



Marketing Agility, Innovation Capabilities, and Customer Satisfaction

Mohammad Barghouthi

Business Administration Department, Al-Quds University, Jerusalem, Palestine

ARTICLE INFO

Keywords:

Marketing agility, innovation capabilities, quality, customer satisfaction, Palestine

Received: Mar, 27, 2024

Accepted: Apr, 20, 2024

Published: Jun, 06, 2024

ABSTRACT

Managers and scholars have recently shown interest in marketing agility. Nevertheless, the current body of research on marketing agility has primarily focused on the influence of marketing agility on a company's performance while overlooking the potential influence of marketing agility on innovation capabilities and customer satisfaction. In addition, earlier research has focused on analyzing marketing agility from the company's standpoint, neglecting to consider the influence of marketing agility on the consumer from the customer's standpoint. This study seeks to address this knowledge gap by investigating the influence of marketing agility on innovation capabilities. Additionally, it analyzes the impact of innovation capabilities on customer satisfaction. The study focused on owners and senior managers of industrial enterprises operating in Palestine. The sample size consisted of 162 senior managers. The Structural equation modeling (SEM) technique was used to test hypotheses. The findings indicate that marketing agility has a significant positive impact on innovation capabilities. Moreover, innovation capabilities positively influence customer satisfaction. Therefore, a series of suggestions are given to senior managers of organizations to assist in promoting organizational actions that improve marketing agility and innovation capabilities, which are suitable for the overall context of customer demand development.

1. INTRODUCTION

Digital revolution, new channels like social media and mobile devices, and massive customer data are changing marketing. There has been a notable change in recent years in the way customers buy and engage with companies (Swaminathan et al., 2020). More than ever, business environments are dynamic (Zhou et al., 2019). The COVID-19 pandemic has highlighted the challenges faced by marketing managers, prompting some analysts to advocate for a complete reassessment of marketing strategies (Kalaiganam et al., 2021). Businesses witnessed a lot of economic disturbances and challenges that created higher levels of market complexity (Khan, 2020), such as shifting customer demand, exaggerated competition, and technological advancement (Zhou et al., 2019), which encouraged businesses around the globe to become more interested in managing environmental uncertainty through strategic

flexibility (Zahoor & Lew, 2023) and motivated them to develop their abilities to respond rapidly to new technological developments and opportunities in markets (Grewal & Tansuhaj, 2001; Khan, 2020). Therefore, academic studies have emphasized developing new and adaptable organizational structures. They have also acknowledged that marketing should be characterized by agility. Marketing agility is crucial for attaining marketing excellence (Kalaiganam et al., 2021).

Businesses employing different technological advances and new strategies to enhance their communication, distribution, gathering information, decrease the essential cost and time of developing a new product, offer more comprehensive product lines, mass-customized and upgrading products more quickly to be more flexible in coping with crises that could cause a high

level of uncertainty and threats that may result in significant financial losses (Zhou et al., 2019) and endanger the presence and the survival of organizations in today's highly dynamic market environments (Lages et al., 2019).

In the early 1990s, the agility concept first emerged as a management topic (Zhou et al., 2019); since then, researchers from many backgrounds, including management, manufacturing, human resources management, supply chain management (Chang, 2005; Eckstein et al., 2015; Ramasesh et al., 2001). Recently, marketing managers and scholars began to focus more on the significance of marketing agility and dynamic capabilities as a managerial philosophy for business, which is perceived as the main priority for attaining marketing excellence (Kalaiganam et al., 2021) to avoid firmness and cope with turbulent environments (Hagen et al., 2019) and to outplay competitors and win new customers (Nemkova, 2017; Zhou et al., 2019).

Marketing agility has mainly been described as one aspect that allows companies to recognize opportunities and react quickly to changing marketplaces and thus competing in ever-changing marketplaces (Zhou et al., 2018). However, previous empirical investigations have focused primarily on exploring the relationship between marketing agility, firm, and market performance (Khan, 2020; Nemkova, 2017; Zhou et al., 2018). Marketing agility has received little consideration; as far as the researcher is knowledgeable, there is no research to decide whether marketing agility influences customer satisfaction. Additionally, according to the literature, all previous studies have examined marketing agility from a firm point of view, ignoring the effect of marketing agility on the customer from the customer's point of view. Thus, this article aims to contribute to a better understanding of marketing agility related to customer satisfaction through five contributions. First, this study lessens the dearth of empirical studies regarding the impact of marketing agility on innovation capability and customer satisfaction. Second, it clarifies how innovation capabilities impact customer satisfaction. This paper provides a theoretical contribution by creating a contemporary and comprehensive understanding of the relationship between marketing agility, innovation capabilities, and customer satisfaction. Third, regarding the extent of the researcher's

knowledge, this article is the first of its kind to examine the link between marketing agility, innovation capabilities, and customer satisfaction. Fourth, the study's findings provide important new information to help managers and practitioners understand how to build agile marketing and innovation abilities, especially in the areas that significantly influence customer satisfaction. Moreover, the findings could help marketing managers in their international marketing campaigns, operations, and tactics learn ways to build and execute marketing agility to increase speed, versatility, and customer response. Finally, his study advances knowledge about implementing agile techniques in businesses and the integration of these practices into the marketing sector to enhance customer satisfaction.

The study's remaining sections are arranged as follows: Section two presents the theoretical framework and hypotheses. The research technique is given in section 3. The results and comments are presented in Section 4.

2. LITERATURE REVIEW AND HYPOTHESES

2.1. Research constructs

2.1.1. Marketing agility

It is no wonder that agility has become an emotive word and an alternate solution to old routines, such as preparing in high uncertainty and competitive conditions, which characterize international marketing. However, research on agility could be more extensive (Roberts & Grover, 2012). Previous studies have defined agility differently (Eckstein et al., 2015; Hagen et al., 2019; Lages et al., 2019; Zhou et al., 2018). Nemkova (2017, p. 5) defined agility as "the ability to reconfigure available options with speed and surprise to reap benefits from unpredictable changes in the business environment." Zhou et al. (2019, p. 33) defined agility from a marketing perspective as a "firm's ability to proactively anticipate and sense marketing opportunities, and to respond quickly and flexibly to these opportunities to better satisfy customer needs" and suggest that the agility core faces are "flexibility, responsiveness, speed, the culture of change, integration, and low complexity." Also, Stachowiak and Oleśków-Szłapka (2018, p. 603) considered agility as "the strategy that allows contemporary companies cope with dynamics and turbulence of contemporary market". Recently, Kalaiganam et al. (2021, p. 2) stated "marketing

agility refers to the extent to which an entity rapidly iterates between making sense of the market and executing marketing decisions to adapt to the market. "

In the early 1990s, the agility concept first emerged as a management topic (Zhou et al., 2019); since then, marketing managers and scholars have started to pay more attention to the importance of marketing agility as a managerial philosophy for business (Hagen et al., 2019; Khan, 2020; Zhou et al., 2019), which perceived as the main priority for attaining marketing excellence (Kalaiganam et al., 2021) to avoid firmness and to cope with turbulent environments (Hagen et al., 2019) and to outplay competitors and win new customers (Nemkova, 2017; Zhou et al., 2019). However, agility is not an optimal solution, and its gains are only recognized if applied for the right purposes, in the right contexts, and with the correct methods (Kalaiganam et al., 2021).

