

# EMPIRICAL EXAMINATION OF TOP MANAGEMENT CHARACTERISTICS AND STRATEGIC DECISION MAKING

Henry Osahon Osazevbaru<sup>1</sup>

<sup>1</sup> Henry Osahon Osazevbaru (Ph.D), Department of Business Administration, Faculty of the Social Sciences, Delta State University, Abraka, Delta State – Nigeria, osazevbaruho@delsu.edu.ng, ORCID 0000-0001-8570-0206

**Abstract:** This study examined top management characteristics and strategic decision making in organizations. The basic question the paper seeks to address is: Do managers' background characteristics have significant influence on their decision making process? To achieve this, hypotheses were developed and primary data were obtained through structured questionnaire that was validated and pilot tested. The Cronbach alpha test for reliability gave an overall reliability coefficient of 0.9548 for the research instrument. From a population of 250 employees of government constituted boards and commissions in Delta State, Nigeria, a sample size of 158 respondents was obtained. The dependent variable was strategic decision making, while top management characteristics being the independent variable was measured by risk propensity, educational background, age disposition and cognitive complexity. Need for achievement was however introduced as a control variable and the analyses of the primary data were done by means of the inferential and descriptive statistics. Specifically, the ordinary least square regression (OLS) technique was employed to test the hypotheses of the study. Overall, the results from the test of hypotheses suggest that risk propensity, educational background, age disposition and cognitive complexity have significant relationship with strategic decision making. It was therefore concluded that top management characteristics exert significant influence on strategic decision making. In the light of this conclusion, it was recommended amongst others, that top managers must at all times give attention to these characteristics.

**Keywords:** Age disposition, cognitive complexity, heuristics and cognitive maps, risk propensity, upper echelon theory

**JEL Classification:** D22, D70, M12

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## INTRODUCTION

The task of moving an enterprise from its current position to where it should be in the future lies on the shoulders of the managers. Strategic decision dictates the direction and pattern of the enterprise and as such, managers are confronted with concourse of decisions every emerging day (Wu, Wu, Tsai, & Li, 2017). This is due to the complexity and changes associated with the business environment. Notwithstanding the dynamism in the business environment, managers must have to make decisions even if they are not willing to do so (Kauer, Waldeck, & Schaffer, 2007).

Decision making is inevitable because to explicitly avoid making a decision is in itself to make a decision. For many reasons, the hardest part of managing an enterprise today is making the appropriate decision. This is because decision may either be programmed or non-programmed, generic or unique. Al-Tarawneh (2012) posited that decision may be routine or non-routine and certain or uncertain. Once a manager chooses an alternative and knows how to implement it, he or she can allocate the resources to achieve the defined goal, but getting to that point can often be a long, complex and challenging process (Frishammar, Jahan, Henrik, Floren, & Wincent, 2009). Strategic decision making is holistic in nature as it does not only impact the enterprise where it is taken, but also the society that constitutes the environment of the enterprise (Nooraie, 2014).

According to Papadakis, Lioukas, and Chambers (1998), past researches on strategic decision making process have been anecdotal with little inferences that could be generalized. Empirical studies in terms of factors that affect or influence strategic decision making process is either limited or have produced contradictory results (Nooraie, 2001). Previous researchers in the like of Mahmood (2012a), Ardila, Nik, and Rikinhakis (2017) and others treated factors affecting strategic decision-making conceptually while others were case studies based. Consequently, the study of strategic decision making process and its factors remain very important and more empirical studies are required before any unequivocal or definite conclusion could be reached.

This study explores top management characteristics (TMC) and how they influence strategic decision making process. Lucidly, the choice to focus on strategic decision making is due to its nature, peculiarity and significance. Strategic decisions are long-term, extremely unstructured, complex and inherently risky, and have major impact on the future of the enterprise. If well crafted and implemented, it will impact positively; otherwise the reverse will be the case. Strategic decisions are those important decisions that typically require a large amount of enterprise resources and thorough consideration of the firm's environment. Apparently, in strategic decision making, top managers usually play a pivotal and central role (Mahmood, 2012a; Mukutu, Konboyo, & Bolo, 2013; Wasike, Machuki, Aosa, & Porkhariyal, 2015). This paper thus focuses on the impact of four different characteristics of top managers that are very likely to influence them in the strategic decision-making process. They are: risk propensity, educational background, age, and cognitive complexity. The specific objectives of the study therefore, are to: examine the relationship between top managers' risk propensity and strategic decision making, determine effect of top managers' educational background on strategic decision making, investigate the relationship between top managers' age disposition and strategic decision making, and evaluate the impact of top managers' cognitive complexity and strategic decision making. These variables are controlled for by need for achievement. It is believed that the outcome of this study will contribute to existing knowledge in upper echelons theory from the perspective of developing countries.

