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Market orientation of entrepreneurial university distance education and sustainable competitive advantage relationships: The mediating role of employee engagement

Paul Mensah Agyei^{1*}, Chei Bukari² and Nathaniel Amoah³

Abstract: To be competitive in the distance education service delivery market, the need for a strategic approach by managers of these institutions to manage the increased competition cannot be compromised. Despite the available past and current studies on market orientation, the impact of market orientation on firms in the context of distance education is yet to be explored. Additionally, given the COVID crisis, the increasing reliance on distance education has resulted in a dynamic and turbulent environment in which market orientation assumes even greater importance. This study seeks to examine the mediating role of employee engagement in the link between market orientation and sustainable competitive advantage. Using the multistage sampling technique, 375 respondents were selected, consisting of key management and staff of a certain university's distance education programme. Analytically, partial least squares structural equation modelling (PLS-SEM) was used to address the various hypotheses of the study. Both customer and competitor orientations were found to have a significant positive

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effect on the university's sustainable competitive advantage. The study's outcomes will help shape policy and practise in distance education.

Subjects: Public & Nonprofit Management; Strategic Management; Management Education; Marketing

Keywords: Market orientation; sustainable competitive advantage; employee engagement; distance education

1. Introduction

Despite its resistance, distance education has proven to be one of the most vital methods for conveying knowledge and democratising information, and thus, there has been an increase in its use and prominence in all contexts (Alves et al., 2018). At the higher education level, distance education has largely been accepted as an alternative to mainstream or regular education for quality, equity, and access (Sibirskaya et al., 2018). Notwithstanding this, the emergence and impact of COVID-19 have changed the phase of educational enterprise in three distinct ways. First, at higher education levels, the pandemic has clearly demonstrated the superiority of distance education over traditional education in meeting institutional objectives in terms of the crisis. Secondly, the pandemic has led to a dramatic rise in higher education distance learning, or learning by remote. Finally, the pandemic has led to a further reduction in government funding for the education sector in general and public institutions of higher learning in particular. Even prior to the pandemic, there was a rise in the quest to increase the internally generated fund to support the increasing reduction in government funding for public universities (Cutri & Mena, 2020; Klofsten et al., 2018).

These changes have four key implications. First, it has shifted the attention of managers of Institutions of Higher Learning (IHL) toward distance education. Second, it has led to an increase in the desire to boost market share through enrolment and raise the overall profitability of IHL running distance programmes. Third, it has resulted in increased competition in the distance education market. Finally, and crucially, it has rekindled the debate about the role of market orientation in institutional sustainable competitive advantage (Donthu & Gustafsson, 2020). In this study, we explore the relationship between market orientation of entrepreneurial university distance education and sustainable competitive advantage relationships with a focus on the mediating role of employee engagement.

Market orientation has been strongly argued as an approach to marketing that brings efficiency and increases productivity (Babu et al., 2019). Its impact in fostering development in the short term and long term (sustainability) and influencing organisational development, product innovation and competitive advantage has received a lot of endorsement in the literature (Fatonah & Haryanto, 2022; Agarwal et al., 2003). Harnessing the positive impact of market orientation in other industries such as banking (Coffie et al., 2018) and telecommunications (Lartey et al., 2020) to the distance education industry is likely a needed strategic marketing tool. In sustainable supply chain management, market orientation has also proven to be a key management tool (Habib et al., 2020). In the SME market, it is clear how market orientation, via the appropriate use of its dynamic capabilities, promotes the innovation of its business model (Randhawa et al., 2021). Market orientation is said to be a type of marketing decision strategy that aims to institutionalise cultures that best motivate behaviours that lend themselves to the creation of superior value for consumers (Narver & Slater, 1990). The institutionalised culture (orientation) then brings forth continuous sustainable performance for the organisation (Zebal & Goodwin, 2012).

It is established that in today's highly competitive market, core competence is strongly recommended as a major concept for competitive strategy (Agha et al., 2012). Besides, a firm's superior financial performance measures its competitive advantage, and its ability to utilise the firm's resources to meet the stated needs of its customer base toward customer delight in comparison

with its close competitors measures its competitive advantage (Mahdi, Nassar and Almsafir, 2019). In Barney and Clark (2007) and in line with resource advantage theory (Hunt, 2017), sustainable competitive advantage is achieved when such resources are valuable, rare, and impossible to duplicate, and they are organised to detain and utilise their value. The researchers then argue that the value and the continued existence of IHL go beyond the establishment and delivery of high-standard curricula. These institutions are expected to be entrepreneurial, and an entrepreneurial university must focus on strategies that aim to achieve sustainable competitive advantage through customer delight. As the literature suggests, the role of employees cannot be avoided (Ali et al., 2020). An employee is an individual who has been hired by an employer to do a specific job for wages or a salary as compensation.

A successful firm needs a high level of employee engagement. Employee engagement refers to the positive force that motivates and connects their staff's cognitive, emotional, and physical beings (Al Mehrzi, N., & Singh, 2016; Wellins & Concelman, 2005). Its role in influencing the competitive advantage of firms is documented in the extant literature (Harter et al., 2002).

Competition in higher education has increased both nationally and internationally (Netanda et al., 2019; Qayyum & Zawacki-Richter, 2019). Universities compete to maximise their position in the market (Netanda et al., 2019). Distance education is one of the sectors of education that has witnessed increasing competition (Cutri & Mena, 2020; Qayyum & Zawacki-Richter, 2019). Effective management of competition has over the period been the desire of managers of distance education. The role of marketing has been recognized as the game changer in many industries; however, it is not clear which specific marketing tool is required for the needed sustainable competitive advantage.

