

**Factors influencing strategic thinking Among Master of Business
Administration graduates in Kenya: A survey of University Campuses in
Nairobi Central Business District**

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Abstract: Master of Business Administration (MBA) has recently gained popularity as a degree program in Kenya, with most of its students and graduates gaining different strategic skills and knowledge as a result. The continued industrial growth and technological advancement has paused a challenge in the management of many organizations calling for need for strategic thinking approaches to address these issues. The purpose of this study was to investigate factors influencing strategic thinking among MBA graduates from Kenyan Universities in Nairobi County. The specific objectives were; to find out the influence of personal attributes, education background, structural characteristics and industrial environment on strategic thinking among MBA graduates from Kenyan Universities. Descriptive survey was employed on a sample size of 54 respondents obtained using snowball sampling method was used. The findings revealed that both personal characteristics ($\beta = -.176$, $p > 0.05$) and education background (beta = $-.071$, $p > 0.05$) constructs did not significantly influence strategic thinking capabilities of the MBA graduates. However, structural characteristics ($\beta = 0.556$, $p < 0.05$) and industrial environment ($\beta = 0.365$, $p < 0.05$) significantly influenced strategic thinking levels among the MBA graduates with structural characteristics having stronger influence. Additionally, it was established that the multiple linear regression model developed for the study could explain approximately 37.9 % of the variations on strategic thinking among MBA graduates from Kenyan universities campuses located in Nairobi County. The study, therefore, recommends that the management of the universities invest in more resources that can make their programs more oriented to strategic thinking. The study also recommends that the universities lecturers should find more ways of enriching the MBA programs by giving the students more assignments that would encourage strategic thinking. It is also recommended that graduates take up assignments in structure design and reorganization especially at small scale level so as to further develop their strategic thinking capabilities.

Key Words: *Personal Attributes, Education Background, Structural Characteristics, Industrial Environment, Strategic Thinking, MBA Graduates*

Introduction

A plan of action which aims to achieve a set goal is called a strategy. Mainardes, Ferreira and Raposo (2014) argues that when a firm tries to gain an advantage over its competitors, it needs a strategy. A strategy generally means differentiating a firm from its competitors (Porth, 2012). The term strategy is derived indirectly from the classic Greek Byzantines of 330AD, which gave the term strategy the meaning of 'general' (Guralnik, 1986). Naser (2015) argues that strategic planning involves development of policies and plans that can aide in management of threats and opportunities as well as strength and weaknesses of a business. Design and development of business strategies is referred to as strategic planning according to Mbwaya (2014). Business enterprises, public sector and the private sector, have embraced the idea of strategic planning in order to enhance their organizational performance. Generally, strategic planning is the first stage in the strategic management process before other stages such as implementation and evaluation follow. According to Tampoe and Macmillan (2014), strategic planning system guides the formulation and implementation of strategies in the organization. However, there is a need for a conducive organizational culture and internal environment in order for the strategy to go through, otherwise, it is imminent to fail.

Otieno (2010) considers strategic management to be very important to the performance of commercial enterprises because it sets the direction to be followed in achieving the organization's goals and objectives, react to fluctuations in the environment regarding the customers' demands and technology. On the other hand, Kasekende (2013) argues that strategic management is linked to effective and efficient resource usage since it presents a platform for planning on the usage of resources in a cost efficient manner to achieve optimal results. In today's turbulent business environment, ability to formulate the future and position the organization or business unit to strategically position with competitive advantage of the potential threats for the survival of an organization strategic thinking motive is of significant impact (Sauerhoff, 2014). Business and even non-business organizations are under increasing competitive pressure to perform if they are to survive and remain relevant in the market (Mahdavian, Mirabi, & Haghshenas, 2014). Therefore, managers have to be strategic in every aspect and this implies that strategic thinking must be embedded into the management function of the organization.

Strategic thinking is a key element of strategic management as adopted by many individuals and incorporated in many organizations. Strategic thinking involves the analysis of systems, formulating and formulizing systems as well as procedures of the organization as argued by Conway (2014). Over a period of time, strategic thinking has interchangeably been used with strategic planning which depends heavily on data collection, analysis and operational research techniques. However, Mintberg (1967) one of the pioneer scholars of strategic thinking disagrees with this view arguing instead that strategic thinking is distinct from strategic planning or strategic management (Roeder & Schuurman, 2013). Pisapia (2010) breaks strategic thinking into teachable concepts of systems thinking, reflection, and reframing skills. Strategy implementation on the other hand is concerned with developing organization structures to achieve the strategic choice, ensuring that the activities required to achieve the set strategy are undertaken in the planned manner effectively and well monitored (Rahnama & Rhppeyma, 2015). However, Conway (2014) recognizes that strategy fails even after extensive planning pointing to something amiss in the strategic planning models, that is, strategic thinking.

The Master's in Business Administration is a degree program taught in universities which highly impose knowledge and skills to students which are key for strategic thinking and management at large (Balta, Woods & Dickson, 2010). The MBA program is renowned to equip learners with abilities that enable them to recognize environmental factors affecting a business analyze them critically and respond to them accordingly. Such factors can be changes in the legal operations, financial constraints, changes in the technology and organizational, socio-cultural issues and international trends (Gopalan, 2015). Through its parameters of learning resources, curriculum, instructions and specialization the degree program is of great benefits to its graduates. Most MBA catalogues and academic bloggers consider MBA as training students to see organizations as a whole (system thinking) and to understand how and why a manager can make a difference to the performance of the entire firm (Barbosa & Romero, 2014). In addition, MBA strategic management option is proposed to prepare students to develop and execute business and organizational strategies, create or extend new products in coping with environmental changes, managing mergers, acquisitions and alliances and building organizational capabilities for long term competitive advantage (Dragoni et al., 2011). Hence it is imperative that MBA (through its learning resources and curriculum) is aimed at development of strategic thinking skills necessary for management in the turbulent 21st century.

One of the great benefits of the Master of Business Administration (MBA) is its unique curriculum that sees students study all key areas of business (Lorange, 2015). This includes everything from marketing and finance, to leadership and logistics management. As such, MBA students graduate with a holistic view of the business environment and are able to provide significant value in areas where they previously could not (Herrington, 2010). Every subject encourages strategic thinking through the application of theory in assessments, teaching students the importance of creating business plans, thinking long-term and applying problem solving skills. The MBA helps students see how each business function can work together, and trains them on how they can provide more value in areas outside of their own (Kaplan, 2014). The MBA also trains students to think in multiple time frames, to understand what must be accomplished over time, what has to happen now, and how to execute that plan. It encourages strategic thinking from a whole business perspective, which in turn, sees the business benefit from a more tailored direction.

In Kenya like other countries, MBA is one of the most popular degree programs. The program is such that various specialization options are available to students, including; marketing, finance, accounting, operations, strategic management, HRM, information system, healthcare administration among many. Most MBA requirements are course work and a research thesis/project and takes two academic years. The basic requirements for most MBA programs in Kenya are at least upper second class degree in business related field or its equivalent, or lower second classes in a business related degree with at least two years' work experience or equivalent (Katulwa, 2015). However, most of the MBA programs in Kenya and beyond have not embraced the best practices that can enable learners acquire techniques for basing their decisions and actions on careful analyzed pertinent data rendering them without any leadership philosophy for any future responsibilities that require strong ethical appreciations (Omboi & Mucai, 2013).

This is because of rapid catch up to the changing environment by the business schools which regularly change their programs. On the other hand, many business schools have continued to offer the traditional management education which was aimed in development of functional knowledge and skills as observed by Lorange (2005). Syllabus revision is hence called for to make most MBA programs relevant to what managers need to succeed in today's business. According to Katulwa (2015) there are largely five private universities - United States International University, Kenya Methodist University, Daystar university, Strathmore university and Africa Nazarene University- and five public universities - University of Nairobi, JKUAT, Moi University, KU and Egerton University-offering MBA strategic management courses in Kenya. However, the quality of their graduates in terms of their strategic thinking capabilities has not been investigated so far especially at present when many organizations both local and international are seeking strategic thinking managers to reengineer and reposition them competitively in the market.

