

Article

Enhancing Digital Presence for Maximizing Customer Value in Fast-Food Restaurants

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Abstract: Digital transformation has altered the way customers interact with restaurants. As a result, digital transformation has had an enormous impact, changing restaurant customer value. Therefore, this research aims to develop a dynamic and sustainable method for creating customer value in digital transformation. This study suggested digital dynamic capabilities and digital customer orientation as a process model (i.e., sensing, seizing, transforming, and refining) to develop digital transformation and create a dynamic customer value. We chose fast-food restaurants in Egypt to examine the proposed model using a qualitative approach of semi-structured interviews with fast-food managers and hospitality experts. The findings indicated that fast-food restaurants' different digital transformation capabilities and tools (e.g., value innovation, SWOT analysis, artificial intelligence, new technology selection criteria, digital maturity, building several digital platforms, and gathering and analyzing customers' online reviews) help them create customer value. However, interviewees highlighted how well-suited the suggested digital dynamic capabilities are to serve as drivers of digital transformation in fast-food restaurants and create a dynamic customer value. This research expands the dynamic capabilities theory by adding digital customer orientation (i.e., proactive and reactive to customer feedback) to develop digital transformation and create customer value in fast-food restaurants. This research provides fast-food restaurant managers with an in-depth explanation of how to implement the digital dynamic capabilities model for executing digital transformation and developing a new dynamic customer value.

Keywords: digital transformation; customer value; digital dynamic capabilities; digital customer orientation; digital refining capabilities; fast-food restaurant



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1. Introduction

Digital transformation is how a business utilizes digital technologies to create a new business model that helps the business produce and appropriate more value [1,2]. Business processes, operational routines, and organizational capabilities are all affected by this transformation [3]. Digital transformation has caused several changes in customers purchasing behaviors [4]. Customers have adopted new methods of looking for information, analyzing competing offerings, communicating with other customers, learning from customers' online reviews, making purchases, and interacting with restaurants onsite [5]. Hence, restaurant managers should use their establishments' capabilities to effectively transform digitally to meet customer expectations and provide new customer value. Customer value is defined as the difference between the benefits a customer receives and the costs of obtaining benefits [6,7].

Previous research in the hospitality industry underlined the need to know what digital transformation entails; hence, research on digital transformation in hospitality has been diverse [8,9]. According to Salazar [10], digital technology will significantly impact how the hospitality industry evolves. The hospitality industry is changing its methods to appeal to a fast-changing customer base that seeks meaningful experiences and tailored services due to the new generation of millennial customers and increased competition [11]. Additionally, advancements in digital technology have affected working methods and the working environment in the hospitality industry [12]. Therefore, research in the hospitality industry considers traditional competencies and capabilities to be outdated [3]. For example, Prihanto and Kurniasari [13] suggested three digital transformation capabilities (i.e., digital market capabilities, digital leadership capabilities, and digital technology capabilities). Likewise, Busulwa et al. [3] proposed a model integrating digital transformation and digital business management competencies with digital technology computability. Therefore, there are two research gaps. The first is a gap in developing a dynamic model for the digital transformation of restaurants. The second research gap is creating a dynamic and sustainable customer value in light of the restaurants' digital transformation. Therefore, to fill the gap in the literature, we ask: What are fast-food restaurants' current digital transformation capabilities? What are the necessary dynamic digital transformation capabilities in fast-food restaurants? How does digital transformation influence the creation of customer value in fast-food restaurants? What new customer value dimensions have resulted from the digital transformation of fast-food restaurants?

This study proposes the digital dynamic capabilities model and digital customer orientation to create digital transformation to generate customer value. Digital dynamic capabilities refer to the capability businesses must have to undergo digital transformation [14]. A digital dynamic capability encompasses sensing, seizing, and transforming capabilities [15]. Organizations' sensing capabilities are an interpretive activity that entails examining and learning about possibilities and risks [16]. Organizations seize capabilities that allow enterprises to experiment with decentralized borders, digital platforms, and new business models to handle opportunities or neutralize threats [15]. Sensing and seizing capabilities aid in creating and discovering opportunities, but to fully achieve the potential of strategic change, organizations must have transforming capabilities [17].

Despite the effectiveness of digital dynamic capabilities in sensing, seizing, and transforming capabilities, these capabilities fail to meet customers' immediate and transitory digital renewal needs [18]. Therefore, this study recommends combining digital customer orientation (i.e., digital refinement capabilities) with the framework of digital dynamic capabilities. In digital customer orientation, the customization and enhancement of a business's experience are more in real-time and are based on in-use input from customers, as opposed to the more inactive "intercept" of requesting customers to provide feedback on their experience of the product or service [19]. Digital refinement highlights the essential concepts of digital customer orientation and continuous improvement and enrichment [18].

Therefore, this study will add to the hospitality literature in several ways. First, this research will extend the dynamic capability theory literature by adding another step to the digital dynamic capabilities model required for digital transformation in the restaurant industry. Second, this study will examine the current digital transformation capabilities of fast-food restaurants in Egypt, and thus, identify their strengths and weaknesses. Third, this study will expand the digital transformation literature by proposing a detailed process model for creating digital transformation in a fast-food restaurant to create dynamic customer value. Fourth, this study will expand the customer value literature in hospitality by proposing a new customer value resulting from digital transformation. In addition to theoretical implications, this study will suggest various managerial implications for implementing digital transformation in fast-food restaurants and creating customer value. For example, fast-food restaurants can leverage customer information that is currently in use to generate targeted promotions and offers for their most loyal customers.

