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Dynamic Capabilities, Human Capital, Firm Innovation: Evidence from Nairobi, Kenya, During COVID-19

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Abstract

Organization and locally by the Ministry of Health in Kenya have resulted in financial distress in restaurants and led to their increased closure, financial loss and job losses. Restaurants are labor-intensive and compete fiercely in a dynamic environment making them vulnerable to disruptive conditions. Hence the need to develop dynamic capabilities and strategic human capital to achieve firm innovation which enables them to adapt to sudden environmental changes. The aim of the article, therefore, sought to determine the influence of strategic human capital on the dynamic capabilities -firm innovation relationship in restaurants in Nairobi, Kenya during the COVID-19 pandemic. The study examined the effect of dynamic capabilities on firm innovation. In addition, the study examined the influence of strategic human capital on the dynamic capabilities- firm innovation relationship. 263 large and medium size restaurants were included in the sample size, which was determined using a descriptive cross-sectional design and stratified random sampling. Using questionnaires administered by the researcher, data from 191 restaurants were gathered and analyzed using simple and hierarchical regression models According to the study's findings, there was a positive correlation between dynamic capabilities and firm innovation, and the relationship between these two variables was moderated by strategic human capital. The study concluded that strategic human capital influenced the dynamic capabilities and firm innovation relationship.

Keywords: COVID-19, dynamic capabilities, human capital, firm innovation, restaurants

1. Introduction

A rare and contagious illness known as COVID-19 first appeared in Wuhan, one of the most populated cities in China, in the early months of 2020. It has since wreaked havoc on nations all over the world. The local outbreak swiftly turned into an emerging public health emergency before COVID-19 was finally classified as a pandemic by the World Health Organization on March 11, 2020 (World Health Organization, 2020a). COVID-19 symptoms include fever, coughing, and breathing difficulties, and it spreads through contact with other affected people (Yang, Zhang & Chen, 2020). Other elements that contribute to infection include the effectiveness and speed of COVID-19 transmission, airborne transmission, and intimate contact between infected and uninfected people. Travel restrictions, mask use, cleaning of affected regions, and social distancing orders are among the crucial global responses that were put in place to slow down the spread of the COVID-19 pandemic (Davahli et al., 2020). Researchers have been drawn to the pandemic's unpredictable effects which have had particularly negative effects on the hospitality industry (Altuntas & Gok, 2021; Gursoy & Chi, 2020). Businesses have had to adapt to survive in an environment that has undergone, and continues to experience, major rapid changes due to the constant introduction of new standards, rules and laws. As a result of the first lockdowns and subsequent limitations on the number of patrons that restaurants could hold at any given time, the COVID-19 pandemic had a terrible effect on the restaurant business globally, resulting in a huge loss of jobs. Other policies that have negatively impacted restaurants around the world include social distancing laws, adherence to World Health Organization COVID-19 regulations, stay-at-home orders, and restrictions on take-out services (Bartik et al., 2020). The restaurant industry experienced the highest global employment losses in 2020, according to the Job Quality Index (Dube, Nhamo & Chikodzim 2021), with 10.8 million people losing their jobs.

In Kenya, the COVID-19 regulations imposed by the Ministry of Health also put restaurants in financial trouble, drove them to close early in March 2020, and forced them to lay off most of their personnel. The Kenyan Government, however, phased in the re-opening of restaurants in Nairobi City County to operate on a modest scale with a limited number of employees due to the favourable results of the availability of the COVID-19 vaccine in 2021 (Gössling, Scott, & Hall., 2020). As many restaurant owners and managers are implementing business recovery strategies to preserve their establishments, the relaxation of COVID-19 regulations has given optimism to the restaurant industry in Kenya. Additionally, the Kenyan Government has assisted businesses by providing tax breaks and economic recovery initiatives. While owners and management make considerable adjustments to how their restaurants should run in the new climate, their businesses, nonetheless, still experience the pandemic's long-term detrimental effects (Kabadayi, O'Connor, & Tuzovi, 2020). The owners and managers frequently promote and display the health and safety measures they have put in place to gain the confidence of their present and potential customers to eat in their restaurants (Gössling Scott & Hall, 2020).