The study, based on the theory of Market Orientation (MO) (Narver & Slater, 1990), investigates the role of the three tenets of the theory: customer orientation, competitor orientation, and inter-functional coordination in achieving sustainable competitive advantage in the distance education industry. The meaningful role of MO in business development (see Habib et al., 2020; Randhawa et al., 2021) makes it a candidate for investigation in the distance education market. However, the impact of MO on the distance education market has not been investigated in the literature. The need for a sustainable competitive tool in the distance education market at this point in time is essential to managing the increasing competition in the market. The roles of customer, competitor, and inter-functional coordination are examined due to their overall impact on market orientation and competitive advantage (Narver & Slater, 1990). More importantly, the role of employee engagement in the effect of market orientation needs to be assessed. It has been argued that the successful implementation and practise of strategies are dependent on employee engagement (Nienaber, 2019).

The researchers, therefore, contribute to the literature on the distance education market by investigating the role of MO in achieving a sustainable competitive advantage of entrepreneurial universities' distance education, and the mediating role of employee engagement. A major unique insight of this study is the context of distance education. Despite the available past and current studies on the theory of market orientation, the impact of MO on firms in the context of distance education is yet to be explored. Additionally, given the Covid crisis, the increasing reliance on distance education has resulted in a dynamic and turbulent environment in which market orientation assumes even greater importance. Towards this end, the study is guided by the following objectives: It specifically seeks to:

- (1) assess the effect of customer orientation on the university's competitive advantage;
- (2) evaluate the role of competitor orientation in the university's competitive advantage;
- (3) examine the relationship between inter-functional coordination and the university's competitive advantage;

- (4) assess the influence of employee engagement on the effect of customer orientation, competitor orientation, inter-functional coordination, and the university's competitive advantage.

The outcome of the study brings to light the strategies that managers of distance education need to effectively manage the increasing competition in distance education. The context of distance education is a significant unique insight of this study. Despite the available past and current studies on market orientation, the impact of MO on firms in the context of distance education is yet to be explored. Additionally, given the Covid crisis, the increasing reliance on distance education has resulted in a dynamic and turbulent environment in which market orientation assumes even greater importance.

2. Literature review and hypotheses development

Kohli and Jaworski's (1990) and Narver and Slater's (1990) frameworks on market orientation set the foundation for market orientation theory (Coffie et al., 2018; Kuada & Buatsi, 2005). Hunt (2012) describes MO as a latent construct and a normative strategy. As a latent construct and, as such, not directly observable, MO can be traced to McCarthy's marketing concept, which helps to identify the firm as being oriented towards its current and potential customers as well as its competitors. As a normative strategy, Hunt (2012, p. 8) posits that "MO is the systematically related set of statements that prescribes what firms should do to become market-oriented." This is what Kohli and Jaworski's (1990) and Narver and Slater's (1990) responded to with their framework. According to resource advantage theory, a firm's MO is a valuable and uncommon resource that may be used to deliver customer value and/or differentiate itself from the competition (Habib et al., 2020). MO has helped to identify that it is not enough to become a customer-oriented firm; the goal of the firm is to be market-oriented (Webster & Wester, 1994). A market-oriented firm also considers competitors' offerings and capabilities and how they are regarded by customers. Therefore, this study argues that to achieve sustainable competitive advantage, firms should take into consideration the level of market orientation of their firm. This is because, as Narver and Slater's (1990, p. 1) advance, "a business that increases its market orientation will improve its market performance." This will almost always happen when the firm correctly positions its brands. MO is regarded as the heart of modern management and strategy. Despite this, Asad, Sharif and Hafeez (2016) contend that results from past studies are not guaranteed globally. This, among others, necessitates further research into Ghana's distance education sector. According to Narver and Slater's (1990), a firm's desire to achieve sustainable competitive advantage through the creation of superior value for customers emanates from three behavioural components: customer orientation, competitor orientation, and inter-functional coordination.

2.1. Customer orientation and sustainable competitive advantage

The strategic focus of a company on what is relevant in the market reflects its level of MO. Customer orientation is mainly described as "a firm's orientation toward the promotion and support for the collection, dissemination, and responsiveness of market intelligence to serve customer needs" (Feng et al., 2019). Customer orientation has been identified as a key ingredient, and it is particularly so in highly competitive industries (Cheah, Ng, Ting, Memon and Loo, 2019). There is a consistency in studies that a major attribute of MO is customer focus and its sequential effect on achieving sustainable competitive advantage (Blankson et al., 20113; Hinson et al., 2017). Cheah, Ng, Ting, Memon and Loo (2019), for instance, argue that customer orientation leads to sustainable market intelligence. Its role in the service sector has a significant effect on firms' output. Lee, Che-Ha and Alwi (2021) posit that customer service orientation significantly influences employee output. Similarly, on performance, it is established that customer orientation positively influences organisational performance (see Smirnova et al., 2018; Neneh and Kuada, 2018). Superior customer value (Cheah et al., 2019) and sustainable market intelligence (Lee et al., 2021) are important factors for a firm's sustainability. Lee et al. (2021) establish a significant relationship between customer orientation and employee outcome, as well as customer outcome and organisational outcome, in the SME market. As a moderating role, customer orientation has

a moderating effect on the image and customer satisfaction (Xia & Ha, 2021). This, coupled with Blankson et al. (2013) and Hinson et al. (2017) assertions on the role of customer orientation, suggests that in the distance education market:

H1. There is a statistically significant effect of customer orientation on the university's sustainable competitive advantage.

2.2. Competitor orientation and sustainable competitive advantage

The theory of market orientation goes beyond customer orientation. According to Webster and Webster (1994), every enterprise aims to be market-oriented, which includes competitor orientation. That is, considering competitors' offerings and capabilities. Similar to the significant contributions of customer orientation to its predictor variables, competitor orientation influences organizations' outcomes (see Puspaningrum, 2020). For instance, in Sutapa et al. (2017), it was observed that competitor orientation has a significant influence on a firm's performance. In instances where customer orientation failed to have significant effects, competitor orientation became significant (see, Na et al., 2019). Nevertheless, in Na et al. (2019), a test of competitor orientation on product innovation did not prove significant.