## **1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

### **1.1 Strategic Decision Making**

Decision is a critical aspect of organizations' day-to-day administration and management. It has to do with initiation of directions and paths organizations need to follow in the evaluation process of alternatives for possible positive outcomes. Harrison (1999) viewed decision as a moment in an on-going process of evaluating alternatives related to a goal, at which the expectation of decision maker with regard to a particular course of action impels him to make a selection. Strategies on the other hand, have to do with approaches and methods of going through the critical paths to achieve results.

A company's strategy is the "game plan" management has for positioning the company in its chosen market arena, competing successfully, pleasing customers, and achieving good business performance (Tapera, 2014). Strategies consist of the whole array of competitive moves and business approaches that managers employ in running a company (Gamble & Thompson, 2009). In making strategic decision or crafting a strategic course, management is saying that "among all the paths and actions we could have chosen, we have decided to go in this direction and we rely upon these particular ways of doing business". Thus, to Thompson, Strickland, and Gamble (2007), a strategy entails managerial choices among alternatives and signals organizational commitment to specific markets, competitive approaches, and ways of operation.

Clearly, top management designs company's strategies because of two compelling needs. The first is to proactively shape how a company's business will be conducted and the second is that of modeling the independent decisions and actions initiated by departments, managers, and employees across the company into coordinated company-wide game plan. The absence of a strategy means managers have no framework for weaving many different actions and initiatives into a cohesive whole; and no one plan for uniting cross-department operation into a team (Grant, 2003).

Strategic decisions are often non-routine, ill structured, and very important to the enterprise in which top management usually plays a central role. Wu et al (2017) opined that strategic decision making, as a key for sustainability, is incremental and interdependent, shaped by a variety of contextual influences arising from the past events, present circumstances, and perspectives of the future. Company's strategies consist of competitive moves and approaches management have developed to attract and please customers, conduct operations, grow the business and achieve performance objectives (Gamble & Thomson, 2009).

## 1.2 Top Management Characteristics

Studies on influence of TMC on strategic decision have not been adequate in terms of outcome. For instance, Mohammed (2020) reported inconclusive and controversial submissions between various dimensions of TMC ranging from demographics to heterogeneity or diversity and firm performance. In Sub-Sahara Africa, the few studies that have made efforts to test the effect of managers or executives characteristics on strategic decision making process either produced limited outcomes or provide very narrow explanations. In addition, some of these studies are not done collectively on the characteristics of manager's risk propensity, educational background, age disposition, cognitive complexity and need for achievement. Mahmood (2012a) examined manager's risk propensity and strategic decision making. According to the study, manager's risk propensity have the most explanatory power in decision making, while Ardila et al (2017) posited that decision familiarity and magnitude of impact have positive effect on quality of strategic decision process.

Iederan, Curseu, and Vermeulen (2009) investigated the role of cognitive complexity in strategic decision making and discovered that managers or executives with high cognitive level would have more influence in strategic decision making process. Others also considered the relationship interplay of risk-taking and strategic decision making process. Wally and Baum (1994) affirmed that decision makers' high tolerance for risk and a strong propensity to act promote completion of strategic decision making process. Thus, fast strategic decision making requires executives to possess the confidence to act. Yoon, Kim, and Song (2016) observed a positive influence of top management team's functional diversity on decisions relating to organizational creativity.

Strategic choice is partly predicted by top management characteristics (Hambrick, 2007; Peng-Yu, 2018). TMC according to Tacheva (2017) include multiple dimensions, and Mahmood (2012a) outlined TCM to include risk propensity, education and experience, consensus, age, cognitive complexity, cognitive diversity, and need for achievement. However, this study is interested in risk propensity, education, age, cognitive complexity, and need for achievement which serves as a control variable.

## Risk Propensity

Strategic decisions are complex and cumbersome managerial task which are usually undertaken by top executives in the organization. Considering the complexity of strategic decision making, manager's risk propensity becomes needful. Risk propensity is the degree to which a manager possesses the confidence to act even in a risky situation (Mahmood, 2012a). Manager's risk propensity was not found to be a significant moderator between objective criteria and strategic decision making by Hitt and Tyler (1991). Papadakis (1998) also noted that, there is a negative relationship between executives' risk propensity and decision making. Nooraie (2011) opined that manager's risk propensity is negatively associated with rationality of the strategic decision making process; but positively associated with decentralization and politicization in the decision making process. Kauer et al (2007) observed that action orientation or risk disposition impacts clearly on decision speed. Kessler, Korunka, Frank and Lueger (2012) did not find risk taking to affect survival but affects founding success. Wu et al (2017) found risk perception to be a mediating factor in top management team and strategic decision making. In the light of the foregoing, this study hypothesizes that, *H1: There is no significant relationship between top manager's risk propensity and strategic decision making.*