Sstatement of the problem

As a management program, MBA caters for a variety of management needs for both profit and non-profit organizations world over. Its eligibility requirements often not constrained by undergraduate specializations like other graduate level programs make it attractive as postgraduate option for many people (Casey & Goldman, 2010). As a result, the program draws students from virtually all disciplines who seek to acquire or further their management qualifications. It also offers various specializations tailored to meet the industry requirements. The program also has ingrained in it various aspects of strategic management in even for those who do not pursue strategic management as a specialization (Gallimore, 2015). However, question remains as to whether these programs impart or enhance strategic thinking capabilities among graduates. Kenya is one of the biggest economies in the region and a competitive education system. Therefore, the country leverages its socio-economic performance on its robust human resource especially those with post graduate qualifications-mostly MBA- most of who occupy managerial positions and as such are involved in strategy development and implementation in these organizations. Thus, it is important to examine and enhance the quality of the country's MBA graduates and this can be done not only by using parameters such as placement, but also other forms of evaluation that determine whether they are indeed equal to the task such as strategic thinking capabilities. In the same vein, it is also important to establish what are underlying factors affecting their strategic thinking dispositions. Therefore, study seeks to examine factors that influence strategic thinking among MBA graduates from Kenyan Universities in Nairobi County.

Objectives of the Study

- i. To determine the influence of personal attributes on strategic thinking among MBA graduates from Kenyan Universities in Nairobi County.
- ii. To find out the relationship between Education Background and strategic thinking among MBA graduates from Kenyan Universities in Nairobi County.
- iii. To examine the influence of structural characteristics on strategic thinking among MBA graduates from Kenyan Universities in Nairobi County.
- iv. To establish the relationship between industry environment and strategic thinking among MBA graduates from Kenyan Universities in Nairobi County.

Theoretical Literature Review

Mintzberg's Cognitive School

Mintzberg's Cognitive School was proposed by Mintzberg, Lampel and Ahlstrand, (1998). According to the cognitive school of thought, strategy is a cognitive process in the mind of the one planning the strategy. The school argues that a strategy is intended to cope with the environment (mapping of reality and adapting to it) or create an environment (creative interpretations of external environmental changes and influencing them in favor of the organization). In the end, strategies emerge as concepts, schemas of thoughts and frames of reality. Due to experience, accumulated through familiarity, strategy making becomes easier since it can be made through internal cognitive maps instead of relying on external information and data or even consultants (Mintzberg *et al.*, 1998). Cognition also enables the human mind to take in information provided by the outside environment and interprets it according to the mental frames that exists, and the environment here may be as perceived by the decision maker based on the ability to predict future external changes or enacted- depicting what human agents of the organization believe. In cognitive school, strategy formulation and implementation takes reframing abilities by considering strategy formulation to happen in the strategist mind in a process that is more or less a thought process and not fixed position. It also holds that strategy formulation and implementation is an ongoing process whereby the firm keep learning from the previous implementation actions and the strategy is left open so as to incorporate any incoming changes.

In addition, strategy formulation and implementation in cognitive school takes system thinking approach by seeing organization as a set of sub-systems existing in a super system (business environment). That being the case, the organization relies on its environment to make key strategic decisions and hence the managers must be in a position to read the environment and thereafter align their strategies accordingly in what is termed as boundary management. The strategy therefore exists in the mind of the strategist in form of a long term vision based on anticipating changes in the future. This study was used to establish whether the MBA programs had any considerable influence in helping graduates develop or enhance their cognitive abilities necessary for strategic thinking.

Upper Echelons Theory

Hambrick and Mason (1984) proposed the theory. It argues that the top executives idiosyncrasies are reflected by the strategic choices they make because strategic choices have large behavioral component. The theory further posits that the cognitive bases and values of the decision makers can distort their perceptions thus affecting their strategic choices. To infer the psychological cognitive bases and values of the top executives, then observable demographic characteristics can be used. It is easy to predict top executive manager's strategies based on demographic data involving age, career experience, their education level, functional tracks, factors such as their socioeconomic roots as well as their financial positions.

Based on arguments by theorists and strategists, it was concluded that top executives make strategic choices based on their own experience and not by rational thinking (Hambrick & Mason, 1984; Schwenk, 1988; Walsh, 1989). This is considered risky since they may not interpret the information about the industry correctly or make use of the information sufficiently (Duhaime & Schwenk, 1985). This theory was used to examine how demographic factors- in this case, personal and education background characteristics-affected the strategic thinking process of management graduates. It was used to explain the deviations from expected practice of strategic

thinking among these individuals.

Behavioral Decision Theory

O'Mara and Walsh (1994) and Sebora, Crant and Shank (1990) advanced the theory which had previously been proposed by Tversky and Kahneman (1991). Previously, it was assumed that full and perfect information enabled economic factors to maximize their utility however, with the advent of the theory; the previous concept is violated (Sebora et al., 1990). The incorporation of the theory to strategic decision making literature was based on the early notion by Tversky and Kahneman (1991).

According to Slovic, Fischhoff and Lichtenstein (1990) and Tversky and Kahneman (1983), individuals use heuristics to simplify a decision making process when they are faced with an uncertain or complex problem. Similar arguments are supported by previous studies by Barnes (1984), Kahneman and Tversky (1996) and Schwenk (1988).

Decision makers are able to make accurate evaluations without necessarily reviewing all the information available through the use of heuristics (Ross & Nisbett, 2011; Starbuck & Milliken, 1988). The major activity is integration of pieces of information into a single judgement which forms part of the decision (Hitt & Middlemist, 1979; Mac-Crimmon & Taylor, 1976). However, the heuristics maps of an individual can be affected by their characteristics along the line of cognitive style, demographic characteristics and personality traits. This theory was used in the study to explain likely aberrations from the normative strategic thinking processes observed in the MBA graduates.

Porter's Five Force Model

Michael E. Porter in 1979 proposed the model at the Harvard Business School. The main aim was to enable companies to be able to evaluate the competitiveness of the industry they operated in so as to be able to develop strategies to help them cope (Porter, 2003). The model enables enterprises to critically analyze the most critical forces in the industry (which are five in this case) which affect the firm profitability with an aim of developing strategic thinking skills to manage it. According to Porter (2003), these five forces determine the competition in the industry and thus affect the profits of the players as well as how attractive a market is. Porter (2008) argues that regardless of how attractive a market is, the success of the players is different depending on their selling points, strategies and processes they put in.

Depending with the composition of forces in a given industry, the effect of such forces varies hence it is imperative to have different models for different industries regardless of whether it's the same company competing in different markets. The model hence provides a prerequisite for identifying, critically analyzing and managing these external forces (Grundy, 2006).

To date, despite its criticism, Porter's work remains one of the most important works used for industry analysis. Porter divided the five forces into vertical and horizontal forces whereby the horizontal forces were competition among the players, threat of new entrants and competitive rivalry. On the other hand, the vertical forces were categorized into the bargaining power of both the buyers and the customers. In the present study, the horizontal and vertical forces were considered due to their explanatory power when evaluating the effect of industrial environment characteristics on strategic thinking (Siaw & Yu, 2004). This theory was instrumental in providing insight into how the graduates viewed the industry in terms of the competition.