Therefore, it is noteworthy to mention that firms should pay attention to their competitors. For example, O'dwyer and Gilmore (2019) believe that in order to achieve long-term competitiveness, SMEs must pay close attention to both direct and indirect competitors. Knowledge of competitors' philosophies in the market helps shape and reshape a firm's activities. Even in pure monopoly markets, firms are expected to be concerned about possible entrants and their potential strengths. Despite differences in markets, managing competition is not significantly different in the various markets.

H2. There is a statistically significant effect of competitor orientation on the university's sustainable competitive advantage.

2.3. Inter-functional coordination on the sustainable competitive advantage

Various departments, sections, or units of firms are expected to work together to achieve the needed results. This is the gist of inter-functional coordination. The management literature also notes the significant role of inter-functional coordination in influencing business unit-level strategies such as cost reduction, product development, and leadership (Defee & Stank, 2005). Narver and Slater's (1990) recognise the essence of inter-functional coordination as a constituent variable of market orientation. It has been argued that every employee in the organisation has the responsibility to work to improve customer value (Luu et al., 2018). Therefore, a coordinated function will accelerate the realisation of the objective of creating better customer value. Through proper integration of all parts of the firm, including its employees, better use of resources will be ensured, and customer and competitor issues will be managed well (Boso et al., 2013; Narver & Slater, 1990). Greater customer value is created, which in turn results in a sustainable competitive advantage when organisational functions are coordinated (Narver & Slater, 1990).

Previous empirical findings show the positive influence of inter-functional coordination on its dependent variables. For instance, in Sutapa et al. (2017), inter-functional coordination is said to help enhance the performance of the creative industry. Inter-functional coordination has a direct influence on SME performance (Mubarak, 2019). Its impact on service innovation is also known to be significant and positive (Kayhan et al., 2017).

The foregoing discussions strongly suggest that the role of inter-functional coordination both in management and marketing literature cannot be underestimated. The current study is positioned

to suggest that in the distance education service delivery market, the role of inter-functional orientation cannot be ignored, hence hypothesised:

H3. There is a statistically significant effect of inter-functional coordination on the university's sustainable competitive advantage.

2.4. Employee engagement and market orientation variables

Crick et al. (2022) suggest it may not be enough to be market oriented. Instead, managers can best serve their organisation by coordinating a combination of other activities. Employee engagement (EE) helps organisations achieve their goals, carry out their plans, and produce meaningful business outcomes (Chanana, 2021). At every point in an organization's life cycle, employers are to pay maximum attention to EE due to its impact on improved productivity (Vickers, 2019). The role of employee engagement in market orientations is well documented in Menguc et al. (2013) and Pinna et al. (2020). While no formal definition exists, Gupta and Sharma (2016, p. 45) defined it as "an integration of different behavioural components, such as commitment, involvement, attachment, discretionary effort, energy, a positive attitude, and psychological presence, that leads the employee potential into employee performance, which is positively linked with organisational success." EE has been linked to firm success (e.g., Sun & Bunchapattanasakda, 2019). The recognition of its influence has resulted in a series of studies on its measurement, antecedents (Al Mehrzi and Singh, 2016; Saks, 2019), and consequences (Saks, 2019). An empirical assessment linked EE to internal branding (Suomi et al., 2021). Despite its influence in the management literature, its role in MO and SCM has not been tested. However, this study argues, against the backdrop of EE's successes, that its level can influence the competitiveness of firms. More so, the amount of influence that MO has on SCA can be affected by the level of EE. Its mediating effect has been successfully tested on leadership style and service orientation (Popli & Rizvi, 2015), corporate entrepreneurship, and innovation performance (Hoque et al., 2017), and human resource practises and individual green behaviour (Ababneh, 2021). This, coupled with the ongoing discussions, leads the researchers to hypothesise that, in *the distance education market*,

H4a. *Employee engagement significantly influences the university's sustainable competitive advantage.*

H4b *Employee engagement influences the effect of customer orientation on sustainable competitive advantage.*

H4c *Employee engagement influences the effect of competitor orientation on sustainable competitive advantage.*

H4d *Employee engagement influences the effect of inter-functional coordination on sustainable competitive advantage.*

The results of the theoretical discussions and the review of the literature produced the study's conceptual framework in [figure 1](#).

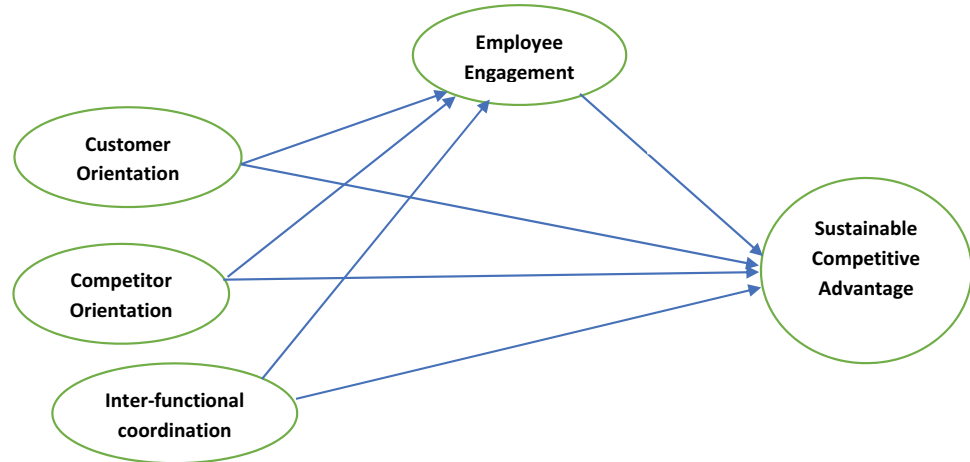
3. Methods

3.1. Study design

Among Creswell's (2014) classification of research designs (quantitative, qualitative, and mixed-method designs), the study adopted the quantitative research design. It has been argued that there is no best research design. However, the most appropriate design is the one that responds to the study needs (Creswell, 2014; Bentahar & Cameron, 2015). The choice of this design was based

Figure 1. Conceptual model.

