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Marketing Analysis on Activating and Supporting Dynamic Capabilities and Customer Satisfaction

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ABSTRACT

Housing, as one of the most important components of economic and social systems, possesses characteristics that are changing and evolving over time. The aim of the present research is to analyze marketing in terms of activating and supporting dynamic capabilities and customer satisfaction in the construction and housing industry. In this research, to analyze the data obtained from the questionnaire according to statistical needs, SPSS software (version 24) and structural equation modeling software PLS (version 3) were used in the form of descriptive and inferential statistics through linear and multiple regression. The study population includes the number of employees in the construction industry, and Cochran's formula is used for the limited population, which totals over 550 individuals. To calculate the required sample size for the research at a 95% confidence level, Cochran's formula yielded a total of 226 individuals. After implementing technological tools that allow for closer contact with customers, a company can determine what their needs and priorities have been, which is the first step in making decisions that will lead to business objectives. From there, it ensures that the customer feels acknowledged, and that they are considered in the decisions made by the organization.

Introduction

Housing, which is one of the important issues in the country's economy, is currently experiencing a prolonged recession due to the lack of an institutional structure and appropriate policies. In this context, the housing sector, as one of the sub-sectors of the economy, has not been immune to the afflictions affecting the macroeconomy and has undergone a relatively long recession. Scientific studies have also confirmed the extension of macroeconomic conditions to the housing sector, proving that the growth of real variables in the housing sector follows the overall economic growth, and housing prices are influenced by monetary policies and liquidity. Therefore, the dominance of recessionary conditions in the housing sector is not unexpected. A series of hasty actions and structural defects have led to considerable commitments for the government, and the management of the housing sector has been handed over to the current policymakers under difficult circumstances. As the standard of living for customers rises and attention is paid to the qualitative aspects of buildings, construction practices have undergone significant changes. Municipalities and the engineering system have made substantial efforts to ensure that buildings meet real construction, architectural, and engineering standards, preventing the construction of substandard properties. In today's market, having a suitable strategy regarding brand strategies plays an essential role in organizational success. Brand development strategy and expanding consumer choice regarding various products have become one of the popular approaches for achieving growth. Digital transformation provides new methods through which organizations can engage with customers and consumers, thereby creating value for them [4-1]. Customers are active and dynamic beings who understand their needs and are aware that there are alternative products and services that can satisfy them [1-4]. Although the success of a company depends on various factors, one of the most important is enhancing its competitiveness in the market to meet customer satisfaction [5-6].

Digital transformation is a process of re-creation and re-engineering a business aimed at digitalizing a company [6-9]. With the emergence of new digital technologies, such as artificial intelligence, the Internet of Things, mobile and social media, blockchain, and big data, companies in nearly all industries are adopting various initiatives to examine and exploit the advantages of these technologies [10, 14]. At the same time, due to the maturity of digital technologies and their power to penetrate markets, society is facing rapid and fundamental changes, while the needs and demands of customers are increasing, and organizations are facing tougher competition due to globalization [15, 18]. The emergence of digital innovations has accelerated, creating opportunities for new services and disrupting existing business models [19-22]. In the construction industry, major trends such as autonomous building structures, connectivity, and sharing of new structures are creating new business models. These issues simultaneously lead to new competitors in the market, gradually transforming the industry [23].

Due to the increasing number of newcomers to the market, original equipment manufacturers are no longer alone and must adjust their strategies based on what the competition offers, enabling a customer-centric focus that strongly intervenes in the market [24-26]. Consequently, digital transformation changes value creation in companies, especially in those where value is produced by physical elements, such as the construction industry [27]. The construction industry is primarily being transformed by digital innovations, such as social networks, autonomous building structures, connectivity, and big data [26, 28], compelling them to adjust their business models to progress alongside technology and its impacts [29-31], which manifests through platforms for sharing new structures or remote services [18, 32].

