored top management international orientation and found that it was one of the factors responsible for the superior international performance of SMEs. Their work supported previous studies by McDougall et al. (1994) and Dichtl et al. (1990) which studied the concept of international orientation focusing on the internationalization of SMEs in the manufacturing sector.

Whereas external factors tend to be the focus in internationalization of manufacturing firms, Bianchi (2011) notes that in service firms, more emphasis should be put on the IE prevailing in the organization and how it influences the internationalization of these firms. Jiang and Carpenter (2013) also underscore that the main issues affecting IUs are of internal nature relating to integration and cohesion of processes, resources and operations. Engelbertink (2010) asserts that it is the matching of the internal resources and capabilities of the firm with the external market conditions that leads to internationalization of services.

Although a number of theories have attempted to explain IUs, this study is anchored on the Upper Echelons Theory (UET) which concentrates on the role of TMT in influencing the strategic direction of firms (Hambrick & Mason, 1984; Hambrick, 2005), the stages theory that focuses on sequential stages of internationalization and explores the internationalization of firms through experiential learning and commitment of the firm and its managers (Johanson & Vahlne, 2009). The RBT underscores the heterogeneity of firm resources and firm competitiveness (Barney, 2001). There is no single theory, therefore, that can comprehensively explain the IUs but a combination of theories offer a better explanation of the phenomenon.

Thune and Welle-Strand (2005) and Kondakci and Van de Broeck (2009) used case studies to explore IUs in Europe. Their studies found mixed results on the factors that drive internationalization of a university. Thune and Welle-Strand seem to suggest that IUs is driven by economy, policy and technology while Kondakci and Van de Broeck (2009) appear to suggest that IUs is strategic issues driven top management. Jowi et al. (2013) did a conceptual study on internationalization of higher education in Africa and associates IUs with competition and commercialization of education, but his study lacked empirical evidence that would inform policy on IUs in Africa. Ngoma (2009) in a cross industry study explored internationalization of service firms in Uganda but could not illustrate the specific factors for the IUs. Other studies have explored internationalization of large manufacturing firms and SMEs (Johanson & Vahlne, 1977; 2009; McDougall, Shane & Oviatt, 1994) and less emphasis has been put on service industries and the education sectors especially universities.

Itaaga, Musoke and Mugagga (2013) conducted an exploratory study on internationalization of higher education focusing on one public university in Uganda. Their study explored the rationale and the different facets that internationalization has taken at a single Ugandan university. This is so far the only study the researcher has found on IUs in Uganda. The study not only lacks any predictive and theory testing aspects of explaining IUs but also focuses on a single public university. These studies leave a
methodological gap that the current study intends to fill by carrying out a cross sectional survey study on the IUs. There are no studies known to the researcher that have explored the relationship among TMTIO, IE and IUs. This study also focused on universities in Uganda because there are limited studies on internationalization focusing on universities in the country. In addition, universities are also increasingly becoming an important part of the drivers of economic and social development of countries through their provision of skills that are needed in the current globalized environment and for the integration of cultures.

The motivation for this study was three fold; first, to explore the different facets that are used in measuring IUs in Uganda. The second is that although, internationalization as phenomenon has been studied, its concentration has been amongst manufacturing firms with few studies in the education service subsector. The third is that the choice of exploring the influence of IE on the relationship between TMTIO and IUs is to the effect that whereas some studies have explored individual relationships between each of the above variables and IUs, this study brought together and sought to study the mediating effect of the IE on the relationship between TMTIO and IUs in Uganda. This study also brings the developing country perspective by explaining the internal conditions of universities in Sub-Saharan Africa and how those conditions are critical for the international expansion of the universities in Uganda.

The rest of this paper is structured as follows; we present context of this study by describing the general overview of universities in Uganda, then the literature is presented by first reviewing the concepts and then the relationships existing amongst variables, it is followed by the methodology, findings are then presented and conclusions, recommendations and areas for future research are highlighted.