Source: Authors' Conceptualization (2021).



on the following: (1) the research philosophy that underpins the study (post-positivist); (2) procedures adopted for the inquiry; (3) the type of data collection method, analysis, and interpretation; and (4) the nature of the phenomenon under study.

3.2. Population, sampling and sampling procedure

The population of the current study comprised all stakeholders in the delivery of distance education at a university in Ghana. However, to best understand MO and its related matters and best address, the study's purpose of examining a university's distance education MO for sustainable competitive advantage, the rightful and accessible population are the top management staff of the university. Notably, the vice chancellor, pro vice chancellor, registrar, and directors of the various directorates of the university. Also, top management and middle management staff of the college responsible for distance education (the college) of the university, chief examiners of the college, as well as heads of departments and administrators of the various departments of the university with whom the college runs its programmes.

The population is made up of management staff (heads of departments) at the university (121), chief examiners at the college (154), the college's study centre coordinators (96), and staff of the college (206). Authorities on MO agree that knowledge of MO is best derived from those who continuously experience the phenomenon (Amin, Thurasamy, Aldakhil and Kaswuri, 2016). This explains the choice of the researcher's population for the study. The identified stakeholders are the main groups of individuals who are primarily responsible for the management of distance education in all its forms. The choice of the university as the study context is born of their experience in the delivery of distance education in the sub-region (sub-Saharan Africa).

The researchers adopted a multistage stratified sampling technique. In the first stage, a stratified sampling technique was used to put the population into four strata: chief examiners of the college, the college's study centre coordinators, staff of the college, and heads of departments at the university. In the second stage, the study used Cohen et al. (2008) sample size determination table to randomly select 132 chief examiners of the college, 80 centre coordinators of the college, 132 staff of the college, and 80 heads of departments of the university. Thus, the sample size consisted of 372 respondents.

3.3. Instrument

The data was collected with a questionnaire. The nature of the current study and its objectives are quantitative in nature, hence the use of a questionnaire as the sole data collection instrument. The instrument is in two parts. The first section sought to understand the participants' characteristics. The second section, on the other hand, targeted responses to the various variables of the study.

3.4. Measures

The main variables of the study: competitor orientation, customer orientation, and cross-functional integration constructs—were measured using Narver and Slater's (1990) proposition and its later applications by Im and Workman (2004) and Zebal and Goodwin (2012). Also, the researchers adapted SoaneE et al. (2012) to measure employee engagement. Sustainable competitive advantage, on the other hand, was measured using Guimaraes et al. (2017) and De Guimarães et al. (2018). All items were rated on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The items measuring the various constructs are shown in Appendix 1.

3.5. Data collection procedure

The questionnaires were administered personally by the researchers and other trained field assistants to the respondents in their various units and sections. Before administering the instrument, the researchers sought express permission from the heads of selected units, sections, and departments of the university. Second, with the aid of the "Informed Consent Form for Adults," respondents' consent was obtained. Third, having obtained their consents, copies of the instrument were issued, and explanations of the various sections of the instrument and what was expected of them were made. The respondents were informed of their right to decline their participation. Lastly, the researchers and their assistants maintained regular communication with the respondents until the expected number of completed instruments was received. The data collection spanned a one-month period.

3.6. Ethical consideration

Prior to beginning the data collection, the required authorizations were obtained from the management of the university and the various colleges and departments from which the data was obtained. Before gathering responses to the questions under inquiry, the respondents' permission was requested. The responders were explicitly given the option to refuse or approve the continuation of the procedure on the data collection instrument's initial page. Prior to the start of data collection, respondents' confidentiality and anonymity were guaranteed. In order to prevent the respondents from experiencing any psychological harm, the study's items were carefully designed. The Ethical Clearance Certificate (ECC) was obtained after vigorous scrutiny from the Institutional Review Board of the University of Cape Coast (IRBUCC).

4. Results

203 of the 375 questionnaires distributed were usable, accounting for 54.6% of the sample size. The analysis was done based on this. An analysis of the demographics is presented first.

4.1. Demographic characteristics of respondents

Results for the descriptive statistics of respondents who participated in the study revealed that more males ($n = 145$, 71.4%) participated in the study than their female counterparts ($n = 58$, 28.6%). The respondents' age categories indicate that respondents within the age category of 35–44 years slightly dominated the study ($n = 68$, 33.5%). This was followed by those within the age bracket of 45–54 years ($n = 63$, 31%). Respondents above 55 years were 40 (19.7%), 2 of them were less than 25 years (1.0%), and 30 were between the ages of 25 and 34 years (14.8%).

The managerial role category of respondents showed that 153 (75.4%) of them were in middle management, while 50 (24.6%) of them held top management roles in the university. This reflects the staff profile of the university, where middle management staff are in the majority.

4.2. Main results

With the aid of Smart-PLS, data from the survey was analysed and presented. The presentation shows the main components of PLS-SEM and was reported using both the measurement and structural models. The measurement models evaluated the nature of the models and routes. The structured model, on the other hand, defined the hypotheses tested and findings, out of which various conclusions were drawn.

4.2.1. Measurement model

Base on PLS-SEM algorithm (see [figure 2](#)), the measurement model was evaluated and the following items CS3, CM1, IF2, EE4, SCA1, SCA2, SCA5, SCA7 and SCA8 were removed from the analysis because their factor loadings were low. Apart from items EE5 and SCA1, all other items had a loading greater than the recommended value of 0.7 (Hair et al., 2011). Items EE5 and SCA1, with values of 0.672 each, were maintained due to content validity (Shrotryia & Dhanda, 2019). From [Table 1](#), the Cronbach's (1951) Alpha (CA), composite reliability (CR), and rho_A values were higher than the cutoff points (Cicchetti, 1994). This is an indication of the high reliability of the constructs. Convergent validity was checked, and it was found to be acceptable because the average variance extracted (AVE) for all the constructs was over 0.50. These values and their cut-off points are consistent with earlier studies (Asad et al., 2022; Segbenya & Minadzi, 2022; Majali et al., 2022).

