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Small and medium enterprise (SME) competitiveness and employment creation: the mediating role of SME growth

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Owing to the growing inability of the state to provide employment for citizens globally, SME growth now appeals to many people as the solution to employment generation and by implication, economic growth and development. Flowing from the capabilities based view (CBV) theory, this study investigated SME competitiveness and employment creation to explain how SME competitiveness can contribute to national income through employment creation using SME growth as a mediator. The design was a cross-sectional survey of 93 respondents from SMEs in Nigeria. The study used a structured questionnaire to collect the research data and used structural equation modelling to analyse the data. The results indicate that product innovation and product differentiation have significant relationships with employment generation owing to their capacity to enhance SME growth. Secondly, SME growth mediates the relationship between SME competitiveness (product differentiation, innovation and imitation) and employment generation. This study differs from previous ones through its use of product line, innovation, differentiation, and imitation in a single framework to operationalise SME competitiveness as well as the mediation of the relationship between SME competitiveness and employment generation with the growth rate of SMEs. In addition, the study makes a theoretical contribution through the use of a firm's activity based capabilities to demonstrate its competitiveness.

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Introduction

Empirical literature suggests that small and medium enterprise (SME) growth and development have contributed significantly to the industrialised economies around the world and this growth and development has proven to be one of the key factors in any economy's emancipation and development (Lawal et al. 2016). The healthiness and relevance of SMEs to any economy can be constrained by macroeconomic policies. Consequently, the degree to which such an economy maximises them will determine how long SMEs will survive and remain competitive. Furthermore, SMEs' inputs "depend very much on the enabling and prevailing environment through the availability of necessary infrastructural facilities, tax incentives, business-friendly regulatory measures and essential structural services such as the provisions of the legal system" (Ufua et al. 2020). The enabling environment includes a strong communications infrastructure, a reliable electrical energy supply, an effective legislative framework, and the provision of reliable credit facilities and regulation (Ogundele 2007; Okeke et al. 2013; Schlaeppi 2014).

The SMEs account for more than 80% of all businesses in Nigeria. This notwithstanding, their failure rate in most sub-Saharan African countries is high, owing to perceived economic shocks (Ufua et al. 2020). Empirical evidence suggest that, on the average, fifty per cent of "the SMEs that are started eventually fail due to factors such as legal breaches of their statutory obligations. Consequently, there was a persistent perception that SMEs require help for social reasons rather than for their potential economic impact (Oramah et al. 2015). This narrow perspective started to shift over time as more people began to focus on creating jobs and inspiring numerous start-ups that made significant contributions to economic growth (Fowosire et al. 2017; Akerejola et al. 2019). The government's introduction of enhanced SMEs' support measures intended to grow and promote SMEs further aided this (Akinbola et al. 2014). In view of this recent narrative, there is no gainsaying that SMEs act as catalysts to entrepreneurship and improve employment opportunities and steady economic growth. In addition, "their geographical spread mitigates rural-urban migration and resource utilisation" (Chima 2013). SMEs significantly contribute to industrial distribution networks by producing intermediate products. The foregoing suggest that SMEs' are critical to the economy of any nation.

Nigeria's labour force has been on the increase while the employment opportunities are scarcely there. In the past, people thought that the acquisition of Degrees and higher Degrees will enhance the employability of people. While this was true at the threshold of independence and the early years after independence, the available opportunities started to dwindle as the number of educational institutions increased, leading to geometric increase in the number of employable graduates while employment opportunities increased arithmetically. Owing to government's inability to provide full employment for the teeming population of those that are employable, people now believe that SME's entrepreneurship is the way out of the embarrassing level of unemployment in emerging economies (Inegbedion 2022; Fatoki 2018; Akiri et al. 2016; Onyeizugbe et al. 2015; Igwe et al. 2013, Anyadike et al. 2012). It is probably in the realisation of this, coupled with the problem of the disequilibrium between labour market requirements and lack of essentially employability skills by the graduates, that the government introduced entrepreneurial development as a compulsory course in the Universities starting from the 2007–2008 academic session.

