



# IMPROVING THE PERFORMANCE OF FAMILY-OWNED SMALL AND MEDIUM SCALE ENTERPRISE: THE ROLE OF DISRUPTIVE INNOVATION

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### **Abstract**

*The role of disruptive innovation in promoting the performance of family-owned small and medium scale enterprises has not fully been explored in Africa especially Nigeria. Therefore, this paper is focused on examining the role of disruptive innovation in improving the performance of family-owned small and medium scale enterprises. The study administered 390 copies of questionnaires, while 310 were retrieved from family-owned SMEs in Ado Ekiti. Multiple regression and correlation were deployed to show the relationships between the variables. The findings revealed that disruptive innovation has a strong relationship with sales growth and a weak one with profitability. Therefore the study recommends that family-owned SMEs should deliberately ensure improve the technological features of their products and study market dynamics to ensure profit maximisation and strengthen their business growth, hereby boosting business performance.*

**Keywords:** Disruptive Innovation, Family-owned SMEs, performance.



## Introduction

Disruptive innovation is vital to the performance of SME's (Mytelka & Farinelli, 2000; Wong et al., 2005; Longenecker *et al.*, 2006). It is the engine room that determines the efficiency of SMEs. Empirical studies have confirmed that 90% of SMEs across the globe began as a family business (Colli, Fernandez-Perez, & Rose, 2003; Klyver, 2007). Also, the impact of disruptive innovation's on family-owned SME's reflects on the creation of opportunities and business sustainability (Bamidele, 2017). 80-90% of all businesses are family-owned and they provide employment opportunities for 75% of the global workforce (Poza & Daugherty, 2014). A family business, therefore, has a considerable impact on the economy of the world. It is worthy of note that 95% of registered firms across the globe are SMEs, in 2010, Europe had the highest employment 99.8% (Canetti, 2003), this reality has fuelled the interest of researchers in the field of family business and entrepreneurship (Chrisman, Chua & Pramodita, 2005). Literature

also shows that disruptive innovation is essential to the performance of family-owned SME's in America (Jessica, 2017), while disruptive innovation serves as a competitive advantage to family-owned SME's (Rose, 2012).

In the Nigeria context, the majority of businesses are family-owned (Onuoha, 2012), research on family business has significantly gained popularity in the field of entrepreneurship. (Olaore, Afolabi, & Gboyega, 2017). An investigation into family-owned SME's, therefore, is timely and relevant in the field of entrepreneurship. Furtherance, Akande & Ojokuku, (2008) opine that family-owned SME's contribution towards economic growth and development in Nigeria is noticeable, Ayodele, Oko, Ayodele & Babarinde (2018) significantly recognised the contributions of family-owned SMEs through job creation and reduction of poverty in South-west as a substantial contribution towards economic development and employment opportunities in Nigeria.

In practice, SMEs performance is shaped by disruptive technologies and market reality (Baiyere & Salmela, 2014), SMEs are also recognised as significant contributors to socio-economic progress (Ogunsiji, 2010). Nevertheless, SMEs are embattled with variety of factors inhibiting their performance, including the introduction of goods to the market, distribution, process management and innovation (De Massis, Frattini, & Lichtenthaler, 2012), family business lack safety mechanism to absorb industrial shocks which large firms possess

(Chrisman & Chua, 2005). Therefore linking disruptive innovation with family-owned SMEs is imperative to family business research.

Disruptive innovation enables SMEs to break into a new market and gradually climb up the value chain, resulting in pressurising market leaders (Wang & Chen, 2012). This makes Disruptive innovation a threat to existing firms in the industry. Family-owned SMEs can leverage available opportunities by disrupting, subsequently competing favourably in the industry. Disruptive Innovation therefore alters/improves existing structure (Latzer, 2009), brings into limelight new technologies, improve business transactions (Rose, 2012), gradually becomes acceptable (Grady, 2014). In Nigeria photography industry, for instance, traditional photography was replaced with digital photography, rendering the entire process obsolete (Oyekan, 2019), other industries like banking, transportation among others are constantly transformed through disruptive innovation (Akosile, 2017).

