



## **FIRM AGE AS A MODERATOR IN THE RELATIONSHIP BETWEEN MARKET ORIENTATION AND INNOVATION PERFORMANCE AMONG SMES IN YOBE STATE, NIGERIA**

**Mrs Mamman Jummai Jirgi**

E-mail: [jmjirgi@gmail.com](mailto:jmjirgi@gmail.com)

**Mrs Abubakar Zainab Aliyu**

E-mail: [azaliyu@atbu.edu.ng](mailto:azaliyu@atbu.edu.ng)

**Umar Buba**

E-mail: [ububa@atbu.edu.ng](mailto:ububa@atbu.edu.ng)

Department of Vocational Education, Faculty of Technology Education,  
Abubakar Tafawa Balewa University, Bauchi, Bauchi State

### **Abstract**

*This study examines the moderating effect of firm age on the relationship between market orientation and innovation performance among small and medium-sized enterprises (SMEs) in Yobe State, Nigeria. A cross-sectional survey design was employed, involving 376 respondents. Data were analyzed using multiple and hierarchical regression analyses. The results provide full support for the influence of all three dimensions of market orientation on marketing innovation, with significant moderating effects of firm age: customer orientation ( $\beta = .250, t = 7.576, p < .001$ ), competitor orientation ( $\beta = .211, t = 3.981, p = .002$ ), and inter-functional coordination ( $\beta = .101, t = 9.432, p < .001$ ). These findings indicate that firm age significantly moderates the relationship between market orientation and innovation performance. The study contributes to the literature by highlighting the role of firm age in shaping innovation outcomes in SMEs, particularly within the context of developing economies.*

**Keywords:** Firm age, Market Orientation, Innovation Performance, SMEs

### **Introduction**

Small and medium-sized enterprises (SMEs) are widely recognized as key drivers of economic growth, employment, and innovation globally. According to the World Bank (2023), SMEs represent over 90% of businesses and more than 50% of employment worldwide. In emerging economies, formal SMEs contribute up to 40% of national income (GDP), a figure that rises significantly when informal SMEs are included. Naradda Gamage et al. (2020) also emphasize that SMEs play a critical role in regional development and poverty alleviation. However, globalization, rapid technological advancements, intensifying competition, and shifting customer expectations have made it increasingly difficult for SMEs to sustain a competitive advantage. For example, a report by the OECD (2022) highlights that SMEs face disproportionately higher barriers in adapting to digital transformation, with only 20% of SMEs in developing countries using advanced digital tools, compared to over 60% among



larger firms. These dynamic market conditions necessitate a stronger focus on innovation and market orientation. Research shows that SMEs that are proactive in customer engagement, competitive intelligence, and internal coordination tend to outperform less market-oriented firms (O'Dwyer & Gilmore, 2019; Gronum et al., 2012). In fact, innovative SMEs are up to 2.5 times more likely to report high growth rates, according to a European Commission survey (2019).

SMEs that are committed to understanding both the explicit and latent needs of their customers, as well as the capabilities of their competitors, rely heavily on effective market orientation. This involves systematically acquiring, disseminating, and responding to market intelligence across all functions of the organization to create superior customer value (Ulwick, 2003). However, achieving strong innovation performance remains a persistent challenge for SMEs due to limited market insights, constrained access to external expertise, and a generally risk-averse organizational culture (Julien, 2018; Usman et al., 2011). Operating in increasingly competitive and rapidly evolving environments, SMEs must continuously innovate to sustain performance and relevance (Jeong & Seo, 2022). Developing an innovation culture grounded in market orientation—particularly through customer understanding, competitor analysis, and inter-functional coordination—is therefore critical (Bettioli et al., 2018). External collaboration has also been recognized as a vital mechanism for overcoming innovation-related barriers and strengthening capabilities.

Despite the well-established link between market orientation and innovation, less attention has been given to how contextual variables such as firm age shape this relationship. Firm age may significantly influence an SME's ability to adopt market-oriented strategies and translate them into innovative outcomes. While older firms tend to accumulate experience and resources that can enhance innovation capabilities, they may also face inertia and resist change (Zhang et al., 2020). Conversely, younger firms may be more agile and open to innovation but lack the structural and financial resources needed to fully capitalize on market orientation (Djou et al., 2020; Cacciolatti & Fearn, 2019). Even though market orientation and marketing innovation are closely related, the survival of many SMEs, particularly in developing and emerging nations, continues to be a difficult problem (Ayyagari, Thorsten, & Demirgüç-Kunt, 2019). Moreover, there is limited research on the role of firm age in shaping the relationship between market orientation and innovation performance.