CONCEPTUAL FRAMEWORK

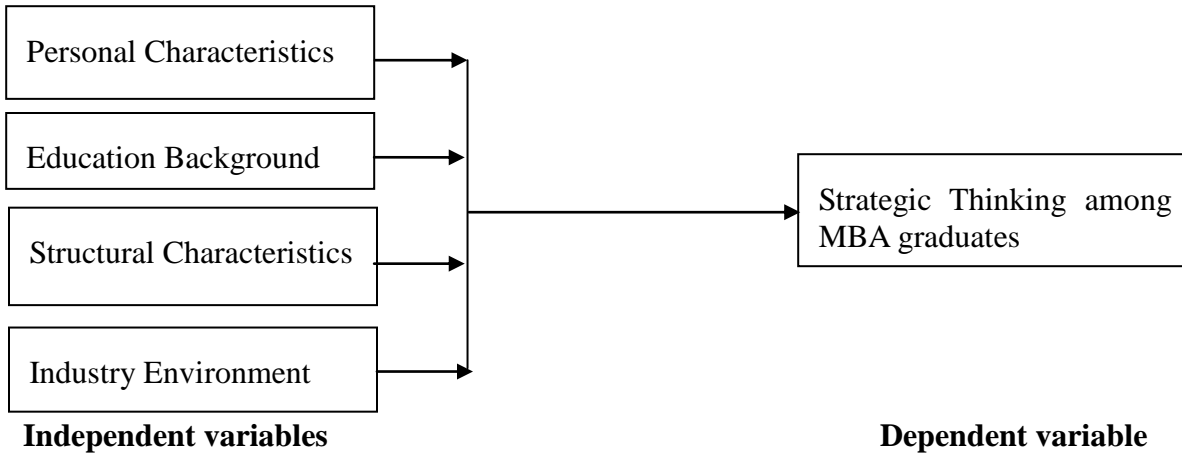


Figure 1: Conceptual Framework
Source: Researcher (2018)

Personal Attributes and Strategic Thinking

Managers play an important role in the future of organizations and their strategic position, their personal traits can have an impact on strategic thinking process. Strategic thinking involves considering an enterprise as a whole with a large number of issues that are in many cases intertwined. Kinuthia (2012) observes that individual persons have diverse personalities attributed by social status, education level, religion, cultural background among others. This drives to a large extent how they perceive, interpret and respond to issues this influences the way they making decisions. Thus, strategic issues are complex and open to multiple interpretations that may change with time. It is argued that issues involve individual interpretation which can be shaped based on the person's attributes like beliefs, roles as well as values and interactions in both the social and political spheres (Fahey et al. 2013; Shankster et al. 2004). Issues are interpreted based on framing of the issue as either positive or negative depending on both the content and context of the issue. (Mittal, Ross et al. 2002 ; Dutton et al. 2006).

With MBA as a degree program, personal characteristics can be acquired, developed or enhanced by provision of relevant skills, knowledge and information through learning, management theories, research and industrial programs which will impact personal traits towards strategic thinking (Casey & Goldman, 2010). Personal characteristics can also be influenced by other factors among them personal environment, previous encounters, experience, current state, duties and responsibilities, goals and objectives of an individual among others (Galimore, 2015). However, there is paucity of empirical literature on the influence of personal characteristics on strategic thinking and, as such, there is still limited information on how the two are related. Nevertheless, some the few empirical studies touching on this aspects of strategic thinking are examined as follows.

Pisapia *et al.*, (2009) used Strategic Thinking Questionnaire (STQ) in an exploratory study comparing the use of strategic thinking skills of aspiring school leaders in Hong Kong, Malaysia, Shanghai and the United States, in a presumption that the use of these skills may vary across cultural norms. They consider strategic thinking skills to be a composition of system thinking, reframing and reflection abilities. In all locations, they found the use of strategic thinking skills-system thinking, reframing, and reflection. Further, they observed that the variance of the use of strategic thinking skills across these different cultures was more a function of age and gender rather than location. Zsiga, (2008) applied the strategic thinking framework to 471 Young Men's Christian Association (YMCA) directors and found significant evidence of a positive relationship between system thinking and leader effectiveness and reframing. Their findings also indicated that the relationship between system thinking and leader effectiveness were moderated only by ethnicity. They also found a direct association between strategic thinking scales with the self-directed learning scale. Karğın and Aktaş (2012) conducted a survey in Turkey to establish the accountant's strategic thinking during IFRS and the New Turkish Commercial Code adoption. The survey did not however establish a connection between the accountants work experience, age, level of education as well as gender and their strategic thinking skills.

In a similar survey, Moammai *et al.*, (2013) while focusing on Iran's Tehran university of medical science, sought to establish a connection between strategic thinking and personal attributes and established no statistical relationship between the two. On the other hand, Sedigheh *et al.*, (2017) did not establish any connection between strategic thinking and personal traits such as age, gender, the marital status and job experience of the study respondents. In regard to work experience, Dragoni *et al.*, (2011) established that there is a relationship between strategic thinking and the top executive's age, work experience as well as functional experience and the type and level of education. The experience among the top executives varied accordingly and that also led to a variation in the strategic decision models. Liu, Wei and Shen (2012) while focusing on the top management team cognitive conflict and performance of Chinese firms, established that experience is also a more practical construct than many of the cognitive abilities that could be related to strategic thinking.

Education Background and Strategic Thinking

Education is a critical part of human capital development and is an important determinant of not only human resource performance output but in shaping the thought process and decision making. As such, the input of the education background of managers has attracted the interest of strategy scholars for quite some time now. For instance, Hambrick and Mason (1984) argued that the level of education of the top management can be used to determine their skills and knowledge base. According to them, both the amount and type of education is important. As a result, it can be argued that different cognitive models should be adopted in making decisions between those with formal education in technical disciplines and liberal arts (Hitt & Tyler, 1991). Consequently, it is now becoming generally accepted that the education level of managers have effect on their strategic decisions. The education level as a construct is perceived differently by various researchers. Hambrick and Mason (1984) linked the level of firm's innovation to the education level of its manager's. It was argued that there was a higher chance of innovation promotion among highly educated managers as compared to managers with lower education levels.

Firms with managers who had less formal education indicated varied performance trends. On the other hand, Hitt and Barr (2009) also supported the argument and indicated that there was a difference in the managerial compensation decisions of managers with formal education as compared to managers without formal education. However, education level has been usually measured via duration of the education in the literature. The studies on the relationship between education level and strategic decisions indicate that education on innovation/ novelty is mostly more effective (Gopalan, 2015). People who have taken more education in terms of year are expected to be more successful in taking rational decisions and analyzing opportunities and risks. Furthermore, Sandelands and Singh (2017) argued that higher education levels helped to shape the training experiences in a more specialized and focused manner hence increasing the conformity to cognitive models hence affecting the strategic choices made.

According to some researchers, the major in the college is important, while the duration of education is more critical according to others (Nooraie, 2012). Hambrick and Mason claim that even though people decide what education to get in childhood being not fully conscious, they make up their minds in line with their education adopting their earlier decisions. Hitt and Tyler (1991) further posit that specifically, there are notable differences in terms of cognition and intuition between engineering graduates and history. Most of the studies though focusing on specializations in education disciplines only examined managers with undergraduate qualifications (Kalhori & Shahhoseini, 2015). They did not focus purely on persons with post graduate qualifications, as such, there is limited information concerning the strategic thinking capabilities of such individuals. In many cases, the MBA degree draws people from different undergraduate and industry backgrounds and the courses are expected to impart on them managerial thinking that they can then apply to their respective fields (Mahdavian et al., 2014). As such, the MBA programs are more preferred since students learn from each other's experience besides appropriate network building.

A study by Prinsloo (2017) established that the level of education was positively related to strategic decision making during financial reporting in that, higher levels favored better decision making. The findings were consistent with scholarly arguments of Papadakis et al.(2008) that higher education levels were positively associated with strategic thinking among the Greek CEOs. Bantel (2008) agreed that when the chief executive officers are more educated, the demand more detailed information for strategic decision making as compared to less educated CEOs. A study by Alam (2013) among the Swedish managers, examined strategic decision making process and revealed that indeed the managers intuitively made decisions. Furthermore, their level of education played a role in decision making process. The study further indicated that regardless of the education level of the managers, one more thing was necessary. They need the ability to develop instincts in the analytical process in order to come up with good decisions. The study, though, largely focused on strategic decision making and did not delve much into strategic thinking.

A study by Sandelands and Singh (2017) examined the strategic thinking behavior of managers and executives drawn from various European and Asian Countries. The study's main focus was to establish whether there were any significant any differences in strategic thinking ability between engineers and non-engineers. The study used a Cognitive Process Profiling (CPP) to assess the strategic thinking levels of the respondents and the findings revealed no difference between the cohorts that participated in the study. It was concluded that regardless of the training, an engineer or a non-engineer, did not impact on strategic thinking thus discounting the effect

which specialization had on strategic thinking. In another study, Balta, Woods and Dickson (2010) established whether a relationship existed between the TMT characteristics and their strategic thinking ability among the companies listed in Greece's Athens Stock Exchange and found absence of a significant relationship.