The discriminant validity (DV) was checked using the Fornell-Lacker criterion. The results for the Fornell-Lacker criterion show that the square root of the AVE for the constructs was greater than the inter-construct correlation (see [Table 2](#)). As such, DV is established.

Collinearity assessment was conducted using the VIF inner values to avoid type 1 and 2 errors (Hair et al., 2017). The VIF values (see [Table 3](#)) were below the recommended value of 3.3 (Kock, 2015). The values ranged from 1.663 to 2.812 indicative of no multicollinearity.

The checks for reliability (CR and CA) and validity (DV and CV) clearly show that the data is reliable and valid. These preliminary assessments paved the way to testing the research hypotheses in the next section.

4.2.2. Structural model

The structural model shows the path hypothesised in the research framework. The structural model is assessed based on R², Q² and the significance of paths. The fitness of the model is determined by the strength of each structural path. This is determined by the R² value of the dependent variable. The R² should be ≥ 0.1 (Falk & Miller, 1992). The model has a predictive capacity because the R² values are greater than 0.1 (see [Table 5](#)). The predictive relevance of the endogenous constructs was determined by the Q² value. A Q² value greater than 0 means the model has predictive relevance (Hair et al., 2011). In [Table 4](#), the Q² value for the endogenous variable was 0.410, hence predictive relevance is established.

Significant path coefficients were checked. A path analysis was conducted with an initial bootstrapping sequence of 5000 samples in PLS-SEM (see [Figure 3](#) and [Table 4](#) for the outputs).

A direct relationship were tested. The results are shown in [Table 4](#) and serves as the basis of assessment of hypotheses H1, H2, H3, and H4a.

An evaluation of the confidence intervals for the significant paths showed unidimensionality. This indicates high confidence (up to 97.5%). The effect size (f²) of the variables ranged from 0.033 to 0.349, indicating medium-to-high effect sizes on the significant relationship.

4.2.2.1. The response to the hypotheses of the study is presented next.

H1. There is a statistically significant effect of customer orientation on the university's sustainable competitive advantage.

Hypothesis 1 assesses the effect of customer orientation (CS) on the university's distance education sustainable competitive advantage (SCA). The results revealed that CS significantly effect SCA

Table 1. Loadings, VIF, reliability and validity

Construct/ Item	Loadings	VIF	Cronbach's Alpha (CA)	rho_A	Composite Reliability (CR)	AVE
Competitor Orientation			0.761	0.766	0.848	0.583
CM2	0.730	1.361				
CM3	0.741	1.468				
CM4	0.843	1.844				
CM5	0.736	1.478				
Customer Orientation			0.742	0.745	0.838	0.565
CS1	0.704	1.318				
CS2	0.764	1.56				
CS4	0.813	1.661				
CS5	0.720	1.292				
Employee Engagement			0.891	0.894	0.913	0.604
EE1	0.740	2.552				
EE2	0.779	3.794				
EE3	0.779	4.254				
EE5	0.672	1.527				
EE7	0.789	2.599				
EE8	0.834	3.202				
EE9	0.834	3.199				
Inter- functional Coordination			0.660	0.678	0.811	0.592
IF1	0.713	1.386				
IF3	0.839	1.488				
IF4	0.751	1.179				
Sustainable Competitive Advantage			0.814	0.818	0.889	0.567
SCA1	0.672	1.22				
SCA3	0.770	3.199				
SCA4	0.796	3.649				
SCA6	0.792	1.607				

Source: Field Data (2021)

Table 2. Fornell-larcker criterion

	CM	CS	EE	IF	SCA
CM	0.764				
CS	0.686	0.751			
EE	0.332	0.421	0.777		
IF	0.604	0.696	0.629	0.769	
SCA	0.603	0.561	0.284	0.418	0.759

Source: Field Data (2021)

Table 3. VIF inner value

	Competitor Orientation	Customer Orientation	Employee Engagement	Inter-functional Coordination	Sustainable Competitive Advantage
Competitor Orientation			2.005		2.015
Customer Orientation			2.472		2.472
Employee Engagement					1.663
Inter-functional Coordination			2.063		2.812

Source: Field Data (2021)

Table 4. Direct relationships

Hypotheses		Beta value	SDV	T Stat.	f ²	p value	Confidence interval	
							2.50%	97.50%
H1	CS -> SCA	0.306	0.083	3.690	0.064	0.000	0.138	0.465
H2	CM -> SCA	0.431	0.071	6.060	0.156	0.000	0.296	0.579
H3	IF -> SCA	-0.105	0.089	1.174	0.007	0.240	-0.286	0.069
H4a	EE -> SCA	0.078	0.074	1.055	0.006	0.292	-0.079	0.214
		R ²	Q ²					
	EE	0.399	0.225					
	SCA	0.410	0.202					

Source: Field Data (2021)

($\beta = 0.306$, $t = 3.690$, $p < 0.050$). This is because the p value is less than 0.05 and t is greater than 1.96. Hence, the hypothesis that there is a statistically significant effect of customer orientation on the university's sustainable competitive advantage is maintained.

H2. There is a statistically significant effect of competitor orientation on the university's sustainable competitive advantage.

Hypothesis 2 evaluated the effect of competitor orientation (CM) on the university's distance education sustainable competitive advantage (SCA). The analysis shown that ($\beta = 0.431$, $t = 6.060$, $p < 0.05$). This indicates a significant positive effect of competitor orientation on sustainable competitive advantage. Therefore, the hypothesis that there is a statistically significant effect of competitor orientation on the university's sustainable competitive advantage is maintained.

H3. There is a statistically significant effect of inter-functional coordination on the university's sustainable competitive advantage.

Hypothesis 3 was set to test the effect of the university's inter-functional coordination (IF) on its distance education sustainable competitive advantage (SCA). The results shown that IF has no significant effect on SCA ($\beta = -0.101$, $t = 1.174$, $p > 0.05$). Thus, the presence of inter-functional coordination does not influence distance education's sustainable competitive advantage. As such,

Table 5. Mediation analysis

	Total Effect	T Stat	P Value	Direct Effect	T Stats	P Value	Indirect Effect	T Stat	P Value
CS -> SCA	0.307	3.787	0.000	0.306	3.690	0.000	0.001	0.043	0.966
CM -> SCA	0.425	5.942	0.000	0.431	6.060	0.000	-0.006	0.541	0.589
IF -> SCA	-0.053	0.724	0.469	-0.105	1.174	0.240	0.052	1.064	0.287

Source: Field Data (2021)

Figure 2. Graphical output of PLS Algorithm.

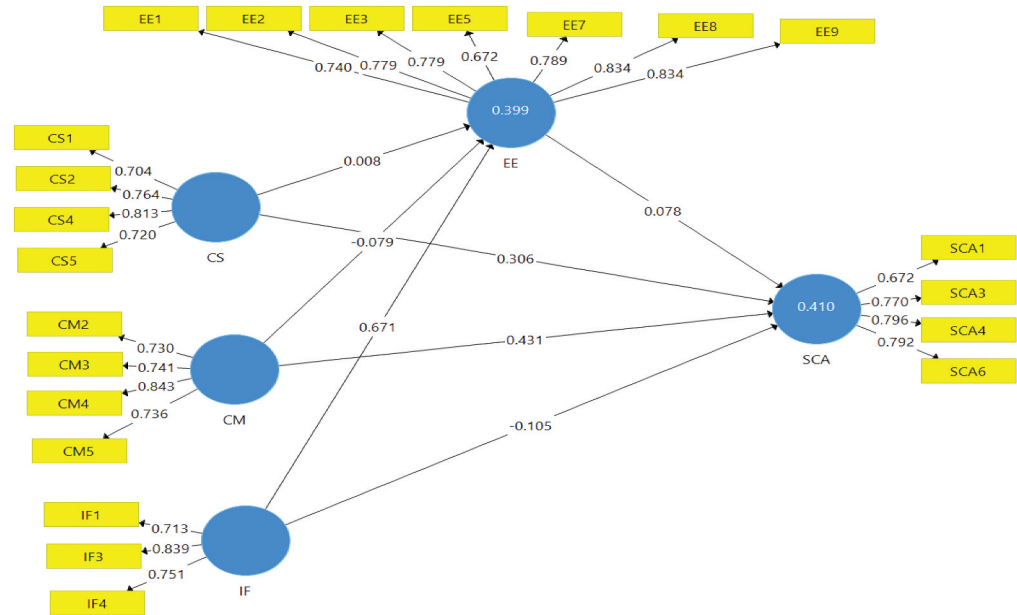
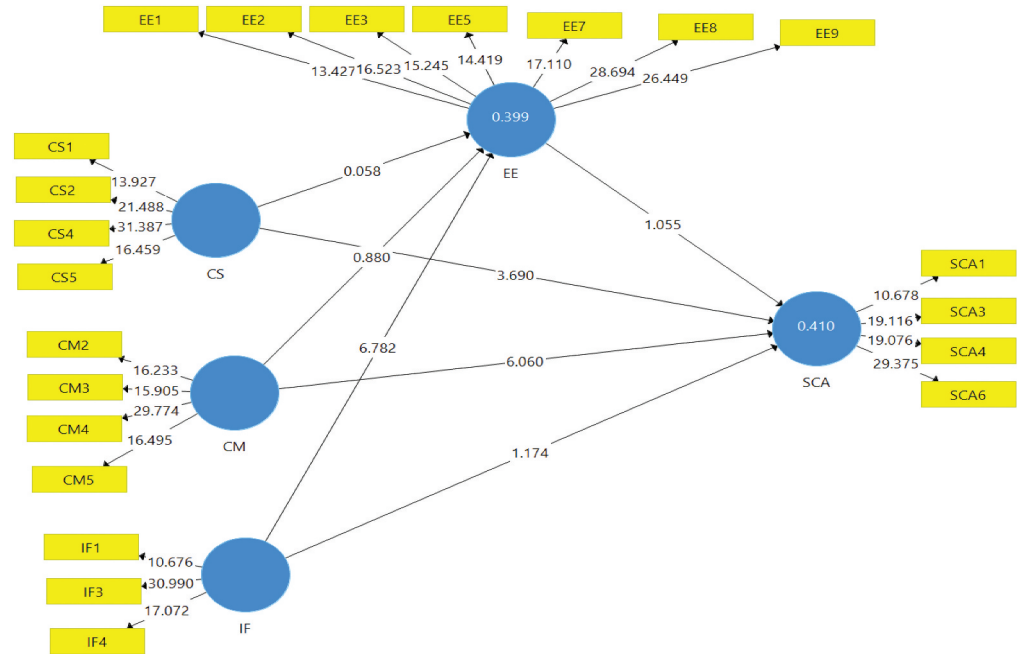


Figure 3. Graphical output of PLS 5000 Bootstrapping.



the hypothesis that there is a statistically significant effect of inter-functional coordination on the university’s sustainable competitive advantage is rejected.

H4a Employee engagement significantly influences the university’s sustainable competitive advantage.

Hypothesis H4a was aimed at evaluating the influence of employee engagement (EE) on the university's sustainable competitive advantage (SCA). The analysis produced a non-significant path result ($\beta = 0.078$, $t = 1.055$, $p > 0.05$). This implies that EE has no significant influence on SCA. As such, the hypothesis that employee engagement significantly influences the university's sustainable competitive advantage is rejected.