Previous studies provided different definitions of agility depending on different business disciplines, such as manufacturing, management, and marketing. According to other definitions, agility is characterized as a managerial capability that consists of proactiveness, responsiveness, speed, and flexibility that enable the business to overcome competitors by rapidly detecting and reacting to opportunities and threats (Zhou et al., 2019). In their article, Lages et al. (2019) viewed marketing agility as a dynamic ability built upon marketing planning and flexibility maintenance capabilities. Moreover, Kalaiganam et al. (2021, p. 2) defined marketing agility as "the extent to which an entity rapidly iterates between making sense of the market and executing marketing decisions to adapt to the market" and consider it as a "firm's strategic means for executing growth activities by the marketing organization and its members through simplified structures and processes, fast decision Based on the literature in this study, the marketing agility concept is understood as "the extent to which an entity rapidly iterates between making sense of the market and executing marketing decisions to adapt to the market" (Kalaiganam et al., 2021, p. 35). Moreover, four dimensions of marketing agility were identified: "market sensing, flexibility, responsiveness, and speed."

Market sensing: The firm's capacity to acquire knowledge regarding customers, rivals, and channel partners and to recognize, sense, and

foresee the overall market environment in which it works (Day, 1994; Mu, 2015; Teece et al., 2016).

Speed to market: means speed to meet market requirements and needs (Khan, 2020b). Carbonell and Rodríguez Escudero (2010) defined speed to market as an activity pace between idea design and product implementation.

Flexibility is the ability to efficiently produce different combinations of offerings. By combining proactive and reactive aspects, organizations can enhance their marketing agility. This can be implemented at both internal and external operating levels (Ayoub & Abdallah, 2019; Gligor & Holcomb, 2012).

Responsiveness is the degree to which a company responds to changes in its requirements, market signals, future market changes, opportunities, and threats (Hurley & Hult, 1998; Zhou et al., 2019).

Most earlier research concentrated on the connection between organizational performance and flexibility or agility. For example, AlTaweel and Al-Hawary (2021) investigated the connection between organizational performance and strategic agility. However, Ahammad et al. (2021) show how strategic agility affects emerging market companies' global performance. Ni et al. (2021) conducted a study that examined the impact of organizational flexibility and innovation on company competitiveness within Chinese construction firms. Further studies looked at reducing supply chain interruptions and the effect of agility on market performance (Nemkova, 2017; Shekarian et al., 2020). However, much of the research mentioned above and others have looked at marketing agility from the perspective of the firm, neglecting how it affects the customer from their perspective.

2.1.2. Innovation capabilities

A significant strategic weapon of firms is the capacity to use innovative and profitable new product ideas. A company's capability to produce innovation is one of the most valuable tools (Charterina et al., 2016). Companies that possess a strong ability to innovate consistently produce superior goods and services, which they bring to the market earlier, more frequently, and at a lower cost compared to their competitors. Because innovation accelerates growth and wealth, most nations and Enterprises seeking to achieve excellence and dominance in their industry allocate substantial financial resources towards innovation,

mostly focused on research and development (AlTaweel & Al-Hawary, 2021). However, innovation also depends on whether people or organizations are willing to put creative theoretical concepts into action and whether they have access to a certain set of innovative capabilities (Bedford et al., 2021). Innovation capabilities are defined by Ganguly et al. (2020) as the capacity to organize and direct resources to generate a variety of innovative goods and services.

Several characteristics of innovation have been established in earlier research, and researchers have looked at several approaches to classify innovations (Jiménez-Jiménez & Sanz-Valle, 2011). Abrunhosa and Moura E Sá (2008) focused on analyzing a particular type of innovation, such as process innovation. Whereas others used two primary dimensions: (a) product innovation capability and (b) process innovation capability (AlTaweel & Al-Hawary, 2021; Lei et al., 2019; Migdadi, 2022). For instance, Zhou et al. (2018) took advantage of the three most well-known facets of innovation capabilities: process, product, and marketing innovation. Jiménez-Jiménez and Sanz-Valle (2011) utilized a framework consisting of three distinct dimensions of innovation: product innovation, process innovation, and administrative innovation. While Lin et al. (2010) adopted four components: product, marketing, administrative, and service innovation.

This study includes three innovation components, namely Product innovation, Marketing innovation, and Process innovation, as the existing literature supports.

Product innovation capability involves promoting or changing new or differentiated items or improving existing product features, quality, consistency, and appearance. Product innovation capabilities enable businesses to present fresh ideas for products and services or to create new ones based on what customers want (AlTaweel & Al-Hawary, 2021; Lei et al., 2019; Migdadi, 2022). Marketing innovation capability refers to "market research, price-setting strategy, market segmentation, advertising promotions, retailing channels, and marketing information systems." (Lin et al., 2010, p. 114).

Process innovation refers to "creating and improving production methods and work process, as well as incorporating new operating systems to improve production efficiency." (Zhang, 2018, p. 3).

2.1.3. Customer satisfaction

Customer satisfaction is receiving growing recognition and has emerged as a significant principle and objective in marketing literature. Customer satisfaction greatly influences profitability, price elasticity, costs, sales, firm value, desire to purchase more products, and the firms' performance (Bahri-Ammari & Soliman, 2016; Lim et al., 2020; O'Sullivan & McCallig, 2012; Williams & Naumann, 2011). Thus, by enhancing product and service, process, and marketing innovation, firms strive to maintain high levels of customer satisfaction. Various scholars have put forth numerous definitions of customer satisfaction. For example, Haumann et al. (2014, p. 80) define customer satisfaction as "a customer's post-consumption evaluation of a product or service that occurs if the perceived performance of a product or service meets or exceeds customers 'prior expectations.'" Kotler and Keller (2015) describe customer satisfaction as "a person's feeling of pleasure or disappointment, which resulted from comparing a product's perceived performance or outcome against his/her expectations." According to Ginting et al. (2023, p. 330), customer satisfaction is "a condition of consumer needs, desires and expectations of consumers being met for a product."

It is widely acknowledged that the cost of acquiring new customers is significantly higher, estimated to be between 5 and 10 times more than the cost of retaining current customers (Slater & Narver, 2012). Therefore, the marketing industry has prioritized investigating aspects that contribute to customer satisfaction. Customers who feel satisfied are more likely to purchase products or services frequently. Conversely, unsatisfied clients have contrasting reactions. Unsatisfied customers may try to alleviate cognitive dissonance by either discontinuing the use of the product or seeking evidence that supports its significance (Kotler & Keller, 2015).