Structural Characteristics and Strategic Thinking

The use of innovative thinking is a reflection of the imaginations of alternatives and the chance of revealing such possibilities. Innovative thinking according to De Bono (2006) helps an individual to fully utilize the information at their disposal. Therefore, Heraculous (2010) posited that strategic thinking is vital in shaping the views of individuals regarding the structure of the organization as well as changes regarding the organization's strategic alignment. The formulation of an organization's vision, the implementation plan and the capability to realize the vision refers to as strategic alignment of an organization (Senge, 2006). That being the case, Sloan (2006) argues that it is important for the organizational structures and processes to reflect its planning initiatives as well as its policy initiatives.

Strategic alignment can take many forms as argued by Schoemaker (2010) ; Tushman & O'Reilly (2007). Such can be in form of the structure of the business, human resource management as well as leveraging of the information technology. The development of the organization's staff in accordance with the future direction is called strategic human resource (Armstrong, 2006). During strategic human resource management, the organization tailors key human resource activities such as recruitment, reward and training / development along its goals and values. According to Ulrich and Brockbank (2015), managing the corporation has to deal with aligning the goals of the headquarters and the business units. These units are important held together and coordinated by the characteristics of the organization which are defined by its internal environment and structure adopted in the organization. The characteristics are of parameters of centralization, formalities, rules, procedures, and positions in hierarchy. An individual will develop strategic thinking skills on basis or exposure of these internal structural parameters (Heuser, 2010).

A study conducted by Marabelli *et al*, (2012) established that structural ambidexterity was very important in the decisions of coming up with bank retail branches. Based on the ambidexterity, the headquarters is able to come up with decisions regarding the products, customer satisfaction and flexibility in order to achieve higher performance in the organization (O'Reilly & Tushman, 2004). According to Marabelli *et al*, (2012) sales processes, operations and governance mechanisms are critical in retail banking performance. Rahnama and Rehpeyma, (2015) identifies the factors that influences strategic thinking at the organizational level within Shiraz Municipality in Pakistan. Their findings were that attitude towards risk; the chief executive officers emphasis on strategic thinking in the organization, the teams in the organization's departments, the benefits and recognition systems in the organization, staff competence in the use of technology facilitates strategic thinking. On the contrary, factors such as formalization and centralization acts as a challenge. They recommend the formation of strategic thinking union as a forum that encourage strategic thinking collectively and recommends strategic course of actions to be taken by the organization into the future time.

Kumarasighe and Hoshino (2013) conducted a study in Srilanka to establish how corporate culture, structure and strategy affected organizational performance. By focusing on sixty three firms from the country, the study targeted ninety one managers. The findings indicated a difference in strategic thinking among the participants. It was established that a positive relationship exist between structural and strategic variables of the study. The study also established that organizational culture was very important in creating a conducive environment for

the organizational structure to implement the strategy. A study by Kachalla's (2014) focused on Nigerian entrepreneurs and managers and revealed that formation and centralization in the organization is spearheaded by the managers since it benefits only them. The study established that information gathering and processing is well conducted by entrepreneurs and not managers hence they are more capable of using the information to make decisions. The traits regarding risk tolerance and opportunity seeking gives entrepreneurs an advantage and can hence enable them to understand what is needed to stabilize their positions in an otherwise an unstable environment of operation. A study by Mbaka and Mugambi (2014) which focused on the determinants of success in strategy implementation in the Kenyan water sector revealed that availability of the operational plan was a key determinant. The dimensions of the plan ranging from the resources, competence of the managers, integration among departments and planning were important factors in strategy implementation. Involvement of the employees in the formulation stage was also an important determinant of the success.

Industry Environment and Strategic Thinking

The business growth and prosperity highly depends on the ability of the managers to recognize and react to the changes in the environment of operation be it internal or external. Barbosa and Romero (2014) argue that change is inevitable and hence a business must be able to identify and align the business activities in order to take advantage of the change in a process called strategic thinking. Dragoni et al., (2011) argue that the internal environment which comprises of the organization's human resource is associated with how the staff conducts their activities in line with the organization's mission. This environment is to some extent changeable and manageable through management process and better planning. On the other hand, the external environment is concerned with the competitors, legal frameworks, economic conditions and political situations and is not controllable. Despite that, the business managers can have some control on how the business can react to the changes in external environment. Industry environment are the factors and regulatory conditions that affects the participants in industry market under which any business operates in. the environment analysis is a key business strategy that requires strategic thinking skills for its consideration for the business to survive in current market condition (Balta et al., 2010). Under its environment parameters of market concentration, share price and index and barriers to industry entry, a business should adopt a strategy to its industry environment.

As suggested by Michael porter in his model, an analysis of business environment is a key strategy phase to determine the market forces. Through the model, Porter considers threats of new entry and substitutes, industrial rivalries and bargaining power of suppliers and buyers as forces against any business in market (Conway, 2014). The analysis of the market forces requires and develops strategic thinking skills to determine the strengths and weaknesses of a company in relation to the forces to attain a competitive advantage and survive in the current market and industry conditions (Khanjamali & Fattah, 2015). Firms can use two models when implementing their strategies. One is based on the internal environment which is the resource based model while another can be based on the external factors, which is the industrial model of above returns (Barbosa & Romero, 2014). Regardless, the ability of the managers to apply strategic thinking is a major determining factor of performance (Bonn, 2001; Essery, 2002).

Scholars such as Barney and Ouchi (2006) linked the industry's structure as a determinant of a firm's profitability hence it had a direct effect on the organization's strategic decision making. However, Wally and Baum (2004) is of a contrary thought and argued that strategic decision making did not depend on the industry's structure. Caution is however asked by a study conducted by Gopalan (2015) which revealed that when making deci-

sions based on the industry structure, there was a need for more concern since the decision should not only be affected by the external, but also the internal environment and such decisions affect many parties both internally and externally. Kalhori & Shahhoseini (2015) studied the effect of strategic thinking on administrative health at Kermanshah University of Medical science considering strategic thinking to involve four aspects; system thinking, intelligent time-saving, intent-focus and thinking in time. Their findings reported a direct correlation between strategic thinking and administrative aspects of health and, hence, they recommended a creation of atmosphere that enables strategic thinking among employees. Sohrabi and Shiri (2015) studied the effects of strategic thinking on employees' empowerment with the mediating role of organizational learning. They found that with the mediating role of organizational learning, the effects of strategic thinking on employees' empowerment are significant and recommended the leadership of organizations should create an environment encouraging strategic thinking.

Khanjamaliand Fattah, (2015) assessed the level strategic thinking among Iran Glass Industry managers with the help of Goldman Model, which is a composition of four factors of strategic thinking conceptual thinking, system thinking, opportunism and forward thinking. According to their findings the status of strategic thinking remained at an undesirable level across the managers. Mahdavian, Mirabi and Haghshenas (2014) examined the impact of strategic thinking on the performance of Mashhad municipal managers considering such factors/dimensions as conceptual thinking, systematic approach, foresight, opportunism, cognition and transformational leadership. The study established that strategic thinking enhanced directly the work quality, planning, observation of criteria and instructions, timeliness, utility of resources and information to management, creativity and initiative, teamwork approach, collaboration, responsibility of management. Hence, the study recommended that personnel with strategic thinking must be employed to improve organization's performance. The study emphasized promoting a holistic or systematic approach to organization management with sound organization structures.

Nooraie (2012) conducted a study in Iran to find out what factors affected strategic decision making in firms. Based on the differences in the previous studies along size of the firm's investigated, magnitude of the impact, the performance of the firm, the industry hostility and dynamism among other factors, the study sought to find out what factors affected strategic decision making and established that industry factors as well as the competence of the managers were the key determinants. In another study, Owolabi and Sulaimon (2011) established whether employee involvement in decision making affected an organization's performance of manufacturing firms in Nigeria. Using descriptive and inferential analysis, the results revealed that indeed involvement of the employees in decision making significantly affected the performance of the firm. This meant that organizations with accommodating structures fared better than those which had more restrictive structures. In Kenya, a study by Kinuthia (2012) to establish the factors influencing strategic decision making process at the Ministry of Roads established that among the critical determinants were the external environment, the organizational structure and culture, available resources, internal policies and the personal traits of the decision makers in the organization.

