

## **Nigerian Higher Education Institutions Performance: Does Strategic Improvisation and Entrepreneurial Self-efficacy Matter?**

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### **ABSTRACT**

Global competition, dynamic environment; and the need for efficient and effective resource utilization have created a lot of pressure on today's organisations including Higher Education Institutions (HEIs). Hence, the need for leaders capable of engaging in daring activities such as improvisation and entrepreneurial self-efficacy cannot be overemphasized. The objective of the study is to examine the relationship between leaders' strategic improvisation, entrepreneurial self-efficacy and HEIs performance in Nigeria. Using a structured questionnaire to academic leaders in HEIs in Kano state, Nigeria a total of 220 useable data was gathered and analysed using SmartPLS 3.0. The result indicates that all the exogenous variables have a significant relationship with the endogenous variable of the study. Strategic improvisation and entrepreneurial self-efficacy explains 21.9% of the variance of HEIs performance. Interestingly, strategic improvisation was found to be the strongest predictor of HEIs performance in Nigeria. Finally, implications and suggestions for future studies were presented and elaborated.

**Keywords:** Strategic improvisation, Entrepreneurial self-efficacy, Higher Education Institution (HEIs), Performance.

### **1.0 INTRODUCTION**

For the past two decades, there is increased pressure on Higher Education Institutions (HEIs) to improve its efficiency and effectiveness regarding

resources utilization and management (Chapman & Sarvi, 2017). This remains so despite the HEIs facing severe reduction in finance, competitive and dynamic environment as well as high public expectation and scrutiny (Coyle-Shapiro & Kessler, 2000; Mahmoud & Yusif, 2012). These calls were as a result of the failure of the traditional method (Gould-Williams, 2003) and also the need for government organization to become more performance-based (Kim, 2010) and entrepreneurial in nature. Hence, the need for reinventing its approaches in terms of decision making using real-time information and entrepreneurial activities to revitalized its performance to cope with the present dynamic environment (Kim, 2010; Waweru & Porporato, 2008).

The Nigerian public sector has been linked with inefficiency and ineffectiveness by both academics and stakeholders (Esu & Inyang, 2009; Mahmoud & Yusif, 2012). However, it has been summarized that the large complaints levied against the Nigerian public sector was as a result of the poor quality of the country's educational system (Ololube & Dudafa, 2013). The Nigerian education is believed to be in a miserable state, facing serious problems ranging from inadequate curriculum and funding (Chapman & Sarvi, 2017), obsolete facilities and dearth of skilled personnel resulting in poor educational policies (Emmanuel, 2015). Hence, producing unskilled graduate making it a challenge for to find jobs, this results increase the rate of unemployment and poverty in the country (Ejedafiru, 2014). In addition, it has been estimated that there are over one hundred thousand Nigerians studying abroad, costing the country over \$7.5 billion every year. In fact, Apekhade (2015) stated that Nigerian HEIs is the most backward within the West African sub-region. No wonder no Nigerian university was among the best 1000 in the world, coming below South Africa and Egypt (Muhammed, 2015).

For Nigeria a developing country to achieve its desired goal of becoming an industrialized nation by 20:20:20 there is an urgent need for the transformation of the educational sector (Banya, 2015), that is capable of competing with other country's education globally (Akpochafo, 2013). This call the need for the transformation and the re-invention of the strict managerial and administrative practices, adopting a more entrepreneurial point of view, decentralization and flexibility to enhance its competitive advantage and organizational performance (Ireland, Covin, & Kuratko, 2009; Sotirakou & Zeppou, 2006; Turker & Altuntas, 2015; Zampetakis & Moustakis, 2007). This argument is in line with that of Osborne (2010) who argued that the "key elements of the practice of the new public management (NPM) included an attention to the lessons from private sector management, a focus upon entrepreneurial leadership and the growth of the use of markets and competition as a key allocative mechanism for delivering public services" (p. 2).

Hence, the HEIs are expected to come up with means of maintaining efficiency and effectiveness in order to address its increasing problems and satisfy its students at a lower cost (Chapman & Sarvi, 2017; Pauline Joyce, 2013). Adopting the marketing style of the for-profit sector in term of efficiency, effectiveness and accountability (Harris, 2002; Macedo & Pinho, 2006). Thus, led to a significant transformation of public sector venturing into commercial activities aimed at developing its organizations infrastructures, and also increasing both resources and performance (Wei-Skillern, 2010). The trend of venturing into entrepreneurial activities by public sectors is merely referring to the system in which government view its activities from the market and customer perspective. In essence, the HEIs are expected to engage in practices found to be relevant to the success of private sector (Denhardt & Denhardt, 2000). The present study looks at two important concepts of leaders strategic improvisation (SI) and entrepreneurial self-efficacy (ESE) as means of ensuring the achievement of HEIs objectives. In addition, to the possibility of turning these insitutions into an entrepreneurial ones (Callagher, Blixens, Horst, & Husted, 2015), and also as a panacea to the numerous problems facing them.

Studies have found that both strategic improvisation (SI) and entrepreneurial self efficacy (ESE) as priorities to present organisation pursuing renewal and adaptation toward creativity and innovation in this turbulent environment (Burroughs, Dahl, Moreau, Chattopadhyay, & Gorn, 2011; Kyriakopoulos, 2015). Despite near absence of studies on SI and ESE (Jeraj & Marič, 2013; Mueller, 2011) especially in the public sector, a significant and positive relationship have been established between SI and ESE (Bakar, Mahmood, & Ismail, 2015; Cumberland, 2015) with performance. However most of these studies focus on the private sector, thus neglecting the public sector (Arshad, Razalli, & Julienti, 2015) especially the higher institution (Sahlan, Rahman, & Amin, 2015). Therefore, the study examines the role of leaders' strategic improvisation and entrepreneurial self-efficacy toward enhancing HEIs performance. HEIs and other public organisations are expected to have leaders who do not identify with a formal role of doing things (Pauline Joyce, 2013), in order to adequately respond to fast changing nature of today's environment (Rutherford, 2016). As a pioneering study on the use SI and ESE in the public sector the study will no doubt add to the literature, especially that of the HEIs on their quest to become entrepreneurial in nature.

## 2.0 LITERATURE REVIEW

### 2.1 Strategic Improvisation and performance

The dynamic nature of the present environment makes organizations to look for an alternative to strategic planning known as strategic improvisation (H. A. Bakar et al., 2015; Jackson & Lapsley, 2014; Wind & Mahajan, 1997). Strategic improvisation has been identified as the breeding bridge for creativity and innovativeness as a result of the development of a new radical ideas (Fisher & Amabile, 2009; Moorman & Miner, 1998), as such is not something that happens by mere chance rather through conscious choice as a result of unexpected events (Arshad, Julienti, Ahmad, & Hassan, 2015). Despite Strategic improvisation been a new concept especially within the management fields (Hodgkinson, Hughes, & Arshad, 2016), it has been widely used in other fields such as theatre, sports and politics (Miner et al., 2001; Moorman & Miner, 1998b), thus leading to numerous definitions just like other social sciences construct. Overall, strategic improvisation is defined as the process of using real time information in making decisions that involves high degree of spontaneity, innovativeness, creativity and intuitiveness as a result of unforeseen circumstance (Weick, 1993; Hatch, 1997; Crossan, 1998; Moorman & Miner, 1998; Baker, Miner, & Eesley, 2003; Vera & Crossan, 2005).

The process of improvisation includes deviation or even total discardment of the existing or planned action (Mueller, 2011), as a result of the dynamic nature of today's business environment (Mintzberg, 1990, 1994). Apart from the dynamism of the environment, organizations are faced with limited resources, intense time pressure and unique problems that have no available trial and error or pre-planned solution to the problem. Nonetheless, improvisation does not occur all the time in an organization, even though it has value to the organizations (Hutt, Reingen, & Ronchetto, 1988), but occurs in certain circumstance that require fast learning and adaptation for the survival of the organization (Chelariu, Johnston, & Young, 2002). Strategic improvisation has been identified as one of the ways in which organizations can cope with the rapidly environmental changes to achieve creativity because it allows flexibility and adaptability (Bakar, Mahmood, & Ismail, 2015; Vera & Crossan, 2005). In essence, strategic improvisation is a process of challenging the existing or conventional ways of doing things in an organisation in order to exploit an opportunity or solve a problem as a result of changing circumstances of the environment.

Prior studies have established a significant relationship between strategic improvisation and performance (Arshad, Razalli, Julienti, Ahmad, & Mahmood,

2015; Bakar, Mahmood, & Ismail, 2015; Bakar, Mahmood, & Lucky, 2015; Hmieleski & Corbett, 2008). We therefore proposed that:

**H1:** leaders' strategic improvisation has a significant and a positive relationship with HEIs performance in Nigeria.

### **3.0 ENTREPRENEURIAL SELF-EFFICACY AND PERFORMANCE**

To fully understand the concept of entrepreneurial self-efficacy we need to look at the social cognitive theory, which originated from the concept of self-efficacy (Bandura, 1977). Bandura (1997, p. 2) has defined perceived self-efficacy as "...beliefs in one's capabilities to organize and execute courses of action required in managing prospective situations. Efficacy beliefs influence how people think, feels, motivate themselves, and act". Self-efficacy has also been defined as the individual belief and ability to regulate, control, motivate his or her feeling and behaviour toward attainment of certain identified goals (Bandura, 1986, 1993) and has been associated with personality trait (Littunen, 2000). In essence, the concept of self-efficacy has been summarized to have a reciprocal relationship with individual behaviour, cognitive and environmental consequences such that positive outcome may occur in the future, while the negative one will be avoided. Self-efficacy have been used in a wide range field of study that include health, education and entrepreneurship (Arora, Haynie, & Laurence, 2013) and has been identified as an important predictor of entrepreneurial action (Zhao, Seibert, & Hills, 2005). Furthermore, a meta-analysis conducted by Stajkovic and Luthans (1998) established that self-efficacy strongly influences work-related performance.

Entrepreneurial self-efficacy construct credited to the work of Chen, Greene and Crick (1998) is seen as a major breakthrough in entrepreneurship literature. ESE explains a major step in understanding the main reasons why people are capable of engaging in new venture creation. Thus, entrepreneurial self-efficacy has been identified as an important aspect of understanding entrepreneurial actions (Schröder, 2004). The ESE construct came up as a result of the suggestion of Pajares (1997) who stated that for self-efficacy construct to be predictive, it must be "tailored to [the] domain(s) of functioning being analysed and reflect the various task demands within that domain" (p. 8). Therefore, ESE is considered as a specific form of self-efficacy developed from a social psychologist perspective and other related areas in order to fully explain the main reasons behind people social behaviour (Bandura, 1977).

Despite most ESE studies were directed towards explaining the rationale behind individual engagement in entrepreneurial actions (Boyd & Vozikis, 1994; Chen et al., 1998), studies now focus on its relationship with performance (Cumberland et al., 2015). The recent concern may not be unconnected with the fact that self-efficacy is viewed as both a task and outcome (Drnovšek, Wincent, & Cardon, 2010). As such influences decisions and management of the organization (Willard, Krueger, & Feeser, 1992), in such a way that their perception and self believe affects the venture as well as its performance (Forbes, 2005). Furthermore, entrepreneurial self-efficacy affects organizational performance, as it ignites the desires, interest and motivation toward entrepreneurship (Baum, 2001; Chen et al., 1998). It also affects how these ventures can be managed effectively (Marta et al., 2016). In addition, higher self-efficacy always led to greater chances recognition that resulted to greater performance and overall success of the organization (Jeraj & Marič, 2013; Lindsay & Balan, 2005). Conclusively, the relationship between ESE and performance has been established by previous studies (Cassar & Friedman, 2009; Cumberland et al., 2015; Hallak, Assaker, & Lee, 2015; Hallak, Brown, & Lindsay, 2012; Jeraj & Marič, 2013; Mahmood & Bakar, 2016; Weidong, Dahai, & Lihua, 2007). We therefore propose that:

**H2:** There is a significant and positive relationship between leaders' entrepreneurial self-efficacy and HEIs performance in Nigeria.

## 4.0 METHODS

The problems and objectives of the study above justifies the use of quantitative method, hence, assumes the positivist point of view. The targeted population is academic leaders of HEIs in Kano state, Nigeria. The study utilizes survey method using questionnaire to generate data for the study. Using a quota sampling a total of 370 questionnaires were distributed to academic leaders of ten HEIs. In order to increase response rate an introduction letter was collected from the UUM, OYA graduate school introducing the researcher and the purpose of the study. Interestingly, the study recorded high response rate of 66% out of which 4% are invalid. The questionnaire was divided into four basic sections. Section one collected demographic data, section two extracts information on strategic improvisation, section four is for entrepreneurial self-efficacy and finally section four generates data on organizational performance.

## **5.0 MEASURES**

In order to increase items generalizability, content validity and reliability of the study, measures were adapted from previous studies. Items were carefully rewarded to suit the new context and settings of the present study. Specifically, data of the three constructs of the study, namely strategic improvisation, entrepreneurial self-efficacy and performance were collected. The measurement items for strategic improvisation were adapted from Vera and Crossan (2007), entrepreneurial self-efficacy from Wilson, Kickul and Marlino (2007) and finally items for performance were adapted from Berman and West (1998), Morris and Jones (1999), Moynihan and Pandey (2005), Brewer and Selden (1998), Choi and Rainey (2010) and Pitts (2009). Questions were rated on a five point Likert scales ranging from strongly agree to strongly disagree.

## **6.0 ANALYSIS AND RESULT**

In trying to validate and test the hypotheses of the study, Smart PLS 3 was utilized. Smart PLS is a variance base Structural Equation Model (SEM) that minimize error variance while validating the measurement and structural models. The measurement model validation deals with assessing psychometric properties of the model, while the structural model estimates the parameters (Al-Gahtani, Hubona, & Wang, 2007). Accordingly, the study adopts Anderson and Gerbing (1988) two-step approach to determine the validity of the measurement model via individual loading and weights, as well as the bootstrapping to determine the path coefficient of the structural model.

## **7.0 MEASUREMENT MODEL**

Assessing measurement model includes three major factors, internal consistency, convergent and discriminant validity respectively. The measurement model indicates reliable internal consistency looking at the composite reliability values in Table 1. The values all surpassed the threshold of 0.70 as suggested by Hair, Hult, Ringle and Sarstedt (2013), ranging from 0.777 to 0.909. After achieving the internal consistency, the next is evaluation of the convergent validity of the latent variables of the study. Specifically, convergent validity depicts the overall variation explain by the construct indicators to insure that they are really measuring that construct (Hair et al., 2013). In fact, Barclay, Higgins and Thompson (1995) argued that latent variable items should explain at least 50% of the variance in the unobserved variable of the study. The two basic methods of assessing convergent validity are individual items loading (factor loading) and

average variance extracted. The rule of thumb of factor loading ranges from 0.4 to 0.7 (Hulland, 1999) and the threshold of the AVE is 0.5 (Fornell & Larcker, 1981). Proof of discriminants validity was provided using three different criteria namely cross loading, Fornell and Larcker and Heterotrait-Monotrait (HTMT) Ratio of Correlations. Discriminant validity explains the extent to which other construct differ from the other constructs of the study (Hair, Black, Babin, Anderson, & Tatham, 2010). Cross loadings validates discriminants validity at the items level, while the square root of the AVE validates at the construct level. Table 2 and 3 clearly justified the attainment of discriminant validity using cross loading and AVE.

The HTMT came into existence as a result of lack of reliability of the other methods (Henseler, Ringle, & Sarstedt, 2015). They argued that HTMT is more accurate and precise because it is an estimation of factor correlation. HTMT discriminant validity values are expected to be smaller than one to fully discriminant between two or more latent variables. Using the strict criteria of .85 as suggested by Henseler et al. (2015), the study found that all HTMT values in Table 4 are less than the threshold, hence, providing a more reliable justification for discriminant validity.

**Table 1: Internal Consistency and Convergent Validity**

<i>Construct</i>	<i>Item</i>	<i>Loading</i>	<i>CR</i>	<i>AVE</i>	<i>Convergent Validity (AVE &gt;</i>
OP	OP2	0.744	0.909	0.556	YES
	OP3	0.767			
	OP4	0.744			
	OP5	0.763			
	OP6	0.666			
	OP7	0.812			
	OP8	0.677			
	OP9	0.779			
SI	SI2	0.742	0.830	0.551	YES

	SI3	0.773			
	SI4	0.784			
	SI7	0.663			
ESE	ESE1	0.767	0.777	0.538	YES
	ESE2	0.672			
	ESE3	0.757			

**Table 2: Loading and cross loading of constructs**

Items	ESE	OP	SI
ESE1	<b>0.757</b>	0.269	0.293
ESE4	<b>0.672</b>	0.229	0.365
ESE6	<b>0.767</b>	0.264	0.336
OP2	0.290	<b>0.744</b>	0.305
OP3	0.252	<b>0.767</b>	0.317
OP4	0.292	<b>0.744</b>	0.322
OP5	0.281	<b>0.763</b>	0.400
OP6	0.234	<b>0.666</b>	0.289
OP7	0.322	<b>0.812</b>	0.362
OP8	0.147	<b>0.677</b>	0.326
OP9	0.216	<b>0.779</b>	0.244
SI2	0.344	0.303	<b>0.742</b>
SI3	0.289	0.362	<b>0.773</b>
SI4	0.394	0.368	<b>0.784</b>
SI7	0.304	0.238	<b>0.663</b>

**Table 3. Fornell and Larcker criterion**

	ESE	OP	SI
ESE	<b>0.733</b>		
OP	0.348	<b>0.745</b>	
SI	0.448	0.437	<b>0.742</b>

Note: Diagonal elements shaded and highlighted in bold represent the square root of AVE. Off diagonal elements are simple bivariate correlations between the constructs.

**Table 4: Heterotrait Monotrait (HTMT) Criterion for Discriminant Validity**

	ESE	OP	SI
ESE	-		
OP	<b>0.480</b>	-	
SI	<b>0.701</b>	<b>0.525</b>	-

Discriminant validity is established at HTMT0.85

### 8.0 ASSESSMENT OF STRUCTURAL MODEL

Structural model assessment explains the causal relationship that exists between constructs of the study. The variance explained ( $R^2$ ) and the path coefficient are the main process in which the hypotheses of the study are vindicated (Chin, 1998; Gil-Garcia, 2008). Using bootstrapping of 500 to validates the two hypothesized relationship between exogenous and endogenous construct of the study. Table 5 shows that both strategic improvisation and entrepreneurial self-efficacy are found to positively contribute to HEIs performance. Specifically, strategic improvisation and HEIs performance is significant with  $\beta= 0.190, p < 0.01$ , while the relationship between entrepreneurial self-efficacy is significant with  $\beta= 0.351, p < 0.01$ . Hence, the two hypotheses are hereby accepted. The  $R^2$  of 0.219 in Table 6 indicates that the two exogenous variables (SI and ESE) explain only 21.9 per cent of the variance in HEIs performance.

**Table 5: Path Coefficient**

	Dire ct Effe	Stand ard Error	T Statistic ( O/STER  )	Confide nce Interval	Confide nce Interval	p- Val ue	Result
ESE -> OP	0.190	0.071	2.671**	0.084	0.316	0.004	Significant

SI -> OP	0.35	0.074	4.753**	0.228	0.468	0.00	Significant
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\*\*p<0.01

Apart from the path coefficient and the R<sup>2</sup> explained above, the effect size (F<sup>2</sup>) of each construct and the predictive relevance (Q<sup>2</sup>) of the whole model are other requirements of the structural model. Sullivan and Feinn (2012) noted that likelihood of the findings to be significant by chance could not be overruled, hence, the need to evaluate the magnitude of the contribution of the exogenous variables in the relationship. Accordingly, the f<sup>2</sup> values of the present study as presented in Table 6, indicates that the two exogenous variables of the study have small effect or impact in explaining HEIs performance.

**Table 6: Co-efficient (R<sup>2</sup>), Effect size (f<sup>2</sup>) and Predictive Relevance (Q<sup>2</sup>)**

	Co-efficient of Determination	Predictive Relevance	Effect Size f <sup>2</sup>	
			OP	Effect Size
O	0.219	0.11	1.000	
ES			0.037	Small
SI			0.126	Small

Finally, to determine the predictive relevance (Q<sup>2</sup>) of the whole model a blinding folding procedure was conducted using Stone-Geisser submission (Geisser, 1974; Stone, 1974). According to Chin (1998), Q<sup>2</sup> “represents a measure of how well observed values are reconstructed by the model and its parameter estimates”. In addition, Duarte and Roposo (2010) sees stone-Geisser’s method as an additional process of assessing the goodness of fit of the model. Models with values greater than zero as depicted in Table 6, reveals that the model of the study has predictive relevance. Fig. 1 shows the results of the assessment of the model

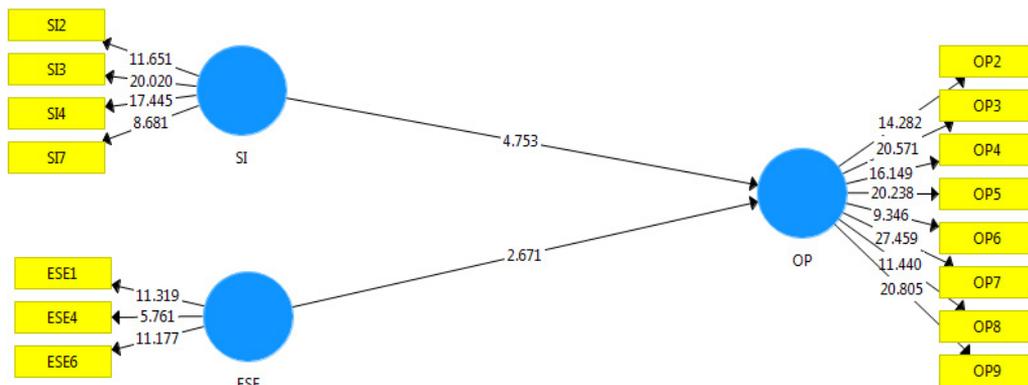


Figure 1: Results of assessment of model

## 9.0 DISCUSSION, SUMMARY, IMPLICATION AND RECOMMENDATION

The study examines the impact of strategic improvisation and entrepreneurial self-efficacy in enhancing Nigerian HEIs performance. Despite the study been a pioneering one, using both SI and ESE in public sector, other studies have validated these findings in the private sector. Specifically, the study is in line with that of Ahmad, Arshad and Marchalina (2015), Arshad and Hughes (2009) and Bakar, Mahmood and Ismail (2015) where all established a significant and positive relationship between strategic improvisation and performance. The findings further vindicates the call for HEIs to be entrepreneurial by appreciating and rewarding improvisational behaviour among its employees to ensure innovativeness (Mohan, Voss, & Jiménez, 2016) and sustainability. Moreover, the present environment is very dynamic, hence, cannot be run mainly on strategic planning.

Similarly, the relationship between entrepreneurial self-efficacy and HEIs performance is positively related. The finding suggests that organizational leaders with entrepreneurial self-efficacy have the possibility to perform better by becoming entrepreneurial in its activities and behaviour. The finding is not surprising despite been one of the pioneer study in the not profit sector, as similar results were found by previous studies (Cassar & Friedman, 2009; Cumberland et al., 2015; Khedhaouria, Gurău, & Torrès, 2015). It can be deduced from the finding that individual belief and ability to regulate, control,

motivate his or her feeling and behaviour toward attainment of certain identified goals (Bandura, 1986, 1993), will result to organizational performance as a result of the knowledge, values and skills they possessed and used for the success of the organization (Ruzzier, Antoncic, Hisrich, & Konecnik, 2007). Moreover, future organizations performance has been linked with individual and leaders development priority of that organization.

The study has theoretical and practical implications that will be useful for both scholars and management of HEIs in Nigeria. Theoretically, the study has advances the generalizability of both resource base theory (RBV) and social cognitive theory (SCT) within the public domain, especially on their link with leaders' strategic improvisation and entrepreneurial self-efficacy. While previous studies mainly focus on the management aspect, specifically the Chief Executive Officer (CEO), the presents study indicates the impact of middle line managers' individual characteristics as valuable factors in determining HEIs performance. In addition, the study is a wakeup call to HEIs management to include identification of these individual characteristics during recruitment to ensure applicants with these qualities are given priority. More so, HEIs management should ensure training and mentoring of these behaviours among staff and students. Staff with strategic improvisation behaviour and entrepreneurial self-efficacy will not only improve performance but also inculcate these behaviours to student, hence, making them employable and entrepreneurial in future.

## **10.0 CONCLUSION, LIMITATIONS OF STUDY AND SUGGESTION FOR FUTURE STUDIES**

The use of cross sectional design is one of the limitations of the study. Therefore, future study can utilize longitudinal to observe the changes and level at which these behaviours impact organizational performance. Also, future study should compare individual behaviour and that of the leaders to ascertain the most vital toward organizational performance. Moreover, HEIs management should encourage mobility between academia and industry to update their entrepreneurial behaviour in line with the current dynamic nature of today's environment. Finally, strategic improvisation and entrepreneurial self-efficacy both account for only 21.9% of the variance that occurs to HEIs performance, future study should identified other factors that are capable of enhancing HEIs performance.

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