Additionally, the pandemic compelled restaurant management to prioritize the interests and welfare of both its customers and employees while implementing new business strategies (Heinonenn & Strandvik, 2020). Restaurants are labour-intensive, heterogeneous, perishable, and intangible, which sets them apart from other businesses. They compete fiercely in a dynamic market, making them vulnerable to disruptive conditions like COVID-19 that result in early closures, employment, and financial loss. As a result, one of their main means of survival has been the development of their firm's dynamic capabilities. For instance, Melián-Alzola et al. (2020); Senbeto & Hon (2020) and Jiang et al. (2019) argue that dynamic capabilities give tourism businesses a powerful tool for adapting to sudden environmental changes. According to Yu, Jacobs, Chavez, & Yang (2019), dynamic capabilities are essential to understand how a business reacts to and rebounds from external changes as well as to learn from and adapt to tumultuous settings. There is a lack of empirical research on dynamic capabilities focusing on restaurants, even though dynamic capabilities is a key framework for understanding firm innovation. Also, few studies examine the moderating process of strategic human capital (Zhou, Zhou, Feng, & Jiang, 2019). This study, therefore adds to the body of knowledge on restaurants' dynamic capabilities, specifically regarding the direct or indirect relationship between dynamic capabilities and strategic human capital on firm innovation.

Restaurants in Nairobi significantly contribute to Kenya's economic development and are collectively the largest employer both in the formal and informal sectors (Muragu, Nyadera & Mbugua, 2021). In Kenya, businesses are classified as micro, small, medium, and large if they have between 1-9 employees (micro), 10-49 employees (small), 50-99 employees (medium) and large if they have over 100 employees (KNBS, 2016). Within this classification regime, most restaurants in the county are classified as small based on the number of employees. The Nairobi city council however classifies them based on the number of customers they can seat: 1-10 seated customers are classified as small; 11-30 as medium and over 31 as large restaurants. Restaurants are further classified into three major service categories: full service, quick service, and fine dining. Quick-service restaurants provide limited menus on-site or packaged to take away (Zemke, Tang, Raab, & Kim, 2020). A full-service restaurant welcomes guests, seats them, provides a full menu, and serves and provides a bill to customers after service (Filimonau, Todorova, Mzembe, Sauer, & Yankholmes, 2020). A fine dining restaurant is high-end and formal, and provides a wide range of high-quality meals and service, together with décor and furniture that communicates in advance an expectation of a high level of service and a high price (Tsaur, & Lo, 2020).

For this research, all three types of restaurants were represented in the study sample. The COVID-19 pandemic has had a strong negative impact on the restaurants in the county including job losses and closures as a result of the measures taken in 2020 and 2021 to stop the spread of the disease (KNBS, 2021). These measures were mostly recommended by the World Health Organization and included social distancing, lockdowns, time-bound curfews, and work-from-home. Their implementation resulted in a sharp decline in business and unanticipated high costs of operations (Bartick et al., 2020). The latter was due to the mandatory facilities that had to be put in place within the restaurants, for example, sanitising stations, plexiglass screens separating customers and staff for over-the-counter transactions and various signages. The availability of the COVID-19 vaccine in the country in 2021, coupled with the government's aggressive vaccination programme, enabled the easing of COVID-19 restrictions and the phased re-opening of restaurants in the County with a minimal number of employees (UNWTO, 2020a). This has provided hope to many restaurant owners and managers in the County, who are developing business recovery programmes with support from the government. Initiatives under these programmes include the re-design of restaurant infrastructure, facilities, and ambience to comply with WHO guidelines and as they seek to revive their businesses.