Research Methodology

The present study adopted the descriptive survey research design. Best and Kahn (2005) state that this design is vital in making generalizations about a population's characteristics based on analysis of its sample. The population of interest to this study was drawn from Nairobi County which is home to city campuses of most universities in the country. All of these campuses offer MBA courses with different specializations on different modes, such as, full time, part-time or through distance learning. They attract students not only from Nairobi County, but from all parts of the country as well. There currently 13 universities with campuses in the County enrolling thousands of MBA students every academic year, however, less than half of these graduate within the stipulated period for the completion of the program. The target population of the study, thus, comprised of individuals who had graduated with MBA degrees - and drawn from various MBA specializations - from the universities in the period 2012 to 2016.

The study used a non-probability sampling design and consequently employed the Snowball sampling technique due to the fact that universities were reluctant to avail student data owing to confidentiality issues. Snowball sampling means the use of one research subject to refer to the other research subject and so forth (Vogt, 1999; Atkinson & Flint, 2001). Dragan and Isaic-Maniu (2013) argues that the sampling technique is normally recommended when the target population can't be delimited and the sample being targeted is rare. This type of sampling technique is suitable in estimating the characteristics of a rare population that is hide to identify and not to estimate the characteristics of the entire population (Etter & Perneger, 2000). Through snowball sampling, the study was able to access 54 respondents from various universities across Nairobi County. A questionnaire was used to collect data which was analyzed through SPSS version 21. Both descriptive and inferential analysis were used for analysis. The regression model indicated below was used to establish the relationships between the variables.

$$y = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + e$$

Where, Y =Strategic thinking, b_0 = Constant, $b_1...b_4$ = Regression Coefficients, X_1 = Personal Characteristics, X_2 = Education Background, X_3 = Structural Characteristics
 X_4 = Industrial Environment and e =error term.

Results

A good response rate of 100% was realized based on the method of administration of the instrument and sampling procedures. This response rate was high and within the acceptable range proposed by Mugenda and Mugenda (2003). The study also tested for reliability and the results are presented in Table 1.

Table 1 : Reliability Statistics

Variable	Number of items	Cronbach Alpha Coefficient
Educational Background	4	0.723
Personal Attributes	5	0.817
Structural Characteristics	2	0.752
Industry Environment	4	0.873
Strategic Thinking	53	0.911

PERSONAL CHARACTERISTICS AND STRATEGIC THINKING AMONG MBA GRADUATES

The first objective of the study was to establish the relationship between personal attributes and strategic thinking among MBA graduates from Kenyan Universities. This objective was realized by asking the respondents to rate several statements pertaining to management of the programs specifically in relation to the ages of the respondents; gender; highest level of education attained by them and; work experience in their occupations. The results are summarized in Table 2.

Table 2 : Personal Characteristics of the Respondents

Variable	Category	Frequency	Percentage(%)
Gender	Male	32	59
	Female	22	41
Age in Years	26 – 35	34	56
	36 – 45	20	44
Current Occupation	Self Employed	39	73
	Employed	15	27
Work Experience	0 - 5 yrs	17	32
	6 - 10 yrs	22	41
	11 - 15 yrs	5	9
	Above 15 yrs	10	18

The findings in Table 2 indicate that majority (59%) of the respondents in the study were male although there was a considerable number of females implying that the MBA programs were well subscribed to across the gender divide. Most of the respondents were also young and aged between 26 and 35 years (56%) possibly suggesting that most of the students had taken a break after their undergraduate studies possibly to look for placement in the industry before enrolling for their MBA degree. Majority (73%) of the respondents were employed with most being employed in the private sector. The findings also suggest that most of the graduates had considerable work experience ranging from 6 to 10 years (41%). These findings imply that most of the graduates had opted to find work placement and then assess the industry needs for further qualifications before enrolling for their graduate degrees.

However, in order to establish whether these personal characteristics had a bearing on the strategic thinking

capabilities of the respondents, the study carried out a One-way ANOVA to compare means of strategic thinking level based on demographic and organizational characteristics variables. The findings are summarized in Table 3.

Table 3 : ANOVA Summary of Personal Characteristics and Strategic Thinking

		Sum of Squares	df	Mean Square	F	Sig.
Gender of Graduates	Between Groups	27.148	34	0.798	3.034	0.006
	Within Groups	5	19	0.263		
	Total	32.148	53			
Age of Respondents	Between Groups	10.333	34	0.304	1.925	0.046
	Within Groups	3	19	0.158		
	Total	13.333	53			
Current Occupation	Between Groups	11	34	0.324	2.459	0.02
	Within Groups	2.5	19	0.132		
	Total	13.5	53			
Work Experience	Between Groups	48	34	1.412	1.424	0.209
	Within Groups	18.833	19	0.991		
	Total	66.833	53			

Results of determining the strategic thinking level differences of the MBA graduates based on personal characteristics are showed in Table 3. The results indicate that strategic thinking among the graduates was statistically different based on their gender characteristics ($p = 0.006$). Strategic thinking across the ages of the respondents was, however, statistically lower but significant ($p=0.046$). The findings also indicate that the strategic thinking level of the graduates was statistically different based on their current occupation ($p = 0.020$). However, there was no statistical difference between strategic thinking level with the work experience of the graduates ($p = 0.209$). Therefore, it is evident that only three out of four personal characteristics of the MBA graduates measured in the present study had a significant bearing on their strategic thinking levels. These findings agree with those of Pisapia et al., (2009) who found that strategic thinking was a function of age and gender. However, the results disagree with the findings of Karğın and Aktaş (2012), Moammai et al., (2013) and Sedigheh et al., (2017) whose studies failed to establish any significant relationship between strategic thinking and personal characteristics such as age, gender, type of occupation and work experience.

Education Background and Strategic Thinking among MBA Graduates

The second objective of the study was to establish the relationship between educational background and strategic thinking among MBA graduates from Kenyan Universities. This objective was realized by first obtaining the respondents educational background information and subsequently carrying out a One Way ANOVA between the education background characteristics and the strategic thinking construct. The results are summarized in Table 4 and 5.

Table 4 : Educational Background of the MBA Graduates

Variable	Category	Frequency	Percentage(%)
Years after MBA Graduation	More than 10 years	9	17
	5-10 years	10	18
	1-4 years	35	65
Indicate MBA Specialization	Marketing	14	26
	Human Resource	2	4
	Strategic Management	16	30
	Finance	22	41
What was your mode of Learning?	Part time	41	76
	Full time	13	24
Which style of learning had the most impact on you?	Lecture	15	26
	Presentations	11	20
	Group discussion	21	39
	Research	8	15
Indicate the learning Resources you used mostly	Internet	34	63
	Library	14	26
	Assignment	6	11

The findings in Table 5 indicate that majority (65%) of the respondents had obtained their MBA degree in the last four years. The graduates had specializations in the fields of marketing (26%), human resource management (4%), strategic management (30%) and finance (41%). Majority (76%) had undertaken their respective MBA programs as part-time students. It emerged that group discussions was the most impactful mode of learning among the MBA graduates (39%). Most of the graduates had also used the internet extensively as a learning resource (63%). Consequently, in order to establish whether graduates educational background had a bearing on the strategic thinking capabilities of the respondents, a One-way ANOVA was conducted to compare means of strategic thinking level based on the educational background variable. The results are summarized in Table 5.