Universities in Uganda

Universities are part of the higher education institutions in Uganda. The history of universities in Uganda started in early colonial era when the first university in East Africa was created. This was the University of East Africa with Makerere University, University of Nairobi and the University of Dar es Salaam as constituent colleges in the early 1920s. The breakdown of EAC and the post-independence era led to the creation of independent universities in each of the EAC countries. Uganda’s then only public university, Makerere University, reigned in the provision of university education in Uganda (Mamdani, 2009). The liberalization of education sector has attracted many public and private universities serving the Ugandan population ((Itaaga, Musoke & Mugagga, 2013). Since then, the number of universities has grown to about 40 public and private universities.

There are two categories of universities recognized Universities and Other Tertiary Institutions Act (UOTIA; public universities and private universities. Public universities are created by an Act of Parliament and maintained out of public funds. Private universities are universities whose proprietor is an individual or an organization other than government and are maintained by funds other than public funds. Universities in Uganda serve the crucial purpose of providing education beyond secondary level by offering courses leading to the award of certificates, diplomas and degrees and they also engage in conducting and publishing research. Universities are at the forefront of steering the growth and development of the Ugandan economy through training and development of human resource skills needed in the country (NCHE, 2013).

In Uganda, IUs has been exhibited through enrolment of foreign students, majority of whom originate from the East African region and are concentrated in private universities and a few well established public universities. Internationalization also manifests itself through co-authorship of research publications between local members of the faculty with foreign researchers, students exchange programmes, study abroad programmes for university staff, university membership to international organizations and partnerships in awarding degrees among others (Itaaga, Musoke & Mugagga, 2013). According to Itaaga et al. (2013), internationalization in Uganda’s universities is largely driven by top leadership. This is because top management influences the internal dynamics of the universities and the restructuring that is
necessary for accommodating international activities and programmes. Universities as part of higher education in Uganda have been identified as critical for the growth and the development of the Ugandan economy for their role of training and development of human resource skills needed in the country (NCHE, 2013). The Global Competitiveness Report 2014-2015 also identified higher education training as one of Uganda’s efficiency enhancers (World Economic Forum, 2014). This puts universities at the centre stage of the development of the country and its international competitive advantage.

Literature Review
The IUs falls in the bigger realm of internationalization of higher education institutions. Many scholars have attempted to define internationalization of higher education. Knight (2005) defines it as a process to denote that internationalization is an evolutionary and continuous concept in which post-secondary education is evolving. The most widely used definition of the internationalization of higher education is that it is the process of integrating an international/inter-cultural dimension into the functions of a university which are; teaching, research and service(Knight, 2005; Jowi, Knight & Sehoole, 2013). However, Hawawini (2011) challenged Knight (2005) definition as being narrow in approach and noted that internationalization of higher education should not just aspire to infuse an international dimension into the teaching, research and service functions of the university, but rather, it should seek to integrate the entire institution, its stakeholders, students and staff into the emerging global knowledge and learning network.

Altbach and Knight (2007) offer a more agreeable definition. They suggested that internationalization of higher education includes policies and practices undertaken by academic systems and institutions and even individuals to fit within the global academic environment. This definition therefore focuses on the policies and practices of academic institutions. It includes policies such as those that are aimed at integrating and sustaining the international dimension into the primary mission and functions of the institution. Activities involved in internationalization of a university include student exchange, joint and double programmes, recruitment of foreign students, employing foreign staff, conducting cross border research programmes and managing overseas franchises of the institutions (Knight, 2005). Tandaki and Tremewan (2013) also explain that internationalization can be understood as describing university projects and activities directly relating to the international flows of people including physical movement of faculty and students, ideas and resources. These can be done through international exchange programmes for students and staff, collaborations and technical cooperation. Teichler (2004) asserted that internationalization is usually explained in relation to, cooperation and knowledge transfer between universities as well as international education. It tends to address an increase of cross border activities alongside other activities of international nature within country’s systems of higher education. Thune and Well-Strand (2005) noted that internationalization of higher education can also be seen as strategies to expand higher education provision and ideas across national boundaries. Thune and Well-Strand (2005) defined internationalization of a university as a process by which university functions become internationally and cross-culturally integrated. This integration, in turn makes universities internationally relevant by producing graduates who are globally competitive and research output that is applicable and can provide solutions to global challenges.