Baiyere & Salmela, (2014) emphasised that 21<sup>st</sup> era is a time to disrupt and to be disrupted. Information science, artificial intelligence, advanced robotics, cloud technology, 3D printing, e-mail, digital photography, renewable energy and several others are examples of disruption, which has enhanced business performance across the world. Family-owned SMEs also must understand how disruptive innovation process works and how it can impact their productivity. Wang & Chen, (2012) identified two vital keys for disruptive innovation to succeed. Firstly, there must be performance overshoot in the mainstream market, leading to customers deriving more benefits than expected and secondly, the business must be attracted to higher-end/higher-margin markets, with a resolution to run away when attacked from underneath. This implies that disruptive innovation target customer groups which do not purchase from already running markets or potential customers who desire the product/ service with an improved feature.

## **LITERATURE REVIEW**

### **2.1 Disruptive Innovation Theory**

Disruptive innovation alters need of an existing market, uses an attractive feature, updated technology, user-experience or interface to displace an existing product, hereby gaining entry into the market (Wu, Zhang & Ma, 2005). Christensen, (1997) theory of disruptive innovation justifies the failure of successful businesses, by recognizing the need for managers of top firms to build destructive capabilities and also pay rapt attention to rivals with destructive innovations. The root of disruption can be a discontinuity in technology,

commerce or both, resulting in a noticeable improvement in cost and performance (Leifer, Connor, & Rice, 2001). Joseph Schumpeter creative destruction concept in the early 1930s asserted that new technologies, products, or service gradually eliminate the existing product from the market.

Disruptive innovation brings into the market new features, performance and price which distinguish it from existing products, therefore using these great features like a unique selling proposition for the product (Govindarajan & Kopalle 2006; Daneels 2006; Baiyere, 2016). Innovation in some instances might be less acceptable if it is newly introduced into the market, but it gradually attracts the mainstream customers. Disruptive innovation is a necessity for organizations that seek superior performance (Egbetokun, Olamide, Siyanbola, Adeniyi & Irenfin 2010), it introduces new methods with high potential of generating innovative products or alter prevailing ones (Baiyere, & Salmela, 2015).

## **2.2 Disruptive innovation and family-owned SMEs performance**

Disruptive innovation is required for the maximal performance of the family business (Ayodele, et.al, 2018), innovation continues to significantly impact SMEs performance (Ihua, 2009). Most SMEs across the globe requires disruptive innovation to compete favourably with large firms. SMEs, therefore, remains a major driver in the private sector of any economy. In Nigeria, most SMEs are family-owned (Onugu, 2005) in Japan, 40% of the SMEs are family-owned, and 80% of the family businesses have a family member as chief executive officer. Federal office of statistics of Nigeria in 2012 reported that over 80% of the totality of businesses are SMEs with a contribution of 54% of the total industrial output in Nigeria (Adeeko, 2017), however, 73% of Nigerian family business believe they would make significant progress if they have digital competences (Agbeyi, 2018).

Family ownership provides family businesses with the controlling entity and frequently generate value in both commercial and social means (Bondy, Moon, & Matten, 2012). In the EMEA region, an in-depth interview conducted with 268 future leaders of family-owned businesses, the findings revealed that family businesses have the capability to grow and adjust to the dynamic business environment, these businesses are keen to innovate, their disposition towards risk is positive and this explains why family-owned businesses in this

region thrive in the uncertain business environment, however, the future leaders of these businesses claim to be ready and armed to forestall disruption (Mennolt, 2017).

Studies show that multiplicity in the organisation and business practices within the family business, coupled with these firms shared features, which distinguish them from non-family business, making them easy to disrupt existing innovation (Kuo, Kao, Chang, & Chiu, 2012). The drive to secure the future generation and long-term possession of SMEs are often associated with the family business and disruption makes these businesses thrive within the market (Ampenberger, Schmid, Achleitner, & Kaserer, 2013; Jessica, 2017).

Guo, Pan, Guo & Kuusisto (2019) proposed three measurements for assessing disruptive innovation, they are technological features, market dynamics and external environment. Several researchers consider sales growth and profit maximisation accurate measurement of SMEs performance (Fitzsimmons, *et.al* 2005; Lerner & Almor, 2002; Wiklund 1999; Yusuf & Saffu, 2005).

Hence this study proposes the following hypothesis as;

*H1: there is no significant relationship between technological features and sales growth*

*H2: there is no significant relationship between market dynamics and profit maximisation*

### **Technological Features and Sales growth**

As indicated by Hang, Chen, & Yu, (2011), technological features enable the assessment of the possibility of disruption of the innovation. It determines whether or not the technology has the potential to disrupt the marketplace. Disruptive innovation is changing in the technological pattern (Momeni & Rost, 2016), that comes in the form of technological features and it distinguishes the product from the normal product (Henderson, 2006). Increased sales growth also can occur through value creation and inclusion of novel product features into a new or existing product (Pedro *et.al*, 2015). Firms which seek to achieve sales growth through disruptive innovation in the market and improve performance must strategically include new technological features into their product, ultimately resulting into a steady increase in sales volume of a product and reflect in the revenue of the business (Fazli, Sam, & Hoshino, 2013).