### **Educational Background**

Several studies have posited that the levels of successes recorded by most organizations in terms of strategic decision performance are connected to managers' formal educational background. Robert and Matthew (2001) submit that the educational level of the new venture entrepreneur strongly relates with the venture's performance. Dickson, Solomon, and Weaver (2008) report a positive link of entrepreneurial education with entrepreneurial choice and success. On the other hand, Cho and Lee (2018) did not find any relationship between entrepreneur's educational level and the performance of the enterprise as well as entrepreneurial orientation. Michelon, Lunkes, and Bornia (2020) emphasized that, the level of education, but not the type of manager's education is negatively related to corporate indebtedness while the years of service (tenure) of top management team has a reversed U-shape relation with the decision-making process in terms of firm internationalization (Peng-Yu, 2018). Stoffers, Neessen, and Dorp (2015) suggested that individual characteristics affect the heuristics and cognitive maps used to make strategic decisions. Qi, Lin, Tian and Lewis (2018) found educational level to significantly relate with earnings management strategy decision of managers. From the foregoing, the hypothesis put forward is, *H2: There is no significant relationship between top manager's educational background and strategic decision making.*

### **Age Disposition**

One attribute of a strategic decision maker which has been said to be instrumental in determining information processing ability is age (Omarli, 2017). It has been asserted that age frequently contribute heavily to both the manner in which a decision is reached and decision itself. Michelon et al (2020) found that an executive's age is related to risk propensity which affects decisions; and a positive association was found between age and capital structure decision. For instance, younger executives are more likely to make risky decisions than older ones. Felicio (2013) found that in addition to the level of education and experience, manager's age significantly moderate the relationship between objective criteria and strategic evaluation of recruited candidate including strategic option. Within the typical range of managerial ages and in a task reflecting the response freedom of managerial jobs, age was found to be associated with decision making performance. Qi et al (2018) reported that age has significant association with decision on earnings management while Evert, Payne, Moore, and Mcleod (2018) found it to influence organizational virtue orientation. Thus, it is hypothesized that, *H3: There is no significant relationship between top manager's age disposition and strategic decision making.*

### **Cognitive complexity**

Curseu, Vermeulen, and Bakker, (2008) posit that the success of entrepreneurial firms is to a large extent dependent upon strategic decision-making practices. Strategic decision making is an intentional and goal directed cognitive process of selecting one of several available alternatives. Cognitive complexity is a variable that defines the structural complexity of an individual's cognitive system. Managers with greater cognitive complexity have greater discretion in strategic choice. Peng-Yu (2018) averred that the experience of top management team is positively related to administrative complexity and found that international experience of top management team has positive influence on firm's internationalization. Cognitive complexity is seen as a domain-specific information processing variable strongly connected to expertise. Individuals with a high level of cognitive complexity possess a high differentiated, articulated, and integrated conceptual system along with flexible information processing rules concerning data from a particular domain. Against this backdrop, the hypothesis put forward is, *H4: There is no significant relationship between top manager's cognitive complexity and strategic decision-making.*

### **Need for Achievement**

This is an individual's desire for significant accomplishment, mastering of skills, control, or high standards. Miller, Burke, and Glick (1998) affirmed that managers' need for achievement positively influenced the extent of the rationality in the decision making process while Papadakis et al (1998) did not find such

relationship to exist. Managers with high need for achievement perform better on the job than those with moderate differences in achievement motivation. Need for achievement has a strong desire to assume personal responsibility for performing a task or finding a solution to managerial issues as it affects decision speed (Kauer et al, 2007). It propels the manager to explore all avenues to get solutions and answers to strategic questions. On this note, this study adopts need for achievement as a control variable as it tends to moderate the relationship between top management characteristics and strategic decision within organizations.

## **2. THEORETICAL FRAMEWORK**

This study adopts the upper echelons theory of strategic studies and decision making. The theory was proposed by Hambrick and Mason (1984). It postulates that executives make decisions that are consistent with managerial background characteristics (Mbaya, 2017) which by extension consist of the elements of psychological characteristics and observable experiences. Hambrick (2007), Qi et al (2018) posit that managers' education experiences, cognitive complexity, need for achievement, risk propensity, values and personalities, among others, greatly influence their interpretation of the situation they face and in-turn affect their choices.

Furthermore, the upper echelons theory highlighted that executives' cognitive base, demographic characteristics, resources utilization, and quality of decisions and capabilities influence the strategic choice and corporate performance (Koskey & Rotich, 2019). Consequently, corporate performance can be explained by different characteristics of top management. With the upper echelon theory, top management as humans cannot depict the whole complexity of a situation when scanning the competitive environment. As a result of selective perceptions, they can only notice and register a certain amount of all information available to them and the interpretation of information is based on their background characteristics. The theory focused on the characteristics of the top management which they believed yield stronger organizational outcomes than the individual executive. Importantly, Wasike, Ambula, and Kariuki (2016) recognized the inadequacy of using demographic characteristics as proxies of top management cognitive frames. The upper echelons theory postulates that top managers in the organization make decisions that are consistent with managerial background characteristics.

## **3. MATERIALS AND METHODS**

### **3.1 Research Approach**

From the analysis of alternative research approaches, a field survey seems to be the most appropriate methodological choice. Again, this study is field study of real strategic decision-making process rather than stilted setting. Top management characteristics and its dimensions vary from individual to individual therefore making any aggregation (for organization level analysis) meaningless. For this reason, the unit of analysis is the individual level (characteristics). In addition, it has been shown that individuals and firms used different processes when making different types of strategic decisions.

### **3.2 Study Population and Sample**

The study population was drawn from a list of three (3) selected government owned organizations and constituted boards and management staff in Delta State. These organizations are the Delta State Board of Internal Revenue (DSBIR), Delta State Polytechnic Ozoro (DSPZ), and Delta State Oil Producing Areas Development Commission (DESOPADEC). The population of the selected organizations is summarized thus:

Table 1: Population Spread of the Study

S/N	Establishment/Board	Labels	Population
1	Delta State Board of Internal Revenue	DSBIR	50
2	Delta State Polytechnic, Ozoro	DSPZ	100
3	Delta State Oil Producing Area Development Commission	DESOPADEC	100
<b>TOTAL</b>			<b>250</b>

Source: Fieldwork, 2021

A sample size of 158 was drawn with the aid of Yamane (2012) formula.

### 3.3 Questionnaire Design and Administration

In order to contribute to cumulative research findings, and based on the review of literature, several items were designed and used in this study. All items were rated on a 4-point Likert scale. Too few point, as well as, too many points may result in bias outcomes. Literature indicates that, a 4 or 5 point scale provides adequate and satisfactory outcomes (Sekaran, 2000). A total of 158 copies of questionnaire were administered to top management staff and Executive Directors since strategic decisions are usually made by top and senior management staff.

### 3.4 Distribution/Collection of Questionnaire and Compilation of Sample Values

Table 2: Questionnaire Administration and Collection

S/N	Labels	Questionnaire Administered	Questionnaire Retrieved	Sample Proportion	% of Responses	Sample Value
1	DSBIR	32	29	20	91	32
2	DESOPADEC	63	59	41	94	63
3	DSPZ	63	57	39	90	63
<b>TOTAL</b>		<b>158</b>	<b>145</b>	<b>100</b>	<b>92</b>	<b>158</b>

Source: Fieldwork, 2021

From Table 2, it is clear that the instrument administered recorded various degree of success. While 91% retrieval success was recorded from Board of Internal Revenue, a 94% response level was recorded for Delta State Oil Producing Areas Development Commission. Recorded response level for Delta State Polytechnic Ozoro was 90%.

### 3.5 Variables and Measures

Questionnaire for the study consists of items measuring the various variables of interest. These variables are the independent variable (top management characteristics) and the dependent variable (strategic decision making). In order to operationalize the study variables, the concept of each variable was broken down into appropriate and clear dimensions. These are then translated into observable and measurable elements so as to form an index of measurement of the concept. The independent variables are: risk propensity of executive, educational background, age, cognitive complexity while need for achievement is the control variable. Strategic decision making dimensions are; goals/objectives commitment, organization business growth plans, organization strategic fit, value chain, and long-term goals pursuit. To test and eliminate ambiguous or bias items and to guarantee that the items in the questionnaire were understood by the respondents, a pilot study was conducted in line with the prescription of prior studies (Sekaran, 2000) and a reliability analysis test was thereafter conducted using the Cronbach alpha test. The result of the test is presented in Table 3.

Table 3: Results for Reliability Test

Variable	Ave Interim Cov.	Items in Scale	Alpha Value	Remarks
Risk Propensity	0.3305	5	0.8737	Reliable
Educational Background	0.2937	5	0.8699	Reliable
Age Disposition	0.5830	7	0.9431	Reliable
Cognitive Complexity	0.5732	6	0.9385	Reliable
Need For Achievement	0.6352	4	0.9132	Reliable
Strategic Decision Making	0.6669	4	0.9213	Reliable
<b>Overall</b>	<b>0.3020</b>	<b>31</b>	<b>0.9548</b>	<b>Reliable</b>

Source: Fieldwork, 2021

From Table 3, it is obvious that Alpha values ranged from approximately 0.87 to 0.94. This means that the research instrument is reliable having obtained values above the minimum threshold of 0.50 (Gay & Airasian, 2003; Nwanzu & Babalola, 2020).