Concept of International Orientation in respect to Top Management Teams
The concept of international orientation has been studied from two perspectives, one from the firm perspective and the other from the managers’ perspective. The firm perspective focuses on the entire organization while the manager perspective is concerned with individuals in positions of responsibility who run and manage organizations (Brummelen & Luppes, 2009). This study focuses on the perspective of top management team international orientation. Knight and Kim (2009) noted that TMTIO is defined as; having an international vision that is; viewing the world as a single market not just focusing on one’s country, ability to develop both human and other resources for international activities, being able to
continuously communicate the organization’s mission to succeed in foreign markets. Knight and Kim (2009) concluded that it is not just the orientation of the top executive but rather the entire TMT that matters in expanding internationally. Decision making in an organization is done by TMT in which individual managers working as a team contribute to the smooth functioning of the organizations.

The Internal Environment in this study refers to factors within the organization that facilitate the interaction and enhance a creative working climate that enables managers and employees to create new ideas, be proactive and exploit new opportunities (Karimi, Malekmohadi, Daryani & Rezvanfar, 2011). According to Karimi et al. (2011), the IE helps the organization in seeking and exploiting opportunities in the external environment. The environment within an organization affects individual employees’ motivation, their interaction with one another, their pro-activeness, their initiative and opportunity seeking behaviour within and outside the organization (Li & Zhang, 2010; Bhardwaj & Sushil, 2012). An IE characterized by appropriate use of rewards and reinforcements, management support, availability of resources and time, an organizational structure that supports initiative encourages staff and managers to take the necessary risks to explore opportunities both within and outside the country (Shah & Nair, 2014).

Top Management Team International Orientation on the Internationalization of Universities

Kauer, Prinzessin zu Waldeck and Schäffer (2007) in a study of the manufacturing and financial services industries emphasized that top management plays a critical role in effecting change since they are in charge of strategic decision making. In fact TMTs have been associated with organizational performance because of their role in making decisions that affect the very survival of the organization. Tadaki and Tremewan (2013) studied the relationship between TMT characteristics such as age and tenure and strategic outcomes of the organization. They found that age and tenure had an effect on the strategic performance of the organization.

Awino (2013) studied the impact of TMT diversity on quality decisions and performance in commercial banks in Kenya. He established that TMT tenure had a significant positive effect on quality decisions. This shows how management team is crucial in the decision making process. Internationalization is a choice decision that is usually taken at institutional rather than individual level and therefore, requires the input of members of the TMT. Awino (2013) findings in Kenya tend to agree with Hattke and Blaschke (2015), who in a study of 75 universities in Germany established that diversity amongst the members of the TMT had positive impact on the overall university performance. However, in the same study, they found that their gender, age and level of education did not have a significant effect on the performance of the university. This may be because, for instance, education level is not a major distinguishing factor amongst the members of the TMT in most universities, since they all tend to be highly educated and also because in most universities, TMT is composed of career academicians who are always relatively in the same age bracket.

Kondakci and Van de Broeck (2009) conducted a study in Western Europe on the domains of internationalization of a higher education organization using a case study approach. They established that experiences of staff who had studied abroad had a significant influence on the internationalization of the institution. In a related study, Rivas (2012) established a positive relationship between chief executive multi-nationality and internationalization of service and industrial firms in both Europe and the United States of America. Tadaki and Tremewan (2013) note that senior staff and administrators in management positions of universities have a role to play in their internationalization through positioning and focusing the institutions to actively participate in the process of integrating into foreign markets and being active players in a globalized market. They can cause universities to engage in social networks, international research activities and international consortia. These activities would in the long run materialize into international student recruitment, student mobility/exchange programmes, curriculum sharing and other related international activities. Tadaki and Tremewan (2013) continue and note that unlike other members
of the organization, there are always enough opportunities for senior staff, faculty and university presidents to contribute and define what internationalization is, through the development of the internationalization vision and internationalization programmes.