2.2. Model and hypotheses development

2.2.1. Market Sensing and Innovation Capability

Mu (2015) defined market as the company's capability to predict potential market developments and identify new opportunities based on business ecosystem knowledge. Market sensing enables a company to be aware of the

market trend and find opportunities by transferring its management into a formal risk analysis method, eliminating losses, and producing superior performance. Obtaining data from various sources, such as the market, rivals, and customers, will enable the firm to recognize the importance of new information related to changes in the environment and to introduce innovation activities (Wei & Wang, 2011). Market sense, therefore, allows companies to boost their organizational capacity by obtaining and using more business knowledge. Chen et al. (2012) argued that market sensing capacity also strongly promotes the success of firm innovations (Lin & Wang, 2015). Day (2002) proposed that the actions of new products depend on different methods for sensing information about the market. Business sensing allows companies to reshape their structure to market trends and shifts. These systemic changes involve constant contact with stakeholders. This enables organizational actors to compile, exchange, interpret, and use business information and insights that have been gained correctly. Companies with scan and market intelligence tools will improve their marketing innovation competitiveness (Najafi-Tavani et al., 2016). However, most prior studies explore the influence of market sensing on organizational performance (Morgan et al., 2009), and rare studies have explored the effect of market sensing on marketing innovation. Finally, in previous research, innovation occurs when the firm can sense the market (Ardayan, 2016) and predict changes to the market climate, processes, and knowledge management (Fang et al., 2014). Therefore, market sensing is a tool that creates the ability of a company to understand, perceive, and respond to market dynamics.

Thus, in light of the review mentioned above, the study posited the following hypothesis:

H1a: market sensing positively impacts product innovation.

2.2.2. Speed to Market and Innovation Capability

In today's marketplace, the speed at which new products are sold is very important, as it features a short life of products, quick response, and rapid knowledge flows. Companies are faced with highly competitive and dynamic markets and the related need to market products faster. Marketing products quickly allow companies to reduce costs

through knowledge effects. Managers value market speed as one of the distinctive features of well-managed new product development (Sorescu & Spanjol, 2008). Speed is now a modern innovation model. Numerous studies were conducted to identify what influences or activities help to accelerate the production of new products and services (Sandvik & Sandvik, 2003; Slater & Narver, 2012; Troy et al., 2001). If a change is made to demand, the company that has a speed-to-market capability will adapt more quickly to these changes and provide the appropriate product or service to consumer needs. That is to say, market speed capability can affect product innovation in response to customer needs and wants. To summarize, the author argues that innovation capability is directly impacted by speed to market and puts out the following hypothesis:

H1b: Speed to market positively impacts innovation capability.

2.2.3. Flexibility and Innovation Capability

Flexibility is a complex subject, and it is not surprising that concept debates are relevant given the relatively early stage of information creation in marketing and strategic management literature (Combe, 2012). Huda Khan (2020) argues that flexibility refers to the capacity to efficiently generate various offers. Sharma et al. (2010) argue that marketing flexibility is characterized by the ability and speed of product innovation. The role of flexibility within organizations is considered in terms of their connection to customers, satisfying needs and interests and receiving considerable attention. Furthermore, flexibility allows firms to significantly enhance customer satisfaction by reducing distribution costs in an important way (Cannon & Homburg, 2001). According to the review, several authors have conceptually and practically shown how closely flexibility relates to creativity and invention. Beraha et al. (2018) asserted that flexibility in marketing is essential for driving product innovation. Additionally, Zhou and Wu (2010), Fan et al. (2013), and Wei et al. (2014) demonstrate how strategic flexibility aids in the development of new products. Kamasak et al. (2016) present the same findings. However, these studies relate to the flexibility of the company, not the flexibility of the market.

Alongside such flexible mechanisms, firms should generate their knowledge base more intentionally

and expand or change it so that firms can process their knowledge as efficiently as possible, leading to the superior output of innovation in dynamic environments (Kamasak et al., 2016). Therefore, the following hypothesis was stated:

H1c: Flexibility positively impacts innovation capability.

2.2.4. Responsiveness and Innovation Capability

Market responsiveness refers to the extent to which a company reacts to market signals and anticipates future market opportunities and risks; thus, to survive for a company to be successful, it is crucial to have the ability to promptly respond to customer demands and competition strategies, emphasizing the significance of market responsiveness (Najafi-Tavani et al., 2016). A firm's market responsiveness shows its awareness and proactive responses to shifting market dynamics. Organizational innovation is influenced by the degree to which an organization interacts with customers and competitors, learns through the same information, and implements modification. The firm's responsiveness should affect changes and impact its innovativeness. Responsiveness proves to be a good determinant of innovation and firm performance. Responsiveness enables the firms to keep an eye on and respond to changes in the marketing landscape and offer value through innovation capacity renewal and reconfiguration (Zhou et al., 2018). Some studies indicated that responsiveness positively impacts product innovation (Carbonell & Rodríguez Escudero, 2010; Cronin et al., 2000). A market responsiveness enterprise may concentrate on customers' articulated needs in its served segments or markets and continuously develop or upgrade its products and services with innovation (Zhang, 2018). Furthermore, Responsive firms can easily adapt to changing environmental conditions, and fast adjustment can be crucial if these conditions represent enormous uncertainty and ambiguity, as is often the case in pioneer markets. Business reactivity may thus be a leader in the market. Instead of demand-pull drivers, pioneering companies also enter the new product market. That is, when companies produce new products for which there can be a demand, they take innovative action (Garrett et al., 2009).

The ability of organizational activities to react better than rivals to market demand and predict

market changes is a key factor in building a sustainable competitive advantage and achieving high profits. This is achieved through innovative marketing approaches such as new strategies, price determination, market segmentation, advertising, and retail channels. By being more responsive than their competitors, companies can better meet market demand and predict market changes, thereby gaining a competitive edge and increasing their profits (Osei et al., 2019).

Responsiveness to environmental changes has been a critical success driver with increased competitive competition and continuously developing consumer needs. To compete successfully in a competitive marketplace, companies have to deal with threats and challenges caused by changing environmental circumstances (e.g., presented by rivals and consumers) (Wei et al., 2014). Mavondo et al. (2005) argue that it is not enough to be a learning organization, i.e., only to acquire information. The ability to react quickly and adapt is equally critical. Marketing responsiveness facilitates transition, reconfiguration, and process renovation, fostering innovation that improves environmental fitness (Zhang, 2018). Innovations are the invention of a company's new products or services that are suitable and exclusive. It is also open to new ideas, products, and processes and consists of the willingness of the company to transform and implement transform and adopt technologies and market trends. Hence, the following hypothesis can be formulated:

H1d: Responsiveness positively impacts product innovation.

2.2.5. Innovation capabilities and customer satisfaction

Competition in the markets is growing in the world every day. The rapidly changing demands and expectations challenge companies to satisfy customers through innovative products. It is imperative for organizations to consistently exceed customer expectations to provide satisfying service and goods and improve service quality. When a company produces an innovative product, the satisfaction of consumers is reached, and customer's loyalty to their products increases. The innovation is used to provide strategic guidance for customer satisfaction, loyalty, and market potential for increasing the company's market

share (Pan & Zinkhan, 2006). Marketing innovation describes the actions performed by the company to adapt the product to its particular customers' needs, enhance its functionality, and innovate customer management. It is a mixture of external customer knowledge and the capability of the company that together can not only adapt the offer to fulfill customer needs but will also create new routines (Benapudi & Leone, 2003; Fang, 2008). This combination of consumer awareness and marketing skills will result in new and unique measures in a company's management. Relationship management systems must be transformed into creative marketing proposals fostering consumer value.