### **Market Dynamics and Profit maximisation**

The family business has continued to evolve across several countries (Shortest.al, 2016), both new and existing businesses can take advantage of market dynamism to seize market

share (Christensen, 1997; Guo, *et.al*, 2019) to achieve competitive advantage and ultimately maximise profit. The resource-based view (RBV) recognises the relationship between the profit maximisation and firm characteristics as a competitive advantage (Leiblein, 2011; Pedro & Félix, 2015), it considers financial indicator sufficient for measuring performance effectively (Ardishvili, 1998; Delmar, 1997). Other researchers consider profit maximisation as a valid and precise measurement of SMEs performance (Fitzsimmons, *et.al* 2005; Lerner & Almor, 2002; Wiklund 1999; Yusuf, & Saffu, 2005).

### **3.0 Methodology**

The sample used for this research work focused on family-owned SMEs managers who have a minimum of 5 years' experience in their various forms. The objective of the selection criteria was to ensure that respondents had thorough knowledge about the family-owned SMEs and can provide relevant information for the study. The study was conducted in Ado-Ekiti, the researchers retrieved 310 out of the 390 distributed questionnaires in 295 firms. Items contained in the research instrument were self-developed, it was guided by the objectives of the study. The Cronbach's Alpha value of the study was calculated to be 0.816 which was beyond the set minimum of 0.7. Multiple regression and correlation analysis were used to test the research hypotheses.

### **4.0 Analysis and Result**

The respondents that made up this study represent both male and female gender, the sample was made up of less male 192(61.9%) than female 118(38.1%) respondents. The age category of respondent, 9(2.9%) of the respondents were below 20 years, 28(9.0%) were between 21-30 years, 162(52.3%) were between 31-40 years, 81(26.1%) were between 41-50 years, 28(9.0%) were between 51- 60 years while 2(0.6%) were 61 years+. 305(98.4%) were Nigerians while 5(1.6%) were non-Nigerian. The staff category of respondents showed that all respondents had below 100 staff. With respect to the years of operation category, 0-5 years were 20(6.5%), 6- 10 years were 81 (26.1%), 11- 15 years were 102(32.9%), 16- 20 years were 84(27.1%) and 21 years + were 23(7.4%). The educational qualification category of respondents showed that 2(0.6%) of respondents have primary education, 10(3.2%) have a secondary school education, 48(15.5%) have Diploma/NCE qualification, 120(38.7%) have HND qualification while 130(41.9%) have BSc qualification. The nature of business category shows that 36(11.6%) were into processing business, 80(25.8%) were into production, 58(18.7%) were in Agro-allied business and 136(43.9%) were in the service business.

**Table 1: Zero-order correlation between technological features, market dynamics, sales growth and profit maximisation**

	Technology Features	Market Dynamics	Sales Growth	Profit Maximisation
Technology Features	1	0.13	-0.086	0.112
Sig		0.822	-0.130	0.05
Market Dynamics	0.13	1	-0.056	0.016
Sig	0.822		0.322	0.781
Sales Growth	-0.086	-0.056	1	-0.122
Sig	0.130	0.322		0.032
Profit maximisation	0.112	0.016	-0.122	1
Sig	0.050	0.781	0.032	

Correlation is significant at the 0.05 level

The result from Table 1.1 shows that technology features and profit maximisation ( $r = 0.112$ , sig. = 0.005).

**Table 1.2: Regression results of Disruptive Innovation and SMEs performance**

Independent Variable	Dependent Variable	R	R <sup>2</sup>	F-value	$\beta$	Sig
Technological Features	Sales Growth	0.182	0.033	3.484	0.210	0.16
Market Dynamics						
Technological Features	Profit maximisation	0.021	0.000	0.046	0.153	0.187
Market Dynamics						



The result from Table1.2 shows that the correlation coefficient obtained for technology features and market dynamics on sales growth is ( $r = 0.182, \beta = 0.210, \rho < 0.05$ ). this implies that there exists a direct positive relationship between technology features and market dynamics on sales growth. Also, the result from Table 1.2 reveals that technology features and market dynamics accounted for 3.3% ( $R = 0.033, \rho < 0.05$ ) on sales growth. This implies that there is a relationship between technological features, market dynamics and profit that 96.7% of sales growth is accounted for by factor other than this. Also, the table shows the composite contribution of technology features, and market dynamics on sales growth  $F_{(3,306)} = (3.484, \rho < 0.05)$  this implies that technology features and market dynamics did not jointly contribute to sales growth.

