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Abstract

Pharmaceutical companies play a significant role in ensuring that people have access to high-quality and affordable medical services. They provide a wide range of medical services, from preventative care to emergency services. Despite the contribution of pharmaceutical companies to the social and economic growth of citizens in both developed and developing countries, their performance may not have been as expected. This is evident in the poor level of competitive advantage, decline in market share growth, dwindling financial growth, decline in productivity and customer retention. This study investigated the effect of entrepreneurial orientation on competitive advantage of quoted pharmaceutical companies in Nigeria. The study adopted a survey research design. The population of the study was 308 executive manager, directors and marketing department official in these quoted pharmaceutical companies in Nigeria. Data was collected using a valid and reliable questionnaire with a Cronbach alpha value greater than 0.7. Data were analysed using both descriptive and inferential tools. Multiple and Hierarchical Regression Analysis were used to determine the effect of the variables using Statistical Package for Social Science (SPSS). The results revealed that entrepreneurial orientation had significant effect on competitive advantage of quoted pharmaceutical companies in Nigeria (*Adj*. R^2 = 0.265; F (5, 296) = 22.726, $p < 0.05$). The study expanded the frontier of knowledge on Nigerian pharmaceutical industry performance by unbundling entrepreneurial orientation to see how each element affected competitive advantage. The study is an original study and it adds to scholarly debate on entrepreneurial orientation and competitive advantage of quoted pharmaceutical companies as the adoption of managers' perspectives was subjective, and competitive advantage is not static, hence secondary data could be a future option for scholars.

Keywords: *Entrepreneurial orientation, Competitive advantage, Competitive Aggressiveness, Entrepreneurial autonomy, Innovation.*

1.0 Introduction

Pharmaceutical companies play a major role in ensuring that people have access to high-quality and affordable medical services. They provide a wide range of medical services, from preventative care to emergency services. The pharmaceutical industry has experienced significant growth in recent years, with global health expenditure expected to reach $11.4 trillion by 2023. The sector is expected to grow at a compound annual growth rate of 4.9% over the period of 2019-2023 (Otterbein, 2020). This growth can be attributed to a number of factors,

including increased demand for medicines, advances in medical technology, and increased government spending on healthcare (Riedl, 2022).

The pharmaceutical industry in the United States has seen tremendous growth over the past decade. In 2020, revenue for the industry was estimated to be over $450 billion, a 4.4% increase from 2019 (Bayham & Fenichel, 2020). However, there are still disparities in access to care and health outcomes for certain populations, and costs remain high (Sönmez et al., 2020). Also, the competitive advantage of the healthcare sector in the United States has been declining due to a number of factors such as rising costs, an aging population, consolidation in the industry, and an increasingly competitive market. Rising healthcare costs have been driven by the increasing use of expensive medical technologies, an aging population, and the rising cost of pharmaceuticals (Dunn et al., 2018). Consolidation in the healthcare sector has created larger and more powerful organizations, resulting in fewer choices and higher prices for consumers. Additionally, there has been an influx of new competitors, such as pharmacy benefit managers, which have become major forces in the healthcare industry. These new competitors have led to increased competition, resulting in lower profits and decreased competitive advantage for the traditional healthcare sector (Alcaraz et al., 2020).

The pharmaceutical industry in Africa has seen significant growth over the past decade. Between 2006 and 2017, the market size of the pharmaceutical industry in Africa had grown from around US$20 billion to almost US$40 billion (Maina et al., 2019). The African pharmaceutical industry has seen growth in both production and sales, with the continent now home to more than 1,500 pharmaceutical companies. Although, the pharmaceutical industry in Africa faces several challenges when it comes to gaining and maintaining competitive advantage. These challenges stem from various factors, including limited resources, infrastructure gaps, regulatory hurdles, and intellectual property issues. Many African countries have limited financial and human resources, which makes it challenging to invest in research and development (R&D), advanced technologies, and manufacturing capabilities. This restricts their ability to innovate and produce high-value drugs, which in turn affects their competitive advantage.

The performance of pharmaceutical companies in Nigeria is poor relative to other countries in the region (Borishade et al., 2018). Nigeria has one of the lowest levels of health expenditure in Africa, with only 4% of its gross domestic product (GDP) dedicated to health. As a result, the country has some of the lowest rates of access to healthcare in the world, with only 41% of its population having access to basic healthcare services (Arumona et al., 2019). The country also has one of the highest maternal mortality rates in the world, with a mortality rate of 576 per 100,000 births. In addition, Nigeria has an inadequate number of health workers, with only 1.5 doctors and 2.5 nurses per 10,000 people (Ajibo, 2020; Onwujekwe et al., 2020). Furthermore, the country has a low life expectancy at birth of 54 years. These factors have contributed to the poor performance of the healthcare sector in Nigeria. Consequently, many pharmaceutical companies in Nigeria lack adequate funding, infrastructure, and medical supplies and equipment. The sector is plagued by a lack of basic medical equipment, inadequate medical personnel, inadequate medical training, and poor access to health services (Potluri & Angiating, 2018). Also, there is a general lack of adequate funding for the pharmaceutical companies in Nigeria. This is mainly due to weak governance and lack of political will to invest in the sector. This has led to decine in the performance of the pharmaceutical companies in Nigeria (Asakitikpi, 2019). Also, corruption continues to be a major problem in the Nigerian healthcare system, with reports of bribery and other forms of malfeasance impacting the quality of care that patients receive (Onwujekwe et al., 2020).

According to Fredrick (2018); Ibrahim and Abu (2020); Mugambi and Karugu (2017); Neneh (2017); Tele and Schachteheck (2019); Eldys (2016); Amankwah-Amoah et al. (2018); Fredrick (2018); Hiung et al. (2018); Kruja (2020); Rahman et al (2016); Shehu and Mahmood (2014); Teles and Schachtebeck (2019); Kiyabo and Isaga, (2020) have investigated on how entrepreneurial orientation dimensions affect firm performance in manufacturing, finance, telecommunication sectors. These past related studies mentioned have considered various measures of entrepreneurial orientation such as (entrepreneurial autonomy, competitive aggressiveness, innovativeness, proactiveness, risk-taking) on firm performance but they never consider the combine effect of entrepreneurial orientation dimensions (entrepreneurial autonomy, competitive aggressiveness, innovativeness, proactiveness, risk-taking) on performance indicator like competitive advantage of pharmaceutical companies in Nigeria. Pharmaceutical companies in Nigeria are overwhelmed with problems such as lack of innovativeness, pro-activeness, risk-taking propensity, competitive aggressiveness and autonomy leading to high failure rate and competitive disadvantage as well as decline in overall performance (Adesanya, Borishade, Dirisu, Olokundun, & Ibidunni, 2018; Mienpre & Onuoha, 2018).

When it comes to the competitive advantage of the pharmaceutical industry, a lack of entrepreneurial orientation and value creation have had a lot of negative effects. Poor entrepreneurial orientation and value creation have led to a lack of innovation, which has placed pharmaceutical companies at a disadvantage in the marketplace. This has led to reduced market share, declining revenues, and decreased profitability (Putniņš & Sauka, 2020). Additionally, it has also led to lower customer satisfaction, resulting to pooor customer retention. Furthermore, poor entrepreneurial orientation and value creation can also result in a lack of focus on cost containment, which can lead to higher overhead costs and reduced profitability. Inadequate entrepreneurial orientation has also led to a lack of strategic direction, which in turn leads to a decline in the effectiveness and efficiency of the pharmaceutical industry (Abu-Rumman et al., 2021). On this note, the competitive advantage of these companies in the sector has been negatively affected thus creating poor performance market-wise. The issues discussed above pose as precursors to the decline in the competitive advantage of firms in the pharmaceutical sector. Therefore, it is imperative to evaluate how entrepreneurial orientation affects competitive advantage of companies in the pharmaceutical sector in Nigeria.

2.0 Literature Review

2.1 Entrepreneurial Orientation

According to Ukenna et al. (2019), entrepreneurial Orientation refers to the strategy making processes that provide organizations with a basis for entrepreneurial decisions and actions. Wales et al. (2021) entrepreneurial orientation (EO) represents an organizational orientation towards new entry and value creation, capturing the decisions, methods, and actions actors use to create competitive advantage. EO as an organizational attribute was initially introduced into the scholarly conversation based on the realization that organizations, like individuals, could "be entrepreneurial (Covin & Wales, 2019). Entrepreneurial orientation is the tendency of a business or organization to be proactive and innovative in its approach to products, services, and business processes. It is characterized by a willingness to take risks, a focus on customer needs, and an openness to new ideas (Choi et al., 2018). Entrepreneurial orientation can manifest in a variety of ways, including a proactive approach to marketing and sales, an emphasis on customer service, a focus on innovation and technology, and the creation of new products and services. Entrepreneurial orientation is essential for businesses to remain competitive in a rapidly changing marketplace (Wales et al., 2020). Also, it can help them to stay ahead of the competition and attract new customers. Furthermore, entrepreneurial

orientation requires a culture of innovation and risk-taking, which can be fostered through effective leadership, training, and incentives (McKenny et al., 2018). Additionally, organizations must have the resources and support necessary to take advantage of opportunities. Furthermore, businesses must have the ability to measure the impact of their entrepreneurial activities and adapt their strategies accordingly (McKenny et al., 2018).

2.1.1 Innovativeness

Mkalama et al. (2018) defined innovativeness as the generation and implementation of new or improved processes, products/services, production methods aimed at increasing the competitiveness of an enterprise. Innovativeness is the ability to develop novel ideas and products, or the capacity to think differently and create something new. It involves the capacity to think outside the box, identify opportunities, and develop innovative solutions to problems (Mancha & Shankaranarayanan, 2021). Rodriguez and Wiengarten (2017) submitted that innovativeness is a key factor in success, both in business and in life, as it allows individuals and organizations to remain competitive in the ever-changing market. Innovativeness can require a combination of creative and analytical thinking, as well as an understanding of the current market and trends. Additionally, innovativeness requires the ability to take risks and overcome obstacles in order to bring ideas to life (Paillé & Halilem, 2019).

On the advantages, innovativeness can lead to improved processes and systems that make it easier for organizations to do more with less, resulting in increased efficiency (Dambiski et al., 2017). Also, innovative solutions can help organizations to be more productive by making it easier to complete tasks or achieve desired outcomes quicker. Innovative solutions often create cost savings by streamlining operations, reducing waste, and eliminating redundant processes (Hollebeek & Rather, 2019). Organizations that embrace innovation can gain a competitive edge over those that do not. This can lead to increased market share and higher profits. Innovative solutions can help to create a positive work environment, as employees feel more engaged and empowered when their ideas are taken seriously and implemented (Ardi et al., 2020). By creating innovative solutions that focus on customer needs and preferences, organizations can provide a better customer experience, resulting in increased customer loyalty and satisfaction (Paillé & Halilem, 2019).

2.1.2 Proactiveness

According to Lumpkin and Dess (1996) as cited Linton, (2016) proactiveness is achieved by anticipating and pursuing new opportunities and by participating in emerging markets also has become associated with entrepreneurship. Miller and Friesen (1978) suggest that proactiveness shapes the environment through, for example, new products, technology and administrative processes in contrast to reacting to the environment. This suggests a forward-looking perspective, being able to anticipate and being prepared for the future. Miller (1983) later suggested that proactiveness can be defined as “first to come up with ‘proactive’ innovations” which thus suggests more the speed of innovating and introducing products and services. Proactiveness can thus be seen to have some different dimensions: speed of innovation and acting on opportunities. Proactiveness as having strategic decision making about the future market condition can be helpful to increase the overall profitability of the firm (Rahman et al., 2016). Neneh and Van Zyl (2017) declared that proactive business approach enables businesses to identify and evaluate new opportunities as well as monitor market trends, and thus put the business in a superior position to exploit identified market opportunities ahead of the competition.

2.1.3 Risk-Taking

According to Okunbanjo et al. (2017) risk taking embodies taking brave steps, measures and commitment of financial and non-financial resources by gambling into an unknown business area. Risk Taking refers to a firm's tendency to engage and the willingness to commit significant resources to opportunities with uncertain outcomes (Bran & Vaidis, 2019). Risk taking is the ability to help firms to engage in bold rather than cautious actions (Ketchen & Short, 2012). Okeyo et al. (2016) posited that through EO, firms can undertake uncertain and risky investments and proactively reach markets ahead of competitors thereby realizing high returns. Wiklund and Shepherd (2003) as cited by Kitigin, (2017), risk-taking refers to the tendency to take bold actions such as venturing into unknown new markets and committing a large portion of resources to ventures with uncertain outcomes. Risk taking involves the willingness to commit significant resources to opportunities with reasonable chance of costly failure as well as success (Kitigin, 2017). The idea is to reaching the market first or preempting other competitors in the same industry in which the business operates.

2.1.4 Competitive Aggressiveness

Aigboje (2018) view competitive aggressiveness as firm's propensity to intensively challenge its competitors to improve its market position and outperform industry rivals in a marketplace. Competitively aggressive firms are those who pay close attention to their competitors' actions and initiate a series of their own. In other words, they prefer to invest in competitive actions such as product launches, marketing campaigns and price competition more frequently than others (Okusanya et al., 2021). It is characterized as the speed and number of competitive actions taken by a firm in comparison to the firm's direct rivals (Muhonen, 2017; Okusanya et al., 2021). Competitive aggressiveness is a trait that involves striving to gain an advantage over others in a competitive situation. It is often associated with a drive to win and a willingness to take risks in order to do so (Stambaugh et al., 2020). This trait can be beneficial in certain situations, such as when competing for a job or a promotion (Hughes-Morgan et al., 2018).

2.1.5 Entrepreneurial Autonomy

Entrepreneurial autonomy means having decisional freedom with regard to what, how, and when venture-related work will be done, including setting the strategic direction of the firm (Gelderen et al., 2018). Entrepreneurial autonomy (also referred to as freedom or independence) is the most commonly listed reason for people to start and run their own venture (Gelderen, 2016). Entrepreneurial autonomy is an important motivator for those starting and running their own business (Stephan et al., 2015). It is a main driver of satisfaction, well-being, and persistence among business owners (Stephan, 2018). Autonomy is also considered to be the basis for entrepreneurial action (Bradley & Klein, 2016). Consequently, the degree of experienced autonomy and the factors that affect it are likely to have significant effects on business ownership, business decisions, growth rates, innovation, and the development of a start-up culture (Van Gelderen, 2020).

2.2 Competitive Advantage

Zeebaree and Siron (2017) defined competitive advantage as the result of a process of strategy formulation adopted by a firm with the purpose of providing added value through market differentiation and cost advantage to customers resulting in an advantageous position to the firm over their competitors for a period of time. A competitive advantage is the primary reason why customers choose one business over another. It is the core of a company's strategy for gaining and sustaining a competitive edge in the marketplace. Zeebaree and Siron (2017) opined that competitive advantage as the way that a firm formulates and implements a strategy that leads to superior performance relative to other competitors in the same industry. Egwakhe

et al. (2019) competitive advantage is entranched in value creation, unique resources, innovation and distribution which is the heart of the firm performance. Firms operates in an environment that are characterised by changing customer demands, ever increasing global competition, uncertainty, and rapid technical changes (Falahat et al., 2018). It is critical for firm to achieve success and competitive advantage through innovation (Falahat et al., 2018).

Competitive advantage is an advantage over competitors gained by offering consumers greater value, either through lower prices or by providing additional benefits and service that is more attractive than the competition (Kiyabo & Isaga, 2020). The benefits of competitive advantage are: A competitive advantage can help businesses increase their profits by driving sales. Consumers are more likely to purchase from businesses that offer better value than their competitors, which can help a business gain a larger market share. Also, a competitive advantage can also help businesses create a strong brand identity. This can help businesses stand out from their competitors, making it easier to attract more customers. In addition, competitive advantage gives businesses the ability to quickly adapt to changes in the market. This helps businesses stay ahead of the competition and remain competitive (Zeebaree & Siron, 2017). A competitive advantage can help businesses build relationships with customers. Customers are more likely to remain loyal to businesses that offer them greater value, which can help businesses increase their customer base and revenue. Likewise, a competitive advantage can help businesses become more efficient by streamlining processes. This can help businesses reduce costs and improve their bottom line.

2.3 Theoretical Framework

The underpinning theory for the study is the Entrepreneurship Innovation Theory. The theory assumes that entrepreneurs possess unique characteristics and engage in entrepreneurial behavior. These behaviors include risk-taking, opportunity recognition, resource mobilization, innovation, and the ability to create and exploit new opportunities (Schumpeter, 1949). The theory assumes that innovation is a primary driver of economic growth and development. It emphasizes the role of entrepreneurs in introducing new products, processes, or business models that create value, generate market demand, and lead to economic progress (Huggins & Thompson, 2015).

The Entrepreneurship Innovation Theory is highly relevant to competitive advantage in the pharmaceutical sector. The Entrepreneurship Innovation Theory focuses on the role of entrepreneurs in driving innovation and economic growth. In the pharmaceutical sector, entrepreneurs play a crucial role in identifying unmet medical needs, developing new drugs and therapies, and bringing them to market. They often take risks and invest resources in research and development (R&D), clinical trials, and regulatory processes to create innovative pharmaceutical products. Pharmaceutical companies can gain a competitive advantage through continuous innovation (Guerrero & Urbano, 2019). Developing novel drugs, improving existing therapies, or introducing innovative drug delivery mechanisms can differentiate a company from its competitors. Entrepreneurial activities that foster innovation and bring new solutions to the market can create a sustainable competitive advantage. The integration of Entrepreneurship Innovation Theory and competitive advantage in the pharmaceutical sector highlights the importance of entrepreneurial activities, innovation-driven strategies, and distinctive capabilities. Entrepreneurs and companies that effectively leverage these concepts are more likely to succeed, differentiate themselves from competitors, and achieve sustainable growth in the dynamic and highly regulated pharmaceutical industry (Demirel & Mazzucato, 2012).

Stratford Peer Reviewed Journals and Book Publishing
Journal of Strategic Management
Volume 7||Issue 3||Page 22-38||May||2023|
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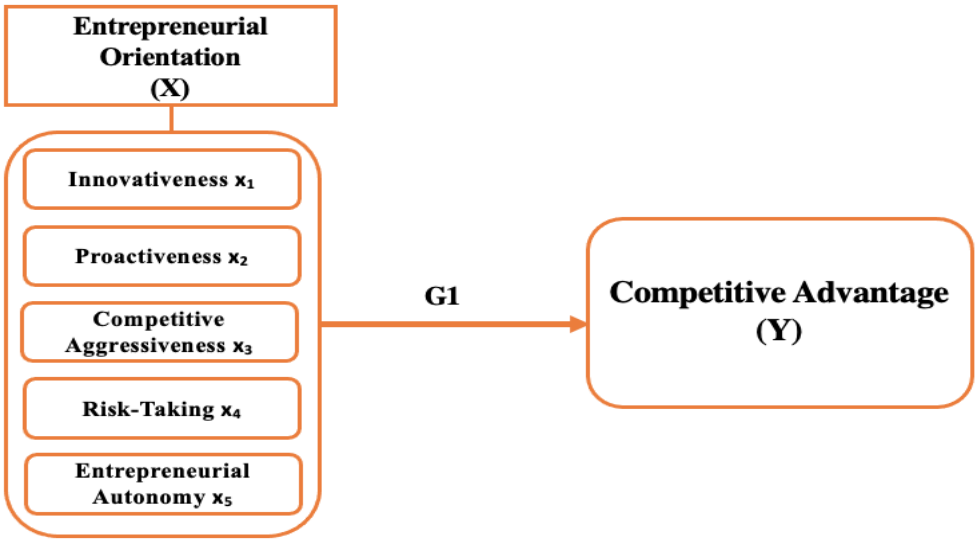
Research Hypothesis

H_0: Entrepreneurial orientation dimensions have no significant effect on competitive advantage of quoted pharmaceutical companies in Nigeria

2.4 Conceptual Model



Source: *Researcher's Conceptual Model (2023)*

3.0 Methodology

A survey research design was adopted for this study and primary data were sourced using well-structured and self-administered questionnaire. The population for the study includes 308 directors, executive management and marketing department staff of seven quoted phamacetical companies in Nigeria. The quoted pharmaceutical companies are Fidson Healthcare Plc, Glaxo Smithkline Consumer Nig. Plc, May & Baker Nigeria Plc, Neimeth International Pharmaceuticals Plc, Pharma-Deko Plc, and PZ Cussons Nigeria Plc.

Pilot study was conducted using pharmaceutical companies in Ogun State to determine the relevance and dependability of the research instrument on entrepreneurial orientation and competitive advantage. The pilot was considered necessary in order to determine the willingness of the respondents to have a fore knowledge of the reactions of the respondents and to ascertain the reliability of the questionnaires when used in an environment. The validity and reliability of the research instrument were tested with the returned copies of the questionnaire using Statistical Package Social Sciences (SPSS).

Stratford Peer Reviewed Journals and Book Publishing
Journal of Strategic Management
Volume 7||Issue 3||Page 22-38||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8472

Table 1: KMO and Bartlett's Test of Sphericity

S/N	Variables	No. of Items	AVE	KMO	Bartlett Test
1	Entrepreneurial Autonomy	6	0.657	0.509	109.636
2	Competitive Aggressiveness	6	0.609	0.501	84.681
3	Innovativeness	6	0.607	0.686	63.268
4	Proactiveness	6	0.513	0.554	237.201
5	Risk-Taking	6	0.664	0.691	366.730
6	Competitive Advantage	6	0.526	0.512	160.553

Source: Researcher's Field Survey (2023)

The KMO test was greater than 5% and Bartlett test of Sphericity result was less than 5% indicating that statements that comprised the research instruments of each variable actually measured what were intended. The result of the KMO and Bartlett test of Sphericity are shown in Table 1.

Table 2: Internal Consistency Reliability Result

S/N	Variables	No. of Items	Cronbach's Alpha Coefficient	Composite Reliability
1	Entrepreneurial Autonomy	6	0.876	0.654
2	Competitive Aggressiveness	6	0.886	0.712
3	Innovativeness	6	0.739	0.708
4	Proactiveness	6	0.793	0.789
5	Risk-Taking	6	0.879	0.847
6	Competitive Advantage	6	0.778	0.728

Source: Researcher's Field Survey (2023)

The Cronbach's Alpha coefficient for all the study variables are above 0.70, which suggested that the instrument used for evaluation was highly reliable. Hence, the researcher affirmed that the research instrument used was reliable.

Model Specification

The independent variable is entrepreneurial orientation and value creation measure with sub-variables of entrepreneurial autonomy, competitive aggressiveness, innovativeness, proactiveness, and risk-taking. The dependent variable is competitive advantage. The model for the variables was denoted in the equations below:

Stratford Peer Reviewed Journals and Book Publishing
Journal of Strategic Management
Volume 7||Issue 3||Page 22-38||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8472

Where

x_1 = Innovativeness (INNO)

x_2 = Proactiveness (PROA)

x_3 = Risk-Taking (RT)

x_4 = Competitive Aggressiveness (CAG)

x_5 = Entrepreneurial Autonomy (EA)

And

Y = Competitive Advantage (CA)

Regression equation

$y_1 = f(x_1, x_1, x_{1,} x_{1,} x_1)$

$y_1 = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \beta_4 x_4 + \beta_5 x_5 + \varepsilon_i$

$CA = \beta_0 + \beta_1 EA + \beta_2 CAG + \beta_3 INNO + \beta_4 PROA + \beta_5 RT + \varepsilon_i$----------*i*

4.0 Results and Discussion

To ensure that the basic assumptions governing regression analysis were met, the obtained data were subjected to pre-diagnostic tests such as, normality, linearity, homoscedasticity, and multicollinearity. Of the distributed 308 copies of the questionnaire, 302 copies were filled and returned and determined usable for the analysis. This represents a response rate of 98.05% of the population employed in the study, which was considered an excellent response rate according to Mugenda and Mugenda (2003).

Table 3 Summary of multiple regression between entrepreneurial orientation dimensions and competitive advantage of quoted pharmaceutical companies in Nigeria.

N	Model	B	Sig.	T	ANOVA (Sig.)	R	Adjusted R^2	F (5,296)
302	(Constant)	1.614	0.000	5.220	0.000^b	0.527^a	0.265	22.726
	Innovativeness	-0.17	0.844	-0.197				
	Proactiveness	0.165	0.069	1.828				
	Competitive Aggressiveness	0.129	0.149	1.447				
	Risk-taking	0.392	0.000	4.069				
	Entrepreneurial Autonomy	-0.053	0.596	-0.530				
	Predictors: (Constant), Innovativeness, Proactiveness, Competitive Aggressiveness, Risk taking, Entrepreneurial Autonomy							
	Dependent Variable: Competitive Advantage							

Source: Author's computation, 2023 underlying data from Field Survey

Table 3 showed the multiple regression analysis results for the components of entrepreneurial orientation dimensions of quoted pharmaceutical companies in Nigeria. The results showed

Stratford Peer Reviewed Journals and Book Publishing
Journal of Strategic Management
Volume 7||Issue 3||Page 22-38||May||2023|
Email: info@stratfordjournals.org ISSN: 2616-8472

that only risk taking (β = 0.392, t = 4.069, p<0.05) had a positive and significant effect while proactiveness (β = 0.165, t = 1.828, p>0.05), competitive aggressiveness (β = 0.129, t = 1.447, p>0.05) have a positive but insignificant effect on competitive advantage of quoted pharmaceutical companies in Nigeria. On the contrary, innovativeness (β = -0.17, t = -0.197, p>0.05) and entrepreneurial autonomy (β = -0.053, t = -0.530, p<0.05) have negative and insignificant effect on competitive advantage of quoted pharmaceutical companies in Nigeria This implies that only risk taking is an important factor in the workplace which in turn yields an increase in competitive advantage.

The R value of 0.527 supports this result and it indicates that entrepreneurial orientation dimensions has an average positive relationship with competitive advantage of quoted pharmaceutical companies in Nigeria. The coefficient of multiple determination AdjR^2 = 0.265 indicates that about 26.5% variation that occurs in the competitive advantage in quoted pharmaceutical companies can be accounted for by the components of entrepreneurial orientation while the remaining 73.5% changes that occurs is accounted for by other variables not captured in the model. The predictive and prescriptive multiple regression models are thus expressed:

$CA = 1.614 – 0.17INNO + 0.165PROA +0.129CPA + 0.392RKT -0.053EPA+U_i$

--- Eqn(i) (Predictive Model)

$CA =1.614 + 0.392RKT+ U_i$ --- Eqn(ii) (Prescriptive Model)

Where:

CA = Competitive advantage

INNO = Innovativeness

PROA = Proactiveness

CPA = Competitive Advantage

RKT = Risk Taking

EPA = entrepreneurial autonomy

The regression model shows that holding entrepreneurial orientation dimensions to a constant zero, competitive advantage would be 0.164 which is positive. In the predictive model it is seen that of all the variables only risk taking is positive and significant so the management of the company need to give priority to that variable that is why it is the only variable included in the prescriptive model. The results of the multiple regression analysis as seen in the prescriptive model indicate that when risk taking is improved by one unit competitive advantage would also increase by 0.392. This implies that an increase in risk taking would lead to an increase in the rate of competitive advantage of quoted pharmaceutical companies in Nigeria. Also, the F-statistics (df = 5, 296) = 22.726 at p = 0.000 (p<0.05) indicates that the overall model is significant in predicting the effect of entrepreneurial orientation dimensions on competitive advantage which implies that entrepreneurial orientation dimensions especially risk taking is an important determinant in the competitive advantage of quoted pharmaceutical companies in

Nigeria. The result suggests that pharmaceutical companies should pay more attention towards developing risk taking to increase competitive advantage. Therefore, the null hypothesis (H_{01}) which states that entrepreneurial orientation dimensions have no significant effect on competitive advantage of quoted pharmaceutical companies in Nigeria was rejected.

The aggregated results of multiple regression analysis for hypothesis one showed that entrepreneurial orientation dimensions (innovativeness, proactiveness, competitive advantage, risk taking and entrepreneurial autonomy) have positive and significant effect on competitive advantage of quoted pharmaceutical companies in Nigeria (*Adj*. R^2 = 0.265; F (5, 296) = 22.726, $p < 0.05$). Thus, the combination of the independent sub variables was significant in predicting competitive advantage of quoted pharmaceutical companies in Nigeria. Put differently, innovativeness, proactiveness, competitive advantage, risk taking and entrepreneurial autonomy combined have statistically significant effect on competitive advantage of quoted pharmaceutical companies in Nigeria.

Empirically, few studies like Dzomonda and Masocha (2018), the study established that entrepreneurial orientation was significantly and positively related to growth in employees, market share as well as sales. Neneh (2016) study market orientation this study showed that two of the three dimensions of MO (i.e. customer orientation, competitor focus) are significant drivers of business performance and that the MO-performance nexus is moderated by the external environmental factors. Specifically, the MO-performance relationship is positively moderated by market turbulence and negative moderated by technological turbulence and competitive intensity. Also, Alsolamy (2019) study revealed that innovation capability positively affects the sustainable competitive advantage. Innovation capacity positively mediate the relationship between entrepreneurial orientation and sustainable competitive advantage. There is significant and positive relationship between each individual entrepreneurial orientation dimension and competitive advantage (Zeebaree & Siron, 2017). The results also reveal that financial support moderated the relationship between each dimension of entrepreneurial orientation and competitive advantage. Kiyabo and Isaga (2020) findings revealed that the study inform that competitive advantage mediates the relationship between entrepreneurial orientation and SMEs' performance for both firm growth and personal wealth performance measures. The study showed that entrepreneurial orientations significantly influenced on competitive advantage (Zeebaree & Siron, 2017).

Sirivanh et al. (2014) found a positive effect on competitive advantage and SME growth. This is in line with Olubiyi et al. (2019); Aroyeun et al. (2019); Fredrick (2018) the study indicates that the regression of pro-activeness, competitive aggressiveness, innovativeness, risk taking initiative and autonomy on the performance of the selected small and medium scale enterprises is statically significant. The results showed that market and learning orientation have a positive relation with SMEs market share. Arshada et al. (2020), study on market orientation revealed that market and learning orientation have a positive relation with SMEs sales growth of SMEs. In a related study by Bamfo and Kraa (2018) on market orientation findings indicated that, market orientation variable of customer orientation positively and significantly predict performance; while competitor orientation positively predicts performance; however, not significant. Prahalad and Hamel (1990) also found a positive relationship with profitability.

5.0 Conclusion and Recommendation

The study investigated the effect of entrepreneurial orientation on competitive advantage of quoted pharmaceutical companies in Nigeria. From the empirical results, entrepreneurial orientation was adjudged as a vital element in enhancing competitive advantage of in a dynamic and global economy. The findings revealed that entrepreneurial orientation (innovativeness, proactiveness, risk-taking, competitive aggressiveness, and entrepreneurial autonomy) had

individual and relative combined effect on the competitive advantage of selected quoted pharmaceutical companies in Nigeria. Given the findings of the study, a new conceptual definition and viewpoint of the different measures of entrepreneurial orientation have been established.

Considering that the study found that entrepreneurial orientation dimensions have positive and significant effect on competitive advantage of quoted pharmaceutical companies in Nigeria, it is recommended that management of pharmaceutical companies should encourage and support a culture that promotes innovation and proactivity among their employees. This can be done through regular brainstorming sessions, idea-sharing platforms, and providing resources and incentives for employees to come up with new ideas and initiatives to improve competitive advantage.

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