Innovation has become one of the critical skills companies are pursuing aggressively to sustain operations and retain their advantages over competitors (Charterina et al., 2016). This study examines the impact of innovation on customer satisfaction. According to the theory, product innovation is one of the dimensions in the evaluation of customer satisfaction proposed by Athanassopoulos et al. (2001). The success of an

invention eventually depends on the end customer. Purely expert innovation perspectives often fail to solve customer needs as experts and customers may interpret innovation without hesitation. For example, experts can see technologies only technically and functionally, and customers can be worried about whether the products of the business are in line with their lifestyles and produce new experiences for them (Kunz et al., 2011). Some studies indicated that innovation capabilities (product, marketing, and process innovation) have a positive impact on customer satisfaction (Cronin et al., 2000; Lawson & Samson, 2001; Rosenberg & Czepiel, 1984).

Building on the logical relationships established in the preceding discussion, this study suggests the following hypothesis

H2: Innovation capabilities have a positive impact on customer satisfaction.

According to the previous literature review and hypothesis development, Figure 1 presents the study's theoretical framework.

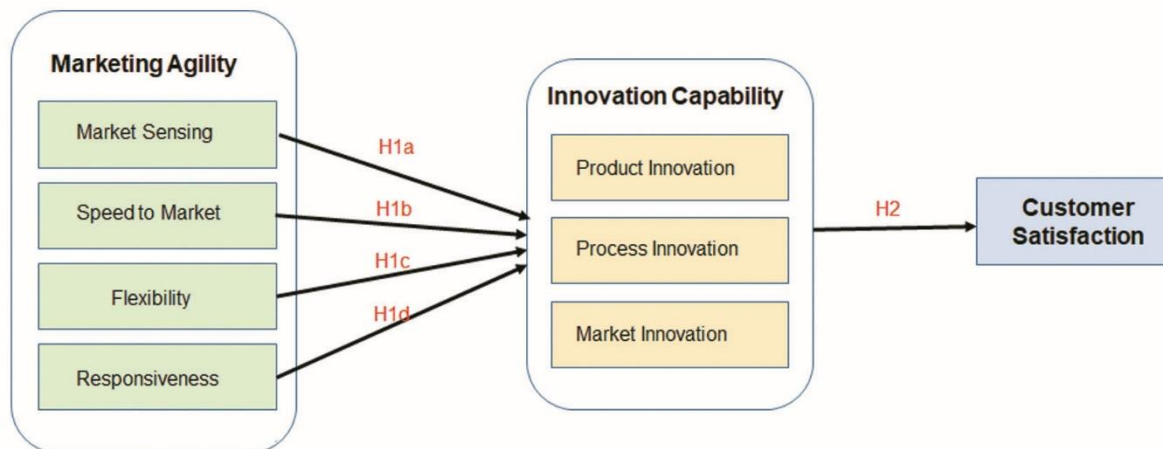


Figure 1: Research framework

3. METHODOLOGY AND RESEARCH DESIGN

3.1. Samplings

Data was gathered between August and November 2023 via an online survey that employed a questionnaire. The West Bank Responded were Palestinian entrepreneurs, enterprise owners, managers, or decision-makers in these enterprises. Surveys were distributed to respondents by postal mail and electronic means. Firms sent reminders to respondents via email, LinkedIn, WhatsApp, and Twitter 21 days after sending the questionnaire.

The profiles of potential participants demonstrated their ability to complete surveys, thereby providing a highly effective sample selection process. Informants were questioned about their service length and present role in ascertaining their familiarity with their respective organizations. A response rate of 54.5% was obtained, with 162 valid responses out of 297 surveys. Split-half testing identified the presence of non-response bias. The split-half groups exhibited high similarity, indicating that the sample

accurately reflected the population. The sample size met the requirements of SEM analysis, which included 100-200 respondents (Hair et al., 2018). Table 1 presents the industrial and demographic profile of the participants.

Table 1: Respondents and industry profile.

Respondent profile			Industry profile		
"Description	Frequency	percent	"Description	Frequency	percent
Gender			Industry		
Male	138	85	Surgical	18	11
Female	24	15	Furniture	31	19
			Food products	39	24
Experience			Textile/clothing		
Less than 5 years	41	25	Technological	33	20
6-11 years	74	46	Other	12	12
12-17 years	26	16			
More than 17 years	21	113"	Age of Enterprise		
			Less than 5 years	34	21
Job Titl			6-11 years		
Operation manager	59	36	12-17 years	31	19
Financial manager	27	17	18- 23 years	17	10
The owner	51	31	More than 23 years	14	9
Other decision-makers	25	15			

3.2. Scales

In order to accurately represent the constructs in the theoretical model, the study utilized recognized and dependable scales that have been validated in prior research. A five-point Likert scale, "1= strongly disagree; 5= strongly agree", Consequently, the measurement model consisted of 31 items. Table 2 shows that all items had loading values exceeding 0.50, which is the

Table 2: Constructs, items, Sources, codes, loadings, VIF, Reliability and validit

"Variables, items, and resource	Code	Loading	VIF	Reliability and validity
Marketing agility: Over the previous few years, our business has acquired the following capabilities.				$\alpha =0.914$, CR =0.935, AVE=0.741.
Market sensing (Mu, 2015).	MS1	0.853	2.654	
1. We consistently monitor and detect developing market trends and occurrences in our market.	MS2	0.856	2.719	
2. We are highly attentive to the dynamic market conditions in the market	MS3	0.860	3.128	
3. All members of our organization are trained to actively identify and address hidden issues and				

was used to measure them. Each scale construct is shown in Table 2 and Figure 2.

4. RESEARCH FINDING

4.1. Measurement model

Before starting testing the research hypotheses, the guidelines provided by (Hair Jr et al., 2019)

adhered to ascertain the validity and reliability of the research measurement model through the utilization of confirmatory factor analysis (CFA). Three items were removed from the analysis because they had low standardized loadings.

minimum threshold for maintaining the item (Hair Jr et al., 2019).