4.2.3. Mediation analysis

A mediation analysis was carried out to test hypotheses H4b, 4Hc and 4Hd.

H4b Employee engagement influences the effect of customer orientation on sustainable competitive advantage.

H4c Employee engagement influences the effect of competitor orientation on sustainable competitive advantage.

H4d Employee engagement influences the effect of inter-functional coordination on sustainable competitive advantage.

Hypotheses H4b, 4Hc, and 4Hd were intended to assess the influence of employee engagement (EE) on the effect of market orientation variables (CS, CM, and IF) on the university's distance education sustainable competitive advantage (SCA). The study's test of mediation is consistent with previous studies (e.g., Majali et al., 2022; Osei-Frimpong et al., 2022). From Table 5, no mediation effect was identified in any of the hypotheses. Even though H4b, H4c produced significant "total effect: H4b, CS ($\beta = 0.308$, $t = 3.787$, $p < 0.05$); H4b CM ($\beta = 0.425$, $t = 5.942$, $p < 0.05$) and "direct effect" CS ($\beta = 0.306$, $t = 0.690$, $p < 0.05$); CM ($\beta = 0.431$, $t = 6.060$, $p < 0.05$), the effect of the variables on SCA through EE were not significant, $p > 0.05$. IF, on the other hand, produced non-significant "direct effects," "total effects," and "indirect effects. As a result, hypotheses 4Hb, 4Hc, and 4Hd were not supported.

5. Discussion

The study was designed to test the role of employee engagement on the effect of market orientation of entrepreneurial university distance education and its sustainable competitive advantage relationships. The study produced useful outcomes for policy and practice.

The theory of market orientation variables, namely competitor orientation, customer orientation, and inter-functional coordination (Narver & Slater, 1990), was identified to influence the university's distance education sustainable competitive advantage in. To enhance universities' distance education, management must pay attention to its market orientation in order to remain competitive in the market. This relates Anabila et al. (2020) assertion that MO affects universities' market performance. Sustainable competitive advantage can be related to the four performance measures (student growth, market share, teaching, and service quality) investigated by Zebal and Goodwin (2012). They found a significant effect of MO on the performance of private universities. This indicates the relevance of Narver and Slater's (1990) theory of market orientation in the distance education markets of IHL. Universities with strong or good curricula will not be enough to stand out in the face of fierce competition. However, the outcome of this study implies that being market-oriented helps distance educational institutions to be successful in the market.

The university's orientation towards its promotion and support of market intelligence to serve its students' needs was found to have a significant influence on its sustainable competitive advantage. Similar to the existing literature on the positive role of being customer-oriented, the distance education market is not different, per the outcome of the current study. For instance, it has been determined that achieving sustainable market intelligence requires a firm to be customer-oriented (Cheah et al., 2019). In a similar service market, Lee et al. (2021) argue that the productivity of employees increases through

service customer orientation. This also relates to the SME market where it has been acknowledged the important role of customer orientation, not only to organisational outcomes but also to employee outcomes and customer outcomes (Lee et al., 2021). This is an indication that customer orientation does not only affect the success of the firm directly but also enhances staff output. Beyond the direct impact of customer orientation on the organisation, it also has a strong moderating ability. The effect of image on customer satisfaction is significantly moderated by customer orientation (Xia & Ha, 2021). The success of the firm, as pointed out by Smirnova et al. (2018) and Neneh and Kuada (2018), has been strongly attributed to customer orientation values and is aligned with the findings of the current study. As such, to achieve a sustainable competitive advantage in the distance education market, attention must be given to customer orientation.

Similarly, the role of competitor orientation was found to influence sustainable competitive advantage. This proves that in the distance education market, being competitor-oriented helps boost one's sustainable competitive advantage. This confirms Webster (1994) assertion that being market-oriented goes beyond customer orientation to include competitor orientation. The current study is similar to earlier studies that concluded that competitor orientation influences the successful outcomes of firms (see Na et al., 2019; Puspaningrum, 2020; Sutapa et al., 2017). The only point of departure from the current study is its domain: the use of the distance education market. However, due to the increasing competition in the distance education market, the use of competitor orientation by managers of these institutions, as identified by the study, will enhance the competitiveness of such institutions.

Inter-functional coordination, the last of the three-tier market orientation variables (Narver & Slater, 1990), produced a non-significant result. This implies that in the distance education service market, the level of inter-functional coordination does not influence the institution's sustainable competitive advantage. This finding is in sharp contrast to what has been identified in earlier studies (e.g., Kayhan et al., 2017; Mubarak, 2019; Sutapa et al., 2017). These studies found a significant positive influence of inter-functional coordination on their dependent variables. It is important to note that these took place in different markets such as SME, the creative industry, etc. The difference in results may be attributed to the market in which the current study was conducted. It can be said that in the distance education market, inter-functional orientation has no significant effect on a university's sustainable competitive advantage.

The literature has linked employee engagement to firm success (e.g., Sun & Bunchapattanasakda, 2019). However, the outcome of this study revealed that in the distance education market, employee engagement has no influence on the university's sustainable competitive advantage. Employee engagement did not show a significant direct effect on the institution's sustainable competitive advantage. Again, when it was used as a mediator, employee engagement did not significantly influence the relationship between employee engagement and sustainable competitive advantage. This was not the same when it was used as a mediator in leadership and service orientation (Popli & Rizvi, 2015), corporate entrepreneurship, and innovation performance (Hoque et al., 2017). In these studies, a successful mediation role was established. It can therefore be said that in the distance education service market, employee engagement has no significant role to play in the influence of market orientation on sustainable competitive advantage. A possible reason for this deviation could be the absence of direct contact between distance students and university employees. Unlike traditional educational delivery, the nature of distance education delivery is such that students do not have direct contact with most faculty members and administrative staff.