The result from Table1.2 above also shows that the correlation coefficient obtained for technology features and market dynamics on profit maximisation is ( $r = 0.021, \beta = 0.153, \rho < 0.05$ ). this means that there is a direct positive weak relationship between technology features and market dynamics on profit maximisation. Also, the result from Table 1.2 reveals that technology features and market dynamics accounted for 0% ( $R = 0.000, \rho < 0.05$ ) of profit maximisation. This indicates that 100% of profit is accounted for by factor other than this. Also, the composite contribution of technology features and market dynamics on profit maximisation  $F_{(3,306)} = (0.046, \rho < 0.05)$  this implies that technology features and market dynamics and did not jointly contribute to profit maximisation.

**Table1.3: Relative contribution of technology features and market dynamics on sales growth**

Variables	Unstandardized Coefficient		T	Sig.
	$\beta$	Std. Error		
Constant	1.498	0.252	5.592	0.000
Technology Features	-0.115	0.085	-1.351	0.178
Market Dynamics	0.363	0.212	-1.280	0.202

Table 1.3 above shows that only market dynamics significantly and positively ( $\beta = 0.363$ ,  $p < 0.05$ ) contribute to the sales growth, while technological features ( $\beta = -0.115$ ,  $p > 0.05$ ), did not contribute significantly at 5% significant value.

**Table1.4: Relative contribution of technology features and market dynamics on profit maximisation**

Variables	Unstandardized Coefficient		T	Sig.
	$\beta$	Std. Error		
Constant	2.434	0.755	3.222	0.001
Technology Features	0.054	0.255	0.213	0.932
Market Dynamics	0.125	0.636	0.197	0.844

Table 1.4 above shows the relative contribution of technology features and market dynamics on profit. Technology features on profit maximisation ( $\beta = 0.054$ ,  $p < 0.05$ ), Market dynamics ( $\beta = 0.125$ ,  $p > 0.05$ ). Technology features on profit maximisation ( $\beta = 0.054$ ,  $p < 0.05$ ), Market dynamics ( $\beta = 0.125$ ,  $p > 0.05$ ), both technological features and market dynamics contributes towards profit maximisation.

**5 Discussion**

The study examined the role of disruptive innovation in enhancing the performance of family-owned SMEs. Based on the findings, there exists a direct positive relationship between technology features and market dynamics on sales growth, this implies that there is a strong relationship between disruptive innovation and SMEs performance (sales growth). Empirically, disruptive innovation effect on SMEs performance reflects in the firms’ sales growth (Hang et al., 2011; Klenner et al., 2013).

Findings from the study also shows a direct relationship between technology features and market dynamics on profit maximisation, although the relationship looks weak. Nevertheless, disruptive innovation offers possible opportunities for family-owned SMEs performance, technological features and market dynamics when properly studied and imbibed into a

business can reflect in both sales growth and profit maximisation of family-owned SMEs. The study also shows that market dynamics contributed to sales growth while technological features did not contribute. Meilan, (2010) observed that market dynamics impact entrepreneurial performance. Finally, the result of the study also shows that both technological features and market dynamics contribute to profit maximisation. SMEs should constantly develop competitive strategies that will enhance the profitability of the business (Lehtimaki, 1991; Ngugi, *et.al* 2013).

## **6. Limitation to the study**

Just like any other research, there are some obvious limitations to the study. We have not examined all measurement for disruptive innovation proposed by Guo, *et.al* (2019), also the study is limited to Ado-Ekiti.

## **7. Conclusion and Recommendation**

The study examined improving the performance of family-owned SMEs; the role of disruptive innovation. The relationship between technology features, market dynamics and sales growth is strong while there was a weak relationship between technological features, market dynamics and profit maximisation. This research, therefore, recommends the following; deliberate approach should be implemented by family-owned SMEs in ensuring technological features of their products is user-friendly. Managers should comprehensively study market dynamics and how it affects the performance of the business; technological features of the product should be handled by experts; managers should strategically leverage on technological features and market dynamics to boost business performance; finally, family-owned SMEs should equip research and development unit for the businesses with resources to effectively and efficiently discharge its duties.

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