Many studies have tried to link SMEs competitiveness to employment generation in recent studies. Some of these studies include *SMEs competitiveness and employment generation* (Al-Haddad et al. 2019; Morenikeji and Oluchukwu 2012; Rotar et al. 2019; Tunde 2016); *Product Innovation* (Matuzeviciute et al. 2017; Okumu et al. 2019; Heijs et al. 2019); *Product Imitation* (Efendi et al. 2020; Lee and Zhou 2012). *Product Line* (Wong 2013; Bayus and Putsis 1999; Abubakar and Mohammad 2019); *Product Differentiation* (Kaushal et al. 2017; Ifeoma et al. 2021; Amar 2015) as well as *Increase in Market Shares* (Phiri 2017; Bayar 2016). However, hardly any of the studies made a connection between the constructs and job creation. While Okumu et al. (2019) and Heijs et al. (2019) found that innovative activity is a good business strategy for employment growth, Lee and Zhou (2012) and Efendi et al. (2020) found product imitation to have a stronger positive result on organisational performance when done creatively than pure imitation. In the same vein, Abubakar and Mohammad (2019) and Bayus and Putsis (1999) disclosed that product line methods considerably increase competitive advantage in SMEs; while Ifeoma et al. (2021) found that differentiation significantly enhances competitive advantage. However, none of the studies designed a framework to combine innovation, imitation; product line, differentiation and increase in market shares as stimulants of employment generation. Furthermore, none of the studies linked these constructs to competitiveness of SMEs. Lastly, none of the earlier studies used SMEs growth to mediate the relationship between SMEs' competitiveness and employment generation. This study sought to bridge these gaps. The intention, therefore, is to examine the relationship between SME competitiveness and employment generation with SMEs growth as the mediating variable in South West Nigeria. Specifically, this study sought to determine the extent to which SME competitiveness (innovativeness, product differentiation, product line and product imitation) influence the market shares of SMEs and employment generation as well as the extent to which the growth in SME market shares mediates the relationship between SME competitiveness and employment generation.

Literature review
Conceptual review

SME competitiveness. SMEs account for quite a reasonable fraction of all jobs in the world. They, additionally, generate the bulk of recent job opportunities. Corporate Finance Institute, CFI (2021) found out that a company's size or annual sales, the number of workers, size of assets closely-held by the company, capitalisation, or any combination of those options supports SME classification. SMEs constitute the overwhelming majority of companies around the world. They're typically little businesses with fewer than fifty workers. However, the range of workers varies from country to country. The higher limit for many businesses is around 250. The full range of workers in some countries is two hundred. On the opposite hand, the US outline SME as an organisation with fewer than 500 workers (CFI 2021). SMEs serve as engines of economic progress and social development in global economies. SMEs contribute quite five hundredth of GDP in some OECD countries, and a few international estimates place this figure as high as seventieth (ILO 2019). Entrepreneurial activities of the SMEs are important to the accomplishment of multiple property development goals, consistent with Endris and Kassegn (2022). SDG 1, "No poverty," SDG 8: "decent work and economic growth," and SDG 10 "Reduce inequalities," are some of the SDGs that SMEs can help to achieve (Content et al. 2020). Small and medium-sized enterprises, consistent with Endris and Kassegn (2022), play an important role in job creation, accounting for a reasonable fraction of all formal jobs in developing countries and low-income countries. Varieties of things influence a company's competitiveness. Consistent with Schwab (2010), one of the factors that has an effect on a company's competitiveness is innovation since

innovation and business networks are major determinants of a company's competitiveness (Hendayana et al. 2019).

Innovativeness of SMEs. Innovation is extremely vital to competitiveness as it stimulates competitors to follow suit in order to remain competitive. Competitors' response to the innovativeness of a firm will invariable be through Innovative offerings, this makes innovation a critical consideration in SME competitiveness consistent with Kuratko and Howard's (2016) perception of competitiveness. Chursin et al. (2017) see innovation as the realisation of business operations whose main purpose is to hold out production reforms through the employment of innovative ideas and resources to make new merchandise and acquire new resources for merchandise, markets, and distribution, among others, particularly the rearrangement of most factors of production or patterns of innovation. Chursin et al. (2017) see innovation as the basis for competitiveness. The higher the innovation, the higher the level of competitiveness. There is a good documentation of the relevance of innovation to SME competitiveness in empirical literature by Kuratko and Howard (2016), Nadia et al. (2016), Chursin et al. (2017), Hendayana et al. (2019), among others.

Market shares. The trade-off between customers that switch brands from other firms to the firm's brand and those that switch from the firm's brand to other brands determines a firm's competitiveness. A negative trade-off in brand switching is indicative of a decline in the firm's competitiveness and thus a decline in market shares. However, a positive trade-off is indicative of an increase in market shares while a zero trade-off signifies no change in market shares. To this end, a positive trade-off is more critical to competitiveness. Market share is the portion of total sales in a given industry that a company or product generates. If a firm's market share is large it is an indication of well doing. On the contrary, a low market share is an indication that the firm should re-strategize to turn things around. A firm's market share is determined by dividing the total revenue a company generates from each trade by the total revenue generated in the industry. Market share is a crucial business metric since it shows how profitable and successful a firm is. It indicates the market dominance and the effectiveness of a company in earning revenue to meet its objectives. Consequently, SMEs will have competitive advantage through the utilisation of market shares.