Dynamic capabilities are a learned and sustainable pattern of collective activity through which an organization can continuously produce and change its operational processes in search of increased efficiency and effectiveness [33]. Dynamic capabilities consist of sensing, seizing, and transforming micro-foundations [4]. In this respect, with dynamic capabilities, a company can seize business opportunities, respond to threats, and gain new opportunities, thereby maintaining its competitiveness in the market [6]. In previous research, dynamic capabilities have been classified into three categories [7]:

a) Sensing capacity refers to the ability to discern the environment and understand customer needs compared to competitors; the ability to identify and shape opportunities and threats; the ability to exploit these opportunities and maintain competitiveness by reconfiguring the organization's tangible and intangible assets. By identifying potential collaborating customers—mainly users of active companies in the construction industry—an organization creates a sensing capability, given that engagement with customers in new construction enterprises provides a better understanding of their needs.
b) Seizing capability refers to the activity of addressing opportunities and threats; it is a process in which fundamental investments are made to tackle new opportunities and threats identified through sensing. In particular, based on empirical findings, it is argued that this can be achieved through offering new products and services and making incremental changes to existing business models [35]. Companies in the construction industry acquire and replicate external information, recording it as a knowledge base to improve processes and products.
c) Innovation capability describes the transformation process as the ability to configure organizational assets so as not to become stagnant and passive when faced with future changes. The success of a product in the construction industry is measured by the number of units sold per day or store. Additionally, defining and measuring the number of units sold per store/day facilitates the identification of commercial success. Furthermore, in this industry, companies produce a limited number of product units based on defined needs. Some previous articles have analyzed the impact of dynamic capabilities on customer satisfaction, but in different industries and not specifically in the construction industry.

A review of the literature was conducted with the aim of identifying dynamic capabilities and the indicators that measure these in the construction sector. The terms searched included: “digital transformation and dynamic capabilities,” “digital transformation and the construction sector,” and “dynamic capabilities and the construction sector.” The most important databases utilized included ABI Research, Econlit, Academic Search Premier, Google Scholar, Springer, and Science Direct covering the time period from 2001 to 2020 [7].

The construction industry is continually influenced by the supply of new technologies, making it essential for companies to adapt quickly to the rapid pace of growth. Therefore, it is crucial to focus on the dynamic capabilities that these companies possess, which go beyond their core competencies, to continuously monitor changes in the environment and thereby ensure the sustainability of the industry in the market. One of the most important outcomes of establishing dynamic capabilities is the creation, reconstruction, and nurturing of skills and abilities that enable the company to remain up-to-date in response to market changes. The model of direct customer participation in the construction industry allows companies to increase the likelihood that products offered under their specific brands will be more favorably received compared to leading organized brands, making them more attractive. Moreover, this approach helps customers perceive them differently and achieve positive acceptance: “If you listen to your customers, creating successful innovations becomes easier, with less risk; success is based on knowing how to communicate ”.

Customer satisfaction is key. The success of digital transformation will depend on creating customer value and understanding the need to improve processes, rather than merely automating them. In this regard, customer satisfaction through digital transformation is based on providing them with information about whether the chosen company is doing the right thing to meet their needs and desires.

In the construction industry, thanks to the Internet of Things, artificial intelligence, and big data, new maintenance models have been designed, among which predictive maintenance stands out as an innovation for intelligent production, defective detection, and evaluating the remaining life of construction equipment. The focus of digital delivery within a construction company should

involve engaging with customers to enhance their experience, whether from the perspective of product quality or improving communication. Essentially, companies that can reduce costs, engage customers, and utilize their assets efficiently by implementing digital technology will be among the winners of digital disruption.

In previous research conducted by this group, observed variables of dynamic capabilities were assigned to indicators derived from literature reviews and expert opinions. Additionally, based on a quantitative exploratory methodology, the correct assignment of indicators to each latent variable or dynamic capability was validated [7].

The research questions focused on determining whether the generation of dynamic capabilities through digital transformation affects customer satisfaction in the construction industry and its components (Table S1. Dynamic Capabilities Questionnaire). Therefore, the main objective of this research was to validate whether it is possible to integrate the dimensions of dynamic capabilities (seizing, sensing, and innovating) into a reliable construct for the construction sector and then assess the positive impact of dynamic capabilities on creating organizational value, along with the subsequent improvement in customer satisfaction.

Three specific objectives were proposed in this article: first, to create a construct of dynamic capabilities that integrates the dimensions of seizing, sensing, and innovating. Second, to develop a factor with variables regarding customer satisfaction. Finally, to quantify the impact of digital transformation in building dynamic capabilities on customer satisfaction in the construction industry.

The research questions were evaluated using a mixed methods approach that integrates qualitative and quantitative methodologies. For the theoretical model approach, which involves selecting and assigning indicators of capabilities, a bibliographic review was conducted, and these were validated. Subsequently, a structural equation model (SEM) was developed to assess the impact of dynamic capabilities on customer satisfaction.

This study, considering the issue that digitalization is a clear priority, integrates the dimensions of dynamic capabilities that are internal to the organization into a construct related to customer satisfaction (an external aspect for the organization). Based on the results of this research, we aim to help managers analyze market conditions quickly based on the effects of developing dynamic capabilities on such a strategic dimension for any company relating to customer satisfaction. Therefore, this research will validate the production of dynamic capabilities through digital transformation in the construction sector concerning customer satisfaction.

This paper is organized as follows: after this introduction, Section 2 refers to the theoretical framework that addresses the concepts of digital transformation, dynamic capabilities, and the same concepts applicable to the construction industry. The materials and methods, hypothesis development, methodologies, information sources, sample, and data collection tools will be described. In Section 3, the results will present the validation of the model. Section 4 will discuss and conclude the findings from the validation of the results obtained in this research compared with data provided from the literature review.

2. Research Methodology

Based on the framework illustrated in Figure 1, where the assignment of observed variables is made to the dimensions of sensing, seizing, and innovating, the following research questions were formulated: Can the dimensions of sensing, seizing, and innovating be categorized under a construct called "dynamic capabilities"? Do dynamic capabilities have a positive impact on customer satisfaction? Consequently, two measurement models and one structural equation model were proposed (Figure 2).

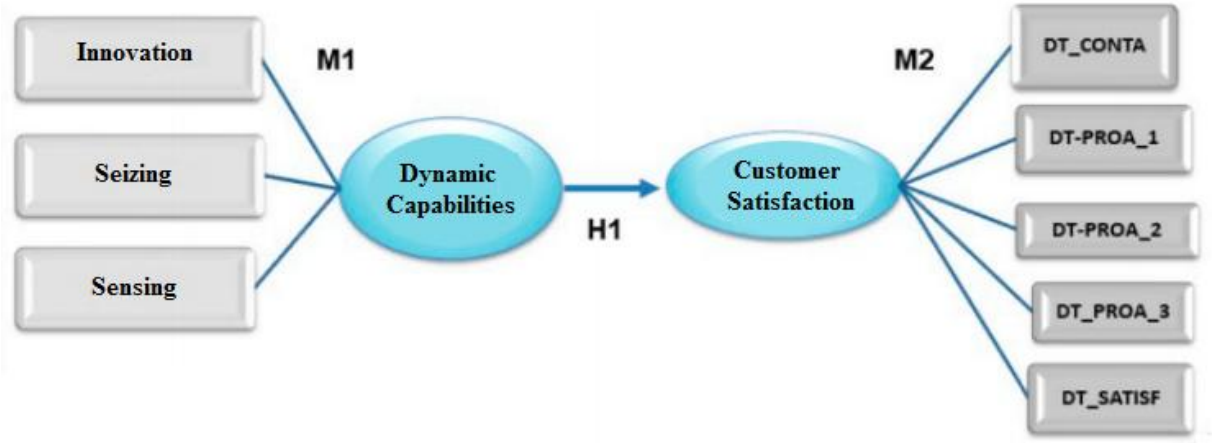

Figure 1: Models and hypotheses in the theoretical model.

The proposed hypotheses were presented through a system of structural equation models in two stages. In the first stage, two reflective models (M1 and M2) were constructed. In the second stage, in Hypothesis 1, a structural equation model was developed to assess the relationships between dynamic capabilities (DynCap) and customer satisfaction (CustSatis).

The questionnaire employed gathered the following variables related to customer satisfaction (Table S2: Overview of Satisfaction Variables):

DT_CONTA: To what extent has digital transformation enabled us to identify the real needs of customers? Today, traditional marketing methods are insufficient for understanding customer needs. Customer buying and selling behavior has rapidly evolved towards the use of mobile technology, online shopping, collaborative value creation, etc., leading to the formulation of new models for assessing the nature of customer needs.

DT_PROA_1: To what extent has digital transformation enabled us to engage with customers and resolve issues? Digital transformation has focused on transforming customer experience, relationships, and processes. This collaboration with customers is the foundation for modern innovation and an efficient system that enables successful organizations to become aware of their customers' needs to meet them and improve performance. The success of digital transformation will depend on creating customer value and understanding the need for process improvements, not merely on automating them.

DT_PROA_2: To what extent has digital transformation enabled us to be in direct contact with customers by facilitating data collection, thereby allowing us to predict our digital transformation needs and offer additional products and services to current customers? Customers are increasingly becoming aware and coming into contact, which gives them the option of multiple alternatives for products and services. Besides liking the product, they must also appreciate how the product is presented and delivered, which necessitates thinking not only about the product but also about the services.

DT_PROA_3: To what extent has digital transformation made it possible to reduce incidents related to floods and earthquakes?

DT_SATISF: To what extent have the installation of sensors, predictive models, and learning algorithms achieved greater operational efficiency?

Hypothesis 1: Dynamic capabilities (DynCap) positively affect customer satisfaction (CustSatis) (Figure 2). This hypothesis investigates the direct impact of dynamic capabilities on company outcomes and uses customer satisfaction as an alternative (substitute) variable. The structural model for the relationship between dynamic capabilities and customer satisfaction is illustrated in Figure 2.

3. Research Findings

The referenced survey research consisted of 28 items: 8 socioeconomic items (including age, gender, company size, and professional profile), 15 items related to dynamic capabilities, and 5

items related to customer satisfaction. The reliability of the questionnaire was verified through Cronbach's alpha, with values greater than 0.7 accepted for establishing internal consistency. The overall questionnaire showed a Cronbach's alpha coefficient of 0.93.

Table S1 presents the dynamic capabilities questionnaire, a prior study where 15 variables of dynamic capabilities were categorized into the dimensions of sensing, seizing, and innovating. Table 2 indicates a high degree of correlation among the three dimensions addressed in this analysis. Table 3 provides a statistical description of each index and illustrates the heterogeneity of the data and their dispersion. In a previous study [7], the variables of innovation, seizing, and sensing, as well as the related SEM model for the three dimensions of dynamic capabilities, were described in detail.

Table 2: Correlations Among Latent Variables.

ɔrrelation (p-value)	Innovation	Seizing	Sensing
novation	-	0.8051 (0.0000)	0.6620 (0.0000)
ɨizing	-	-	0.7780 (0.0000)

Table 3: Scores for Dynamic Capabilities for Each Dynamic Variable

Variable	Scores (Median)	Standard Deviation	Minimum	Maximum	1st Quartile	3rd Quartile
Innovation	0.215	0.01214	-2.522	1.966	0.654	-0.643
Seizing	0.173	1.01209	-2.932	1.575	0.814	0.867
Sensing	0.311	1.01209	-2.072	1.526	0.731	0.946

The customer satisfaction variables in this study were assessed using a Likert scale. A Likert scale ranging from 1 (not important) to 5 (very important) was employed. In this context, the intervals between points on the scale corresponded to empirical observations in the meaning of the scale. A graphical scale was displayed for each survey question presented to the interviewee.

Table 4: Statistical Values for Customer Satisfaction Based on Each Examined Dynamic Capability

Observed Variable	Scores (Mean)	Standard Deviation (Coefficient of Variation in Percent)
DT_CONTA	4.048	1.058 (26.14)
DT_PROA_1	3.858	1.117 (28.95)
DT_PROA_2	3.405	1.432 (42.07)
DT_PROA_3	3.786	1.423 (37.60)
DT_SATISF	3.786	1.048 (27.66)

Based on the results shown in Table 4, the five satisfaction variables exhibited high mean values and coefficients of variation greater than 25 percent. The Cronbach's alpha coefficient was greater than 0.7, and the questionnaire was validated for each of the indicators.

4. Statistical Analysis

The analyses were conducted in two stages. In the first stage, two reflective measurement models (M1 and M2) were utilized (Figure 2) to evaluate the relationships between the constructs of dynamic capabilities (DynCap) and customer satisfaction (CustSatis), along with the indices used. For this purpose, internal consistency for each construct was measured (using Cronbach's alpha and composite reliability); secondly, convergent validity was assessed through index reliability and variance extracted. Finally, discriminant validity among indicators and latent variables was evaluated using the Fornell-Larcker criterion and cross-loadings.

The causal relationships between dynamic capabilities (DynCap) and customer satisfaction (CustSatis) were measured in a second stage. To validate Hypothesis 1, a structural equation model (SEM) was developed (Figure 2). Both models were estimated using the Partial Least Squares (PLS) procedure based on SmartPLS3 software to test the relationships among the indicators and latent constructs, as well as the hypothesized structural relationships between latent constructs. The criteria for selecting the algorithm were as follows: the novelty of the phenomenon, the modeling in a nascent stage, minimum PLS sample size recommendations,

predictive accuracy, and relatively low requirements regarding multivariate data normality were met.

Finally, bootstrapping was used to test the statistical significance of various PLS-SEM results such as path coefficients, Cronbach's alpha, HTMT ratios, and R^2 values. In this research, the bootstrapping procedure was repeated until 5,000 random samples were generated.

4-1- Models and Hypotheses Assessment

The model was estimated in two stages: first, the constructs used; and second, the relationship between dynamic capabilities and customer satisfaction (Figures 1 and 3). All capabilities presented in this model—sensing, seizing, and innovating—are shown in Figure 1 from the introduction section. Additionally, a review of quality criteria is provided in Table 1 of the methodology section.

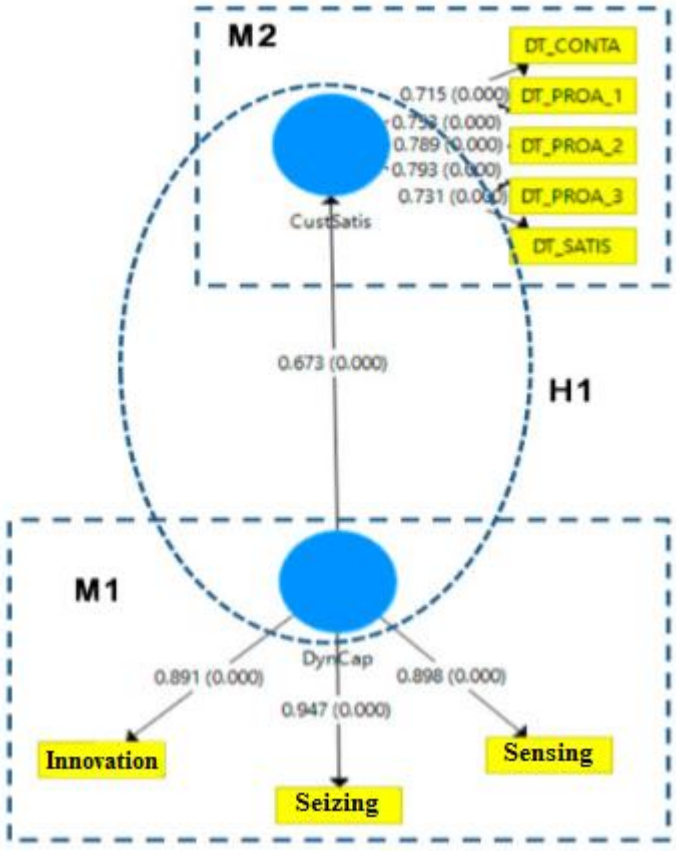

Figure 2: The models and hypotheses of the dynamic capabilities model on customer satisfaction.

Figure 2 and Tables 6-8 present the reflective and structural models, testing the hypotheses outlined above. The coefficients on the arrows of the model diagram are displayed on a standard scale from -1 to 1. Each construct was validated for its reliability and validity. Statistically significant relationships have p-values less than 0.05. Dynamic capabilities demonstrated a strong impact on customer satisfaction (p=0.000).

In summary, the goodness-of-fit of the dynamic capabilities models was satisfactory. The bootstrapping results are shown in Table 9. Confidence intervals help determine the significance of the examined relationships. Based on the available data, dynamic capabilities had an impact on customer satisfaction in the construction industry at a 95% confidence interval.

The step-by-step results revealed the following statistical indicators:

a) Based on the parameters in Table 6, the reliability and validity of the two proposed constructs are acceptable. Convergent validity was determined through the Average Variance Extracted (AVE), defined as the mean of the squared loadings of the constructs' indicators. According to the Fornell and Larcker view, the shared variance for each of the two constructs exceeds

the AVE. The obtained values (Table 6) indicate that the AVE values for customer satisfaction and dynamic capabilities were above the permissible threshold of 0.500 (0.573 and 0.832, respectively). Regarding reliability, internal consistency was evaluated using Cronbach's alpha and composite reliability. Nearly all scales exceeded the threshold level of 0.700.

Table 6: Reliability and Validity of Constructs

	Cronbach's Alpha	Rho_A	Composite Reliability	Average Variance Extracted (AVE)
CustSatis	0.814	0.822	0.870	0.573
DynCap	0.899	0.906	0.937	0.832

b) Discriminant validity, as per Fornell and Larcker's criterion, serves as a measure for assessing the selected measurement scales defining the latent constructs within our model (Table 7). All displayed correlations in Table 7 were greater than those obtained among the observed variables. Therefore, the indicators of both variables met the required discriminant validity criteria.

Table 7: Fornell-Larcker Criterion

	CustSatis	DynCap
CustSatis	0.757	
DynCap	0.673	0.912

In Table 6, the cross-loadings of each indicator around the latent variable are shown. This table compares the cross-loadings of indicators from one latent variable against those of other latent variables. According to requirements, factor loadings should demonstrate higher values for their constructs than for others.

Table 8: Cross-Loadings

	CustSatis	DynCap
DT_CONTA	0.715	0.379
DT_PROA_1	0.753	0.527
DT_PROA_2	0.789	0.492
DT_PROA_3	0.793	0.590
DT_SATIS	0.731	0.520
INNOVATION	0.549	0.891
SEIZING	0.650	0.947
SENSING	0.637	0.898

Table 9: Final Bootstrapping Results

	Sample	Standard Deviation	T-statistic	p-value	Confidence Interval	
DT_CONTA → CustSatis	0.695	0.128	5.588	0.0000	0.376	0.869
DT_PROA_1 → CustSatis	0.748	0.096	7.847	0.0000	0.501	0.886
DT_PROA_2 → CustSatis	0.776	0.088	8.997	0.0000	0.533	0.897
DT_PROA_3 → CustSatis	0.792	0.077	10.295	0.0000	0.537	0.888
DT_SATIS → CustSatis	0.731	0.103	7.078	0.0000	0.436	0.872
INNOVATION → DynCap	0.890	0.034	25.940	0.0000	0.793	0.937
SEIZING →	0.946	0.019	50.598	0.0000	0.897	0.973

DynCap						
SENSING → DynCap	0.897	0.040	22.250	0.0000	0.789	0.954

Ultimately, the effect of dynamic capabilities on customer satisfaction was significant: 0.673 (path coefficient) with a p-value of 0.0000. The goodness-of-fit of the structural equation model had an R^2 of 0.453, and an effect size (f^2) of 0.829. According to Cohen's view, an f^2 greater than 0.35 is considered large.

5. Conclusion

In this research, we evaluated how digital transformation, through the establishment of dynamic capabilities—sensing, seizing, and innovating—has impacted customer satisfaction in the construction industry. These relationships between dynamic capabilities and customer satisfaction represent clear and obvious actions from a marketing perspective, as these dynamic capabilities primarily occur within the company, while customer satisfaction occurs outside the company in the marketplace. Therefore, both constructs were related through SEM analysis. Our main focus was to examine whether the dynamic capabilities of sensing, seizing, and innovating could be grouped together to create a reliable construct. Additionally, the dynamic capabilities were examined to determine how their establishment might enhance customer satisfaction. Thus, the primary contribution of this work is a theoretical framework for creating a construct of dynamic capabilities, including the integration of sensing, seizing, and innovating, as well as the quantitative linkage of dynamic capabilities through digital transformation to customer satisfaction in the construction sector.

Dynamic Capabilities Construct

Dynamic capabilities allow businesses to develop intangible assets to maintain processes in a sustainable performance [34]. Several researchers have focused on a dual aspect; on one hand, identifying the dimensions of dynamic capabilities, which are broken down into the dimensions of sensing, seizing, and innovating. This study is novel as it integrates the dimensions of sensing, seizing, and innovating in the construction sector into a cohesive construct that we have termed dynamic capabilities.

The sensing capability positively influences the seizing capability. Seizing directly impacts the innovating capability, as newly identified opportunities are used to create new products and services. Accordingly, the sensing capability positively influences the seizing capability, as noted by Li and Yoo (2019), since the company can now identify environmental opportunities and needs, leveraging this information to create new products and processes that lead to innovation development [34]. Innovation activities are executed to support the survival and growth of the company, as a company that provides superior value for competition influences purchasing intentions and customer behavior, which results in optimal outcomes. As reflected in this theory, companies gain valuable insights from this context, enabling them to become aware of their customers' needs and act accordingly.

This research presents some limitations that need to be considered when contextualizing the study conducted. The most significant limitation is the challenge of obtaining a larger sample size, as out of 142 surveys, only 42 responses were received. This issue arises in part due to a lack of insight into the usefulness of the study and the limited time the researcher provided to respondents. It is recommended that the sample be expanded to increase diversity and heterogeneity.

This assessment will contribute to the development of active process improvement strategies to enhance market sensing, seizing, and innovating capabilities, thereby improving their managerial performance and achieving a better position in this sector .

Future research could extend this study to other types of companies to facilitate the evaluation of the success of the selected dimensions categorized within the dynamic capabilities construct.

Customer Satisfaction Construct

The customer satisfaction construct showed a strong relationship with five examined indicators of satisfaction. These results indicate how the market is changing in a bidirectional manner, to the extent that digital transformation has enabled companies to identify the real needs of customers, engage with them, and resolve their issues. On one hand, customers increasingly seek more information and look for products that are tailored to their needs and desires. On the other hand, the market increases its diversity, offering various options from which they can choose.

In light of the fact that the market provides diverse options for customers to choose from, they will demand personalized attention, quality, and innovation in terms of products and services. Therefore, as Stark has stated, companies will need to adapt to their customers' needs, and they must offer innovative, high-quality, and environmentally friendly products. Customers know that each company can meet their tastes and preferences, and this is something that any company wishing to differentiate itself must understand. Companies that listen to and understand customer needs hold the key to producing new products and services.

Dynamic capabilities support new strategic designs that improve the durability and sustainability of the construction sector. The rapid pace of digital technology development also plays a crucial role, bringing significant changes to all industries. Moreover, the construction sector is transitioning from traditional engines to electrification, with a clear focus on sustainability. The emergence of digital innovations is occurring at a fast pace and intervenes in existing business models by offering opportunities for new services. In this context, the construction sector is advancing trends such as sharing new structures, connectivity, and autonomy, creating new business models. Thus, capabilities that produce additional value can immediately create a sustainable competitive advantage.

Customer satisfaction through digital transformation is increasingly oriented towards connecting with customers, enhancing their experience, and influencing their purchase decisions by providing them with information about whether the chosen company is taking appropriate action to meet their needs. The focus of digital transformation within a construction company should be directed towards customer engagement to enhance their experience, whether in terms of product quality or by improving connectivity.

In the case of the construction industry, environmental information is obtained through technological tools, big data, the automation of sales forces using technological resources such as smartphones and tablets to maintain direct contact with customers, the use of social networks, and the use of sensors for disaster resilience and prevention.

This research, with its models and hypotheses, focuses on enhancing customer knowledge and streamlining processes, providing quantitative models for them. Digitalization transforms the nature of products and value-creating processes, allowing companies to produce limited combinations of products and services and thus incorporate customer priorities into joint value creation. Therefore, in companies that are gradually progressing with digital transformation and have a close relationship with it, existing technological resources, such as technical equipment, data storage devices, software, communication networks, etc., are used to provide customer services. Digital technologies provide more flexible environments for creating new organizational forms in conjunction with customers, and it has been stated that manufacturers of construction equipment, who possess heterogeneous knowledge of digital technologies and can integrate them within their companies and commercialize this knowledge, are better prepared to face digital transformation.

Companies recognize that it is essential to understand what customers need and what opportunities lie ahead to fulfill those needs. When an organization identifies customer needs and opportunities presented by the environment, managers focus on developing the skills to leverage the identified opportunities and use them to create new products, processes, businesses, and services.

This assessment will help formulate active process improvement strategies to enhance customer satisfaction and assess customers, thereby improving their management performance and

achieving better results in this area .

One future line of research will be to extend this study to other types of companies to be able to measure customer satisfaction based on their dynamic capabilities.

The Impact of Dynamic Capabilities on Customer Satisfaction

There is a lack of research examining customer satisfaction within the context of digital transformation, and we found a limited number of articles that explore the link between customer satisfaction and dynamic capabilities in the construction sector [128]. However, significant investments in digital transformation and the acceleration of technology have been made by both global information technology companies and domestic information technology firms.

In this article, Hypothesis 1 was confirmed, stating that dynamic capabilities positively impact customer satisfaction in the construction sector. Understanding this quantitative relationship through SEM is highly valuable for the company, as improvements in dynamic capabilities lead to increased customer satisfaction.

Selected dynamic capabilities are essential for promoting vital creativity, and when strong, they enable any company to manage instability and uncertainty regarding innovation and competition [6]. Therefore, it is necessary to consider the dynamic capabilities that these companies possess, which go beyond their core competencies, to maintain continuous oversight of environmental changes and thus ensure the sustainability of the company.

Digital transformation brings several advantages to the new construction industry, including: a) improvements for products tailored to customer needs; b) the formulation of new proposals with multiple options from which customers can choose; c) changes in business strategies for selling a product, this time focusing on customer experience; and d) attention and quality in personalized products and services. One of the greatest benefits that digital transformation provides to companies is the number of channels for interaction with customers, allowing them to acquire essential information about needs, preferences, and experiences.

Customers can access information from any device and in any language through internet access, enabling them to compare quality characteristics, rates, and recommendations from other users and customers. In this regard, customer satisfaction through digital transformation is configured to provide information regarding whether the chosen company is doing the right thing to meet their needs.

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