Chatterje, Grewal and Sambamurthy (2002) also conducted a study that found that top management championship influences the assimilation of strategic web technologies. It was also established that TMT characteristics affected strategic direction of organizations. This was later confirmed by Sebaa, Wallace and Cornelius (2009), who studied managerial characteristics such as age, level of education and tenure of the functional managers in public sector that is, local government organizations and established that the level of education and job tenure of the managers were significant in determining the performance of the organizations.

In a simulation study, Michalisin, Karau and Tangpong (2004) found that team cohesion improved industry performance in an airline industry. It is, however important to point out that team cohesion only develops where team members have similar experiences, skills and aspirations. Lorkhe, Franklin and Kothari (1999) studied the relationship between top management international orientation and export performance of SMEs and found out that TMTIO had a strong positive relationship with export performance of the firm. Since, export performance is one major measure of internationalization of a manufacturing firm, it can be construed that TMTIO has a significant relationship with IUs. The experience of top team managers and their interest in internationalization agenda are important indicators of their orientation towards internationalization phenomenon in universities.

Wahlers and Wilde (2011) argue that due to decentralization, both top management (vice chancellors and deputy vice chancellors), deans of faculties and schools and other middle managers such as heads of departments need to improve their institutional profile and that of their staff to be international without jeopardizing the main rationale for the universities, which is training, research and outreach. They need to be business-minded, be able to negotiate, network globally in order to make their universities competitive in the ever changing environment.

The Mediating effect of Internal Environment on Internationalization of Universities

Laukkanen (2003) in a case study of a Finnish university found that university leadership has a strong role to play in providing a university-wide atmosphere that supports entrepreneurship within the campus by influencing attitudes and ethos for academic entrepreneurship. Such an environment would be supportive of the entrepreneurial effort of staff in a university. Leiblein (2011) pointed out that managerial policies and practices influence the internal dynamics of a firm. Leitch and Harrison (1999) asserted that there was a growing interest in the nature and roles of leadership in changing organizational structures. They observed that amidst the challenges facing organizations such as scarce resources, continuous external change necessitating flexibility and an interdependent global economy, the leadership team has a role to play in influencing internal organizational setup to enable organizations cope with these challenges. According to Van Gyn, Schuerholz-Lehr, Caws and Preece (2009), the main thrust for internationalization comes from university policy, which in many cases is not an individual undertaking but a management team responsibility. Itaaga et al. (2013) note that internationalization is leadership-driven because it may require changing the IE of the university, the internal dynamics of a firm are heavily dependent on members of the management team because they influence the way things are done in the university. Their orientation thus is of significant importance in advancing internationalization of the universities they manage.

Opp and Gosetti (2014) in a study on community colleges in the United States established that involvement of key administrators in colleges was critical to the success of the internationalization agenda. This was not only for their human, financial and symbolic supports, but also for them to cause
others to appreciate the value of internationalization in the colleges and make initiatives that would promote it within the colleges. In addition, the key administrators were the vision bearers of the institutions and responsible for appropriating resources that can be used in the internationalization programmes, mobilizing other stakeholders and explaining the benefits of internationalization to these stakeholders. Top management was influential in mobilizing faculty to integrate global perspectives into the curriculum. It is top management that decides whether the institution joins collaboration or a consortium that is aimed at promoting IUs. Since internationalization is a risky process and requires management commitment, top management must be involved in order to make the decision making process easier. Engaging in partnerships demands greater commitment in terms of time and resources and involves a lot of travel and many times the head of the institution may have to be involved (Hawawini, 2011).