opportunities in the market.	MS4	0.877	3.460	
4. We accurately forecast market trends and events before they become fully evident.	MS5	0.857	2.067	
5. We actively engage in attentive listening, comprehending, and promptly reacting to pertinent discussions within the marketplace.				
Speed to market (Zhou et al., 2018)				$\alpha = 0.838$, CR = 0.874, AVE=0.670.
1. We possess the capability to respond to the evolving demands of our customers more quickly than our rivals.	STM1	0.782	1.774	
	STM2	0.808	1.828	
2. We expedite the timeline from product ideation to marketing in order to promptly address shifts in customer needs.	STM3	0.823	1.950	
3. We have the ability to promptly modify our range of products in order to adapt to shifting marketplace opportunities.	STM4	0.859	1.813	
4. We quickly adjust activities that don't provide the expected results.				
Flexibility (Khan, 2020)				$\alpha = 0.817$, CR = 0.891, AVE=0.732,
1. We demonstrate flexibility in response to fluctuations in market demands.	FL1	0.875	2.451	
2. We adapt our approach to meet the demands of changing circumstances.	FL2	0.853	2.093	
3. When faced with an unforeseen circumstance, we prefer to resolve it through innovation or adaptation rather than maintaining the original offering.	FL3	0.839	2.011	
Responsevness (Zhou et al., 2018)				$\alpha = 0.885$, CR = 0.920, AVE=0.743.
1. We have the ability to adapt to fluctuations in demand without excessively stockpiling inventory or experiencing lost sales.	RES1	0.790	2.035	
2. Our ability to promptly address variations in supply volume is facilitated by our extensive network of suppliers across multiple locations.	RES2	0.877	2.636	
3. We can adapt by rearranging our resources in the event of an unforeseen threat.	RES3	0.867	2.566	
4. When it comes to altering the competitive landscape, we can respond to significant changes.	RES4	0.908	3.063	
Product innovation (Nasution et al., 2011)				$\alpha = 0.930$, CR = 0.956, AVE=0.878.
1. We consistently convert market intelligence and concepts into innovative products.	PRODI1	0.944	3.384	
2. We lead the market with product innovation.	PRODI 2	0.947	3.587	
3. We can constantly launch new products before competitors.	PRODI 3	0.920	3.095	

Process innovation (Wang & Ahmed, 2004)			$\alpha = 0.821$, CR = 0.879, AVE=0.647.
1. We are continuously enhancing our business procedures and processes.	PROS1	0.760	1.735
2. Over the past few years, our company has implemented numerous innovative management techniques.	PPRS2	0.707	1.571
3. When traditional approaches are ineffective for solving an issue, we develop new approaches.	PROS3	0.863	2.144
4. We modify procedures to meet shifting consumer needs.	PROS4	0.875	2.237
Marketing innovation (Wang & Ahmed, 2004; Zhou et al., 2018)			$\alpha = 0.926$, CR = 0.948, AVE=0.819.
1. We are always putting new marketing campaigns into action.	MIN1	0.903	3.088
2. Managers consistently generate innovative marketing plans.	MIN 2	0.930	3.151
3. We conduct periodic evaluations of our marketing initiatives to guarantee optimal reach across all target market categories.	MIN 3	0.887	2.976
4. Managers consistently investigate potential emerging market opportunities.	MIN 4	0.899	3.031
Customer satisfaction (Agag et al., 2024)			$\alpha = 0.874$, CR = 0.914, AVE=0.726.
“Increasing customer satisfaction”	CUS1	0.843	2.726
“Delivering more value to our customers”.	CUS 2	0.867	2.043
“Improving the delivery of what our customers want”.	CUS 3	0.869	1.965
“Retaining valued customers to a greater extent”.	CUS 4	0.875	2.372

Notes: α = Cronbach Alpha, CR= Composite reliability score, AVE = Average variance extracted.”

4.1.1. Reliability and validity

This study employed Composite Reliability (CR) and Cronbach's alpha (α) to assess the Reliability. The CR and Cronbach's alpha values for each latent variable were above 0.8, as indicated in Table 2. This suggests that the scales used to measure each construct were reliable.

For content validity, constructs were precisely defined and operationalized. The majority of measurement items were sourced from pre-existing literature and have undergone validation in previous searches. Furthermore, the questions underwent pilot testing.

“Table 3: Fornell–Larcker criterion.

The discriminant test yielded an AVE value greater than 0.5, showing the validity of the AVE value for all variables, as shown in Table 2. Next, the Fornell-Larcker Criterion is measured. The square root of AVE was compared to the correlation between any two constructs to assess the discriminant validity of the constructs. According to Table 3, the model demonstrates discriminant validity by meeting the critical requirement of the Fornell-Lacker criterion. These results suggest that the measurement model meets the requirements for discriminant validity.

	MS	STM	FL	RES	PRODI	PROSI	MIN	CUS
Market sensing (MS)	0.861							

Speed to market (STM)	0.784	0.818						
Flexibility (FL)	0.656	0.719	0.856					
Responsiveness (RES)	0.586	0.632	0.556	0.862				
Product innovation (PRODI)	0.744	0.800	0.731	0.710	0.937			
Process innovation (PROSI)	0.807	0.904	0.631	0.568	0.701	0.804		
Marketing innovation (MIN)	0.784	0.788	0.719	0.586	0.718	0.801	0.905	
Customer satisfaction (CUS)	0.741	0.793	0.765	0.632	0.800	0.789	0.788	8.52

"Note:1. The bold numbers reflect the square roots of AVE for each construct."

4.2. Structural model

A Structural Equation Model (SEM) was employed to examine the six hypotheses, using Smart Pls 4 for testing. An SEM model with 5000 bootstrap samples was employed. The model fitted the data well. $\chi^2/df = 1.963$, below the maximum allowable limit of 3. GFI = 0.92, AGFI = 0.95, CFI = 0.91, TLI = 0.96, all values exceeded the minimum allowed threshold of 0.90 (Keith, 2019). The RMSEA score

was 0.058, below the maximum acceptable level of 0.08 (Sardeshmukh & Vandenberg, 2016). Figure 2 illustrates the structural model. Thus, the model results, as shown in Figure 2, indicate that marketing agility dimensions explain 76.9% of the variance in innovation capabilities. In comparison, innovation capabilities explain 61.4% of the variance in customer satisfaction.