6. Conclusions and policy implications

Through the use of employee engagement, the study successfully tested the role of market orientation on the sustainable competitive advantage of university distance education. This was achieved through PLS-SEM analysis of 203 samples of top management and middle management staff at a university in Ghana. Customer and competitor orientations successfully predicted the sustainable competitive advantage of distance education. Inter-functional coordination, on the

other hand, could not significantly predict distance education's sustainability. The role of employee engagement in mediating the effect of market orientation on the university's sustainable competitiveness was identified as positive and significant. The increasing competition in the distance education market can be effectively managed for sustained competitiveness when market orientation is implemented. This study has several policy implications for both theory and practice.

From a theoretical perspective, the current study extends the application of MO theory to the study of distance education service delivery among IHL. It brings a novel empirical view of a certain country's distance education market. The study has a significant theoretical contribution to the study of marketing distance education. The study's confirmation of the significant role of two MO variables, customer and competitor orientations, brings light to the usefulness of the theory in this market. The non-significant role of inter-functional coordination also points out meaningful insights on the application of MO in the market. Another meaningful contribution of the current study to MO theory is the introduction of employee engagement. This study has established the role of employee engagement in the effect of market orientation variables on sustainable competitive advantage.

In terms of practice, the outcome of the study is useful to industry players and the research community, particularly those in the areas of educational administration, service marketing, and strategic marketing. Educational policymakers also stand to benefit from the findings of the study. The study has interesting implications for the management of distance education in IHL, especially in emerging countries like a certain country. Managers of distance education institutions' quest to improve sustainable competitive advantage cannot do so without deploying the role of market orientation. Specific attention must be focused on customer orientation and competitor orientation. The duo were found to positively influence distance education's sustainable competitive advantage. Concerning customer orientation, the study strongly suggests that educational managers should pay attention to students' needs and complaints, including excellent interpersonal relationships and periodic review of the curriculum to meet industry needs. The outcome of the competitive orientation also suggests that managers of distance education should have dynamic systems that help them understand and respond quickly to competitors' potential and main threats. The business aspect of running distance education, beyond the curriculum and teaching, should be given key consideration. The benefits of market orientation can be achieved when it is well implemented. A policy direction is needed to embrace business in managing distance education.

However, our study has some limitations. First, the study was carried out in only one institution, and thus, we caution any attempt to generalise the findings of this study to the entire nation. As a result, future research may consider broadening the study domain to include distance education from other universities in addition to a specific university. Also, it will be interesting to test the specific roles of each of the three elements of employee engagement in the relationship between market orientation and sustainable competitive advantage. Lastly, the combined effect of MO variables should also be investigated.

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Appendix 1

Descriptive Statistics of the items					
	Item Code	Min	Max	Mean	Std. Dev
Customer Orientation					
We conduct periodic surveys to obtain relevant information about the needs of students to better serve them.	CO1	1	5	3.55	1.176
Students' complaints and suggestions are taken seriously in our customer service	CO2	1	5	3.37	1.224
Our curriculum is reviewed over time in line with industry needs.	CO3	1	5	3.78	.947
Our strategy for competitive advantage is based on a clear understanding of our students needs	CO4	1	5	3.42	1.082
We have excellent interpersonal relationships with our students	CO5	1	5	3.77	.902
Competitor Orientation					
The university continuously reviews its curricula to meet changing industry need	CM1	1	5	3.87	.888
We strive to differentiate our offerings to give us a unique place in the minds	CM2	1	5	3.63	.970
We are quick to respond to competitor actions that threaten us.	CM3	1	5	3.13	1.126
We gather competitor information from time to time to strategize to compete favourable	CM4	1	5	3.33	1.039
We have a dynamic system that integrates people, processes, technology to response	CM5	1	5	3.36	.884
Inter-functional Coordination					
Our various departments work in harmony to achieve the common goal of the university	IF1	1	5	3.75	.981
We try not to jeopardise our very existence by meeting all regulatory requirement	IF2	1	5	3.91	.832
We freely communicate information about our student's experiences throughout the university	IF3	1	5	3.64	.968
Teamwork is the hallmark of our working philosophy	IF4	1	5	3.97	.858
Employee Engagement					

(Continued)

Descriptive Statistics of the items					
	Item Code	Min	Max	Mean	Std. Dev
I focus hard on my work	EE1	1	5	4.31	.821
I concentrate on my work	EE2	1	5	4.33	.871
I pay a lot of attention to my work	EE3	1	5	4.33	.883
I share the same work values as my colleagues	EE4	1	22	4.12	2.026
I share the same work goals as my colleagues	EE5	1	5	3.93	.864
I share the same work attitudes as my colleagues	EE6	1	5	3.89	.817
I feel positive about my work	EE7	1	5	4.31	.827
I feel energetic in my work	EE8	1	5	4.21	.873
I am enthusiastic in my work	EE9	1	5	4.31	.855
Sustainable Competitive Advantage					
Our main human/capital and organisational resources represent value for exploring market opportunities or assisting the organization in defending itself against environmental threats through an increase in revenue and/or a reduction in spending	SCA1	1	5	3.66	.856
Our key human/capital and organisational resources are unavailable to other organizations.	SCA2	1	5	3.13	.989
Our human/capital and organisational resources are very difficult for competitors to acquire.	SCA3	1	5	3.08	1.143
Our key human/capital and organisational resources are difficult for our competitors to imitate	SCA4	1	5	3.06	1.208
Our key human/capital and organisational resources are difficult to replace with another strategic equivalent	SCA5	1	5	3.00	1.191
Our revenue with new programmes is much better in relation to our competitors	SCA6	1	5	3.16	1.053
Our operation costs, during service delivery, is inferior to our competitors'.	SCA7	1	5	2.80	1.071
Our new programmes are produced and offered to respect the entrepreneurial social responsibility precepts	SCA8	1	5	3.95	.777