Karuhanga (2015) studied performance management practices in Uganda’s public universities and established that heads and deans of academic units have a responsibility of ensuring that performance practices are implemented. They can only ensure such a responsibility by providing the necessary environment within the university. This environment encourages both formal and informal engagement and communication and offers a less restrictive structure. Karuhanga (2015), therefore, underscores the role of TMTs in ensuring an environment that promotes performance management practices. Karuhanga (2015) further identifies challenges facing public universities in implementing performance management as lack of a formal performance management environment, limited communication between employees, institutional systems, governance challenges and structural constraints. The TMT of the university is responsible for governance issues and how these issues are communicated to the rest of the organization.

Ahmad, Ramayah, Wilson and Kummerow (2010) in a study on the success of business firms in Malaysian SMEs noted that whereas the external environment is shaped by factors beyond an organization’s control such as government policy, the IE can be influenced by management through internal policy formulation and management practices. They noted that management are gatekeepers in any organization because they determine the availability of resources, flexibility within the organization and systems needed to enhance success. As such, there is a need to examine their attitudes, orientation and how they impact on the IE within the organization. This is supported by Jowi (2012) who opines that top management need to reorganize universities in Africa to internally support internationalization endeavours rather than depend on foreign donor support that is not sustainable in the long run.

Kagaari (2011) conducted a study on organizational culture and climate, performance management practices and managed performance in public universities in Uganda and established that organizational climate shapes the behaviour of employees. He explained that organizational climate deals with employees’ perceptions of the events, practices and procedures and the kind of behaviour that is rewarded, supported and expected in a given setting. It is suffice to note that the internal climate/environment within a particular university can be shaped by the strategic practices of management and what decisions the managers are likely to make. Internationalization is a strategic decision according to Canibano and Sanchez (2009) that management in universities is faced with and thus requires an environment that allows such a decision to be made without fear of repercussions. Camelo et al. (2010) found that the level of informal communication within an organization facilitates greater interaction and encourages team cohesion. Hattke and Blaschke (2015), in their study of German universities further established that involvement of staff and other stakeholders in decision making of the universities improved their performance.

Belso-Martínez, Molina-Morales, & Mas-Verdu (2011) suggest that internal resources of an organization mediate its performance and external resources. Their argument is premised on the fact that organizations with superior internal resources are able to exploit external resources. This simply means that organizations cannot be able to exploit external resources without internal capabilities. The IUs involves
expanding opportunities that are external to the university, in order to effectively do that, the internal conditions in these universities ought to be conducive for the exploitation of these external opportunities.

Studies such as Karuhanga (2015); Kagaari (2011); Ahmad et al. (2010) and Camelo et al. (2010) highlight the importance of the IE in the management of institutions especially universities. Karuhanga (2015) has highlighted the importance of having working systems within the organization in order for it to achieve its desired performance objectives. Kagaari (2011) also challenges the organizational climate in public universities in Uganda as a major determinant for employee performance. This implies that TMTIO could influence the IE of an organization which would in turn influence the internationalization of the university. This study suggested that TMTIO can influence the nature of the environment within organization as regards availability of resources, supportive structures and flexibility of systems including information and communication technology that would facilitate integration of the international dimension within the functions of the universities.

\( H_{02} \) Internal Environment has no significant mediating effect on the relationship between Top Management Team International Orientation and Internationalization of Universities

Methodology
This study adopted a cross sectional research design and adopted a survey method to collect data from a sample of 36 universities of which only 30 only responded. The target respondents were members of TMT and only 134 responded by filling a structured questionnaire. Prior to this, the questionnaire was tested for validity in a pretest through expert judgment and Content Validity Indices (CVIs) were calculated and all the three variables had CVIs greater than 0.7. Reliability was also tested for and all items on TMTIO, IE and IUs had good internal consistency with a Cronbach alpha of more than 0.7 meaning the minimum consistency measure according to Cronbach (1951). The data was tested for linearity and for normality using correlations and Shapiro Wilk test respectively. Homogeneity of variance was tested using the Levene’s test and the test statistics were not significant with p values > 0.05. Measurement items were taken through factor analysis and Kaiser (KMO) measure of sampling adequacy was used in which their KMO measures were taken and all exceeded the acceptable 0.6 according to Field (2009); TMTIO (0.733), IE (0.724) and IUs (0.627) (See Table 1). Through principal component analysis and using varimax method of rotation, the remaining factors after FA measured variances of variables as follows; TMTIO 77.989 percent, IE 76.142 percent and IUs 69.665 percent.
TMTIO remained with three factors, IE also remained with three factors while IUs remained with two factors (See Table 1).