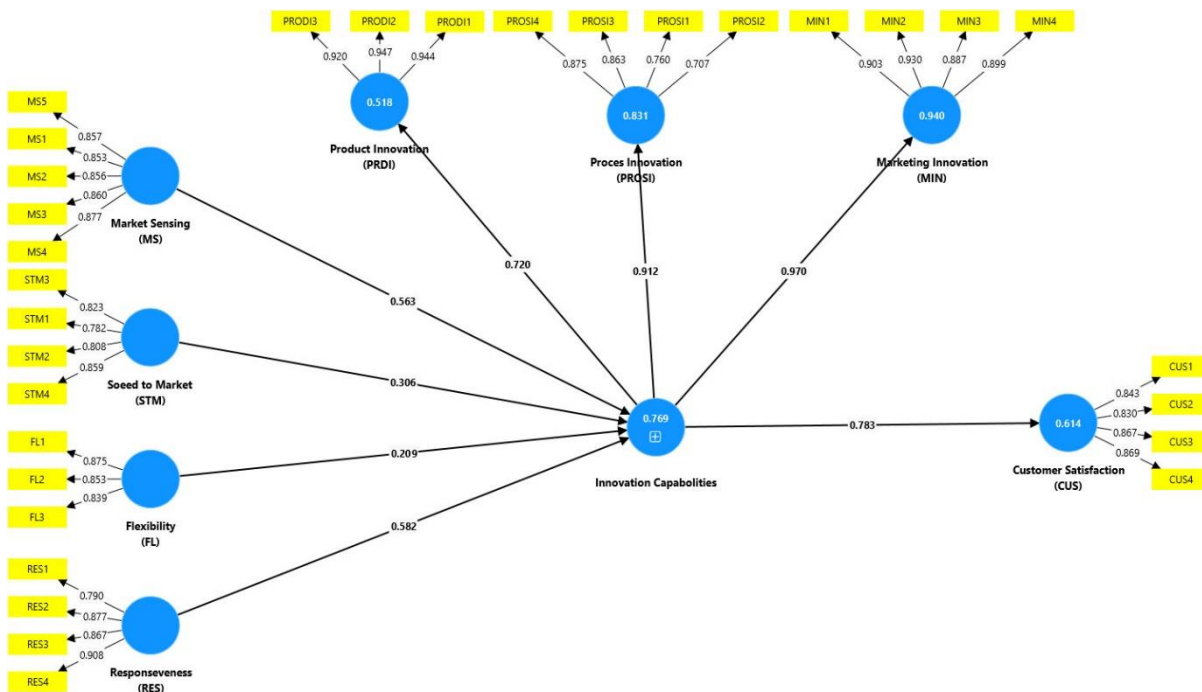


Figure 2: The structural model

4.3. Hypothetical Testing

Table 4 shows standard coefficients and probability levels. According to the results, market sensing ($\beta = 0.563$, $t = 7.304$, $p < .000$), speed to market ($\beta = 0.304$, $t = 4.064$, $p < .000$), flexibility ($\beta = 0.209$, $t = 3.418$, $p < .000$), and responsiveness ($\beta = 0.583$, $t = 10.252$, $p < .001$) positively impact innovation capabilities, providing support for the hypothesis H1a-d.

Similarly, innovation capabilities positively impact customer satisfaction ($\beta = 0.783$, $t = 22.443$, $p < .001$). Thus, H₂ is supported.

Table 4: Research hypothesis results.

Hypothesis	Path	Effect Path (β)	T-statistic	P-value	Result
H1a	Market sensing→Innovation capabilities	0.563**	7.304	0.000	Accepted
H1b	Speed to market→ Innovation capabilities	0.304**	4.064	0.000	Accepted
H1c	Flexibility→ Innovation capabilities	0.209*	3.418	0.001	Accepted
H1d	Responsiveness→ Innovation capabilities	0.583**	10.252	0.000	Accepted
H2	Innovation capabilities →Customer satisfaction	0.783**	22.443	0.000	Accepted

"Note: * $p < 0.05$, ** $p < 0.01$ "

5. RESULTS AND DISCUSSION

This study aimed to investigate five hypothetical influences, as described in H1a-d and H2. H1a-d hypotheses that marketing sensing, speed to market, flexibility, and responsiveness significantly affected innovation capabilities. H2 proposed that innovation capabilities have significant effects on customer satisfaction. First and foremost, the data showed that every aspect of marketing agility substantially impacts the ability to innovate. The organization's ability to proactively identify and detect marketing opportunities and to quickly and flexibly respond to customer needs is likely to assist the corporation in launching a new product and implementing a new business approach. Furthermore, companies who embrace highly agile marketing methods have enhanced prospects for committing to innovation and enhancing their innovation capabilities, in contrast to their rivals. This result aligns with the outcomes of (Ardayan, 2016; Beraha et al., 2018; Fang, 2008; Zhou et al., 2018).

The primary objective of this research was to investigate the influence of marketing agility dimensions, specifically market sensing, speed to market, flexibility, and responsiveness, on innovation capabilities. Additionally, the study aimed to examine the impact of innovation capabilities on customer satisfaction in firms operating in the Palestinian industrial sector. The research findings indicate that all dimensions of marketing agility positively influence innovation capabilities, which aligns with the results found in previous studies. Similarly, innovation capabilities have a significant positive effect on customer

satisfaction. Hence, enterprises' management must recognize the significant value of marketing agility and implement innovative product, process, and marketing strategies to offer distinctive products to their customers. Additionally, they should embrace agile marketing approaches to meet the evolving demands of their customers effectively. Moreover, these firms ought to adjust to market fluctuations by displaying sufficient flexibility and actively identifying opportunities and threats. This proactive approach will enable them to produce suitable products in response to these changes effectively.

Before starting testing the research hypotheses, the positive relationship between marketing agility dimensions and innovation capability can be illustrated in that the ability of the organization to proactively identify and detect marketing opportunities and to act rapidly and flexibly to meet customer requirements will likely provide the corporation with the assistance it needs to launch a new product as well as a new method of conducting business.

Nasution et al. (2011) state that effective innovations arise when companies identify a discrepancy between customers' wants and the current offerings and then take action to fulfill those. The marketing agility dimensions specifically facilitate identifying and exploring novel market prospects, perhaps leading to an enhanced degree of consumer satisfaction. Marketing agility facilitates consumer satisfaction by enabling the development of novel items and the implementation of innovative approaches and initiatives. An organization's ability to promote flexibility, speed to market, and responsiveness

among managers and employees directly correlates with its capacity to offer innovation and customer satisfaction. Additionally, it seems that product, process, and marketing innovation are significant indicators of customer satisfaction. This result aligns with the perspective of previous investigations (Cronin et al., 2000; Lawson & Samson, 2001; Rosenberg & Czepiel, 1984).

Second, the results of this study indicate that market sensing has a significant positive impact on innovation capability. These results support the claim that market sensing is a tool that creates the ability of a company to understand, perceive, and respond to market dynamics. This is consistent with Alshanty et al. (2019), who found a positive effect of market-sensing capability on knowledge creation and process and product innovation. In addition, this result is consistent with those of earlier studies (Calantone et al., 2002; Keskin, 2006; Khristianto et al., 2021), which showed that an organization's capacity for innovation increases with its ability to sense the market. Third, the findings provide support for the positive influence of speed to market on dimensions of innovation capability. Utilizing speed to market can help businesses identify more opportunities in the industry and, as a result, come up with more concepts for novel products. This study supports the hypothesized effects of speed to market on new product success as argued by Jiyao et al. (2005). In addition, this study adds support to the claims from scholars in market orientation (Sandvik & Sandvik, 2003; Slater & Narver, 2012; Troy et al., 2001).

Fourth, the findings reinforce and broaden an existing body of literature that emphasizes the importance of marketing flexibility in stimulating invention. Due to this flexibility, businesses are able to consistently adapt their marketing strategies and stay competitive, which in turn inspires novel ideas and innovations. The relationship between flexibility in marketing strategies and innovation outcomes is explored in various research, and the results indicate that marketing flexibility has a positive impact on innovation capability. Scholars such as Zhou et al. (2005) have underscored the significance of marketing flexibility as a facilitator of enhanced innovation within firms. The implementation of flexibility practices empowers organizations to explore novel methodologies and adjust to consumer inclinations, thereby augmenting their

potential to launch innovative products or services. From the lens of dynamic capabilities (Teece et al., 1997), marketing flexibility is regarded as a fundamental catalyst for innovation. Thus, organizations that can recalibrate their marketing endeavors to accommodate the evolving requirements of the marketplace are predisposed to engage in experimentation with novel concepts, investigate nascent trends, and pursue groundbreaking solutions, further emphasizing the critical nature of market-oriented flexibility, demonstrating that enterprises endowed with flexible marketing competencies can promptly respond to market exigencies and capitalize on innovation prospects.