### 3.6 Method of Data Analysis

In this study, both the descriptive and inferential statistics were used in the analysis of the primary data. Analysis was based on computations for the mean, standard deviation and the output from the regression analysis. In applying the regression technique, the dimensions of the dependent variable (strategic decision making) were regressed against the dimensions of the independent variables (risk propensity, educational background, age disposition, and cognitive complexity). Notably, the need for achievement was taken as a control variable that moderated the relationship between the dependent variable and the explanatory variables.

Additionally, in analyzing the responses to each of the questionnaire items, the four point Likert scale of strongly agree, agree, disagree and strongly disagree was adopted and the basis of decision on each item was the arithmetic mean. A mean rating of 2.50 and above suggests that majority of the respondents support the view (strongly agree/agree), whereas, the contrary (disagree/ strongly disagree) is the case where the mean rating obtained is a value below 2.50.

### 3.7 Model Specification

The composite model of the study is given as:

$$\text{Strategic Decision Making} = f(\text{Top Managements' Characteristics}) \quad \text{eq. 1}$$

To test the hypotheses, the following models were developed:

#### Model 1

$$\text{STRATDM} = f(\text{RISK\_PROP, NEED\_ACHV}) \quad \text{eq.2}$$

$$\text{STRATDM} = \alpha_0 + \beta_1\text{RISK\_PROP} + \beta_2\text{NEED\_ACHV} + \epsilon \quad \text{eq.3}$$

#### Model 2

$$\text{STRATDM} = f(\text{EDUC\_BACK, NEED\_ACHV}) \quad \text{eq.4}$$

$$\text{STRATDM} = \alpha_0 + \beta_1\text{EDUC\_BACK} + \beta_2\text{NEED\_ACHV} + \epsilon \quad \text{eq.5}$$

#### Model 3

$$\text{STRATDM} = f(\text{AGE\_DISP, NEED\_ACHV}) \quad \text{eq.6}$$

$$\text{STRATDM} = \alpha_0 + \beta_1\text{AGE\_DISP} + \beta_2\text{NEED\_ACHV} + \epsilon \quad \text{eq.7}$$

#### Model 4

$$\text{STRATDM} = f(\text{COG\_COMP, NEED\_ACHV}) \quad \text{eq.8}$$

$$\text{STRATDM} = \alpha_0 + \beta_1\text{COG\_COMP} + \beta_2\text{NEED\_ACHV} + \epsilon \quad \text{eq.9}$$

#### Variable Description

STRATDM	=	Strategic Decision Making
RISK_PROP	=	Risk Propensity of Top Managers
EDUC_BACK	=	Educational Background of Top Managers
AGE_DISP	=	Age Disposition of Top Managers
COG_COMP	=	Cognitive Complexity of Top Managers
NEED_ACHV	=	Need For Achievement of Top Managers

$\alpha_0, \beta_0$  = Regression coefficients of the model  
 $\epsilon_t$  = Error term

## 4. RESULTS AND DISCUSSION

### 4.1 Analysis of Demographic Characteristics of Respondents

The demographic features reveal that a total of 93 (64.14%) of the participants were males while their female counterpart stood at 52 representing 35.86% of the total respondents. This trend may be attributable to the fact that public service and white-collar jobs are dominated by males. Regarding marital status, it was observed that 126 (86.90%) of the respondents are married, 18 (12.41%) are single while one (1) representing 0.69% of the total respondents is divorced. This analysis depicts that majority of the respondents are married.

Furthermore, the data on age distribution indicates that respondents between the age brackets of 18 – 25 years are 5 (3.45%), while 27 (18.62%), 49 (33.79%), and 53 (36.55%) are within the age brackets of 26-35years, 36-45years and 46-55years respectively. Respondents of 56 years and above are 11 (7.59%). With respect to educational qualification, the obvious is that most of the respondents 86 (59.31%) are at least, first degree holders, while 26 (17.93%) had Masters Degrees and above. These results are clear indications that the respondents were not only matured, but were educated and knowledgeable.