2. Materials Studied

Dynamic capabilities research has covered many diverse areas which include construct definition, integration with other theories, methods development, and operationalisation of concepts. Its theoretical bases were first proposed by Teece et al. (1997) and later by Eisenhardt et al. (2000), each taking on different schools of thought. Teece et al. (1997) view is defined in a Schumpeterian world where businesses aspire to become competitive by creating new firm innovations. A company's dynamic capabilities, therefore, are the reconfiguration, development, and integration of its internal and external competencies to respond quickly to environmental changes. In their framework, dynamic capabilities can be divided into three categories: sensing, seizing, and transforming. The framework has found wide use in the literature (Zhou et al., 2019). Other researchers, however, have criticised the framework as homogeneous, more appropriate in high-velocity marketplaces, and able to provide limited competitive advantage (Eisenhardt et al., 2000). Others have expressed the view that the framework was created at an abstract level and does not provide a suitable measurement method. They go on to suggest alternative categories to address these challenges: detecting, learning, integrating and coordinating (Pavlou & El Sawy, 2011). Over time, researchers have settled on four categories of dynamic capabilities that are currently widely used: sensing, learning, integrating, and coordinating capabilities (Nieves et al., 2016; Teece, 2018; Rashidirad & Salimian, 2020). Sensing capabilities are all the processes involved in the creation, distribution, and response to information from the market as well as the determination of the needs of the customer. Strong sensing capabilities enable a company to perform better than its competitors in the search for and making sense of information from the external and internal environment (Helfat & Peteraf, 2003; Ottenbacher & Harrington (2009).

Examples include seeking out new suppliers for high-quality or unique inputs; ideas generated from customer feedback; novel menu possibilities based on new cooking technologies and adoption of idea generation and transformation of the culinary process; and the establishment of barriers to rival replication through the implementation of the concepts for creativity protection (Ottenbacher & Harrington, 2007; Presenza, Abbate, Casali & Perano, 2017). The processes involved in obtaining, absorbing, transforming, and using knowledge are collectively grouped as learning capabilities. Moreover, through experiment and practice, new products and services can be developed. Being able to effectively ensure that multiple activities within the organisation contribute toward shared goals captures the company's coordinating capabilities. This includes organising and building synergies among the company's activities and use of resources (Helfat & Peteraf, 2003). This capability was found to be essential among Michelin Chefs, especially during new product testing, where effective coordination is required between various actors including customers, line managers, and suppliers (Ottenbacher and Harrington (2007). Finally, processes that involve the integration of knowledge into the firm, be they individual or firm knowledge, to create a common understanding are referred to as integrating capabilities (Berends, Van der Bij, & Weggeman, 2011). Firm innovation can be described as the generation of new ideas and the creation of new products, processes and services that lead to an increase in performance (Kogabayev & Maziliauskas, 2017). Companies with a high propensity to innovate will develop and introduce more firm innovative outputs than companies with a low propensity to innovate," it is important to consider the firm's propensity to innovate to determine whether they can produce firm innovation outputs (Nijssen et al., 2006). Hence the idea of an organization's propensity for innovation acts as a catalyst for the acceptance of new ideas and influences the degree of creativity in newly generated goods, services, and business processes. (Casali, Perano, Presenza & Abbate, 2018).

In the hospitality industry, firm innovation (for example product, service and process) is essential for a firm to adapt to and shape its business environment, and strengthen patronage and customer loyalty (Martin-Rios & Ciobanu, 2018). The more complex and uncertain the external environment is, as was seen during the COVID-19 pandemic, the higher the extent to which restaurants embrace firm innovation (Ribeiro & Cherubim, 2017). Adjusting to the restrictions and impacts of the COVID-19 pandemic has forced restaurant managers to prioritize firm innovation as a strategy to adapt to the negative effects for survival and recovery. For example, Li, Zhong, Zhang and Hua (2021) identified several firm innovation activities to be carried out in response to the COVID-19 pandemic and to sustain restaurant businesses in China. These included innovation in customer service, new products, marketing tactics, and partnerships with other parties. Yun, Park, Gaudio and Corte (2020) established that restaurants in Nepal, North Korea and South Korea embraced firm innovation to improve restaurant revenue performance and survive during the COVID-19 pandemic.