Fifth, the current study provides more proof of the relationships between responsiveness and innovative capability. The results also indicate that responsiveness has the highest influence on innovation capability among the other dimensions of market agility. Moreover, the findings strengthen the body of evidence supporting the idea that market responsiveness fosters innovation capabilities. It demonstrates how keeping an eye on market developments helps businesses stay relevant and stimulates their innovation processes, which enables them to continuously adapt and expand. The outcome is in line with the findings of Kohli and Jaworski (1990), Carbonell and Rodríguez Escudero (2010), and Cronin et al. (2000) who highlighted the importance of market responsiveness as a crucial aspect of market orientation that helps businesses to identify and respond to consumer demands and competitive moves. This proactive approach is essential for creating cutting-edge goods and services that meet consumer needs., which emphasizes how a company's capacity for innovation is improved by its awareness of and responsiveness to market developments. In addition, the findings support what Zhou et al. (2018) indicated in their study that responsiveness enables the firms to keep an eye on and respond to changes in the marketing landscape and offer value through innovation capacity renewal and reconfiguration.

Finally, the results of this study also confirmed the second hypothesis which stated that innovation capability positively influence customer satisfaction. In other words, organizations that consistently engage in innovative practices are more proficient in addressing customer demands,

adjusting to evolving preferences, and providing enhanced value., which is consistent with the results of Berman (2005), who reported that companies possessing robust innovation skills are better equipped to adapt to evolving consumer demands by providing novel products, resulting in increased levels of customer satisfaction. The results are consistent with a study by Ordanini and Parasuraman (2011), which discovered that customer satisfaction is positively impacted by service innovation, such as enhanced delivery procedures or customer support systems. Service-oriented organizations with innovative skills can increase client experiences, which directly influences satisfaction levels. In the same direction, this study agrees with a study by Ordanini and Parasuraman (2011), which showed that customer satisfaction is positively impacted by service innovation, such as enhanced delivery procedures or customer support systems. Service-oriented organizations with innovative skills can increase client experiences, which directly influences satisfaction levels.

5.1. Contributions to the Literature

This study offers significant insights into the existing body of literature on marketing agility, innovation capabilities, and customer satisfaction in various ways. This study aims to investigate the combined influence of marketing agility and innovation capabilities on customer satisfaction, which has yet to be explored in previous research where both characteristics were generally studied independently. This integrated approach offers a more thorough comprehension of how these dynamic capabilities interact and collectively impact customer satisfaction. This research utilizes empirical methodologies to examine the link between marketing agility, innovation capabilities, and customer satisfaction. The findings offer strong evidence that supports the theoretical relationships between these constructs. This study enhances the existing body of knowledge by providing specific facts that support the critical significance of integrating marketing agility with innovation processes. Furthermore, this study's findings make a valuable addition to the existing body of literature by emphasizing practical implications for companies aiming to improve customer satisfaction through agile marketing and innovative strategies. This research highlights the

significance of flexibility in addressing customer demands and preferences, providing practical insights for companies aiming to obtain a competitive advantage. Finally, this study enhances the existing knowledge in the fields of strategic management and marketing by presenting empirical proof of the significant impact of marketing agility on promoting innovation and improving customer satisfaction. It adds to current discussions over the most effective methods of aligning organizational resources and competencies with market demands.

5.2 Managerial Implications

Managers tend to overlook that marketing agility can be cultivated rather than it inevitably leads to superior innovation. The current study shows that marketing agility consists of several dimensions dealing with the continuously changing environment in which a company works. The most important dimensions of marketing agility are responsiveness and market sensing, which are needed to adapt to change and enhance innovation. For a company to maintain high innovation capabilities, it should offer comprehensive guidance that steers managers toward the path of innovation. This guide is about marketing agility. However, how one reacts to environmental changes is contingent upon the specific nature of those changes. Certain modifications require that a company enhance its current products, while others call for the launch of entirely new products with entirely distinct features. In the second scenario, the company has to be more capable of innovation. Accordingly, managers looking to improve customer satisfaction must consider the nature of innovation and market opportunities. Continuous product improvement, processes, and marketing innovation are essential for satisfied customers. Sometimes, a company can attract customers, but it fails to satisfy them and instill loyalty in them. Thus it loses these customers due to its inability to provide an innovative product or use creative means in its operations and marketing. Furthermore, in light of assessing the market's needs, a firm needs to decide how best to enhance marketing agility. Therefore, marketing agility and innovation capability are crucial to increase customer satisfaction. Additionally, the analysis of this study provides valuable insights for industrial firms. Firms must consider various levels of market

complexity while adjusting their marketing agility strategies. Nevertheless, despite the recognition by companies of the need for marketing agility, a crucial obstacle that persists is the necessity for top management to provide support for marketing agility. Marketing agility will enhance these organizations' ability to innovate and increase consumer satisfaction.

5.3. Limitations and Future Research

While this research focused on crucial aspects of the marketing field, it is crucial to recognize certain limitations that must be taken into account in future research.

Initially, it relies on cross-sectional data. Conducting longitudinal research to monitor the marketing agility and capabilities and their impact on customer satisfaction would provide additional insights into the role of marketing agility.

Secondly, there was a requirement to broaden the examination of marketing agility in order to establish theoretical frameworks and uncover the practical consequences of firms embracing this agility in the unpredictable business market. Furthermore, future studies need to consider that this research was carried out in Palestine, a nation in the development process. Therefore, future studies should be conducted in both developed and emerging nations to get an understand of the strategic agility viewpoint. Furthermore, future studies ought to determine the influence of marketing agility and innovation capabilities on the operational and financial performance of organizations, as well as on managerial and economic factors such as entrepreneurial mindset, long-term competitive advantage, and organizational strength. In addition, further research might be investigating the impact of combining marketing agility with supply chain agility on innovative capabilities and customer satisfaction. An intriguing expansion of this model would involve comparing the findings of this study by examining scenarios that encompass developed economies to developing economies and between different developing economies. Furthermore, innovation capabilities can mediate between marketing agility and customer satisfaction. Subsequent research endeavors could expand upon this finding by examining this intermediary. Moreover, technological complexity, digitalization, and company scale could serve as valuable

moderators. It would be interesting to investigate the synchronization of under-researched skills across different fields, such as the meta-capabilities of marketing and supply chains, in order to determine how agility impacts a company's performance. Finally, the agility metric employed in this study accurately represents the specific environment of the manufacturing industry. Nevertheless, by making slight adjustments, forthcoming studies can employ this assessment in the context of service sectors. This would significantly improve the development of theories and our comprehension of the limitations of the analyzed relationships.