Table 5 : ANOVA Summary of Educational Background and Strategic Thinking

		Sum of Squares	df	Mean Square	F	Sig.
Years after MBA graduation	Between Groups	27.648	34	0.813	4.031	0.001
	Within Groups	3.833	19	0.202		
	Total	31.481	53			
MBA Specialization	Between Groups	66.815	34	1.965	3.111	0.005
	Within Groups	12	19	0.632		
	Total	78.815	53			
Mode of Learning	Between Groups	7.37	34	0.217	1.647	0.125
	Within Groups	2.5	19	0.132		
	Total	9.87	53			
Impact of Learning Styles	Between Groups	45.481	34	1.338	3.466	0.003
	Within Groups	7.333	19	0.386		
	Total	52.815	53			
Learning Resources	Between Groups	24.815	34	0.73	20.801	0
	Within Groups	0.667	19	0.035		
	Total	25.481	53			

The results in Table 5 suggest that the years after graduating with the MBA degree had a statistically significant bearing on the strategic thinking levels of the graduates ($p = 0.001$). The results also suggest that strategic thinking among the graduates was statistically different based on their MBA Specialization ($p = 0.005$). However, strategic thinking could not be statistically inferred based on the modes of learning used in the MBA programs ($p = 0.125$). The findings also indicate that the most impactful style of learning for the graduates had a statistically significant association with their strategic thinking level ($p = 0.003$). Further, the types of learning resources preferred by the graduates had a significant impact on strategic thinking level of the graduates based on the statistical difference ($p = 0.000$). Hence, it can be deduced that the educational background of the MBA graduates had a significant association with their strategic thinking levels.

STRUCTURAL CHARACTERISTICS AND STRATEGIC THINKING AMONG MBA GRADUATES

The study also sought to establish the influence of structural characteristics on strategic thinking among MBA graduates from Kenyan Universities as its third objective. This objective was realized by asking the respondents to react to various statements regarding the orientation of their organization and their managerial position in the organization. A One Way ANOVA analysis was also used to determine whether there was any significant association between structural characteristics and the strategic thinking construct. The results are summarized in Table 6 and 7.

Table 6: Structural Characteristics and Managerial Positions of Graduates

Variable	Category	Frequency	Percentage (%)
In your view is your organization centralized or decentralized?	Centralized	31	57
	Decentralized	23	43
Indicate your position in the organization.	Lower level management	25	47
	Middle level management	18	33
	Top level management	11	20

Looking at the findings in Table 6, it is evident that most of the MBA graduates were working in organizations which were centralized in structure (57%). Majority (47%) of them were working as lower level managers. A One-way ANOVA was also conducted to compare means of strategic thinking level based on the structure characteristics variable. The results are summarized in Table 7.

Table 7 : ANOVA Summary of Structural Characteristics and Strategic Thinking

		Sum of Squares	df	Mean Square	F	Sig.
Firm structural orientation	Between Groups	13.426	34	0.395	0.938	0.578
	Within Groups	8	19	0.421		
	Total	21.426	53			
Position in the Organization	Between Groups	30.537	34	0.898	9.308	0
	Within Groups	1.833	19	0.096		
	Total	32.37	53			

It is evident from the results in Table 7 that the firm structural orientation had no statistically significant bearing on the strategic thinking levels of the graduates ($p = 0.578$). The results, however, suggest that strategic thinking among the graduates was statistically significant based on their position in the organization ($p = 0.000$).

INDUSTRY ENVIRONMENT AND STRATEGIC THINKING AMONG MBA GRADUATES

The fourth and final objective of the study was to determine the relationship between industrial environment and strategic thinking among MBA graduates from Kenyan Universities. This objective was realized by first surveying the respondents' industrial environment characteristics and subsequently carrying out a One Way ANOVA between the industrial environment and the strategic thinking construct. The results describing the work sectors of the graduates are summarized in Tables 8.

Table 8: Industry environment and strategic thinking among MBA graduates

Variable	Category	Frequency	Percent
Indicate the sector of work	Public	9	17
	Private	10	18
	Non profit	35	65

The findings in Table 8 suggest that most of the respondents were working in the non-profit sector (65%) possibly owing to the availability of opportunities in the sector. The study also sought to establish respondents views on the effect of their industrial environment on their strategic thinking levels. The status of this variable was rated on a 5 point Likert scale ranging from; 1 = strongly disagree to 5 = strongly agree and were analyzed using the mean score. The closer the mean score on each score was to 5, the stronger the agreement was to the statement posed. A score around 2.5 would indicate uncertainty while scores significantly below 2.5 would suggest strong disagreement with the posited statements. The results are summarized in Table 9.

Table 9: Industrial environment and strategic thinking among MBA graduates

Statement	Min	Max	Mean	Std. Dev
My environment is characterized by rivalry among firms.	1	5	4.02	1.055
Our products have got substitutes	1	5	3.98	1.173
My environment is threatened by new entrants.	2	5	3.65	.994

The results in Table 9 suggests that most of the respondents worked in environments characterized by rivalry among firms (Mean = 4.02). The products of their firms also had substitutes in the market (Mean = 3.98). The findings also suggest that the industrial environments of most respondents were threatened by new entrants (Mean = 3.65). These findings imply that the industrial environments most of the graduates were working in were characterized by marked competition. Further, the study carried out a One-way ANOVA analysis to compare means of strategic thinking level based on the industrial Environment variable. The results are summarized in Table 10.

Table 10 : ANOVA Summary of Industrial Environment and Strategic Thinking

		Sum of Squares	df	Mean Square	F	Sig.
Sector of Work	Between Groups	27.648	34	0.813	4.031	0.001
	Within Groups	3.833	19	0.202		
	Total	31.481	53			
My environment is characterized by rivalry among firms.	Between Groups	50.481	34	1.485	3.319	0.004
	Within Groups	8.5	19	0.447		
	Total	58.981	53			
Our products have got substitutes	Between Groups	70.481	34	2.073	15.755	0
	Within Groups	2.5	19	0.132		
	Total	72.981	53			
My environment is threatened by new entrants.	Between Groups	46.481	34	1.367	4.453	0.001
	Within Groups	5.833	19	0.307		
	Total	52.315	53			

The results in Table 10 indicate that, strategic thinking could be statistically inferred on the basis of the industrial sectors the MBA graduates were working in ($p = 0.001$). The findings also indicate that the rivalry among firms in the industrial environment the graduates were working in had a statistically significant association with their strategic thinking levels ($p = 0.004$). Further, the presence of substitute products in the industrial environment had a significant impact on strategic thinking level of the graduates based on the statistical difference ($p = 0.000$). In addition, the threat of new entrants in the industrial environment had a statistically significant association with their strategic thinking levels ($p = 0.001$). These findings imply that the industrial environment was significantly related to strategic thinking levels among the MBA graduates.

STRATEGIC THINKING TRAITS AMONG MBA GRADUATES

Finally, the study sought to determine the practice of strategic thinking among MBA graduates from Kenyan Universities. This was the dependent variable and was measured by asking the respondents to respond to various statements describing their usage of strategic thinking in their activities. The status of this variable was measured in terms of Strategic thinking aspects like reflection, systemic thinking and reframing. The responses were rated on a 5 point Likert scale ranging from; 1 = strongly disagree to 5 = strongly agree and were analyzed using the mean score. The closer the mean score on each score was to 5, the stronger the agreement was to the statement posed. A score around 2.5 would indicate uncertainty while scores significantly below 2.5 would sug-

gest strong disagreement with the posited statements. These results are presented in Table 11.

Table 11: Strategic Thinking Traits among MBA graduates

Statement	Min.	Max.	Mean	Std. Dev.
I seek different perceptions	2	5	3.72	1.036
I review the outcomes of past decisions	2	5	3.76	1.115
I try to extract patterns in the information available	2	5	3.63	1.170
I track trends by asking others if they notice changes in our contexts or environment	2	5	3.56	1.160
I reconstruct an expense in my mind	2	5	3.54	.946
I mentally try to find a common goal when two or more parties are in conflict	2	5	3.20	1.155
I ask those around me what they think is changing	1	5	3.41	1.267
I consider how I could have handled the situation after it was resolved	2	5	3.43	1.191

The findings in Table 11 suggest that most of the MBA graduates often sought different perceptions when approaching issues (Mean = 3.72). They also tended to review the outcomes of past decisions (Mean = 3.76). Most of them often tried to extract patterns in the information available (Mean = 3.63). The findings also suggest that most of the respondents often tracked trends by asking others if they notice changes in their contexts or environments (Mean = 3.56). They also reconstructed expenses mentally (Mean = 3.54). In addition, they mentally sought to find common goals when two or more parties were in conflict (Mean = 3.20). They also tended to inquire from those around them about the changes in the environment after the resolution of the conflict (Mean = 3.41). Most also habitually considered how could have handled the situation after it was resolved (Mean = 3.43).