The following is a breakdown of the paper's structure. Following this introduction, Part Two lays the groundwork for exploratory research by reviewing the existing literature on digital transformation and customer value, as well as the integration of digital dynamic capabilities and digital customer orientation. The third section explains the research methodology, and the fourth section presents the study's critical empirical findings and discussion. Part Five's conclusion includes the theoretical and practical implications, limitations, and future research.

2. Literature Review

2.1. Customer Value and Digital Transformation

Customer value refers to a requirement of the customers to assess restaurant attributes, attribute performances, and usage results that help them achieve their goals and objectives in a particular context [20]. Creating customer value boosts profit, efficiency, market share, customer experience, customer satisfaction and loyalty, and minimizes errors [6]. Customer value can be understood in terms of tangible benefits, such as lower cost and higher quality, and intangible benefits, such as convenience and customer service [21]. According to Matarazzo et al. [1], customers can receive many types of customer value when using corporate digital technologies (e.g., functional value, hedonic value, social value, and sensory appeal).

First, functional value is the perceived benefit of an alternative's potential for functional, utilitarian, or physical performance [22]. The customer gains functional value by employing information obtained through the restaurant's digital technology [23]. Second, hedonic value is a broad assessment of experiential benefits and trade-offs, including enjoyment and escapism [24]. Customer's personal experiences with the restaurant's digital technologies provide pleasure, excitement, and a unique experience [25]. Third, social value refers to an alternative perceived utility because of its relationship with one or more social groupings [26]. Warmth, friendliness, and a sense of human contact are among the social values digital technologies provide [27]. Finally, customers associate services or products with their current use state and sensory appeal [28]. The technological sensory appeal includes features that stimulate vision, sound, smell, taste, or touch [29].

The restaurant's digital technology platforms (e.g., website, social media, mobile applications, and self-order kiosks) provide value to customers [30]. For example, customers can view restaurant menus and order food using a self-ordering machine at self-service kiosks or self-service terminals [31]. Self-ordering refers to self-service machines with a large touch screen that allow customers to order food, customize menu items, and even pay for their order without interacting with personnel [32]. Self-service technologies in restaurants give customers more control over their customized meals [31]. Customers see self-ordering machines as a source of hedonic (i.e., fun, enjoyment, and entertainment) as well as functional (i.e., saving time, simplifying the ordering procedure, and presenting all meal information) customer value [33].

Digital transformation is a process in which digital technologies cause disruptions, prompting strategic responses from firms attempting to modify their value production paths while navigating structural changes and organizational obstacles that have positive and negative consequences [34]. Digital technology resources are used to discover new sources of customer value to maintain businesses' competitive advantage [35]. Customers could obtain value from digital technology beyond their regular conscious experiences in terms of time and location [36]. Restaurants should acquire the digital capabilities to improve overall performance and increase customer value [3]. Hence, restaurants that embrace these digital opportunities and learn to analyze and improve their digital capabilities will be better positioned to compete in the digital economy [37]. Furthermore, in light of digital transformation, customer value must be sustainable. Sustainable customer value refers to the value a customer brings to a restaurant over time.

Restaurants should prioritize sustainable customer value for several reasons. First, by creating long-term customer value, restaurants can establish a strong relationship with

their customer base, increasing customer loyalty and repeat business. Second, when customers have a good experience at a restaurant, they are more likely to tell others about the restaurant [22]. This recommendation can lead to increased brand awareness and new customer acquisition, both powerful growth drivers. Third, businesses can increase revenue over time by providing high-quality products and services that meet customers' needs. Customers pleased with their purchases are likelier to spend more money and make additional purchases. Finally, by focusing on sustainable customer value, restaurants can distinguish themselves from competitors and establish a solid reputation for quality and dependability. As a result, they can differentiate themselves in a crowded market and attract new customers [30].

2.2. Building Digital Transformation Dynamic Capabilities to Generate Customer Value

To stay relevant in the emerging digital economy, restaurants must develop dynamic capabilities to swiftly invent, deploy, and modify business models [6,36,38]. According to Warner and Wäger [15], the very nature of the dynamic capabilities framework is altered due to three primary external factors (i.e., disruptive digital competitors, changing consumer behaviors, and disruptive digital technologies). Customer behavior and how they use goods and services are changing faster than ever. Disruptive technologies replace the standard practices or technologies and upend the market, creating new opportunities for innovation and corporate growth [39]. This study proposes the Warner and Wäger [15] process model for implementing digital transformation in fast-food restaurants to create customer value. The proposed model identifies nine digitally based micro foundations or "sub-capabilities" that assist the development of digital sensing, digital seizing, and digital transforming capabilities.

According to Teece [40], sensing is an interpretive activity that entails scanning, learning, developing, co-developing, and evaluating technology prospects and digitalization trends connected to customer desires. All employees, not only top managers, should contribute information, and sensing capabilities should take place at all organizational levels [38]. New digital platforms, gadgets, and the internet should all be included in information collecting [15]. Three sub-capabilities—digital scouting, digital scenario planning, and digital mindset crafting—form the foundation of digital sensing capabilities [15,41]. First, by looking at their external environment for trends that could have a disruptive effect and changes in customer desires, firms can use and anticipate these changes through a process known as digital scouting [42]. Second, digital scenario planning entails studying and interpreting scouted signals and developing digital plans for future scenarios [43]. Third, digital mindset crafting entails developing a digital and entrepreneurial mindset within the firm and developing a long-term digital vision [44]. Rigid strategic planning is an internal obstacle that might prevent businesses from fully enabling their digital sensing capabilities [15].

Digital sensing capabilities allow fast-food restaurants to identify digital transformation opportunities. Hence, by leveraging digital sensing, fast-food restaurants can proactively gain insights into customer behaviors, preferences, and demands. After acquiring sensing capabilities, fast-food restaurants should have capabilities for seizing opportunities that support extracting value from opportunities once they are discovered [45]. The primary goal of seizing capabilities is to innovate the business model, which is frequently made possible by quick decision-making inside the organization [46]. Digital seizing capabilities, according to Warner and Wäger [15], are divided into three sub-capabilities (i.e., strategic agility, balancing digital portfolios, and rapid prototyping). Strategic agility is an essential digital dynamic capability for utilizing the newest technology or service and fending off threats [47]. Balancing digital portfolios allows businesses to scale up and down on business model innovations that may raise customer wants and demands [43]. Rapid prototyping is a process that enables businesses to expedite their digital transformation by developing minimal viable products, utilizing digital innovation laboratories, and considering the lean start-up approach [48]. For businesses, an internal barrier may make the process of

digital seizure more difficult. It is the employees of a company who have an aversion to change. As a result, businesses must employ change management strategies that encourage change [49].

Digital transformation opportunities are discovered and generated with the help of sensing and seizing capabilities, but restaurants must be able to transform in order to successfully adopt a digital strategy and generate customer value [38]. Transformational capabilities promote an ongoing strategic renewal of assets and organizational structures [40]. Three sub-capabilities made up Warner and Wäger's [15] division of digital transforming capabilities (i.e., digital maturity, navigating innovation ecosystems, and redesigning internal structures). The ability and willingness of a business or workforce to adopt anything digital are known as digital maturity [50]. Organizations that want to become digitally mature must find a balance between utilizing internal digital expertise and bringing in outside talent born and raised in the digital era [51]. A flexible leadership team, strategy, and business model allow the company to reorganize its internal structures as necessary [15]. Internal structure redesign can be accomplished by decentralizing business units and developing autonomous subsidiaries [49]. Businesses must create or join digital ecosystems, collaborate with many partners on these issues, and speed up collaborative behavior and innovative business models [51]. In order to navigate innovation ecosystems, co-creation and "co-petitions" are crucial [15].

Following the digital dynamic capabilities model steps, this model stops at the transforming capabilities. As a result, this model cannot benefit from the current digital customers' in-use information [18], such as exploring their opportunities, meeting their needs, and providing quick superior value to customers. Therefore, this study proposes including digital customer orientation capabilities. Digital customer orientation provides enhanced and personalized customer experiences made possible by embracing digital ecosystems [19]. According to the previous definition, digital customer orientation varies from traditional customer orientation in that it emphasizes the customers' in-use information, allowing businesses to maintain a digital relationship with customers before and after a transaction [18]. Additionally, experts contend that adopting the ecosystem will enable businesses to create real-time and tailored customer experiences [52]. According to the digital customer orientation perspective, businesses should embrace digital ecosystems instead of simply reacting passively to customer needs and behaviors by delivering real-time products, services, and customized solutions that can be continuously updated and recorded in advance [19]. Businesses must create service channels or systems that can interact directly with customers if they want to use digital tools to acquire all customer information quickly and reliably, from purchase behavior to product and service expiration [53].

This study suggests integrating digital customer orientation with the digital dynamic capabilities paradigm by including digital refinement capabilities (see Figure 1). Digital refinement reflects the fundamental principles of digital customer orientation and ongoing improvement and enrichment [18]. According to Sun and Zhang [18], digital customer orientation refinement is divided into three sub-capabilities (i.e., digital customer cultivation, in-use information capture, and digital experience enhancement). Customer cultivation is a business method that assists firms with online platforms to achieve stable, predictable development by continually giving the value the customer seeks [54]. In-use information is the real-time feedback businesses can detect when a customer utilizes a product or service [19]. Digital experience enhancement refers to decisions about customer needs based on customer information collected and integrated using algorithms [18]. The internal enabler, or digital facilitation, uses digital platforms and technologies to promote employee collaboration [55]. One of the internal challenges that employees may have in improving the digital customer experience is decision-making centralization [56]; therefore, decentralization promotes the transfer of power and decision-making from a central entity to a distributed network [57].

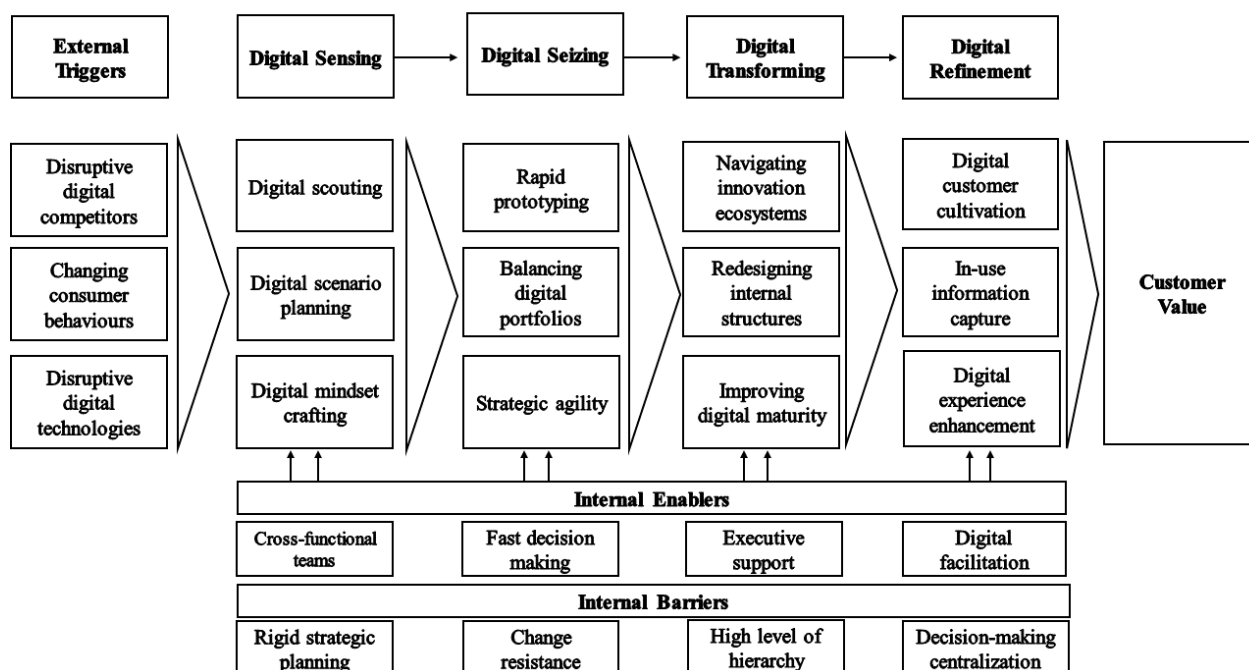


Figure 1. The conceptual framework.

3. Materials and Methods

This study is qualitative and relies on semi-structured interviews. The semi-structured interviews permitted greater flexibility and inductive reasoning because participants were freer to respond [58]. Selection interviews, interview techniques, interview questions, and interview analysis methods are used to implement the interviewing methodology.

3.1. Selection Interviews

This research aims to present a dynamic digital capabilities model for digital transformation to generate customer value in fast-food restaurants. Finding interview candidates with experience in the hospitality sector is crucial, especially in restaurants. This study required participants to be active and knowledgeable about their restaurant's digital transformation in order to answer the research questions. The list of fast-food outlets in Egypt was first looked through to find respondents. It was discovered that it is not an official list of fast-food establishments in Egypt [6]. Hence, managers of fast-food restaurants were contacted and asked if they would be willing to participate in the study. When the research team first contacted the restaurants that participated in the study, they asked for a representative familiar with the restaurant's digital transformation and digital strategy. Fifteen restaurant managers in Greater Cairo were chosen after extensive contact. Five additional hospitality industry professionals were contacted and consented to participate in the interviews. Therefore, information for this study was gathered through 20 semi-structured interviews with managers of fast-food restaurants ($n = 15$) and hospitality experts ($n = 5$).

3.2. Interview Techniques

Twenty participants in all were chosen among fast-food restaurant managers and professionals in the hospitality industry. Thirteen men (or 65%) and seven women (or 35%) comprised the sample population. Face-to-face and online interviews were performed (i.e., Google Meets, Microsoft Teams, and Zoom). Due to the busy schedules or distance between the interviewee and the participants, individual online interviews are preferred over offline ones. An hour to an hour and a half was scheduled for each interview. Regarding the restaurant chain type, eleven participant managers worked for international restaurant chains, while only four worked for local restaurant chains. The sample consisted of six

managers of chicken restaurants, five managers of burger restaurants, and four managers of pizza restaurants. Table 1 lists the participant profiles, such as the participant's profession and interview type.

Table 1. Participants profile.

Code	Work Role	Gender	Interview Type	International or Local Chain	Restaurant Type Based on Main Product	Interview Length
1	Fast-food restaurant manager	Male	Google meeting	International	Chicken restaurant	60 min
2	Expert in the hospitality industry	Male	Microsoft teams	-	-	70 min
3	Fast-food restaurant manager	Female	Google meeting	International	Burger restaurant	65 min
4	Expert in the hospitality industry	Female	Zoom	-	-	60 min
5	Fast-food restaurant manager	Male	Face-to-face	International	Burger restaurant	75 min
6	Expert in the hospitality industry	Male	Face-to-face	-	-	85 min
7	Fast-food restaurant manager	Female	Zoom	Local	Chicken restaurant	60 min
8	Expert in the hospitality industry	Female	Face-to-face	-	-	80 min
9	Fast-food restaurant manager	Male	Microsoft teams	International	Pizza restaurant	60 min
10	Expert in the hospitality industry	Male	Face-to-face	-	-	65 min
11	Fast-food restaurant manager	Female	Zoom	International	Chicken restaurant	70 min
12	Fast-food restaurant manager	Male	Google meeting	International	Burger restaurant	75 min
13	Fast-food restaurant manager	Male	Microsoft teams	International	Burger restaurant	60 min
14	Fast-food restaurant manager	Male	Google meeting	International	Chicken restaurant	90 min
15	Fast-food restaurant manager	Female	Zoom	Local	Pizza restaurant	85 min
16	Fast-food restaurant manager	Male	Microsoft teams	International	Pizza restaurant	60 min
17	Fast-food restaurant manager	Male	Zoom	Local	Burger restaurant	80 min
18	Fast-food restaurant manager	Male	Face-to-face	International	Pizza restaurant	75 min
19	Fast-food restaurant manager	Male	Microsoft teams	International	Chicken restaurant	60 min
20	Fast-food restaurant manager	Female	Zoom	Local	Chicken restaurant	80 min

3.3. Interview Questions

The interview was split into two sections: basic questions about the interviewees and questions concerning the structural model (see Appendix A). The study uses modified interview questions adopted and adjusted considering previous management research on digital transformation, digital dynamic capabilities, digital customer orientation, and customer value [1,15,18].

3.4. Interview Analysis

There are many different qualitative data analysis techniques; this study was inspired by Braun and Clarke's [59] description of thematic analysis. All participant remarks were recorded and subjected to a thematic approach because this method allows for more interpretative freedom. Getting acquainted with the data gathered was the first step in the procedure. The researchers started to transcribe the interviews after listening to them multiple times. The researchers read through the completed transcripts of the interviews methodically to comprehend the data. The following stage was to create preliminary codes from the data, which highlighted the study questions' intriguing aspects. The goal of this stage of the procedure was to systematically go over the dataset and give each part of the data equal attention.

Using the study framework as a guide, the researchers looked for trends in the datasets. This guide is effective because of its thorough analysis and because it groups the list of codes into prospective topics. To depict the entire procedure, the researchers used tables at every stage. These tables allowed us to evaluate and identify the codes, and subsequently, the themes. Additionally, this allowed us to switch back and forth between tables to

comprehend the fundamentals of each code and theme and how they related to one another. The following themes were discovered: the definition of digital transformation, digital sensing, seizing, transforming, and refining; triggers; enablers; barriers; and the connection between digital transformation and customer value.

4. Results and Discussion

4.1. Definition of Digital Transformation

Fast-food restaurants rapidly adopt digital transformation to streamline operations, improve customer experience, and increase profits [12]. Digital transformation initiatives, such as online ordering, delivery, and mobile order tracking, provide convenience to customers and enable fast-food restaurant owners to manage their orders better and comply with regulations [30,60]. Furthermore, due to the numerous errors in the paper-based processes, participants described the digital transformation as the result of the introduction of digital technologies affecting how a fast-food restaurant runs internally. The participants define digital transformation as follows.

Digital transformation refers to the shift that came about because of the restaurant's conversion from paper-based processes to technological systems in internal operations, in addition to the employment of technological techniques to serve customers, which prompted a shift in perspective toward considering a complete digital transformation.

Digital transformation is the introduction of digital technology into the restaurant industry, from the first supply chain management operations to after-sales.

Digital transformation refers to the infusion of digital change in all parts of the restaurant (e.g., restaurant culture, restaurant business model, personnel, way of operation, and others) to increase performance, maximize profitability, and give high value to customers.

The findings of this study show that managers and restaurant experts are aware of digital transformation and that it is a thorough process for all restaurants. Thus, understanding digital transformation can help fast-food restaurants identify opportunities for innovation and growth to generate customer value [15]. Additionally, digital transformation helps lower overhead costs by eliminating the need for expensive in-store equipment and staff [10].

4.2. Digital Sensing Capabilities

Fast-food restaurants seem to have good digital sensing capabilities. Fast-food restaurants use digital sensing capabilities to identify potential new digital opportunities to meet or even exceed customer expectations [38]. Participants highlighted the following.

We use a value innovation tool to look into new digital potential. Value innovation is how a fast-food restaurant implements new digital innovations or improvements to achieve cheap costs and product differentiation.

The COVID-19 pandemic compelled our restaurant management to adapt their planning and undertake complete market analysis to meet their customers' digital needs. We regularly analyze market analysis with SWOT analysis (e.g., leading competitors, current and potential customers, and new technological trends).

We use artificial intelligence (AI) technologies to forecast changes in customer behavior. This tool is very effective and cheap.

Notably, the responses of the fast-food restaurant managers and experts make it clear that fast-food restaurants fully understand the significance of digital transformation and have created a digital vision. These changes have caused changes in plans and strengthened research techniques to find digital opportunities to stay competitive and satisfy customer demands [44]. However, according to fast-food restaurant managers' responses, they lack employees sharing their views about digital transformation. This result demonstrates that sensing capabilities must exist at all organizational levels and that all employees, not just senior managers, must contribute information [38].

4.3. Digital Seizing Capabilities

Participants generally agreed that the ability to make decisions quickly and effectively about technology advancement is one of most important capabilities of a fast-food restaurant. This result confirms Schoemaker et al.'s [46] suggestion that the primary goal of seizing capabilities is quick decision-making inside the organization. Furthermore, participants underlined the following factors when selecting the technological trend:

- Leading competitors use this new technology;
- Customers demand this technological innovation, which might help the restaurant attract new customers;
- Utilizing this technology is made possible by the restaurant's infrastructure and financial resources;
- Government mandates require this technology;
- This new technology can streamline business processes and save labor costs;
- Customers will gain value from this technology;
- This technology can be used over extended periods.

The participants elaborated on how various job routines have changed from being in paper form to being in digital form due to the quick changes brought on by technological advancement.

Additionally, fast-food restaurants have already begun working hard to integrate cutting-edge technological models into their working environment as they began to introduce their first novel model, which emphasizes digital and contactless encounters. The use of "self-service kiosks" within the restaurant is one of the most notable instances [32]. Additionally, to be fully automated, fast-food restaurants use digital programs to store internal databases and customer information. However, strategic agility can assist fast-food restaurants in employing cutting-edge tools or services and thwarting dangers. By maintaining operational dependability and efficiency, agility in digital strategy improves a business's capacity to withstand disruptions [47].

4.4. Digital Transforming Capabilities

Fast-food restaurants have exciting transformation capabilities, as evidenced by the participants' responses. Most participants concur that restaurants should be able to adapt continuously to digital changes as fast-food restaurants will be pushed to adopt new technologies as they emerge, such as the metaverse, due to competition and customer needs [4]. Most participants highlighted the following.

Fast-food restaurants have started to develop adaptable digital transformation capabilities that can accommodate and adapt to such digital changes, particularly now that some of the critical capabilities of digital transformation have been highlighted, for instance, digitally mature employees. Our fast-food restaurants have already begun to identify a set of courses to certify digital employees. In addition, we included the qualifying courses digitally as a work requirement.

Because of technological advancement, fast-food restaurant customers have many different technological needs. As a result, various technological platforms and devices have been developed with a single objective (e.g., the customer's food order). Examples include the restaurant's website, social media pages, apps, QR codes, self-service kiosks, and others.

Moreover, fast-food restaurants have more than one digital platform to satisfy the demands of the restaurant's digital customers and to study and learn from customers. However, these digital platforms should demonstrate progressiveness, engagement, and the capability of ongoing customer interaction [30]. Additionally, the ongoing readiness to modify positions and work processes is one of the most significant capabilities of a fast-food restaurant's digital transformation. A restaurant's decision to utilize new digital technology inside the business can result in several changes in many different areas, such as the elimination of some jobs, the emergence of new jobs, adjustments in the internal

structure, adjustments in the way of work, changing the way of interacting with customers, and the emergence of new customer values [15].

4.5. Digital Refinement Capabilities

The capability to interact with customers and gather their information was underlined by most participants as a vital resource for restaurant growth and competitiveness. Most participants highlighted the following.

“The online feedback from customers is highly valued at our restaurant. This feedback contains more than just information on their interaction with us; it also makes it worthwhile to contrast the shopping experience with our rivals, giving us a great chance to advance. We do consider it an excellent opportunity to grow and maintain our competitiveness.”

Participants mentioned employing artificial intelligence systems to gather customer data from their digital platforms into the customer data platform of their restaurants, allowing restaurant operators and marketers to visualize and segment customer insights and centralize and automate the simple collection of customer data into a single database. In other words, a customer data platform builds a customer profile database that offers advertisers in-depth knowledge of their customers' behaviors, routines, and preferences. It helps restaurants target their marketing initiatives better, encourage customer loyalty, and personalize the dining experience.

Fast-food restaurants have the potential to connect with customers and gather data and information about them through comments, recommendations, or even customer problems by utilizing their digital platforms and online tools. However, fast-food restaurant management must understand the significance of the transit value they can offer their customers from the in-use information and enhance the digital experience for customers [18].

4.6. Contextual Factors

Regarding obstacles and enablers, participants mentioned that there is still resistance from employees to change and from some fast-food restaurant management's centralized decision-making.

Like any other industry, the fast-food restaurant industry is impacted by technological advancement. Fast-food restaurants will lose customers and their position in the market if they are not prepared to adapt to these advances.

The intense competition in the fast-food restaurant market alludes to the realization that most fast-food restaurants are always ready for change. However, utilizing and benefiting from extensive technological trends renders consumer demand research crucial. As a result, accountability should be more flexible and decisive.

These results demonstrate how the restaurants' leadership embraces digital transformation, which, partially or entirely, promotes the shift of restaurant business models. Therefore, these results show that fast-food restaurants must consider the challenges of quick decision-making, the spread of digital culture, enhancing employee and infrastructure digital readiness, administrative support, employee empowerment, and employee acceptance of digital assistive technologies [15,18,56].

4.7. Participants' Opinion on the Proposed Model for Digital Transformation and Dynamic Customer Value Creation

Table 2 shows the participants' opinions on the proposed model for digital transformation and dynamic customer value creation. We revealed that about 90% of the participants highlighted the importance of the digital sensing capabilities of fast-food restaurants to transform and generate dynamic customer value digitally. They emphasized that digital scouting helps restaurants find new market trends and opportunities to stay ahead of the competition [15]. Digital scenario planning helps restaurants predict what customers want and devise ways to meet those needs [43]. Digital mindset crafting allows restaurants to create an environment that encourages innovation and collaboration, enabling them to develop new products and services that meet customer needs [44].

Table 2. Participants' opinion on the proposed model for digital transformation and dynamic customer value creation.

[illegible]

Table 2. Cont.

Key Activities	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	%
Internal enablers																					
Cross-functional teams	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	90%
Fast decision-making	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	90%
Executive support	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Digital facilitation	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	95%
Internal barriers																					
Rigid strategic planning	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	95%
Change resistances	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
High level of hierarchy	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	85%
Decision-making centralization	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓	✓	80%

Furthermore, we found that nearly 90% of respondents noted the significance of fast-food restaurants' digital seizing capabilities in facilitating digital transformation and generating dynamic consumer value. They stated that rapid prototyping allows restaurants to quickly test out new ideas and products, allowing them to adjust and refine their offerings based on customer feedback quickly [48]. Balancing digital portfolios helps restaurants identify the best mix of digital channels and services that will provide the most value to customers [43]. Digital strategic agility enables restaurants to respond quickly to changing customer needs and preferences, allowing them to stay ahead of the competition [15]. By leveraging these capabilities, fast-food restaurants can create a more personalized customer experience, increase efficiency, and drive revenue growth.

Moreover, more than 94% of respondents recognized the importance of fast-food restaurants' digital transforming capabilities in enabling digital transformation and delivering dynamic consumer value. By navigating innovation ecosystems, fast-food restaurants can find new technology and trends that may be used to produce new products and services that fulfill customer needs [19]. Redesigning internal structures enables fast-food companies to establish an agile organization that swiftly responds to fluctuating customer needs [15]. Improving digital maturity enables fast-food businesses to build the skills and processes required to utilize digital technologies efficiently [50]. These capabilities are required for fast-food restaurants to convert digitally successfully and produce dynamic customer value.

Finally, we found that nearly 97% of respondents noted the significance of fast-food restaurants' digital refining capabilities in facilitating digital transformation and generating dynamic consumer value. Digital customer cultivation allows restaurants to understand their customers' needs and preferences better, enabling them to tailor their services and offerings accordingly [18]. In-use information capture helps restaurants track customer behavior, allowing them to identify trends and make informed decisions about how best to serve their customers [19]. Finally, digital experience enhancement enables restaurants to create a more engaging and personalized experience for their customers, helping them stand out from the competition [18]. Hence, by leveraging these digital refinement capabilities, fast-food restaurants can create a more dynamic customer value proposition that will help them stay ahead of the competition in an increasingly digital world.

4.8. Digital Transformation and Customer Value

According to most participants, digital transformation is a complete process for every part of a fast-food restaurant that varies in intensity depending on the restaurant's financial capabilities, customers, technological developments, and the market in which it is situated [1]. For instance, digital transformation in fast-food restaurants may involve introducing new technological devices and online platforms to the business operation to offer restaurants services and products. Therefore, these digital developments impact how customers are provided with value. Most participants highlighted the following.

Offering new technological devices for internal fast-food restaurant operations would increase customer value in several ways. For example, self-ordering kiosks benefit both the customer and the restaurant. On the one hand, customers find these technological devices very straightforward and relatively simple. Additionally, it gives customers more privacy, complete freedom to build their orders, the ability to change their orders and preferences, and the opportunity to find out details about the ingredients of the dishes. On the other hand, this self-ordering machine adds value to the fast-food restaurant by lowering the queue at the cashier, as well as labor costs and the percentage of incorrect orders. Such a device turns the customer into an employee of the establishment.

Additionally, participants asserted that the creation of digital channels for communication with the customer was facilitated by digital technology and that, through these channels, restaurants could offer value to their customers. For instance, social media is a digital technology channel that restaurants can use to reach their customers (e.g., menu items, answering customers' questions, and sharing offers and discounts).

We nearly shuttered the restaurant during the COVID-19 pandemic owing to a lack of customers, but we used our social media platforms to connect with customers and provide our services. We have shared several messages through our social media channels with our customers, such as the fact that we consider safety when preparing and handling meals and have captured this in photos and videos. Following that, we began receiving orders from customers via social media platforms.

This study's results indicated that offering new technological devices for the customer, such as self-ordering kiosks, gives functional value to customers in terms of time savings, convenience, accuracy, effort savings, and hedonic value through the enjoyment of experience, excitement, and interaction, as well as service quality value in terms of error reduction, excellent meal description, and speed of service [31]. Furthermore, through social media platforms, fast-food restaurants can deliver varying levels of customer value [1]. Excellent photographs and videos of restaurant menu items offer sensorily appealing value. Likewise, responding to customer comments and inquiries and updating the restaurant's social media platforms would improve the service value and the value of the whole customer experience.

5. Conclusions and Implications

5.1. Theoretical Implication

Previous studies on digital transformation in hospitality concentrated on the comparison of traditional competencies and digital competencies [11], customer acceptance of technology [9], digital technology and working environment [12], and digital transformation and millennial requirements [3]. Therefore, to the best of our knowledge, this is the first attempt in the hospitality industry to link digital dynamic capabilities with digital customer orientation to foster digital transformation and produce customer value. Therefore, in various ways, this study contributes to the existing literature in the hospitality industry.

First, we contribute to the literature on digital dynamic capabilities as we extend the framework of Warner and Wäger [15] by adding another dynamic capability factor, the digital customer orientation (i.e., refining step). According to the interviewees' perspectives, digital customer orientation will enable fast-food restaurants to create service channels or systems that can interact directly with customers to obtain all customer information quickly and reliably to proactively and reactively produce transient value [19]. Because Warner and Wäger's [15] digital dynamic capabilities model hinges on transforming capabilities, the model cannot quickly tap into the information in use for existing digital customers, such as exploring their opportunities, meeting their current needs, and providing higher customer value. Hence, digital customer orientation provides improved and personalized customer experiences made possible by adopting digital ecosystems [19].

Second, our study helps enrich the literature on the digital transformation of the hospitality industry by studying fast-food restaurants' current digital transformation capabilities. We found that fast-food restaurants have some capabilities (e.g., value innovation, artificial

intelligence, building several digital platforms, and gathering and analyzing customers' online reviews). However, the participants indicated that the suggested model capabilities would help the restaurants to transform digitally and systematically. Warner and Wäger [15] argue that digital dynamic capabilities are a dynamic, systematic process that preferably takes place from the first to the last step according to the organization's capabilities. Hence, a fast-food restaurant needs to be able to sense emerging trends, whether they come from rival restaurants or are demanded by customers due to technological advancements. The restaurant must be able to take advantage of digital opportunities after discovering them while weighing risks and benefits with the aid of techniques such as rapid prototyping and actual choice logic [43]. Opportunities are discovered and acquired with the help of sensing and seizing capabilities; as a result, fast-food restaurants need transformative and refinement capabilities to promote the continuous creation of customer value.

Finally, a detailed understanding of how digital transformation helps create customer value is crucial to a fast-food restaurant's success. According to the process model suggested in this study, every digital capability helps fast-food restaurants generate sustainable customer value. The sensing capabilities search for digital opportunities [15]. Then, they are identified and exploited by the seizing capabilities to be transformed by the transforming capabilities into digital products and services that meet the desires of customers and generate new customer values [17]. Then comes the role of refinement capabilities to communicate with customers and gather information about the digital customer experience to improve it quickly or transfer this information to the first stage as new opportunities. Therefore, the suggested model can be considered a method for creating dynamic and sustainable customer value. Also, this model would help fast-food restaurants to offer diverse customer values embedded in new digital opportunities. In addition, the existing model considers the current, latent, future, and transient customer value.

5.2. Managerial Implication

Fast-food restaurants should embrace digital transformation to be competitive and meet customers' changing needs [8]. The influence of digital transformation on fast-food restaurants is considerable in several ways, including how customers communicate with the restaurant, the new skills employees need, and the speed and agility of decision-making [3,4]. The results of this study have significant implications for managers of fast-food restaurants to implement digital transformation and provide customer value. This study looked at a four-stage digital dynamic capabilities model to facilitate the digital transformation of fast-food restaurants and generate value for customers.

Firstly, the outcomes of this study show that fast-food restaurants use a variety of strategies to identify digital opportunities, but they also lack a systematic research process. In addition to current methods of collecting data about digital opportunities, restaurants can use digital scouting strategies to gather data on trends and customers from their digital platforms, communication channels, and competitors [42]. For example, digital competitor analysis tools can provide restaurants with real-time data on their competitors' strategies, pricing, and customer experience. Another example is that restaurants can utilize social media monitoring tools to track brand mentions and analyze customer reviews [5]. Additionally, digital scenario planning is essential for a fast-food restaurant, which entails studying and interpreting scouted signals and developing digital plans for future scenarios [43]. The digital scenario planning worksheets can help restaurants to develop strategies for responding to changes in the market, such as introducing new products or services, adjusting prices, or changing the customer experience. Additionally, creating a digital mindset will help improve the selection process among the available opportunities [15].

Secondly, the findings of the interviews demonstrate that fast-food restaurants base their digital opportunities selection on various variables. However, it has been discovered that fast-food restaurants lack key critical digital seizing capabilities. One of these capabilities is the ability of digital strategic agility for fast-food restaurants. For example, fast-food

restaurants can use agile/lean/kaizen methodology, a set of principles and techniques that can help them become more efficient and effective in their operations [61]. The restaurant's capacity to resist challenges is strengthened by digital strategy agility by maintaining operational dependability and effectiveness. Furthermore, restaurant employees who resist change may find the transformation process more difficult [15]. Hence, the restaurant needs to use approaches for change management that encourage staff to change, such as creating an environment that is supportive of change and providing training and support to help employees understand and embrace the changes [49].

Thirdly, fast-food restaurant managers need to have the capabilities to apply digital transformation to turn digital opportunities into reality. According to respondents, the rehabilitation of the human element and even the hiring of new digitally mature employees are the most crucial of these capabilities for fast-food restaurants, which is in line with the findings of the interviews. As a result, digital maturity becomes a crucial qualification for employment [50]. Therefore, human resources departments and hospitality educational institutions must consider this new required qualification [3]. Furthermore, in-house digital transformation training can help restaurants' digitally immature personnel use new technology and solutions. This training can include training on new software, data analysis, networking, and remote work [49]. Additionally, fast-food outlets should build or join digital ecosystems, work with numerous partners, and foster creative business models and collaborative behavior [51]. As a result, after acquiring transformation capabilities, fast-food restaurants have taken advantage of digital opportunities by upgrading their digital capabilities and creating new values for their customers.

Finally, due to digital transformation, the customer is no longer merely a recipient of services but rather a participant in the decision-making process that affects restaurant choices [53]. Therefore, restaurants should develop their refinement capabilities, which include concentrating, caring for, and constantly engaging with customers by constructing a digital customer base [18]. Additionally, digital customer cultivation is essential for fast-food restaurants' communication with customers. Digital customer cultivation is the process of engaging with customers online in order to build relationships and loyalty. Examples of digital customer cultivation include offering personalized discounts and promotions, engaging with customers on social media, providing customer support via chatbots, collecting customer feedback and reviews, and running loyalty programs. In addition, fast-food restaurants should create algorithms to analyze the present state of digital customer information, gather any arising transient values, and display them correctly [19]. Furthermore, fast-food restaurants should consider that refinement capabilities are not just intended to create transient values; they also monitor how customers react to current values and extract data about shifting customer preferences, which helps the sensing capabilities find future opportunities.

5.3. Limitations and Further Research

This study presented a four-step digital transformation approach for promoting digital transformation and creating customer value. There are various limitations to this study and the potential for further research. To begin, the data for this study were collected through a semi-structured interview; future research could use a quantitative method (e.g., a survey or a checklist). Second, this study was based on participants from fast-food restaurants (i.e., managers and experts) in Cairo, Egypt; future research could expand the study to include cross-cultural and cross-country comparisons to increase the generalizability of the proposed model. Moreover, more research into the proposed model in hospitality establishments could be conducted (e.g., hotels and other restaurant types).

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Appendix A

The study questions:

- Can you define digital transformation in fast-food restaurants?
- What do you understand by digital sensing capabilities?
- What do you understand by digital seizing capabilities?
- What do you understand by digital transforming capabilities?
- What is the digital customer orientation from your point of view?
- How do restaurants obtain and share the usage information of digital customers?
- How is this information shared with platform participants?
- How are restaurants improving the customer experience?
- What does customer value mean to you?
- What role does the fast-food restaurant's digital transformation play in generating customer value?
- What different types of customer value had the digital transformation created?

What is your opinion about the suggested model in creating digital transformation and dynamic customer value?

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