Theoretical framework. This study employs the CBV as its framework because it is not the resources of a firm per se that determines its competitiveness but its ability to put the resources to use judiciously. This underscores the importance of the firm's capabilities.

Capability-based view. Proposed by Grant (1991), the major thrust of the capability-based view (CBV) is that capabilities are the source of competitive advantage while resources are the source of capabilities. The contribution of Haas and Hansen (2005) that a firm can gain competitive advantage from its ability to apply its capabilities to perform important activities within the firm supports this viewpoint. This is consistent with Amit and Shoemaker's (1993) opinion that resources do not contribute to sustained competitive advantages for a firm, but its capabilities do and in contrast to resources, capabilities are the firm's capacity to deploy resources, usually in combination using organisational processes, to achieve a desired end (Amit and Shoemaker 1993). They are information-based, tangible or intangible processes that are firm-specific and developed over time through complex interactions among the firm's resources'. Teece et al. (1997) define

dynamic capabilities as 'the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments'. According to Grant (1996), a firm's capability is 'its ability to repeatedly perform a productive task which relates to its capacity to create value either directly or indirectly through the transformation of inputs to outputs'. Lee et al. (2001) regard internal capabilities and external networks as critical to firm performance. Grant (1996) categorised capability into cross-functional, broad-functional, specialised and activity-related capabilities. Some major activity-based capabilities include product innovation, product differentiation, product imitation and product line, among others.

Empirical review and hypotheses development. This section presents the hypotheses development of the study through the examination of empirical literature on the relationships between SME competitiveness and organisational outcomes.

SME product innovation and employment generation. Matuzeviciute et al. (2017) examined "technological innovations affects unemployment based on some empirical evidence from European countries". The study used panel data from 25 European countries for the period of 2000–2012 and estimated data using System Generalized Method of Moments (SGMM). The result showed no significant relationship between technological innovations and unemployment. Okumu et al. (2019) examined "Innovation and employment growth using evidence from manufacturing firms in Africa" to find out the association between innovation and employment growth among manufacturing firms in Africa. The study used a cross-sectional World Bank Enterprise Survey dataset in which innovation is categorised as product innovation and process innovation. They estimated data using ordinary least squares (OLS). The results indicated that employment growth is positively associated with both process and product innovation. Heijs et al. (2019) studied the "impact of innovation on employment in quantitative terms". The design was a literature review of empirical evidence of 44 micro-level studies on the quantitative impact of innovation on employment. The results indicate that there is a positive effect of product innovation on employment and contradictory effects for process innovation. Based on the foregoing and the capability-based view (CBV), the study tested the following null hypothesis:

H_o1: SME growth does not significantly mediate the relationship between product innovation and employment generation.

Product differentiation in SMEs and employment generation. A company can differentiate itself from rival competitors in the market in one of three ways: low-cost leadership, product differentiation or through focus on target market. Product differentiation is the process of adding value to an existing product to justify addition to its price. Product differentiation could be a wonderful strategy to reinforce overall positioning and word-of-mouth promoting techniques and gain many committed customers, although value leadership attracts many price-conscious clients.

Kaushal et al. (2017) investigated "the effects of differentiation strategy as a mediating variable in the relationship between entrepreneurship orientation and SMEs performance" using Indian SMEs. The design was a cross-sectional survey of 234 respondents from SMEs in various industries. They used structured questionnaire to elicit data from the respondents. The findings indicate that there is a positive relationship between differentiation strategy and SMEs performance. Mtaturu and Mbailuka (2020) examined "product differentiation and SMEs' market participation using the implications for Tanzanian agro

processing industry". Ifeoma et al. (2021) studied "differentiation strategy and organisational growth of manufacturing firms" in Ebonyi State, Nigeria. They used a structured questionnaire to elicit data from 63 respondents and analysed the data using Pearson product-moment correlation and simple regression analysis. The result indicated that there was significant relationship between product differentiation and market share.

Amar (2015) investigated "the influence of product differentiation strategy on operational performance of SMEs in South Sulawesi, Indonesia". The design was a cross-sectional survey of 75 respondents. The data were collected through questionnaires and analysed using path analysis. The results indicated that product differentiation affects the operational performance of SMEs significantly. Given the foregoing and the CBV, the following null hypothesis was tested:

H_o2: SME growth does not significantly mediate the relationship between product differentiation and employment generation.

SME product line and employment generation. Businesses often increase their product offers by adding to current product lines and dropping product lines that turn out to be unproductive since consumers are more likely to buy products from well-known brands. A company's product combination could be its entire portfolio of product lines. A line of product could be a set of connected products marketed underneath constant brand by a constant company. Most companies sell multiple product lines underneath their varied complete names, typically differentiated by value, quality, country, or targeted cluster. One of the most effective strategies to reduce this risk is to expand the product offering. Active product growth is useful to gaining competitive advantage due to its capacity to increases market shares, boost customer loyalty, reduce risk, as well as increase credibility and visibility.

Abubakar and Mohammad (2019) investigated "how to link product line strategies to competitive advantage using an empirical study of Nigerian food and beverages industry". The design was a cross-sectional survey of 278 employees chosen from eight companies in the foods and beverages industry using a self-administered questionnaire. They employed correlation and regression to analyse the data. The result of the study showed that product line strategies have significant effects on the competitive advantage in foods and beverages companies. Bayus and Putsis (1999) investigated "product proliferation using an empirical analysis of product line determinants and market outcomes" The study-elicited data using the personal computer industry over the period 1981–1992 and analysed the data using three stage least squares technique. The results showed that structural competitive factors play an important role in the determinants and market outcomes of a firm's product line decisions. Results also suggest that the firm-level net market share has a negative impact on product proliferation in the personal computer industry. Consequently, and consistent with the CBV, the following null hypothesis was tested:

H_o3: SME growth does not significantly mediate the relationship between product line and employment generation.

SME product imitation and employment generation. In order to survive in the face of intense competition, many organisations frequently copy the procedures and standards of innovative businesses. Product imitation is the development of a similar or almost the same product as an existing one (Inegbedion 2022). The ability to imitate is a company's unique competence and a first step in learning business model technology before moving on to later stages of advancement and innovation. Additionally, by imitating their competitors, firms are able to establish themselves as well as become famous. Lee and Zhou (2012) studied product

imitation—good for firm performance to examine the contingent effects of pure imitation and creative imitation on firm performance. They collected data from multiple sources, including top and middle managers and archival financial data from 192 firms in China. The results indicate that creative imitation has a stronger positive effect on financial performance than pure imitation.

Tsolakidis et al. (2020) investigated "the impact of imitation strategies, managerial and entrepreneurial skills on start-ups' entrepreneurial innovation" to ascertain whether imitation strategies adopted by start-ups are effective in the pursuit of enhanced entrepreneurial innovation. They used a structured questionnaire to elicit the research data. The study employed 289 respondents from 486 start-up owners operating in Greece. Data were analysed using a hierarchical regression technique. The results indicate that outcome-based imitation and trait-based imitation strategies have a positive impact on entrepreneurial innovation.

Increase in the market shares of SMEs and employment generation. Szegedi and Korom (2015) investigated "market share increase and how it affects productivity and profitability" using the 2001–2006 data of companies belonging to the logistics service related sectors. The results showed that raising the market share will lead to increase in productivity, but raising productivity cannot lead to increase in the market shares. Yannopoulos (2011) investigated "the market share effect using new insights from Canadian data". The results showed no positive relationship between market share and profitability and no support for the U-shaped relationship. Bayar (2016) investigated "financial development and unemployment in emerging market economies". The study used panel data elicited from 16 emerging market economies during 2001–2014 period. The results indicate that domestic investment had negative impact on unemployment while financial development had no significant impact on unemployment. In view of the above and the CBV, the following null hypothesis was tested:

H_o4: SME growth does not significantly mediate the relationship between product imitation and employment generation.

SMEs competitiveness and employment generation. Al-Haddad et al. (2019) investigated "the role of small and medium enterprises (SMEs) in employment generation and economic growth in emerging economy". The design was a survey of 255 respondents from Swat marble industries. The data, elicited with a structured questionnaire, were analysed using the inferential statistics. The results indicate that SMEs make significant contribution to employment generation. Morenikeji and Oluchukwu (2012) investigated the impact of SMEs on the generation of employment in Lagos state using a cross-sectional survey of 120 respondents. The results showed that the promotion of SMEs and improvement in employment generation are related. Rotar et al. (2019) investigated "contributions of small and medium enterprises to employment in the European Union countries." The study used panel data model for the 2005–2016 period. The result indicates that there is a significant association between SMEs' employment in service sectors and overall economy employment. Tunde (2016) analysed the relationship between SMEs' employment growth and firm specific characteristics using a cross-sectional survey of 200 respondents of SMEs. Data were analysed using multiple regression technique. The results indicate that a web of factors affects employment growth of SMEs namely age of firm, number of firms in a geographic cluster, access to formal finance, and firm technology innovation.

Doshmanli et al. (2018) investigated "development of SMEs in an emerging economy: Does corporate social responsibility

matter?" They used a cross-sectional survey research design of 720 SME owners and analysed the data with correlation. Results indicated a significant correlation between all dimensions of social responsibility and SME development. Dheer and Salamzadeh (2022) investigated "pandemic threats: How SMEs can respond to the challenges from global crises." Based on a literature review, they offer an extensive framework that can assist SMEs with a roadmap to manage the adverse effects of external shocks.