This study addresses this gap by investigating the moderating role of firm age in the relationship between market orientation and innovation performance among SMEs in Yobe State, Nigeria. By integrating firm age into the market orientation–innovation framework, the study provides new insights into how SMEs can strategically adapt their orientation to enhance innovation outcomes, particularly in resource-constrained and competitive environments characteristic of developing economies.

### **Statement of the Problem**

While current research adds to the theoretical understanding of the interacting impacts of market orientation to marketing innovation through the use of firm resources and capabilities, the practical contribution will be helpful in formulating strategies, particularly for businesses located in developing country like Nigeria. whereas prior studies indicate that SMEs in Nigeria died within the first three to five years of existence (Aminu, 2015; Adamu, 2021; Tsoho, 2022),



to the best of the authors knowledge a critical analysis of the relationship between firm age and innovation performance has not been adequately address.

It is believed that as business gets older, newer products and distribution channels are developed, customer service is enhanced more, and there are more opportunities for price and/or quality advantages (Samaan, Salgado, Silva & Mello, 2012). Furthermore, previous research suggested that the impact of marketing innovation on firm performance is greater in younger firms than in older organizations (Leyva-De la Hiz & Bolvar-Ramos, 2022). Other academics assert that firm's age plays a key role in that relationship Onditi (2021) as more mature firms find it more difficult than younger firms to capitalize on innovations to improve performance (Zheng, Zhang & Xu, 2022). Inclusion of firm age as a moderating variable will therefore shed more lights in the theoretical development and literature.

### **Research Objectives**

- i. Examine the effect of firm age on the relationship between customer orientation and performance innovation among SMEs in Yobe State.
- ii. Determine the effect of firm age on the relationship between competitors' orientation innovation performance among SMEs in Yobe State.
- iii. Identify the effect of firm age on the relationship between inter-functional orientations and innovation performance among SMEs in Yobe State.

### **Research Questions**

- H<sub>01</sub>: Firm age does not significantly moderate the relationship between customer orientation and innovation performance among SMEs in Yobe State.
- H<sub>02</sub>: Firm age does not significantly moderate the relationship between competitor orientation and innovation performance among SMEs in Yobe State.
- H<sub>03</sub>: Firm age does not significantly moderate the relationship between inter-functional orientation and innovation performance among SMEs in Yobe State.

### **Research Methodology**

The study used a survey research design, the reseachers picked the survey method because it is effective for gathering descriptive data and more affordable Kothari (2009) the study was conducted among registered SMEs in Yobe State which are 2852 as reported by (SMEDAN, 2025), The sample size was determine using the slovene formula and arrive at 351 as the total computed size, as suggested by Israel (2013), 14% of the minimum sample provided in the formular to account for non-responses and incorrectly filled out questionnaires, adding 49 samples to the computed size give a total of 400 samples, which is 14 percent of the population study as a revised sample size. SMEs registered with the State government were chosen using the controlled quota sampling technique, to categorize the SMEs, 400 questionnaires were used with closed ended qustions Amin (2005) for the analysis. using controlled quota sampling technique and split the SMEs into the following groups: Financial intermediation, Manufacturing, Hotels and Restaurants, Whole sales and Retail trade, and Repair of household and Automobiles. The researchers used the quota sampling approach to choose individual who accurately represent the sample population, this is done by collecting the complete list of the registered SMEs, this is done using a sampling frame, a number was given to each SMEs



Face validity was performed as suggested by Sekaran (2003) and Content validity was performed using the content validity index, reliability is the degree to which a test is free from measurement errors Neuman (2007) the researchers used Cronbach’s alpha (a) for the internal consistency test because it estimates how well the set of items on a test correlate with one another. Data Analysis, gathered data was then prepared for analysis using IBM SPSS, version data editing, data coding, entering into the computer and verifying.

**Table showing Firm’s Age of SMEs in Yobe State, Nigeria**

		<b>Frequency</b>	<b>Percent</b>	<b>Cumulative Percent</b>
Valid	Less than 3 years	28	7.4	7.4
	3-5 years	139	37.0	44.4
	5-10 years	96	25.5	69.9
	More than 10 years	113	30.1	100.0
	<b>Total</b>	<b>376</b>	<b>100.0</b>	

As can be seen in Table above, majority of firms that took part in this research had been around for at least 3 years at the time the data collection. Particularly, 139 respondents, or 37%, said their respective businesses had been in operation for between 3 and 5 years, while 113 respondents or 30.1%, said they had been in business for more than 10 years at the time the data was collected. However, there were only 28 respondents from firms that that had been in business for between 1 and 5 years or 7.4%, compared to 96 respondents, or 25.5%, companies that had been in business for between 5 and 10 years. This result is not surprising due to the fact that this study is concerns with only corporate or formal small and medium enterprises in Nigeria.