As for their work status, majority of the respondents (73.10%) are full-time staff whereas, the number of part-time and contract staff stood at 34 (23.45%) and 5 (five) (3.45%) respectively. Also, information on work experience revealed that 14 (9.66%) of the respondents had worked for at most 12 months, 43(29.66%) had been on their respective job for a period of about 1-5years, 35 (24.14%) had worked for about 5-10years whereas, 53 (36.55%) had worked for over 10years.

### 4.2 Analysis of Questionnaire Items

#### Risk Propensity

Table 4: Strategic Decision Making and Risk Propensity of Top Managers

a. S/N	b. Questionnaire Items	N	Mean	Std. Dev	Remarks
1	It is believed that manager's risk propensity have explanatory power or influence in strategic decision making process.	145	3.16	0.77	Strongly Agree
2	Manager's risk propensity manifest in his desire to pursue organization's goal and objective commitment to key stakeholders.	145	3.18	0.75	Strongly Agree
3	Manager's risk propensity makes him undeterred in his commitments towards the achievement of organization business growth plans.	145	3.20	0.74	Strongly Agree
4	Managers that possessed considerable level of risk propensity tend to act better in the pursuit and realization of organization value chain strategic-fit.	145	3.19	0.78	Strongly Agree
5	Manager's risk propensity act as propellants to strategically pursue long-term organizational goals.	145	3.26	0.72	Strongly Agree

Source: Fieldwork, 2021

The mean response and their respective standard deviations for the questionnaire items designed to elicit information on the effect of risk propensity on strategic decision making of top managers is presented in Table 4. As observed, the standard deviation obtained for all items in the table ranged from 0.72 to 0.78 which suggests that the generality of responses were not too far from the overall mean response. Explicitly, the mean responses obtained for all 5 items were above 3.00 suggesting that the respondents strongly believed that the dimensions of risk propensity have the capacity of affecting strategic decision making of top managers of organisations.



## Educational Background

Table 5: Educational Background and Strategic Decision Making of Top Managers

bb. S/N	cc. Questionnaire Items	d. N	Mean	Std. Dev	h. Remarks
6	It is believed that managers' education background do improve their strategic decision making ability and quality.	145	3.28	0.81	Strongly Agree
7	It is argued that managers educational background contribute to their commitment towards organization goals and objectives commitment to key stakeholders.	n.145	3.11	0.63	Strongly Agree
8	It is said that managers with formal education background are better equipped to fast track the realization of organization's growth plans.	145	3.21	0.72	Strongly Agree
9	It is believed that successes recorded by most business organization in terms of strategic decisions performance in area of achieving business value chain strategic-fit are traceable to managers' formal education background.	145	3.17	0.68	Strongly Agree
10	It is believed that managers with formal education background will do well in the pursuit of organizational long-term goals than those without formal education.	145	3.28	0.74	Strongly Agree

Source: Fieldwork, 2021

Table 5 presents the mean response and the standard deviation for the questionnaire items designed to ascertain the effect of educational background on strategic decision making of top managers. With the results above, it is evident that the values obtained with respect to the standard deviation ranged from 0.63 to 0.81. The low values of standard deviation suggest that the generality of responses were not too far from the overall mean response. However, the mean responses obtained for all 5 items were above 3.00 suggesting that the respondents strongly agree with the view that the dimensions of educational background possibly affect strategic decision making of top managers.

## Age Disposition

Table 6: Age Disposition and Strategic Decision Making of Top Managers

ccc. S/N	ddd. Questionnaire Items	ee. N	Mean	Std. Dev	Remarks
11	It is believe that as mangers grow in age and on the job, their strategic decision-making interest nose dive as well.	145	2.96	1.02	Agree
12	It is believed that age is associated with significant decline in cognitive functions but do not translate into poorer decision making ability.	n.145	2.97	0.92	Agree
13	It is said that for older managers, age contribute positively to their commitments towards organization goals/objective commitments than younger adults managers.	145	2.99	0.90	Agree
14	It is believed that manager's age improves quality of strategic decision making in areas such as organization business growth plans.	v. 145	2.98	0.81	Agree
15	Strategic decisions are better made from experience hence age is a significant factor.	z. 145	2.97	0.92	Agree
16	It is believe that successes recorded by most organization in terms of strategic decisions performance in area of achieving business value chain strategic-fit are traceable to managers' age and experience.	ld. 45	2.95	0.86	Agree
17	It is believed that older managers will do well in the pursuit of organization long-term goals than younger managers.	ih. 45	2.97	0.94	Agree

Source: Fieldwork, 2021

Table 6 presents results with respect to the mean response and the standard deviation for the questionnaire items on the effect of age disposition on strategic decision making of top managers. No doubt, it is also evident that the values obtained for the standard deviation of the questionnaire items presented ranges from 0.81 to 1.02. This simply means that the responses made by the participants on these items were not too far from their respective overall mean response. Noteworthy, the mean responses obtained for all seven items ranges from 2.95 to 2.99, thereby suggesting that the respondents agreed that the dimensions of age disposition may possibly affect strategic decision making of top managers.

### Cognitive Complexity

Table 7: Cognitive Complexity and Strategic Decision Making of Top Managers

III. S/N	Questionnaire Items	Mean	Standard Deviation	Remarks
18	It is believed that manager's cognitive ability help to make choice at a glance from situations where there are many alternative/or where attributes of alternatives are difficult to understand.	2.91	0.10	Strongly Agree
19	Cognitive complexity has a positive influence on quality and effectiveness of strategic decisions.	2.79	0.92	Agree
20	It is believed that managers' with greater cognitive complexity do have increased desires to pursue organization's goal and objective commitment.	2.93	0.86	Agree
21	It is believed that successes recorded by most organizations in terms of strategic decision performance in areas such as pursuit of business growth plans are connected to managers' cognitive ability.	2.90	0.90	Agree
22	It is believed that successes recorded by most organizations in terms of strategic decision performance in area of achieving business value chain strategic-fit are traceable to managers' with high cognitive ability.	2.94	0.90	Strongly Agree
23	It is believed that managers with cognitive complexity will do well in the pursuit of organization long-term goals.	2.95	0.96	Agree

Source: Fieldwork, 2021

Table 7 presents result on the effect of cognitive complexity on strategic decision making of top managers. The values obtained for the standard deviation of the questionnaire items range from 0.79 to 0.96. This low dispersion means that the responses were not too far from their respective overall mean response. It suggests therefore that the respondents agreed that the dimensions of cognitive complexity may possibly affect strategic decision making of top managers.

### 4.3 Test of Hypotheses and Discussion

#### Test of Hypothesis 1 using Model 1

Table 8: Model Summary for Test of Hypothesis 1

STRATDM	Coeff.	Std.Err.	T	P>  t	Decision
RISK_PROP	-0.1023	0.0490	-2.09	0.039	<b>Reject</b>
NEED_ACHV	0.9385	0.0361	25.98	0.000	
_CONS	0.4374	0.1778	2.46	0.015	
Obs.	145				
F(2, 142)	340.79				
Prob > F	0.0000				
R-Squared (R <sup>2</sup> )	0.8276				
Adj. R <sup>2</sup>	0.8252				

Source: Fieldwork, 2021

As indicated in Table 8, the t-values obtained are -2.09 and 25.98 with corresponding p-values of 0.039 and 0.000 respectively. This result suggests that on an individual note, risk propensity and need for achievement have significant influence on strategic decision making. With R<sup>2</sup> of 0.8276, it is evident that the explanatory variable (risk propensity, as moderated by need for achievement) explains about 82.76% of the variations in the levels of strategic decision making of organizations. The values for standard errors are 0.0490 and 0.0361. These low values according to Jeroh (2019) are indications that the models specified in the study alongside the regression outcomes are not only precise, but very reliable. Furthermore, the F- value for the overall model is 340.79 with a corresponding p-value of 0.0000. With this result, the null hypothesis 1 of this study is thus rejected. This means that there is a significant relationship between top manager's risk propensity and strategic decision making. The above result is in consonance with the findings of prior researches (Mahmood, 2012a; Wu et al, 2017).

#### Test of Hypothesis 2 using Model 2

Table 9: Model Summary for Test of Hypothesis 2

STRATDM	Coeff.	Std.Err.	T	P>  t	Decision
EDUC_BACK	-0.0292	0.0518	-0.56	0.574	<b>Reject</b>
NEED_ACHV	0.9260	0.0361	25.66	0.000	
_CONS	0.2428	0.1979	1.23	0.222	
Obs.	145				
F(2, 142)	329.42				
Prob > F	0.0000				
R-Squared (R <sup>2</sup> )	0.8227				
Adj. R <sup>2</sup>	0.8202				

Source: Fieldwork, 2021

As indicated in Table 9, the t-values obtained are -0.56 and 25.66 with corresponding p-values of 0.574 and 0.000 respectively. This result suggests that education background alone does not have significant influence on strategic decision making of top managers. However, need for achievement was found to exert significant influence on strategic decision making. Notwithstanding the above, with an adjusted R<sup>2</sup> of 0.8202, it is evident that a combination of the explanatory variable (educational background, as moderated by need for achievement) explains about 82.02% of the variations in the levels of strategic decision making of organizations. The values for standard errors are 0.0518 and 0.0361 for EDUC\_BACK

and NEED\_ACHV respectively. These low values further suggest that the model is precise. Furthermore, the F-value for the overall model is 329.42 with a corresponding p-value of 0.0000. With this result, the null hypothesis 2 of this study is thus rejected. This means that there is a significant relationship between top manager's educational background and strategic decision making tendencies in the presence of need for achievement. This finding corroborates the position of earlier studies (Robert & Matthew, 2001; Dickson et al, 2008; Mahmood, 2012b; Nooraie, 2014).

### Test of Hypothesis 3 using Model 3

Table 10: Model Summary for Test of Hypothesis 3

STRATDM	Coeff.	Std.Err.	T	P>  t	Decision
AGE_DISP	0.2791	0.0741	3.76	0.000	<b>Reject</b>
NEED_ACHV	0.6960	0.0610	9.96	0.000	
_CONS	0.0308	0.1146	0.27	0.789	
Obs.	145				
F(2, 142)	368.40				
Prob > F	0.0000				
R-Squared (R <sup>2</sup> )	0.8384				
Adj. R <sup>2</sup>	0.8361				

Source: Fieldwork, 2021

In order to test Hypothesis 3 of this study, the data obtained for the various dimensions of age disposition was regressed against those of strategic decision making. Need for achievement was also introduced as a control variable in line with model 3. Table 10 presents the results for the test. From the results, the t-values obtained for AGE\_DISP and NEED\_ACHV are 3.76 and 9.96 with corresponding p-values of 0.000 respectively. This result suggests that age disposition and need for achievement have significant influence on strategic decision making. With an adjusted R2 of 0.8361, it is evident that the explanatory variable (age disposition, as moderated by need for achievement) explains about 83.61% of the variations in the levels of strategic decision making of organizations. The standard error values are low indicating reliable model. Furthermore, the F-value for the overall model is 368.40 with a corresponding p-value of 0.0000. With this result, the null hypothesis 3 of this study is thus rejected. This means that there is a significant relationship between top manager's age disposition and strategic decision making tendencies. This finding is in line with the position of extant studies ( Nooraie, 2001; 2011; Michelon, 2020).

### Test of Hypotheses 4 using Model 4

Table 11: Model Summary for Test of Hypothesis 4

STRATDM	Coeff.	Std.Err.	T	P>  t	Decision
COG_COMP	0.4302	0.0887	4.85	0.000	<b>Reject</b>
NEED_ACHV	0.5559	0.0831	6.69	0.000	
_CONS	0.0159	0.1105	0.14	0.886	
Obs.	145				
F(2, 142)	394.66				
Prob > F	0.0000				
R-Squared (R <sup>2</sup> )	0.8475				
Adj. R <sup>2</sup>	0.8454				

Source: Fieldwork, 2021

The result of the test of Hypothesis 4 is as presented in Table 11. The coefficient of the independent variable (COG\_COMP) is positive (0.4302) meaning that it influences decision making. The t-values obtained for COG\_COMP and NEED\_ACHV are 4.85 and 6.69 with corresponding p-values of 0.000 respectively. This result suggests that on an individual note, cognitive complexity and need for achievement have significant influence on strategic decision making. With an adjusted R<sup>2</sup> of 0.8454, it is evident that the explanatory variable (cognitive complexity, as moderated by need for achievement) explains about 84.54% of the variations in the levels of strategic decision making of organizations. Furthermore, the F-value for the overall model is 394.66 with a corresponding p-value of 0.0000. With this result, null hypothesis 4 of this study is thus rejected. This means that there is a significant positive relationship between top manager's cognitive complexity and strategic decision making. This position corroborates the findings of extant literature ( Kilduf, Angelmar & Mehra, 2000; Iederan et al, 2009).

### CONCLUSION AND PRACTICAL IMPLICATIONS

Strategic decision making remains one holistic factor that simultaneously affects the enterprise in which they are taken and the society at large. Strategic decision making has therefore attracted several research outcomes and one stream of such prior researches had focused on unveiling the determining factors that explains variations in the level of strategic decision making within firms. No doubt, prior empirical evidence in this area is either limited or showed contradictory results. This study therefore sets out to examine measure of top management characteristics in order to establish the extent to which they exert influence on strategic decision making within organizations. Research hypotheses were developed in line with the study's specific objectives and were tested by means of inferential statistics. Overall, this study found that top management characteristics like risk propensity, age disposition, and cognitive complexity exert significant influence on top managers' strategic decision making.

Consequent on the findings, the following practical implications of the study can be highlighted. Top managers must at all times be ready to embrace risk and efficiently manage same. To this end, risk factors should at all times be monitored so that appropriate response can be made as and when due. Management should also ensure that there are job incentives that will motivate, encourage and retain older top management personnel while simultaneously discouraging job turnover.

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