REFERENCES

- Abrunhosa, A., & Moura E Sá, P. (2008). Are TQM principles supporting innovation in the Portuguese footwear industry? *Technovation*, 28(4), 208-221. <https://doi.org/10.1016/j.technovation.2007.08.001>
- Agag, G., Shehawy, Y. M., Almoraish, A., Eid, R., Chaib Lababdi, H., Gherissi Labben, T., & Abdo, S. S. (2024). Understanding the relationship between marketing analytics, customer agility, and customer satisfaction: A longitudinal perspective. *Journal of Retailing and Consumer Services*, 77, 103663. <https://doi.org/10.1016/j.jretconser.2023.103663>
- Ahammad, M. F., Basu, S., Munjal, S., Clegg, J., & Shoham, O. B. (2021). Strategic agility, environmental uncertainties and international performance: The perspective of Indian firms. *Journal of World Business*, 56(4), 101218. <https://doi.org/10.1016/j.jwb.2021.101218>
- AlTaweel, I. R., & Al-Hawary, S. I. (2021). The mediating role of innovation capability on the relationship between strategic agility and organizational performance. *Sustainability*, 13(14), 7564. <https://doi.org/10.3390/su13147564>.
- Alshanty, A., Emeagwali, O., Ibrahim, B., & Alrwashdeh, M. (2019). The effect of market- sensing capability on knowledge creation process and innovation: Evidence from SMEs in Jordan. *Management Science Letters*, 9(5), 727-736.
- Arduyan, E. (2016). Market sensing capability and SMEs performance: The mediating role of product innovativeness success. *DLSU Business Economics Review*, 25(2), 79-97.
- Athanassopoulos, A., Gounaris, S., & Stathakopoulos, V. (2001). Behavioural responses to customer satisfaction: an empirical study. *European Journal of Marketing*, 35(5-6), 687-707. <https://doi.org/10.1108/03090560110388169>
- Ayoub, H. F., & Abdallah, A. B. (2019). The effect of supply chain agility on export performance. *Journal of Manufacturing Technology Management*, 30(5), 821-839. <https://doi.org/10.1108/JMTM-08-2018-0229>
- Bahri-Ammari, N., & Soliman, K. S. (2016). The effect of CRM implementation on pharmaceutical industry's profitability. *Management Research Review*, 39(8), 854-878. <https://doi.org/10.1108/MRR-11-2014-0258>
- Bedford, A., Ma, L., Ma, N., & Vojvoda, K. (2021). Patenting activity or innovative originality? *Accounting & Finance*, 61(3), 4191-4207. <https://doi.org/10.1111/acfi.12730>
- Benapudi, N., & Leone, R. (2003). Psychological Implications of Customer Participation in Co-Production. *Journal of Marketing*, 67(1), 14-28.
- Beraha, A., Bingol, D., Canbolat, E., & Szczygiel, N. (2018). The effect of strategic flexibility configurations on product innovation. *European Journal of Management and Business Economics*, 27(2), 129-140. <https://doi.org/10.1108/EJMBE-02-2018-0028>
- Berman, B. (2005). How to Delight Your Customers. *California Management Review*, 48(1), 129-151. <https://doi.org/10.2307/41166331>
- Carbonell, P., & Rodríguez Escudero, A. I. (2010). The effect of market orientation on innovation speed and new product performance. *Journal of Business & Industrial Marketing*, 25(7), 501-513. <https://doi.org/10.1108/08858621011077736>
- Chang, S.-C. L., Chen, Ru-Jen, Huang, Jung-Hui, & Li-Hua. (2005). Manufacturing flexibility and manufacturing proactiveness: Empirical evidence from the motherboard industry. *Industrial Management and Data Systems*, 105, 1115-1132.
- Charterina, J., Basterretxea, I., & Landeta, J. (2016). Types of embedded ties in buyer-supplier relationships and their combined effects on innovation performance. *Journal of Business & Industrial Marketing*, 31(2), 152-163. <https://doi.org/10.1108/JBIM-04-2014-0071>
- Chen, Y.-C., Li, P.-C., & Evans, K. R. (2012). Effects of interaction and entrepreneurial orientation on organizational performance: Insights into market driven and market driving. *Industrial Marketing Management*, 41(6), 1019-1034. <https://www.sciencedirect.com/science/article/pii/S0019850112000363>
- Combe, I. (2012). "Marketing and flexibility": debates past, present and future. *European Journal of Marketing*, 46(10), 1257-1267. <https://doi.org/10.1108/03090561211248116>
- Cronin, J. J., Brady, M. K., & Hult, G. T. M. (2000). Assessing the effects of quality, value, and customer satisfaction on consumer behavioral intentions in service environments. *Journal of Retailing*, 76(2), 193-218. <https://www.sciencedirect.com/science/article/pii/S0022435900000282>
- Day, G. S. (1994). The Capabilities of Market-Driven Organizations. *Journal of Marketing*, 58(4), 37-52. <https://doi.org/10.1177/002224299405800404>
- Eckstein, D., Goellner, M., Blome, C., & Henke, M. (2015). The performance impact of supply chain agility and supply chain adaptability: the moderating effect of product complexity. *International Journal of Production Research*, 53(10), 3028-3046. <https://doi.org/10.1080/00207543.2014.970707>
- Fang, E., Chang, C., Ou, C.-C., & Chou, C.-H. (2014). Internal market orientation, market capabilities and learning orientation. *European Journal of Marketing*, 48, 170-192.
- Fan, Z., Wu, D., & Wu, X. (2013). Proactive and reactive strategic flexibility in coping with environmental change in innovation. *Asian Journal of Technology Innovation*, 21(2), 187-201. <https://doi.org/10.1080/19761597.2013.866316>
- Fang, E. (2008). Customer Participation and the Trade-Off between New Product Innovativeness and Speed to Market. *Journal of Marketing*, 72(4), 90-104. <https://doi.org/10.1509/jmkg.72.4.090>
- Ganguly, A., Kumar, C., Saxena, G., & Talukdar, A. (2020). Firms' Reputation for Innovation: Role of Marketing Capability, Innovation Capability, and Knowledge Sharing. *Journal of Information & Knowledge Management*, 19(02), 2050004. <https://doi.org/10.1016/j.jbusres.2008.01.005>
- Garrett, R. P., Covin, J. G., & Slevin, D. P. (2009). Market responsiveness, top management risk taking, and the role of strategic learning as determinants of market pioneering. *Journal of Business Research*, 62(8), 782-788.

- <https://www.sciencedirect.com/science/article/pii/S0148296308001422>
- Ginting, Y., Chandra, T., Miran, I., & Yusriadi, Y. (2023). Repurchase intention of e-commerce customers in Indonesia: An overview of the effect of e-service quality, e-word of mouth, customer trust, and customer satisfaction mediation. *International Journal of Data Network Science*, 7(1), 329-340.
- Gligor, D., & Holcomb, M. (2012). Antecedents and consequences of supply chain agility: establishing the link to firm performance. *Journal of Business Logistics*, 33(4), 295-308.
- Grewal, R., & Tansuhaj, P. (2001). Building organizational capabilities for managing economic crisis: The role of market orientation and strategic flexibility. *Journal of Marketing*, 65(2), 67-80.
- Hagen, B., Zucchella, A., & Ghauri, P. N. (2019). From fragile to agile: marketing as a key driver of entrepreneurial internationalization. *International Marketing Review*, 36(2), 260-288. <https://doi.org/10.1108/IMR-01-2018-0023>
- Hair, J., Black, W., Anderson, R., & Babin, B. (2018). *Multivariate Data Analysis*. Cengage Learning EMEA.
- Hair, J., Page, M., & Brunsveld, N. (2019). *Essentials of business research methods*. Routledge.
- Haumann, T., