Moderating Effect of Disruptive Technology on the Productivity of Family Owned Businesses: A Case Study of SMEs in Akwa Ibom State

Helina Ime Akpandem
Department of Accounting
Akwa Ibom State University
Email: akpandemhelina@gmail.com

Eno G. Ukpong
Department of Accounting
Akwa Ibom State University
Email: enogregoryukpong@gmail.com

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Abstract
This study determined the moderating effect of disruptive technology on the productivity of family-owned business Akwa Ibom State. The purposive sampling technique was used to select 67 family businesses. Primary and secondary data were used for the study. A questionnaire material was developed by the researcher to assess productivity and innovative technology. The validity and reliability of the questionnaire were ascertained before testing. Multiple regression analysis was used to analyze the data. The result of the study showed that disruptive technology has a significant effect on family business productivity with a regression coefficient of 0.142. This implies that 14.2% of the variation in family business productivity is accounted for by disruptive technology. It was recommended that it is in the interest of family businesses to embrace technology for managerial operations, services and products, to enhance their productivity.

Keywords: Family Business, Technology, disruptive technology, entrepreneurial orientation, productivity

Introduction
The family business is a vital force in the Nigerian economy and cannot be overlooked. A family business is a commercial organization in which decision-making is influenced by multiple generations of a family, related by blood or marriage or adoption, and have both the ability to influence the vision of the business, as well as the willingness to use this ability to pursue distinctive goals (De Massis et al., 2014). They are closely identified with the firm through leadership or ownership.

A family-owned business is any business in which two or more family members are involved and the majority of ownership or control lies within a family. Family-owned businesses may be the oldest form of business organization, and today they are recognized as important and distinct participants in the world economy. According to Bowman-Upton (2021), about 90 per cent of American businesses are family-owned or controlled. Ranging in size from two-person partnerships to Fortune 500 firms, these businesses generate about half of the nation's Gross National Product. Family businesses may have some advantages over other business entities in their focus on the long term: their commitment to quality (which is often associated with the family name), and their care and concern for employees. But family businesses also face a unique set of management challenges stemming from the overlap of family and business issues.

According to Astrachan and Shanker (2019), family-owned businesses are the backbone of many economies around the world. Previous studies have confirmed the weight these businesses carry in national economies. In Nigeria, they account for over 60% of all private sector companies. About 90%

of all small and medium-sized companies are family-owned and controlled, constituting a great chunk of the employment and Gross National Product (GNP). The economic and social importance of family enterprises has now become more widely recognized. How family firms are governed (how they are directed and controlled) is therefore crucial to the contribution they can make to their national economies as well as to their owners (Adebosin et al., 2019). Family firms controlled by the founders are generally run more efficiently and have greater value as measured by the market equity/book equity ratio than other firms have and also, carry less debt in comparison to other firms (McConaughy et al., 2021). Family businesses' performance is better than non-family businesses, both in profitability and financial structures. The level of family control strongly influences performance, at least in terms of profitability (Allouche *et al*., 2018). A long-term perspective, rapid decision making and the high importance of personal ethical values are characteristics of most family activities and businesses. On the other hand, family-owned businesses face a lot of challenges, ranging from interactions within the company, the family and its business environment.

According to Astrachan and Shanker (2019), a family business can see its performance influenced by internal factors, such as ownership, the type of management, the involvement in management as well as the country's economic policies. A company's performance level can also be conditioned by external forces, such as different competition types, namely growth opportunities and market forces (Arosa *et al*., 2010), as well as technology and the diffusion of new technologies like disruptive technologies.

A disruptive technology displaces an established technology and shakes up the industry or a groundbreaking product that creates a completely new industry. Christensen and Raynor (2013) discovered that disruptive technologies may enter and expand emerging market niches, improving with time and ultimately attacking established products in their traditional markets. Kassicieh (2012) defines disruptive technologies as 'scientific discoveries that break through the usual product/technology capabilities and provide a basis for a new competitive paradigm. 'Technology enhances a firm's competitiveness, growth in revenue and production, operational efficiency and customer satisfaction. Disruptive technologies have the potential to create a new marketplace and as a consequence make other industries redundant.

According to Madsen and Hartington (2015), disruptive technologies can have an impact on any organization. A business may be satisfied with the sustaining technology but is less aware of disruptive technology that could be a threat to the information systems. If a business does not respond in time to the disruptive technology, it could lose its competitive edge or the business could be vulnerable to external threats. Hence, as asserted by Madsen and Hartington (2015), firms should keep abreast of changes in all aspects of their operations.

Statement of the Problem

Although the Nigerian economy depends heavily on the continuity and success of the family business, it is unfortunate that such a vital force has such a poor survival rate. Less than one-third of family businesses survive the transition from first to second-generation ownership. Of those that do, about half do not survive the transition from second to third-generation ownership. This is not just about succession challenges and corporate governance issues, it is also about challenging business environments driven mostly by the adoption of new technologies, especially disruptive technologies in this age. The perennial challenge of sustenance and succession in addition to the pervasive effect of disruptive technology calls for a re-assessment of the viability of family businesses. Disruptive technology is empowering smaller businesses and entrepreneurs to cut into the traditional market of family businesses. They are taking advantage of new service models, business models and sizes to reach customers locally and nationally with less cost and more effectiveness. This is a major concern as it leads to job losses and a negative impact on the family business.

There have been conflicting results from previous studies on family businesses with some confirming that family businesses are hurt by disruptive technologies while others have found

conflicting results concluding that family firms are inherently inefficient, flawed and poor performers concerning disruptive technology and their model of corporate governance. Many studies carried out on SMEs have not explored the family dimension as a factor contributing to performance and it is not clear which of the family business characteristics and practices hinders or contributes to good performance and growth.

The Objective of the Study

The main objective of the study is to determine the moderating effect of disruptive technology on the productivity of family-owned businesses in Akwa Ibom State.

Research Question

What is the effect of disruptive technology on the productivity of family businesses in Akwa Ibom State?

Research Hypothesis

The following hypothesis is tested at a .05 alpha level:
Ho1: There is no significant effect of disruptive technology on the productivity of family businesses in Akwa Ibom State.

Literature Review

Concept of Family-Owned Business

There are different definitions of family business and no clear consensus has emerged concerning its definition. Content, purpose and family influence are the common aspects of the definitions of family business. Most definitions are focused on ownership, family involvement, family control and the intention to transfer the family firm. Issues like ownership, governance and trans-generational are also included in the definition of family firm for analytical purposes. In brief, some definitions are still open to discussion, but the elements of involvement and the core approaches seem to be overlapping (Huriye, 2012). According to Bowman-Upton's (2021) definition, a majority of the ownership or control are under a family, and two or more majorities of the ownership or control is under a family business which is like any business.

The concept of family business in Nigeria has become significantly attractive, with its root in sole proprietorship form of business, however, the realization of the full potential of the prevailing opportunities associated with family business depends on a variety of factors. Family business, in most instances, grows from a one-man business into a business controlled, managed and operated by two or more family members. Active participation of more than one member of a family which results in controlling above 50% of the total assets of the company/business is what makes the business a family-owned business. The family business is predominately grounded on the idea of ensuring the business ownership remains within the close control of family members over a successive generation (Ayobami, *et al,* 2018). The acceptability of family business as a culture across the globe is the outcome of the dominating role family members play in the daily running and operations of various businesses, thereby leading to a leadership system proposed by family members.

Family Business (FB) Performance

The sustainability of Family owned businesses (FOBs) depends largely on their performance, which can also affect the economy of a nation. Performance measurement is important in the study of management because it enables researchers to assess the impact which various strategies might have on firms' performance, thereby facilitating the development and testing of theory as well as the evaluation of the effectiveness of practitioners' decisions. Hence, measuring family business performance is essential to enlarge the body of family business knowledge and related theories (Astrachan, 2010). Lebans and Euske (2006) provide a set of definitions to explain the concept of organisational performance:

1. Performance is a set of financial and non-financial indicators which offer information on the level of achievements of objectives and results (Lesbans & Euske, 2006).
2. Performance is dynamic, requiring judgment and interpretation.
3. Performance may be construed differently by the person involved in the evaluation of the organisational performance (e.g. performance can be understood differently by a person within the organisation compared to an outsider).

Numerous studies have identified the dimensions to be used to measure business performance. In particular, three dimensions are identified: financial or economic, operational or competitive, and organizational or social. The financial dimension is based mainly on accounting data, such as operating profitability indicators and sales profitability and equity profitability (Yeung & Lau, 2005). The operating dimension concerns the company's success with its customers and is mainly measured by the employment rate. Finally, the organizational dimension considers the satisfaction of the various corporate stakeholders, particularly property and employees (Bagnaresi *et al,* 2019).

Organisational performance connotes how well an organization is striving to reach its vision, mission and objectives. Evaluating organizational performance is an essential aspect of strategic management. In other words, company executives must come to terms with how well their organisations are performing to know the strategic modifications, if any, to make. In family business studies, researchers typically use financial metrics to measure performance (Astrachan, 2010). However, measuring performance solely with financial performance metrics assumes that financial goals are the basic aims of organizations. Moreover, researchers have expressed concern over the assumption that financial goals are the only goal, or the primary goals of FBs (Christmam et al., 2004). Countering the premise that financial goals are the major objective of family businesses, scholars have recently devoted much attention to the non-financial goals of family businesses (Berrone et al., 2012). When researchers measure family business performance using common metrics across firms, they assume homogeneity among family firms, that every family business targets more or less the same objectives (Dim & Chukwuma, 2020). However, each family business has goals that reflect the unique aspirations and desires of the business which are the product. Hence, family business goals can be considered particular to each family business.

Performance at the organizational level is an aggregate phenomenon: the multidimensional aspect of these important organisational phenomena such as the effects of structure, motivation, group dynamics, job enrichment, decision-making patterns, leadership styles, goal setting and planning, among others. In other words, there are some organisational sustainability patterns which affect the performance of FBs positively or negatively such as organisational structure, leadership, decision-making processes, motivation, conflict management systems and succession planning (Dim & Chukwuma, 2020). These might negatively affect employee performance which broadly constitutes adverse effects on the overall organizational performance, putting into consideration such factors or variables which if properly managed, enhance the survival of FBs. These dimensions have not fully been explored about the organisational performance of FBs in Akwa Ibom State.

Any assessment of the performance of various types of firms depends, to a great extent, on the performance variables one retains to assess performance. For example, an evaluation of corporate performance related to financial measures is likely to show better results for non-family businesses (NFBs). In part, this is because the compensation of non-family business (NFB) managers in agency contracts is often contractually linked to performance based on verifiable measures, such as the value of a company's stock or rate of return on equity. In contrast, the compensation of executives related to the founding family is likely less linked to such performance-based compensations. However, when looking at other measures such as turnover or profit growth, it is less clear that differences between FBs and NFBs performance should be observed. The results will depend on the positive and negative impacts of other characteristics of FBs such as entrepreneurial orientation (trustworthiness and commitment, maximisation of family well-being or problems in succession, etc.), disruptive technology, nature of business and corporate governance (London Economics, 2002).

Disruptive Technology

In business theory, disruptive technology is technology that creates a new market and value network or enters at the bottom of an existing market and eventually displaces established market-leading firms, products, and alliances. The concept was developed by the American academic Clayton Christensen and his collaborators beginning in 1995, and has been called the most influential business idea of the early 21st century (Christensen & Bower, 1996). Disruptive technology refers to the technology that transforms expensive or highly sophisticated products or services - previously accessible to a high-end or more-skilled segment of consumers - to those that are more affordable and accessible to a broader population. This transformation disrupts the market by displacing long-standing, established competitors. Disruptive technology refers to the use of technology that upsets a structure, as opposed to "disruptive technology", which refers to the technology itself (Twin, 2021). These technologies and the way they were incorporated into the business were primarily designed to allow companies to remain competitive, or at least maintain a status quo. Disruptive technologies and the way they are integrated were less easy to plan for and potentially more devastating to companies that did not pay enough attention to them.

Investing in a disruptive technology can be complicated. It requires an investor to focus on how companies will adapt to disruptive technology, instead of focusing on the development of the technology itself. Companies such as Amazon (AMZN), Google (GOOGL), and Meta (FB), formerly Facebook, are examples of companies that have heavily focused on the internet as a disruptive technology. The internet has become so ingrained in the modern world that the companies that failed to integrate disruptive technology into their business models have been pushed aside. Artificial intelligence (AI) and its potential to learn from employees and perform their jobs may be a disruptive technology for the job market as a whole soon (Adebosin et al., 2019).

What makes a technology or technology “disruptive” is a point of contention. The term may be used to describe technologies that are not truly disruptive. The internet was disruptive because it was not an iteration of previous technology. It was something new that created unique models for making money that never existed before. Of course, that created losses for other business models. People using smartphones instead of laptops and desktops for their computing needs, including web browsing and streaming, is another example of disruptive technology. Technological enhancements have enabled cell phones to be equipped with small processors, chips, and software applications that support these functions (Twin, 2021).

Requirements for Disruptive Technology

Disruptive technology requires access to ignored or overlooked markets and technology that can transform a product into a more accessible and affordable one. To be disruptive, the network of partners - suppliers, contractors, and distributors, must also benefit from the new, disruptive business model. Certain core requirements include:

- *Enabling Technology*: In business, enabling technology is defined as the technologies that substantially change or improve processes or how people do things.
- Innovative Business Model: The innovative business model is a business model that uses technologies to target new or bottom-tier customers. These segments generally don't drive profits for established companies nor do they buy their offerings because they either could not afford them or the products were too sophisticated for use. This business model—a model not adopted by incumbents because of the disruptor's initial low-profit margins—seeks to present easy-to-use, economical solutions. (Adebosin et al., 2019).
- Coherent Value Network: The coherent value network includes the upstream and downstream business partners that benefit from a successful disruption. he distributors, suppliers, and vendors may require process changes or reorganization to adapt or conform to the new business model. Members of the network must subscribe to the new business model to prevent failure. Otherwise,

old network processes will yield undesirable results by not prescribing the goal of disruption (Twin, 2021).

Technology and Performance of Family Business

Technology is key to entrepreneurship and has proven to be one of the most effective driving forces for the continued growth of most companies. Technology is considered a force of creative destruction where old ways of doing things are replaced by new and better ways (Singh & Hanafi, 2019). Zahra (2007) observed that the purest type of entrepreneur genus is the one who confines himself/herself strictly to the characteristic entrepreneurial functions of carrying out new combinations. The technology according to Zahra, can take the form of new products/services, finding new markets, new marketing methods, and new forms of organizations, among others. It is by embracing the concept of technology that has seen many companies register high growth. According to Lumpkin & Dess (1996), innovativeness reflects a tendency for an enterprise to engage in and support new ideas, novelty, experimentation, and creative processes that may result in new products, services or technological processes. Technology is an important means of pursuing opportunities and so an important component of an entrepreneurial orientation (Lumpkin & Dess, 1996).

Technology goes beyond the generation of good ideas; it is a management process and must involve transforming those good ideas into results. For the family firm to be innovative, create value and bring new ideas to the market, there must be internal changes and certain environment and founder characteristics that support technology. Matama (2006) notes that technology is the actualization of ideas produced under creativity as it does the job of converting materials into resources and combining existing resources into more productive configurations. It is one of the most important growth-oriented strategies and includes other inborn traits of intelligence, hard work and courage. Research examining the relationship between technology and ownership structure appears to be nonexistent, especially in family business entities. Technology research has tended to focus on large publicly held organizations although statistics suggest that the majority of technologies come from the small business sector.

Theoretical Framework

Christensen's Theory of Disruptive Technology from Clayton Christensen is the theory best used to discuss the impact of new and groundbreaking technologies on a firms' existence. This model was introduced by Christensen in 1997 in his book "The Innovators Dilemma: When New Technologies Cause Great Firms to Fail." This model was a function of performance and time for new technology. This model also describes the inability of great firms to counter the impact of new technology. Christensen argues that due to the unpredictable nature of disruptive technology, successful and well-managed firms can also be negatively affected. In his theory, Christensen distinguished between sustainable technologies and disruptive technologies in which sustainable technologies add value to existing and already established products whilst disruptive technologies disrupt or redefine performance levels, thereby creating a new marketplace. In general, technological improvements result in performance improvement of established products. These products usually become faster, cheaper, louder, and smaller, as indicated by the above characteristics of disruptive technology (Christensen & Bower, 1996). These new technologies will be simpler and more opportune for customers because they remain in line with their current needs and expectations. Christensen regards these kinds of developments as "sustaining in character". Great firms direct the industry to embrace these technologies and exploit potential benefits of these technologies. As competition increases, firms attempt to upgrade their performance levels by producing better products to attain more customers in the market. The improvements in performance will however, increase at a faster rate than anticipated customer needs, a situation which will give rise to disruptive technologies (King & Baatartogtokh, 2015). In Christensen's model, the x-axis represents time, the y-axis represents product performance and the z-axis represents consumer segments. The two dimensions, time and performance define a particular product in a market. The third dimension or z-axis represents satisfied customers whose needs are being met by the increased

use of the products. The more the performance of a product increases, the more the needs of customers are being met and eventually customer expectations are surpassed. This situation will leave a gap of unmet needs which require simpler and convenient product offerings (Christensen & Raynor, 2013).

Review of Empirical Studies

A study by Ezekiel (2018) on the impact of disruptive technology on the performance of insurance firms in Kenya utilized a desktop literature review and focused on previously published journals in PDF format that addressed technology and the performance of insurance firms. A total of 13 journals were found relating to technology and the performance of insurance firms. The review of the literature revealed that various aspects of disruptive technology have a significant impact on organizational performance. In a related study by Wang et al (2021) on how disruptive technology influences firm performance, using a moderated mediation model, a sample of 207 firms was gathered through questionnaires targeting senior managers and R&D managers from high-tech firms in China with two waves including explanatory variables and outcome variables. The empirical results indicate that disruptive technology positively affects firm performance and that technology speed and technology quality mediate the relationship between disruptive technology and firm performance.

Mwai et al (2018) investigated the effect of entrepreneurial orientation on the performance of family-owned businesses: a case study of supermarkets in Nairobi County. A descriptive survey research design was used and the target population of the study consisted of the management staff of 45 family-owned supermarkets in Nairobi County. The study used a stratified random sampling method to select 30% of the respondents, resulting in the selection of 216 respondents. Using a questionnaire, the quantitative data were analyzed by descriptive statistics. In addition, a multivariate regression model was applied to determine the relative importance of each of the five variables concerning Family Owned supermarket performance. The study found that innovativeness culture promoted the performance of family-owned supermarkets in Nairobi County. It recommended that the management of family-owned supermarkets should work to ensure that the internal flow of activities is effective as the quality of coordination was found to be a crucial factor in the survival of family-owned supermarkets.

Adebosin (2019) studied disruptive technology and the performance of family businesses in Ogun State. Descriptive research design was employed and primary data were collected using the questionnaire method. Disruptive technology theory provided the framework for the analysis. A sample of three hundred and thirty-one (331) purposively selected staff of five family business firms was used. Analysis of variance (ANOVA) regression estimated through SPSS 15.0 showed that disruptive technology (β=.047, t=0.781 & $P>0.05$) does not have a significant effect on the performance of the family business. It was also found that family business culture (β=0.733, t=17.711 and $P<0.05$) has a significant positive effect on the performance of family business. The result also showed that age (β =.634, t=4.775, $p<.05$), marital status (β =1.465, t=2.652, $p<.05$) and work experience (β=-740, t=-2.172 $p<.05$) have a significant and independent effect on performance of family business while gender (β=-.029, t=-.220& $p>.05$) and qualification (β = -.154, t=-1.087& $P>$ .05) do not have a significant independent and joint effect on performance of family business in Ogun State. The study concluded that disruptive technology does not show any effect on the performance of family businesses. Among others, the study recommended that managers should, therefore, create and promote the eagerness to learn among their employees so that they can develop new skills and share existing knowledge. Also, family businesses should engage in new product development to gain a competitive advantage.

Gilbert (2017) researched on the influence of family business entrepreneurial orientation on the performance of small and medium-sized food and beverage manufacturing family enterprises in Nairobi County. The study used a descriptive survey design. The target population was 146 businesses registered by the Kenya Association of Manufacturers operating businesses in food and beverages. The sample size included 84 businesses which were confirmed as family-owned. Respondents were sampled using a non-probability convenient sampling procedure. The findings revealed that owners/managers were supportive and encouraged new ways of doing business and that businesses had pioneered the

development of breakthrough technologies in the industry with respondents having introduced many new products/services. Based on these findings, it was recommended family businesses should embrace entrepreneurial culture.

3.0 Methodology

The survey research design method was used in this study. The population of the study consist of small and medium-scale enterprises in Akwa Ibom State. According to SMEDAN (2017), there are 1887 SMEs in Akwa Ibom State. SMEDAN (2017) asserts that 65.7% of the SMEs are sole proprietorship (family-owned), thus, making the population of the study to be 1240. The sample size of the study was determined using the Taro Yamane formula. The sample size computed was therefore 302 family businesses. The researcher used a purposive sampling technique to select 67 family businesses for the survey. The survey was carried out across the three senatorial districts with Uyo having the highest number. This study made use of primary data, that is, the questionnaire and the instrument was validated by experts in the Department of Accounting, Akwa Ibom State University.

The data were collated and tested for reliability using the Cronbach alpha method. This gave a reliability index of .87, thus, the instrument was deemed fit for use in the study. The independent variable of this study is innovative technology measured with a questionnaire. The dependent variable was the productivity of family-owned businesses. Descriptive statistics were used to summarize the mean, standard deviation, maximum and minimum mean values of the study variables. The hypotheses were tested using regression analysis.

Model Specification

The following econometric models were specified: $Y = f(X) + \mu$

The above model could be re-constructed as thus:
$Produc = \beta o + \beta_1 DisInn\acute{\imath}t + \mu\acute{\imath}t$
Where: $\beta 0$ = Intercept of the regression $\beta 1$ = Coefficients
$\mu\acute{\imath}t$ = error term
dependent variable (Produc) = Productivity
DisInnít = Disruptive technology (independent variable)

Analysis and Results

Table 1: Cross Tabulation of Descriptive Analysis of Variables

	N	Minimum	Maximum	Mean	Std. Deviation
PRODUC	67	33.00	82.00	56.0896	10.48770
DisInn	67	12.00	70.00	34.7910	12.66532
Valid N (listwise)	67				

Table 1 shows the summary of the descriptive statistics for the variables of the study. The Table reveals that the Mean productivity value is 56.09, with maximum and minimum values of 33 and 82. The standard deviation is 10.49, indicating that the values are not too dispersed from the mean. The same low values of the standard deviation for entrepreneurial orientation and disruptive technology with values of 15.06 and 12.66 respectively. However, with a minimum value of 12 and a standard deviation value of 12.66 for disruptive technology, the values are dispersed from the mean, indicating that different companies respond differently to disruptive technology.

Table 2: Summary of Correlation Matrix

		PRODUC	DisInn
PRODUC	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	67	
DisInn	Pearson Correlation	.171	1
	Sig. (2-tailed)	.166	
	N	67	67

Table 2 shows the summary of the correlation matrix for the variables. The result shows that entrepreneurial orientation has a high positive relationship with productivity, with a correlation index of .584, and disruptive technology has a low positive relationship with productivity, with a correlation index of .171.

Test of Hypothesis

Ho1: There is no significant effect of disruptive technology on the productivity of family businesses in Akwa Ibom State.

Table 3: Summary of regression test for a significant effect of disruptive technology on the productivity of family business

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	51.156	3.743		13.666	.000
	DisInn	.142	.101	.171	3.401	.000

R Squared .29
Adjusted R2 .14
Fstat 3.964 (p.000)

Table 3 shows that the coefficient of beta is .142, indicating that as disruptive technology rises, productivity rises. The result is significant at p=.000. This indicates that disruptive technology can influence the productivity of family-owned businesses if well managed. Thus, there is a significant effect of disruptive technology on the productivity of family businesses in Akwa Ibom State.

Discussion of Findings

The result of the analysis shows that the coefficient of disruptive technology is .142 and is significant. This implies that 14.2% of the productivity of family-owned business are influenced by disruptive technology. The result of the hypothesis test is significant. Thus, there is a significant effect of disruptive technology on the productivity of family businesses in Akwa Ibom State. Disruptive technology affects family business performance. This finding is in line with Dim and Chukwuma, (2020) who found that performance at the organizational level is an aggregate phenomenon. In other words, there are some organisational sustainability patterns which affect the performance of FBs positively or negatively such as the impacts of technology and its disruptive impact on products, services, customers and management. The finding is also supported by Mwai, Ntale and Ngui (2018) who found that an innovativeness culture promoted the performance of family-owned supermarkets in Nairobi, Kenya.

Summary and Conclusion

This study set out to determine the moderating effect of disruptive technology on the relationship between family-owned businesses and productivity in Akwa Ibom State. The direct relationship between disruptive technology and the productivity of family-owned businesses and the moderating effect of disruptive technology on the relationship between entrepreneurial orientation and the productivity of family businesses were explored. The population of the study consisted of SMEs that are family businesses in Akwa Ibom State. The purposive sampling technique was used to select the sample. The sample from the population was based on convenience and easy accessibility, to ensure a fair representation of the views of all the members of the population in the study. Using the survey research design, the researcher developed a questionnaire instrument to assess productivity and disruptive technology. The validity and reliability of the questionnaire were ascertained before testing. Multiple regression analysis was used to analyze the data. All data were tested at a .05 level of significance. The study concludes that disruptive technology has a significant effect on family business productivity.

Recommendations

Based on the results of the empirical analysis, the following recommendations related to the findings are made:
:

1. It is in the interest of family businesses to embrace technology and technologies for managerial operations, services and products.
2. Family businesses, especially those run by family members should improve upon their corporate governance structures. Strengthening corporate governance structures will help in improving performance.

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