2.1 Theoretical Framework

This study was anchored on the dynamic capabilities-based research model for firm innovation in independent restaurants proposed by Muriuki et al. (2021). Concerning Figure 1, the model incorporates dynamic capabilities, firm innovation, and strategic human capital. The model was based on a review of empirical studies of firm innovation models, different types of firm innovation, and the role of strategic human capital and dynamic capabilities in the restaurant industry. The study revealed that the various antecedents to firm innovation described in the industry literature could be well captured by the dynamic capabilities categories of sensing, learning, integrating, and coordinating capabilities. Further, firm innovation activities were mainly centered on product, service, and process innovations as defined by Hall (2009). Product and service-centric innovations, especially, are vital for maintaining and attracting customers and the sustainability of hospitality firms (Nhepera & Darlington, 2018).

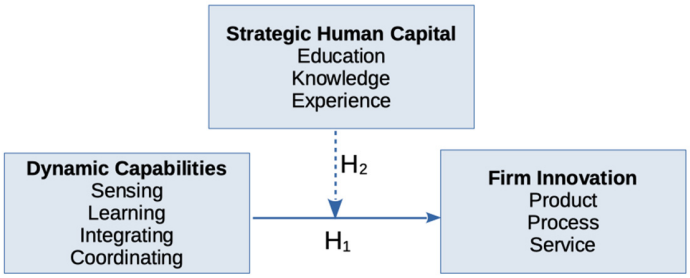

Figure 1. Dynamic capabilities-based research model for innovation in independent restaurants (Muriuki et al, 2021)

Since the onset of the pandemic, firm innovation has been perceived by management as an imposed activity rather than a discretionary activity to survive and build resilience in a rapidly changing environment (Heinonenn & Strandvik, 2020). This is brought about by the rash of new regulations that were imposed on restaurants with which they had to comply to remain operational. Additional pressures came from disrupted and unreliable supply chains and customer perceptions of the safety of the food and the environment in which it was served. Restaurants no longer chose to innovate but had to innovate to survive in a new uncertain environment. Imposed firm innovation seeks to overcome negative environmental effects by instituting change in people's minds and prompting company management to source for business opportunities that would not have been considered significant in a normal business environment (Möller, Nenonen & Storbacka, 2020). The term *imposed firm innovation* represents a significant implemented response to unplanned and enforceable disruptions that need transformative processes, and product and service offerings using available and affordable assets. The link between dynamic capabilities and firm innovation has been empirically studied. For example, Danneels (2011) found that companies that are resistant to the mobilisation, modification and configuration of their dynamic capabilities erode their endeavours to produce firm innovation outputs. Zheng, Zhang and Du (2011) showed that linkages between dynamic capabilities and firm innovation were favourable in networked environments in China. Internet-based companies in the United States were found to produce innovative outputs when they aligned their dynamic capabilities to opportunities presented in the environment (Liao, Kickkul & Ma, 2009). In a similar US study, Danneels and Vestal (2020) established that companies that did not develop and improve their dynamic capabilities limited their ability to develop and offer new and improved offerings. None of these studies, however, were carried out in restaurants. From these empirical studies, the first hypothesis is drawn,

H_1: Dynamic capabilities have an effect on firm innovation in restaurants in Nairobi City County.