Table 11: Strategic Thinking Traits among MBA graduates

	Min	Max	Mean	Std. Dev.
I find that in most cases external changes require internal changes	2	5	3.98	1.236
I discuss the situation only with people who share my beliefs	1	4	2.76	.950
I accept that my assumptions could be wrong	1	5	3.39	1.323
I investigate the cases before taking action	1	5	3.54	1.575
I engage in discussions with those whose values differ from mine	2	5	4.06	1.071
I acknowledge the limitations of my own perspective	1	5	3.13	1.214
I include everyone affected when creating a policy or goal	1	5	3.48	1.177
I use different viewpoints to map out strategies	1	5	3.67	1.213
I consider the effect of past actions in similar situations	2	5	4.11	1.093
I find that one thing indirectly leads to another	1	5	3.41	1.408
I recognize when information is being presented from only one perspective	2	5	3.37	1.154
I ask WHY questions when trying to solve a problem	2	5	3.48	.966
I view individuals as being independent rather than as part of an interwoven network	1	5	2.93	1.426
I try to understand how the facts in the situation are related to each other	2	5	3.74	1.049
I set aside specific periods of time to think about why I succeeded or failed	1	5	3.63	1.154
I try to identify external environmental forces which affects my work	1	5	3.56	1.040

The findings in Table 11 indicate that the respondents often found that in most cases external changes required internal changes (Mean = 3.98). Most, however, did not discuss the situation only with people who shared their

beliefs (Mean = 2.76). Most also had the inclination to accept that their assumptions could be wrong (Mean = 3.39). Majority (Mean = 3.54) often investigated cases before taking appropriate action. The MBA graduates frequently engaged in discussions with those whose values differed from their own (Mean = 4.06) as they acknowledged the limitations of their own perspectives (Mean = 3.13). As such, most of them included everyone affected when creating a policy or goal (Mean = 3.48). They tended to use different viewpoints to map out strategies (Mean = 3.67) and in addition often considered the effect of past actions in similar situations (Mean = 4.11).

The graduates also stated that they found one thing indirectly leads to another (Mean = 3.41). They were also able to recognize when information was being presented from only one perspective (Mean = 3.37) and often asked why questions when trying to solve a problem (Mean = 3.48). However, most seldom viewed individuals as being independent rather than as part of an interwoven network (Mean = 2.93). Other findings suggest that most MBA graduates often tried to understand how the facts in the situation are related to each other (3.74) and often set aside specific periods of time to reflect on their reasons for success or failures (3.63). Most of them also tried to identify external environmental forces which affects my work (Mean = 3.56). It is evident from the results in Table 12 that most of the MBA graduates often tried to understand how a problem worked out after it was resolved (Mean = 3.89). Most of them often tried to understand how the people in the situation are connected to each other (Mean = 3.93). They were able to recognize when information was presented from only one perspective (Mean = 3.46) and did not ignore past decisions when considering current similar situations (Mean = 3.19). The findings also suggest that the respondents mostly looked at actions being taken to correct discrepancies between what is desired and what exists (Mean = 3.70). Most decided upon a point of view before seeking a solution to a problem (Mean = 3.57).

Table 12: Strategic Thinking Traits among MBA graduates

	Min	Max	Mean	Std. Dev
I try to understand how a problem worked out after it was resolved	2	5	3.89	.883
I try to understand how the people in the situation are connected to each other	3	5	3.93	.821
I recognize when information is presented from only one perspective	2	5	3.46	1.209
I ignore past decisions when considering current similar situations	1	5	3.19	1.230
I look at actions being taken to correct discrepancies between what is desired and what exists	2	5	3.70	1.207
I decide upon a point of view before seeking a solution to a problem	2	5	3.57	1.021
I look at problems from different points of view	2	5	3.76	1.228
I look for fundamental long term corrective measure	2	5	3.76	1.098
I use different points of view to map out different strategies	2	5	3.76	1.212
I think about the result of my actions	2	5	3.83	1.005
I look for fundamental changes that could lead to significant improvements	1	5	3.81	1.245
I listen to everyone’s version of what happened before making decision	1	5	3.19	1.117
I connect current problems to my personal experiences	1	5	3.41	1.158
I look at the “Big Picture” in the information available before examining the details	1	5	4.00	1.197
I usually find only one explanation for the way things work	1	5	3.13	1.304

The graduates also said that they look at problems from different points of view (Mean = 3.76) and also looked for fundamental long term corrective measures (Mean = 3.76). They also used different points of view to map out different strategies (Mean = 3.76), they often think about the results of their actions (Mean = 3.83) and look for fundamental changes that could lead to significant improvements (Mean = 3.81) and also listen to everyone’s version of what happened before making decision (Mean = 3.19). The results also indicate that the MBA graduates often tended to connect current problems to my personal experiences (Mean = 3.41) and look at the “Big Picture” in the information available before examining the details (Mean = 4.00). Most claimed that they usually find only one explanation for the way things work (Mean = 3.13).

Table 13: Strategic Thinking Traits among MBA graduates

	Min	Max	Mean	St
I ignore my past experiences when trying to understand situations presented to me	1	5	3.00	1.00
I seek specific feedback	1	5	2.76	1.00
I engage in discussions with people who have different beliefs about the situation	1	5	3.15	1.00
I stop and think about why I succeeded or failed	1	5	3.63	1.00
I think about how different parts of the organization influences the way things are done in the rest of the organization	2	5	3.85	1.00
I create a plan to solve a problem before considering other viewpoints	2	5	3.56	.80
I construct an experience in my mind to understand my feelings about it	2	5	3.74	1.00
I define the entire problem before breaking it down into parts	2	5	3.89	1.00
I take into account the decisions of others in similar situations	2	5	3.39	1.00
I listen to my intuition	2	5	3.70	1.00
I ask myself “how do the ‘dots’ connect in this situation?”	1	5	3.48	1.00
I think of what is interesting, unique, beautiful or unusual about the situation	1	5	3.43	1.00
I think about questions I am neglecting to ask	1	5	3.78	1.00
I think about what’s so important about this challenge	2	5	3.74	1.00

The results in Table 13 suggest that the respondents did not habitually ignore their past experiences when trying to understand situations presented to them (Mean = 3.00). Most of them did not seek specific feedback when tackling issues (Mean = 2.76). They preferred engaging in discussions with people who have different beliefs about the situation (Mean = 3.15). The findings also suggest that most of the graduates frequently stopped and thought about why they succeeded or failed (Mean = 3.63). Most had a systemic view and thought about how

different parts of the organization influences the way things are done in the rest of the organization (Mean = 3.85).

With a mean of 3.56, it was evident that most of the graduates tended to create a plan to solve a problem before considering other viewpoints. They also constructed experiences in their minds to understand their feelings about issues at hand (Mean = 3.74) and in the same vein defined the entire problem before breaking it down into parts (Mean = 3.89). Other findings indicate that the graduates often took into account the decisions of others in similar situations (Mean = 3.39), however, most were inclined to listen to their own intuition (Mean = 3.70). Majority often asked themselves “how do the ‘dots’ connect in this situation? When solving a problem (Mean = 3.48). They often thought of what was interesting, unique, beautiful or unusual about the situation (Mean = 3.43) and also about questions they were neglecting to ask (Mean = 3.78). They also reflected on the important issues surrounding any challenge (Mean = 3.74).

Correlation Analysis

The study used correlation to establish the association between the variables under investigation and the results summarized in Table 14. The first correlation was done to determine whether personal characteristics of MBA graduates correlated with their strategic thinking capabilities. The results in Table 4.13 shows that the correlation was not significant ($r = -0.253$, $p > 0.05$). This suggests that personal characteristics did not necessarily contribute to strategic thinking among MBA graduates of Kenyan Universities. The study also sought to determine whether education background of the MBA graduates significantly correlated with their strategic thinking levels. The correlation analysis in Table 14 indicates that there was no significant correlation between the variables ($r = 0.202$, $p > 0.05$). Hence, it can be deduced that education background of the MBA graduates could not sufficiently explain their strategic thinking traits.

A correlation analysis was also done to determine whether structural characteristics significantly influenced strategic thinking among MBA graduates from Kenyan Universities. The findings in table 4.13 suggests that a correlation exists ($r = 0.406$, $p < 0.05$). The correlation coefficient was high and positive implying that as the structural characteristics of the organizations the MBA graduates worked with strongly influenced their strategic thinking capabilities. Finally, the study also sought to determine whether the correlation between industry environment and strategic thinking among MBA graduates from Kenyan Universities was indeed significant. The results of correlation analysis in Table 14 shows the relationship is significant ($r = 0.337$, $p < 0.05$). This result shows that the requirements of the industry environment was a moderate determinant of strategic thinking among MBA graduates.

Table 14: Summary of Correlations

	Personal Attributes	Educational Background	Structural Characteristics	Char-	Industry Environment	Envi-	Strategic Thinking
Personal Attributes	1						
Educational Background	.224	1					
Structural Characteristics	.193	.595	1				
Industry Environment	-.459	-.051	-.202		1		
Strategic Thinking	-.253	.202	.406**		.337*		1
	Sig. (2-tailed)	.065	.143	.002	.013		
	N	54	54	54	54		54

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Regression Analysis

The significance of the relationship between the variables was established through a regression analysis. The results are given in the model summary in Table 14. The correlation value of 0.616 indicates that the variables in the study positively predict strategic thinking. The r square value of, $r = 0.379$, also indicates that the multiple linear regression model could explain for approximately 37.9 % of the variations in the factors influencing strategic thinking among MBA graduates from Kenyan universities campuses located in Nairobi County.

Table 15: Multiple linear regression analysis model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.616 ^a	.379	.328	28.577

a. Predictors: (Constant), Industry Environment, Educational Background, Personal Attributes, Structural Characteristics

An ANOVA test was run to ascertain whether the model in Table 15 was indeed significant. The findings are given in Table 15. The results of the ANOVA performed on the independent and dependent variables summarized in Table 4.15 also indicate that there is a significant difference between means of factors influencing strategic thinking among MBA graduates from Kenyan Universities campuses in Nairobi County ($F_0 = 7.476 > F_c = 2.61$; $\alpha < 0.05$; $df = 4, 49$; $p < 0.05$). This finding confirms the finding suggested by regression model in Table 15 and the study, therefore, establishes that the model could indeed predict factors influencing strategic thinking among MBA graduates from Kenyan Universities campuses in Nairobi County. However, it was also important to determine which of the independent variables was more important in influencing strategic thinking among

MBA graduates from Kenyan universities. This was achieved through an inspection of the beta values in Table 16.

Table 15 : Summary of ANOVA Results

	Sum of Squares	df	Mean Square	F	Sig.
Regression	24419.930	4	6104.983	7.476	.000 ^b
Residual	40014.903	49	816.631		
Total	64434.833	53			

a. Dependent Variable: Strategic Thinking

b. Predictors: (Constant), Industry Environment, Educational Background, Personal Attributes, Structural Characteristics

The results in Table 16 indicate that the most important factors influencing strategic thinking among MBA graduates from Kenyan universities were Structural Characteristics ($\beta = 0.556$, $p < 0.05$) and Industrial Environment ($\beta = 0.365$, $p < 0.05$). However, Personal Attributes ($\beta = -0.176$, $p > 0.05$) and Educational Background (beta = -0.071 , $p > 0.05$) of the graduates were not significant in the model. The beta values for these variables and respectively indicates that the dependent variable would change by a corresponding number of standard deviations when the respective independent variables change by one standard deviation. Therefore, it is evident that only structural characteristics, industry environment were factors influencing strategic thinking among MBA graduates from Kenyan universities as per the model.

Table 16: Summary of Multiple Regression Analysis

	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	Sig.
	B		Beta		
(Constant)	97.804	40.582		2.410	.020
Personal Attributes	-1.230	.908	-.176	-1.355	.182
Educational Background	-1.953	3.961	-.071	-.493	.624
Structural Characteristics	17.798	4.595	.556	3.874	.000
Industry Environment	4.644	1.649	.365	2.816	.007

Dependent Variable: Strategic Thinking

Conclusions

The first objective of this study was to establish how personal attributes influenced strategic thinking among MBA graduates from Kenyan Universities. It was evident that only three out of four personal characteristics of the MBA graduates measured in the present study, that is; Gender characteristics, ages of the respondents and current occupation were statistically significant to strategic thinking had a significant bearing on the strategic thinking levels of the graduates. However, personal characteristics as a construct did not appear to influence strategic thinking among the graduates on the basis of other statistical determinants used, that is, correlation and regression. Therefore, it can be concluded that personal characteristics were not necessarily influential in developing strategic thinking capabilities of the MBA graduates. The second objective of the study was to establish the relationship between education background characteristics and strategic thinking among MBA graduates from Kenyan Universities. It was established that that only four out of the five educational background characteristics measured in the study namely; the years after graduating with the MBA degree; MBA Specialization; style of learning for the graduates, and; types of learning resources preferred by the graduates had a significant impact on strategic thinking level of the graduates. However, the modes of learning used in the MBA programs were not found to be significantly associated with strategic thinking among the graduates. Further, the education background construct was found not to have any correlational effect on strategic thinking and, consequently, no effect on the attendant regression model. Hence, it can be concluded that the education background of the graduates was not a determinant of strategic thinking among graduates.

The study also sought to establish the influence of structural characteristics on strategic thinking among MBA graduates from Kenyan Universities as its third objective. It was evident that the firm structural orientation had no statistically significant bearing on the strategic thinking levels of the graduates. The findings, however, revealed that strategic thinking among the graduates was statistically significant based on their position in the organization. Moreover, the findings established that there was a strong correlational effect between structural characteristics and strategic thinking among the graduates that was also reflected in the regression model. As such, it can be concluded that structural characteristics had strong influence on the strategic thinking capabilities of the MBA graduates. Lastly, the study sought to determine the relationship between industrial environment and strategic thinking among MBA graduates from Kenyan Universities. It was established that strategic thinking could be statistically inferred on the basis of all the industrial environment attributes investigated in the current study. In addition, findings from correlation and regression analysis revealed that industrial environment moderately correlated with strategic thinking among the MBA graduates. Thus, it can be concluded that the industrial environment significantly influenced strategic thinking levels among the MBA graduates.

Recommendations

In line with the study findings above the following recommendations are made; Strategic thinking, it emerged was shaped more by other personality factors other than work experiences. Therefore, the study recommends that the students should develop a habit of challenging themselves by taking up more assignments at school or in the workplace that required strategic thinking. Organizations, both business and non-business organizations should also be encouraged to recruit members irrespective of gender or age into their think tanks. The management of the universities need to invest in more resources that can make their programs more oriented to strategic thinking. University lecturers should find ways of enriching the MBA programs by giving the students more assignments that would encourage strategic thinking. The students also need to expand their information seeking habits so as to be able to acquire extra learning resources that can enable them to practice strategic thinking.

The course designers also need to ensure that all MBA programs equip graduates with strategic thinking capabilities.

In relation to structural characteristics, it was evident that the graduates position in the organization influenced their strategic thinking capabilities. As such, it is recommended that the organizations should try and be more inclusive in strategy development and ensure that all levels of management are well represented as lower levels of management are expected to execute strategy. This they can only do effectively when they fully understand the strategic behavior of the organization. Finally, concerning the fourth objective, it is recommended that the students should focus on learning how to manage competitive pressures using learned strategic thinking. The organizations should also involve the graduates in the product design and management so as to enable them to have a strategic view of the performance of the products. The universities management should also assist students access digital learning resources on organization performance data which can enable them to carry out more practice on strategic thinking by simulating real-world problems.

Conflict of Interest

No potential conflict of interest was reported by the authors

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