### Table 1. Validity, Reliability, KMO and Total Variance Explained by the Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Content Validity Index</th>
<th>Cronbach Alpha</th>
<th>KMO Measure of Sample Adequacy</th>
<th>Components Retained</th>
<th>Total Variance Explained</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMTIO</td>
<td>0.77</td>
<td>0.93</td>
<td>0.733</td>
<td>3</td>
<td>77.989</td>
</tr>
<tr>
<td>Internal Environment</td>
<td>0.85</td>
<td>0.89</td>
<td>0.724</td>
<td>3</td>
<td>76.142</td>
</tr>
<tr>
<td>Internationalization of Universities</td>
<td>0.81</td>
<td>0.702</td>
<td>0.629</td>
<td>2</td>
<td>69.665</td>
</tr>
</tbody>
</table>

**Findings**

In order to fulfill the above objective, a null hypothesis $H_{02}$ was formulated that IE has no significant mediating effect on the relationship between TMTIO and IUs. Mediation occurs when an effect on a variable is through another variable (the mediator) (Baron & Kenny, 1986). According to Baron & Kenny (1986), for mediation to happen, three conditions are met: (1) the independent variable should significantly affect the dependent variable (2) the dependent variable also significantly affect the mediating variable (3) The mediator should have a significant effect on the dependent variable. Thus, variations in independent variable significantly explain the variations in the mediator variable whose variations in turn should significantly explain changes in the dependent variable (Jose, 2013).

In order to test for mediation, the mediator should be regressed on the independent variable, then the dependent variable should be regressed on both the independent variable and the mediator variable (Baron & Kenny, 1986; Holmbeck, 1997). To establish the three conditions are met, the first steps were to determine relationship between the three variables. These relationships are; first, whether TMTIO is related to IUs, secondly whether TMTIO is related to IE. Third was to establish whether the IE is significantly related to IUs. To assess these relationships, a Pearson correlation was conducted amongst the three variables. The correlations show that TMTIO is positively and significantly related with IUs, $r = .452$, $p < .05$. This illustrates that there is significant and fairly moderate positive relationship between TMTIO and IUs. This means that TMTIO improves IUs. They also showed that there is a significant positive relationship between TMTIO and IE, $r = .442$, $p < .05$ and that the relationship between them fairly moderate (Table 1). These findings mean that when TMTIO is improved, conditions in the IE are likely to improve. The correlation result also shows that IE is positively and significantly correlated with internationalization of the university, $r = .425$, $p < .05$. This shows that there is a significant and fairly moderate relationship between the IE and IUs. This means that enhancing the IE increases the IUs.

### Table 1
Pearson Correlations between Variables

<table>
<thead>
<tr>
<th></th>
<th>Correlations</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internationalization of Universities (1)</td>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Environment (2)</td>
<td>Pearson Correlation</td>
<td>.425*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.019</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TMTIO (3)</td>
<td>Pearson Correlation</td>
<td>.452*</td>
<td>.442*</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.012</td>
<td>.015</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td></td>
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*Correlation is significant at the 0.05 level (2-tailed).