Based on the foregoing, the following null hypothesis was tested:

H_o5: Growth rate of SMEs has no significant mediating influence on the relationship between SME competitiveness and employment generation.

Consistent with the above hypotheses as well as Dubey and Sahu's (2023) mediation model, the study presents the conceptual framework in Fig. 1.

Methodology

Research design. The design of this study was a cross sectional survey of 113 owners and managers from 39 SMEs in Ogun, Osun and Ondo states in Nigeria. The study elicited the information relating to the respondents' perception of the research problem and generalized it to the SMEs. This sample size was determined using Taro Yamane formula. Out of the 113 invited respondents 93, representing 82.3% of them responded. The study used simple random sampling (lottery method) in selecting the desired respondents from two categories, employees and owners. Consequently, the sampling technique is the stratified random type. Employee category was the basis of stratification while lottery was the basis of randomisation. The study administered a structured questionnaire of the five point Likert scale type in a face-to-face method to elicit responses from the respondents during a visit to the sampled organisation (Fieldwork) and retrieved the completed instruments from the respondents accordingly.

Validity and reliability of research instrument. Expert opinion and content validity index (CVI) served to validate the instrument. The indexes for product innovation, differentiation, product line, imitation, growth rate of SMEs, employment generation and the entire instrument were 0.72, 0.87, 0.74, 0.73, 0.82, 0.84 and 0.77 respectively. Against a benchmark of 0.7 consistent with Zamanzadeh et al. (2015), the instrument is valid (see Table 1).

The study used Cronbach alpha to test the validity of the instrument. The Cronbach alpha coefficients computed from the respondents' responses in the pilot test were 0.71, 0.81, 0.69, 0.74, 0.75, 0.73 and 0.76 for product innovation, differentiation, product line, imitation, growth rate of SMEs, employment generation and the entire instrument (see Table 2). All the alpha values were at least 0.7 consistent with Hair et al. (2006), thus indicating that the items in the instrument are internally consistent (see Table 2).

Multicollinearity test. The study used Multicollinearity test to address the problem of common method variance owing to the use of self-reporting instrument. The results of the test show that the highest VIF is 2.907 and it corresponds to product line. This value is not greater than 10, therefore it is within tolerance. The corresponding tolerance limit for the variance inflation factor (VIF) is 0.344, which is not less than 0.1, thus implying that it is within tolerance. Lastly, the average VIF also indicates that the coefficient is within tolerance. Thus, there is no significant evidence of multicollinearity. The implication is that the data are not significantly subject to common method variance (see Table 3).
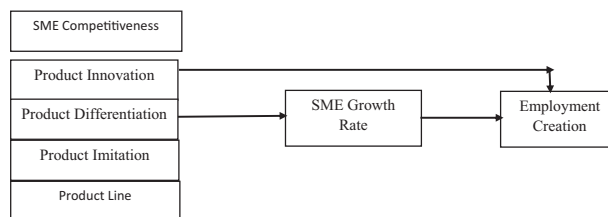

Fig. 1 Conceptual framework.

Table 1 Validity tests.

Number of items	S-CVI	I-CVI
Comprehensive questionnaire	0.77	
Product innovation		0.79
Product differentiation		0.87
Product line		0.78
Product imitation		0.79
Growth rate in SMEs		0.82
Employment creation		0.84

Table 2 Reliability statistics.

Comprehensive questionnaire	0.76
Product innovation	0.71
Product differentiation	0.81
Product line	0.69
Product imitation	0.74
Growth rate in SMEs	0.75
Employment creation	0.73

Table 3 Multicollinearity tests.

Construct	Tolerance	VIF
Innovativeness	0.475	2.104
Product differentiation	0.458	2.180
Product line	0.344	2.907
Product imitation	0.300	3.333
Growth of SMEs	0.319	3.136

Model specification. The research model is:

.eg f (ims, inn, pd, pl and pi)

Specifically:

$$.eg = \beta_0 + \beta_1 ims + \beta_2 inn + \beta_3 pd + \beta_4 pl + \beta_5 pi + e$$

where .eg = employment generation; .ims = increase in market shares; .inn = innovativeness of SMEs; .pd = product differentiation; .pl = product line;, pi = product imitation; .e = stochastic error term; β_0 = proportion of the variation in employment generation that is not explained by variations in the explanatory variables (innovativeness, product differentiation, product line, product imitation and increase in market shares) βi (i = 1-5) are the slopes of ims, inn, pd, pl and pi.

Data analysis technique. The research data were analysed using descriptive and inferential statistics. The descriptive statistics included frequency tables, mean, standard deviations and standard error mean. Structural equation modelling served as the major inferential test. The choice of structural equation modelling technique is due to the inclusion of mediation in the research

Table 4 Descriptive statistics of respondents' perception.	
.inn	0.71
.pdff	0.81
.pline	0.69
.pimm	0.74
.gsmes	0.75
.empg	0.73

Table 6 SME competitiveness and employment creation with SME growth rate as the mediating variable.						
empg <- |						
gsme	0.5644926	0.1007687	5.60	0.000	0.3669896	0.7619956
inno	0.3210146	0.0843908	3.80	0.000	0.1556117	0.4864175
pdiff	0.2255175	0.1876842	2.43	0.015	0.0973754	0.4063403
pline	0.1268074	0.1013349	1.25	0.211	0.0718054	0.3254202
pimi	0.0338804	0.1087869	0.31	0.755	0.0179379	0.1470988
_cons	1.711556	0.4681835	3.66	0.000	0.7939331	2.629179

Table 5 Structural equation model number of obs = 101.						
| OIM standardised |	**Coef.**	**Std. Err.**	z	$p > |z|$	**[95% conf. interval]**	
Structural						
gsme <-							
inno	−0.1857637	0.1843067	2.02	0.031	−0.2510017	0.0794743
pdiff	0.2413793	0.0813523	2.97	0.003	0.0819317	0.4008269
pline	0.1647809	0.0978161	1.68	0.092	−0.0269353	0.356497
pimi	0.5733695	0.0812094	7.06	0.000	0.4142019	0.732537
_cons	0.693527	0.4010471	1.73	0.084	−0.0925109	1.479565

Table 7 Indirect effects.						
| OIM						
| Coef.	**Std. Err.**	z	$p > |z|$	**[95% conf. interval]**		
Structural						
gsme <-							
empg <-							
inno	0.2420449	0.1421544	2.00	0.0321	−0.1246661	0.0405762
pdiff	0.2128034	0.0440504	2.56	0.010	0.0264662	0.1991405
pline	0.086781	0.0542837	1.60	0.110	−0.0196131	0.1931752
pimi	0.2790437	0.0677596	4.12	0.000	0.1462373	0.4118501

Source: Author's computation (2022).

problem since path diagrams in structural equation modelling are effective in mediating the relationships between variables.

Results

The results of respondents' perception show that the means and standard deviations of product innovation (inn), product differentiation (pdiff), product line (pline), product imitation (pimi), growth of SMEs (gsme) and employment generation (empg) were 3.51 (0.6695), 3.47(0.7024), 3.525(0.6233), 3.527 (0.6745), 3.591 (0.6684) and 3.896 (0.5815) respectively. These indicate that all means are above the cut-off mark of 3.0. The standard deviations lie between 0.5815 and 0.7024 respectively, with the least standard deviation being for employment generation while the highest is for product differentiation (see Table 4).

Tests of statistical significance

Evaluation of the results of the structural equation model. The study used structural equation modelling to test for significance of respondents' perception of the relationship between SMEs competitiveness and growth. Results in the table imply that a unit change in SME innovation will lead to −18.58% change in SME growth. In addition, a unit change in product differentiation will lead to a 24.14% change in SME growth. Furthermore, a unit change in product line will lead to a 16.48% change in SME growth. Lastly, a unit change in product imitation will lead to a 57.34% change in SME growth (see Table 5 and Fig. 1).

The computed z values and associated significant probabilities for SME competitiveness and SME growth in Table 5 indicate that product innovation has a negative relationship with growth of SMEs. However, product differentiation, product line and product imitation all have positive relationships with the growth of SMEs. While the coefficients of product innovation, product differentiation and product imitation are statistically significant, that of product line is not significant. The implication is that product line does not have a significant relationship with SME growth (see Table 5).

In the model of SME competitiveness and employment generation with SME growth as the mediating variable, the results show that a unit change in SME growth will lead to 56.5% change in employment generation. Similarly, a unit change in SME innovation will lead to a 32% change in employment generation. In addition, a unit change in product differentiation

will lead to a 22.6% change in employment generation. Furthermore, a unit change in product line will lead to a 12.7% change in employment generation. Lastly, a unit change in product imitation will lead to a 3.4% change in employment generation (see Table 6 and Fig. 1).

The computed z values and associated significant probabilities for SME competitiveness and employment generation with SME growth as mediating variable show that SME growth, product innovation, product differentiation, product line and product imitation all have positive relationships with employment generation. However, while the coefficients of SME growth, product innovation and product differentiation are statistically significant, those of product line and product imitation are not significant (see Table 6).

The results of the indirect effect show that a unit change in SME innovation will lead to a 24.2% change in employment generation. In addition, a unit change in product differentiation will lead to a 21.3% change in employment generation. Furthermore, a unit change in product line will lead to 8.7% change in employment generation. Lastly, a unit change in product imitation will lead to a 27.9% change in employment generation (see Table 7). The computed z values and associated significant probabilities for SME competitiveness and employment generation with SME growth as mediating variable (indirect effects) indicate that product innovation, product differentiation, and product imitation all have positive relationships with employment generation and all relationships are statistically significant (see Table 7).

Goodness of fit test. The study performed two goodness-of-fit tests, equation level goodness of fit and the Wald test. The equation-level goodness-of-fit test shows that the overall goodness of fit is 0.756, thus indicating that variation in SME competitiveness explains 75.6% of the variation in employment generation (see Table 8). The results of the Wald test indicate that the regression coefficients are significantly different from zero (0). Thus, the model is a good fit to the data (see Table 9).

Discussion of findings. The first specific objective sought to examine the extent to which SME growth mediates the

Table 8 Equation-level goodness of fit [LR test of model vs. saturated: chi2 (0)].

| Variance |

| depvars | fitted predicted residual | R-squared mc mc2

observed | |
gsme | 0.4419153 0.3009928 0.1409225 | 0.6811097 0.8252937 0.6811097
empg | 0.3344767 0.2240019 0.1104748 | 0.6697085 0.8183572 0.6697085
overall | | 0.7557135

Source: Authors' computation.

Table 9 Wald tests for equations.

| chi2 df p

observed |
gsme | 198.64 4 0.0000
empg | 188.57 5 0.0000

Source: Author's computation (2022).

relationship between product innovation and employment generation. The results of the analysis indicate that product innovation has a positive statistically significant relationship with employment generation, through the mediation of SME growth. This is inconsistent with Matuzeviciute, Butkus and Karaliute (2017) but consistent with Heijs, Díaz and Reyes' (2019) finding that innovative activity is a good business strategy for employment growth. The second specific objective sought to ascertain the extent to which SME growth mediates the relationship between product differentiation and employment generation The results indicate that product differentiation has a statistically significant positive relationship with employment generation through the mediation of SME growth. The results are consistent with those of Mtaturu and Mbailuka (2020). The results also support Ifeoma et al.'s (2021) finding that product differentiation significantly enhances competitive advantage. The third specific objective sought to ascertain the extent to which SME growth mediates the relationship between product line and employment generation. The results indicate that product line has a positive statistically insignificant relationship with employment generation through the mediation of SME growth. The results are inconsistent with those of Abubakar and Mohammad (2019) and Wong (2013). The fourth specific objective sought to ascertain the extent to which SME growth mediates the relationship between product imitation and employment generation. The results of the structural equations model indicate a positive and significant relationship at the 95% confidence level. This implies that SME growth has a significant mediating effect on the relationship between product imitation and employment generation. The results are consistent with Efendi et al. (2020).

The fifth specific objective sought to ascertain the extent to which growth rate of SMEs mediates the relationship between SME competitiveness and employment generation. The results of the structural equations model indicate that innovation, differentiation and imitation all have statistically significant positive relationships with employment generation. This implies that the growth rate of SMEs has a full mediation effect on the relationship between product imitation and employment generation. In addition, SME growth rate has partial mediation effects on the relationship between product innovation and employment generation as well as on the relationship between product differentiation and employment creation. In other words, the SME growth enhances competitiveness and thus, increases employment opportunities in the economy. The results are

consistent with Utami and Lantu (2014), Morenikeji, Oluchukwu (2012) and Rotar et al. (2019). However, for SMEs to innovate and differentiate their products or succeed in imitation it requires optimum exploitation of their capabilities.

The major uniqueness of this study is its combination of these firm capabilities' dimensions (product innovation, differentiation, imitation and product line) in a single framework to establish a relationship between firm competitiveness and employment generation consistent with CBV. This study has also shown that SME growth can significantly mediate the relationship between SME competitiveness and employment creation. This is because, owing to the expansionary nature of the competitive strategies, they stimulate the growth of the SMEs and growth requires more resources for sustenance, especially money and human resources, thus boosting their employment creation capacity consistent with the CBV.

Implication of findings. The practical implication of the results is that innovation, differentiation and imitation are expansionary. Thus, a firm can stimulate its customer base, grow its market shares, and thus increase employment opportunities if it implements any of product innovation, differentiation or imitation effectively. This is because product differentiation helps to increases brand loyalty, turnover, and growth. In addition, by facilitating a firm's capacity to expand to new markets, product innovation can help companies exit oversaturated markets, thus assisting them to expand to new markets and attracting new customers. Imitation strategy facilitates firm's growth in a dynamic environment (Peng et al. 2021), lastly, product innovation helps to create value in a manner that makes a product unique and thus helps to widen a company's customer base by increasing its target audience.

Policy implication. Arising from the practical implication, strategic managers and owners of SMEs should include measures to stimulate competitiveness in their growth strategies. Specifically, they should consider innovation, differentiation, imitation and product line as strategies to increase turnover, profitability and market shares and thus enhance their going concern.

Theoretical contribution. The study makes a theoretical contribution to the CBV theory of competitiveness by showing that a firm's activity based capabilities such as product differentiation, innovation and imitation stimulate competitiveness and growth and ultimately generate employment. SMEs' capacity to employ differentiation, innovation, and imitation strategies for competitiveness is a reflection of their dynamic capabilities. That is, their ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments'. This is consistent with Grant's (1991) position on the capability-based view (CBV) that capabilities are the source of competitive advantage while resources are the source of capabilities The results also support Haas and Hansen's (2005) contribution that a firm can gain competitive advantage from its ability to apply its capabilities to perform its important activities.
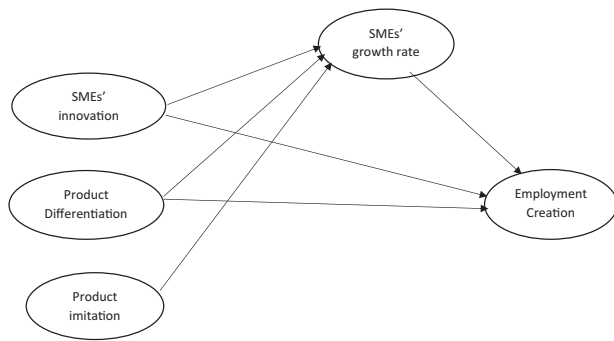
Fig. 2 SME competitiveness and employment creation through the mediation of SME growth rate.

Proposed model of SME competitiveness and employment generation. Based on the results, the study proposes a model of SME competitiveness and employment generation. The model shows that growth rate in SMEs, product innovation and product differentiation have significant direct relationships with employment generation but product imitation has an indirect relationship with employment generation through the mediation of SME growth (see Fig. 2).

Conclusion

The study concludes that product innovation, product differentiation and product imitation all have positive and significant influences on employment generation. In addition, growth rate in SMEs fully mediates the relationship between product imitation and employment generation. Several studies have examined SME capacity to create employment; the point of departure of this study from previous ones is its combination of product innovation, differentiation, imitation and product line in a single framework to operationalise SME competitiveness as well as the mediation of the relationship between SME competitiveness and employment generation with the growth rate of SMEs. In addition, the study makes a theoretical contribution to the CBV theory of competitiveness by showing that a firm's activity based capabilities stimulate competitiveness and growth and ultimately generate employment. The study also adds to knowledge by using SME growth to bridge the relationship between SME competitiveness and employment creation.

The study encountered some limitations, which suggests the need for further studies. Firstly, the study employed a sample to generalise to a population. The problem of complete randomisation is inherent. Nevertheless, the use of a probability sampling technique minimises any shortcoming in randomisation. The second constraint is that of the choice of constructs to measure SME competitiveness, the independent variable. The study used product innovation, product differentiation, product imitation and product line. Future studies should expand the scope of the constructs to pave way for further insights. Lastly, the study focussed on South-West, Nigeria only. Future studies should try to include other geopolitical zones to see if the perception of respondents will differ from what obtains in the South-West.

Data availability

The study employed primary data. The dataset is attached as a Supplementary file to this submission.

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Author contributions

The authors contributed to the manuscript as follows: HEI: conceptualisation, problem formulation, literature review, methodology, data analysis, interpretation of results, discussion of findings, conclusion. PRT: data collection, references and manuscript revision. JOD: implementation of the re-administration of the research instrument for data collection and coding of the data. JOA: implementation of the re-administration of the research instrument for data collection and coding of the data. FOP: implementation of the re-administration of the research instrument for data collection and copyediting.

Competing interests

The authors declare no competing interests.

Ethical approval

The study sought and got ethical approval from the Research Ethical Board of the author's institution. However, there was no ethical number, as the author's institution does not currently issue numbers in its Ethical Approvals.

Informed consent

The authors sought and obtained Informed consent before and throughout the data collection process. The authors informed the sampled respondents of the objective of the research before the administration of the research instrument to them. The authors further ensured the anonymity of the respondents, as there was no indication of personal identifiers on the questionnaire. In addition, the study treated the data elicited from the respondents with utmost confidentiality. The author also endeavoured to ensure the welfare of the respondents during the collection of data and this culminated in a seamless exercise. The administration of the questionnaires began only after the respondents gave their affirmative consent, as participation was solely voluntary.

Consent to publish

The authors collectively give our consent to Humanities and Social Sciences Communications to publish this manuscript upon successful revision.

Additional information