The moderating effect of firm on the relationship between all the three dimensions of market orientation and marketing innovation (MO) were examined. The result gave the answers to the research objective 1a, 1b, and 1c and hypothesis to the study. Hierarchical regression analysis was performed to test the moderating effect of firm age on the relationship between MO and Marketing innovation. Based on the known procedure of testing moderation (Baron & Kenny, 1986), in the first step, the direct effect of the independent variables assessed, in the second step the moderator variable was entered to gauge whether firm age as a moderator has a significant direct impact on the dependent variable: marketing innovation. In the third step the interaction terms (MO\*MKTINNOV) were entered to see any additional variance explained. For the moderator effect to be present, step 3 must show a significant R<sup>2</sup> square increase with a significant F-change value. According to the above-mentioned procedure (see Baron & Kenny, 1986), once step 3 shows a significant R<sup>2</sup> square increase, it can be stated that there is a moderating effect. To know whether there is a moderation effect we look at the t-value and p-value under the coefficient table below, (Tabachnick & Fidel, 2007).

Hierarchical regression results: the moderating effect of firm age on overall marketing innovation

<b>Independent variables</b>	<b>Std Beta step1</b>	<b>Std Beta step2</b>	<b>Std Beta step3</b>
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CustOrientation	0.138	0.140	0.226
ComptOrientation	0.556	0.555	0.563
InterfunctOrientation	-0.219	-0.220	-0.356
Firm_Age		0.230	0.318
Firm_Age_Custorient			-0.250
Firm_Age_Comporient			0.211
Firm_Age_CusRelat			0.101
R <sup>2</sup> =	0.425	0.427	0.542
R <sup>2</sup> Change =	0.425	0.200	0.115
F Change =	91.022	4.234	30.440
F Sig =	0.000	0.006	0.000
***: significant@ p<	***	**	***

The result indicates the hierarchical multiple regression analysis of the moderating effect of firm age on the relationship between market orientation and overall marketing innovation. In step 1, all the three dimensions of market orientation were entered explaining 42.5% of the variance. After the entry of firm age at step 2 the total variance explained by the model as a whole was 42.7%. In step 3, the interaction terms were entered, which resulted in additional variance explaining up to 54.2.8%. The Sig. F change from step 1 to 3 at the .05 significance level and from step 2 to 3 was significant at  $\alpha=0.01$  level. Inspection of the individual interaction terms between firm age x customer orientation ( $\beta=.250$ ,  $t=7.576$ ,  $p=.000$ ); firm age x competitor orientation ( $\beta=-.211$ ,  $t=-3.981$ ,  $p=.002$ ) and firm age x inter-functional orientation ( $\beta=.101$ ,  $t=-9.432$ ,  $p=.000$ ) the results indicate that customer orientation was significant at  $\alpha=.001$  level, competitor orientation and inter-functional orientation were significant at  $\alpha=0.05$  and  $0.001$  level respectively.

### Summary of specific hypotheses on the moderation effect on firm age

Hypothesis	Statement of Hypothesis	Sig
H0a:	Firm age does not moderate the relationship between customer orientation and marketing innovation among SMEs in Yobe State.	Yes
H0b:	Firm age does not moderate the relationship between competitor orientation and marketing innovation among SMEs in Yobe State.	Yes
H0c:	Firm age does not moderate the relationship between inter-functional orientation and marketing innovation among SMEs in Yobe State.	Yes

### Summary of the analyses

The results of the data collection provided evidence in favour of the study's hypotheses. The results of the multiple regression analysis showed full support for the relationship between all the three dimensions of market orientation and marketing innovation Feng (2019), hierarchical regression analysis was used to examine how the firm age influenced the relationship between the above-mentioned variables of the study (hypothesis i.e., 1a, 1b, and 1c). This empirical evidence led the researcher to reject the null hypotheses.

## Conclusion

This study highlights the pivotal role of firm age in moderating the relationship between market orientation and innovation performance in SMEs, with younger firms benefiting more due to their flexibility, openness to change, and adaptive capacities. However, the findings also emphasize that market orientation remains essential for innovation regardless of firm age. For SME managers, this suggests the need for age-specific strategies: younger firms should leverage their agility to enhance customer orientation through real-time feedback systems and rapid product innovation, while older firms should focus on revitalizing internal structures, strengthening inter-functional coordination, and incorporating fresh market insights to counteract innovation inertia. All SMEs, regardless of age, should prioritize competitor orientation and foster a culture of continuous market learning. For policymakers, the study calls for tailored support programs that address the distinct needs of younger and older SMEs such as startup mentorship and seed funding for younger firms, and innovation grants and transformation support for older ones. In addition, age-specific training, digital literacy initiatives, and peer-learning platforms can further help SMEs build market-oriented innovation capabilities. These practical implications provide a roadmap for both SME managers and policymakers to strategically enhance innovation performance in diverse firm contexts.

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