Key among the arguments in the dynamic capabilities discourse is the pressure to build newer organizational dynamic capabilities through the utilization of a company's existing knowledge, skills, and experience. The parallel relationship between dynamic capabilities and strategic human capital looks at how knowledge acquired through learning can be absorbed and integrated into the company (Tsou & Chen, 2020). Knowledge acquisition can be carried out through strategic human capital processes and structures to enable adaptability to change, achievement of firm innovation, and development of company-wide learning capabilities (Chatterji & Patro, 2014). Knowledge can be created and managed within an organization if it has significant dynamic capabilities that influence its ambidexterity, and reflects

its ability to conduct synchronous exploration and exploitation activities. These activities can be used to achieve a firm's innovation outputs, as mentioned in this study and lead to the development of its competitive advantage (Santoro, Thrassou, Bresciani, & Del Giudice, 2019). Knowledge can also be created from big data efforts which serve as a source of a firm's dynamic capabilities and aid in the creation of information that is pertinent to the business, adds value, improves performance, and provides enterprises with a competitive edge over their rivals in a dynamic market (El-Kassar & Singh, 2018; Singh & Del Giudice, 2019). Dynamic capabilities, strategic human capital, and firm innovation links have been established in past empirical studies. Nieves and Haller (2014), for example, demonstrated that company employees with additional knowledge, education and relevant experience have a higher contribution to a firm's innovation outputs. Across Europe, a higher proportion of highly educated workers has been shown to promote product innovation in different countries such as Denmark, Croatia, France, and Germany (Capozza & Divella, 2019; Crowley & Bourke, 2018). They also found that managerial experience had a favourable effect on firm innovation as measured by the variety of firm innovation activities and outputs. A restaurant owner's pertinent experience and applicable knowledge and skills were found to influence the restaurant's creation of innovation outputs and were critical for the discovery, creation and exploitation of new market opportunities (Jogaratnam, 2017). Finally, Nieves (2018) discovered that management teams with higher education, skills, and experience developed a greater cognitive ability which resulted in the generation of more firm innovation outputs. Again, none of these studies was carried out for restaurants. From these linkages in the empirical studies, it is hypothesized that,

H_2: Strategic Human Capital influences the Dynamic capabilities- Firm Innovation relationship in restaurants in Nairobi City County

3. Research Methods

A quantitative approach was adopted to ascertain the correlation between the study variables and applied research techniques to support or refute the stated hypotheses. Samples were chosen, measurements were made, data was analyzed, and conclusions based on the hypothesized associations were drawn. Measurement along each of the dimensions of the three variables in the model, dynamic capabilities, strategic human capital, and firm innovation, were carried out using a questionnaire administered to owners or managers in restaurants in Nairobi City County. The survey was carried out between February-April 2021 (3 months), at the height of the pandemic in Kenya. The closed-ended questionnaire was structured into five sections as follows. Section 1 collected demographic data including the restaurant's age, the form of ownership, the type of service given, and the number of employees. Sections 2 to 4 captured information related to the model dimensions of dynamic capabilities, strategic human capital, and firm innovation, respectively. It was pre-tested to a small group of restaurants or owners to determine if the questions were readily understood by the respondents and minor revisions of the wording were made. A summary of the elements measured is presented in Table 1. The measurement scale for all questions was a 5-point Likert-type scale ranging from 1 (=strongly disagree) to 5 (= strongly agree). Cronbach Alpha coefficient was used to evaluate the internal consistency between the research instrument items. Most experts concur that it should have an internal consistency coefficient of at least 0.70. (Garson, 2012). The study population was 764, drawn from all the large and medium size restaurants as defined and licensed by Nairobi City County.

Table 1. Research questionnaire structure

Study Variable	Items	Adapted From
Dynamic Capabilities	Sensing, learning, integration, and coordinating capabilities	Pavlou & El Sawy (2011); Teece (2014); Schilke & Helfat (2018)
Strategic Human Capital	Education,knowledge, experience, training, recruitment, selection, and compensation	Nieves & Quintana (2018); Jogaratnam (2017)
Firm Innovation	Product, service, and process innovation	Nieves & Quintana (2018); Lee et al. (2016); Hall (2009)

The hierarchical regression method was used to test for the two hypotheses. The procedure is shown in Equations 1-4. where dynamic capabilities, firm innovation, and strategic human capital are represented by DC, FI, and HC, respectively.

$$FI = \beta_{0.1} + \beta_{1.1} C + e \quad (1)$$

$$FI = \beta_{0.2} + \beta_{1.2}\ C + \beta_{2.2}\ DC + e \quad (2)$$

$$FI = \beta_{0.3} + \beta_{1.3}\ C + \beta_{2.3}\ DC + \beta_{3.3}\ HC + e \quad (3)$$

$$FI = \beta_{0.4} + \beta_{1.4}\ C + \beta_{2.4.}\ DC + \beta_{3.4}\ DC*HC + e \quad (4)$$

In the equations, β_0, β_1, β_2 and β_3 were the constant of regression and the C, DC, and HC coefficients, respectively. e was the error term. Testing of the hypotheses using hierarchal regression was carried out as follows:

1. Significance of control variables was established by carrying out a regression using Equation 1. A statistically significant control variable coefficient, $\beta_{1.1}$ meant that the control variables significantly influenced the dependent variable and were thus retained for the next analyses.

2. Testing for Hypothesis 1 was done through a regression of Equation 2 that tested for the significance of the relationship between DC and FI as evidenced by the statistical significance of $\beta_{2.2}$. If no significant relationship is present, then the analysis stops here and there is no need to test for a moderating effect.

3. When testing for Hypothesis 2, Equations 3 and 4 adds HC as a moderating variable, where Equation 3 treats HC as an independent variable and Equation 4 establishes the interacting effect, if any, between, HC and DC. Statistically significance of $\beta_{3.3}$ and $\beta_{3.4}$ means that moderation was supported. If $\beta_{3.3}$ was statistically significant and $\beta_{3.4}$ was not would mean that HC does not have a moderating effect and should be treated as an independent variable

4. Results

From the study population of 764 large and medium restaurants licensed by the Nairobi City County 267 restaurants were categorized as large and 497 as medium. The sample size was 263 as calculated using Slovin's sample size equation for scaled data (Cochran, 1977). The number of participants who completed the survey was 194 or a response rate of 73.8% which exceeded the cut-off point of 70% as advised by Mugenda and Mugenda (2003). The non-response rate of 26.2% was primarily attributed to the closure of many restaurants as a result of the pandemic. These restaurants were mainly located within Nairobi Central Business District and in shopping malls. Results of the reliability analysis of the study variables, using Cronbach's Alpha, are shown in Table 2. Coefficient values that range from 0.70 to 0.95, demonstrate high internal consistency (Garson, 2012). For this study, as shown in Table 2, the coefficients ranged between 0.838 and 0.932 indicating the high reliability of the research instrument.

Table 2. Reliability results

Variable	No. of Questions	Cronbach's Alpha	Comment
Dynamic Capabilities	16	0.932	Reliable
Strategic Human Capital	5	0.838	Reliable
Firm Innovation	13	0.895	Reliable

4.1 Control Variables

The age of the business and the number of employees served as the control variables. Their significance was tested by carrying out a regression. Equation 2, with the results presented in Table 3. R^2 for the model was 0.003 and not significant with p =0.733. The coefficient for the age and number of employees were found to be -0.050 (p=0.548) and -0.039 (p=0.680), respectively. The control variables, therefore, were not used in subsequent analysis.

Table 3. Effect of control variables

Model Summary					
R	R^2	Adjusted R^2	Std. Error	F Change	Sig.
.057	.003	.007	1.00364	.311	.733

Regression Coefficients				
	Beta	Std. Error	t-statistics	Sig.
(Constant)	.174	.242	.721	.472
Number of Employees	-.050	.084	-.602	.548
Age of Business	-.039	.094	-.414	.680

ANOVA					
	Sum of Squares	Df	Mean Squares	F-statistic	Sig.
Regression	.627	2	.313	.311	.733
Residual	192.395	191	1.007		
Total	193.022	193			

Dependent Variable: Firm Innovation

Predictors: (Constant), Number of Employees, Age of Business

Source: Primary Data (2022).

4.2 Hypothesis 1: Dynamic Capabilities has Positive Effect on Firm Innovation in Restaurants in Nairobi City County

Testing for Hypothesis 1 was carried out through a regression of Equation 2, with the results presented in Table 4. R^2 for the model was 0.33 and significant with p =0.000. The model implies that 33% of the variation in Firm Innovation can be attributed to Dynamic Capabilities. The constant term and the coefficient for DC were found to be -0.001 (p=0.992) and 0.575 (p=0.000), respectively, the former, therefore, is not significant. The relationship between firm innovation and dynamic capabilities was found to be:

$$FI = 0.575\ DC \tag{5}$$

Hypothesis 1 is therefore supported, ie, there is a positive significant relationship between firm innovation and dynamic capabilities for Restaurants in Nairobi City County.

Table 4. Dynamic capabilities and firm innovation relationship

Model Summary					
R	R^2	Adjusted R^2	Std. Error	F Change	Sig.
.575[a]	.330	.327	.82046	94.741	.000

Regression Coefficients				
	Beta	Std. Error	t-statistics	Sig.
(Constant)	-.001	.059	-0.017	.992
Dynamic Capabilities	.575	.059	9.733	.000

ANOVA					
	Sum of Squares	Df	Mean Squares	F-statistic	Sig.
Regression	63.776	1	63.776	94.741	.000
Residual	129.246	192	.673		
Total	193.022	193			

Dependent Variable: Firm Innovation

Predictors: (Constant), Dynamic Capabilities

Source: Primary Data (2022).

4.3 Hypothesis 2: Strategic Human Capital Influences the Dynamic Capabilities-Firm Innovation Relationship in Restaurants in Nairobi City County

Hypothesis 2 was carried out through hierarchal regressions of Equations 3 and 4. The results from the regression of Equation 3 are shown in Table 5. The model R^2 was 0.369 and significant with p<0.000. The coefficients for both DC and HC were significant at p=0.000 and p=0.001, respectively, showing that both variables influence FI in restaurants. A regression was then run using Equation 4 to test for the significance of the interaction between DC and HC, with the results presented in Table 6. From the results, the model R^2 rises to 0.379 and is significant (at p=0.000). The coefficients for the DC and the interaction term (DC*HC) are 0.511 and 0.142, with p values of 0.000 and 0.016, respectively. As the coefficient for HC in Equation 3 and DC*HC in Equation 4 are significant, hypothesis 2 is supported. A variable has a significant moderating effect if there is an increase in explained variation after the inclusion of the interaction term (Baron & Kenny, 1986). In both cases, this explained variation must be significant, as was found here. Also, a variable has a moderating effect if it is significant in both models with and without interaction and if the interaction term is significant. Strategic human capital, therefore, has a significant positive influence on the relationship between firm innovation and dynamic capabilities for restaurants in Nairobi City County.

Table 5. The Influence of strategic human capital on dynamic capabilities and firm innovation without interaction

Model Summary					
R	R^2	Adjusted R^2	Std. Error	F Change	Sig.
.608	.369	.363	.79828	55.949	.000

Regression Coefficients				
	Beta	Std. Error	t-statistics	Sig.
(Constant)	-.001	.057	-.018	.992
Dynamic Capabilities	.486	.063	7.699	.000
Human Capital (Employees)	.217	.063	3.438	.001

ANOVA					
	Sum of Squares	Df	Mean Squares	F-statistic	Sig.
Regression	71.307	2	35.653	55.949	.000
Residual	121.715	191	.637		
Total	193.022	193			

Dependent Variable: Firm Innovation

Predictors: (Constant), Dynamic Capabilities, Strategic Human Capital (Employees)

Source: Primary Data (2022).

Table 6. The influence of strategic human capital on dynamic capabilities and firm innovation with interaction

Model Summary					
R	R^2	Adjusted R^2	Std. Error	F Change	Sig.
.623	.388	.379	.78831	40.201	.000

Regression Coefficients				
	Beta	Std. Error	t-statistics	Sig.
(Constant)	-.001	.057	-.018	.992
Dynamic Capabilities	.511	.063	8.092	.000
Interaction	.142	.059	2.421	.016

ANOVA					
	Sum of Squares	Df	Mean Squares	F-statistic	Sig.
Regression	74.948	3	24.983	40.201	.000
Residual	118.073	190	.621		
Total	193.022	193			

Dependent Variable: Firm Innovation

Predictors: (Constant), Dynamic Capabilities, Human Capital (Employees), Interaction

Source: Primary Data (2022).

5. Discussion

The study established that the dynamic capabilities-firm innovation relationship in restaurants in Nairobi City County was significant. The findings of Kickkul, et al. (2009) which showed that to develop firm innovation outputs, a company must dynamically match its dynamic capabilities with the opportunities offered by its environment, were supported by the results of this study. The findings also concurred with those of Zheng, Zhang, and Du (2011) who found that dynamic capabilities-firm innovation links were advantageous in networked environments in China. The study also determined the influence of strategic human capital on the dynamic capabilities – firm innovation relationship in restaurants in Nairobi City County. The results of hypothesis 2 revealed that strategic human capital influences the dynamic capabilities – firm innovation relationship in restaurants in Nairobi City County. These findings were in line with those of Nieves and Haller (2014), who showed that employees' contributions to a firm's innovation outputs were higher when they had more training, education, and relevant experience; and those of Bourke and Crowley (2018), who discovered that managerial experience positively influenced firm innovation as shown by the range of activities and products created. Nieves (2018) also found that management teams with better levels of training, expertise, and experience had improved cognitive abilities, which led to the production of more firm innovation outputs. Theoretically, the study findings, agree with the dynamic capabilities framework which recognises the importance of firm innovation either in pursuit of new knowledge (developed through dynamic capabilities) or in pursuit of the development of newer products and services (non-evolutionary) (Schelke, 2018). Companies develop dynamic capabilities to respond to the rapid changes in their environment. The type of dynamic capabilities developed is dependent on the company's environment, such as the COVID-19 pandemic, current resource base and the needs of its customer.

6. Conclusion

This study's overall objective was to investigate the influence of dynamic capabilities and strategic human capital on firm innovation in restaurants in Nairobi, Kenya during the COVID-19 pandemic. The study is based on the dynamic capabilities research model for innovation in independent restaurants proposed by Muriuki et al. (2021). Data was collected from a sample of restaurant owners and managers in Nairobi City County which facilitated the testing of the model. The study findings showed that hypothesis 1 and Hypothesis 2 were supported and consistent with the existing empirical literature. The results of the study provide continued support to the theory of dynamic capabilities that argues that companies can develop, re-combine, transform, and re-configure their various forms of capabilities to adapt to the environment's fast change and to foster firm innovation outputs (Helfat et al., 2009), by testing the validity of the constructions in the context of the restaurant industry. Such capabilities may include sensing, learning, coordinating, and integrating capabilities. As shown, the acquisition of the right strategic human capital can enhance learning dynamic capabilities where firm innovation activities can be linked to the right personnel and tasks that foster either product, service, or process innovation. The study results provide evidence for the development of policies that support restaurants to develop their dynamic capabilities and to embrace firm innovation in disruptive environments. They should also encourage restaurant owners and managers to pay attention to strategic human capital characteristics that influence the development of their restaurants' dynamic capabilities to achieve firm innovation. High consideration may be put on the formal education of the employees to ensure that the knowledge acquired is shared, transferred, and integrated effectively within the restaurant systems to enhance dynamic capabilities and to make firm innovation thrive. Several gaps remain that could warrant further study. First, Teece (2007) dynamic capabilities dimensions were used in this investigation. Other dynamic capability dimensions defined by other researchers could also be investigated. In addition, other elements of strategic human capital and firm innovation that have been noted in the literature could be investigated. Future studies could also consider mediation not moderating effects of Strategic human capital and carry out a longitudinal study to note the various influences over time.

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