Regression tests also showed that TMTIO has a significant effect on IUs, and TMTIO has significant effect on IE and that IE has a significant effect on IUs. $R^2$ showed that TMTIO contributes 18.0 percent of the variations in IUs, TMTIO accounts for 19.5 percent of the variations in IE ($R^2 = 0.195$) and that IE accounts for 18.0 percent of the variations in IUs ($R^2 = 0.18$). When the TMTIO and IE were regressed on IUs in order to test for mediation, the regression did not show any significant effect as an indication for mediation. Jose (2013) recommends that fulfilling Baron and Kenny (1986) conditions is not enough in
itself confirming mediation, he thus proposes that a Sobel test be used to further test they type of mediation and to also confirm whether mediation did or did not take place. A Sobel tests showed that there a null mediation effect of the IE on the relationship between TMTIO and IUs, Sobel Z-value was not significant with \( p = 0.188066 \) (\( p > \alpha \)). (See Table 2 and Figure 2 showing the medigraph for mediation).

Figure shows that paths a, b and c were significant but c’ was not significant indicating that there was no mediation effect of IE on the relationship between TMTIO and IUs. This meant that inclusion of IE as a mediating variable did not have an effect on the relationship between TMTIO and IUs.

### Table 2 Sobel Test for Mediation

<table>
<thead>
<tr>
<th>Type of Mediation</th>
<th>Null</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sobel Z-value</td>
<td>1.316322</td>
</tr>
<tr>
<td>P value</td>
<td>0.188066</td>
</tr>
<tr>
<td>Lower</td>
<td>-0.09026</td>
</tr>
<tr>
<td>Higher</td>
<td>0.45941</td>
</tr>
<tr>
<td>Un-standardized Indirect Effect</td>
<td>a*b: 0.18458</td>
</tr>
</tbody>
</table>

### Effective Size Measures

<table>
<thead>
<tr>
<th>Standardized Coefficients</th>
<th>R² Measures (Variance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>0.452</td>
</tr>
<tr>
<td>Direct</td>
<td>0.329</td>
</tr>
<tr>
<td>Indirect</td>
<td>0.123</td>
</tr>
<tr>
<td>Indirect to Total ratio</td>
<td>0.272</td>
</tr>
</tbody>
</table>

### Figure 2: Medigraph for the Mediation Effect of the Internal Environment

![Medigraph](image)

### Conclusion and Recommendations

The findings indicated that TMTIO has a significant effect on IUs and its effect on IE was also significant. The effect the IE on IUs was significant but the Sobel test indicated that there was a null mediation effect of the IE. Jose (2013) opines that fulfilling Baron and Kenny (1986) conditions is not enough to ascertain that mediation has occurred. The null hypothesis occurs when the effect of the mediator is not strong enough to cause an effect on the basic relationship between the independent and dependent variable. This means that IE effect was not strong enough to cause a significant effect on the relationship between TMTIO and IUs. As shown in the findings, IE has its own direct effect on IUs. The study concludes that IE has its own direct effect on IUs just like TMTIO. Improving IE by improving management support, rewards and reinforcements and improving the organizational structure especially encouraging staff participation in decision making would improve the level of internationalization.
amongst Ugandan universities. In addition, enhancing the TMTIO of top management members in Ugandan universities would go a long way in improving IUs in Uganda. The findings of this study are in support of the tenets of the Upper Echelons theory that TMT has a role to play in guiding universities’ strategic direction in terms of expanding internationally. The study recommends that universities’ councils in Uganda need to focus on attracting top managers who are internationally oriented (with right skills, risk taking behavior and global outlook) if the universities are to internationalize. Governments should aim at creating an environment that would encourage staff to engage in international activities. Policies related to reward of staff engaged in international activities should be put in place to motivate staffs to be involved. This study was limited a number of factors: the sample size was small thus a bigger sample could be sought within the EAC to assess the levels of internationalization amongst universities in the different countries of the EAC. It was a quantitative study that did not consider qualitative experiences of the respondents. Due to these limitations, the results of this study may not be generalized outside the Ugandan context. Future researchers should study the team dynamics in universities to see whether they have an impact on internationalization.

References


Opp, R. D., & Gosetti, P. P. (2014). The role of key administrators in internationalizing the community college student experience. *New Directions for Community Colleges, 165*.


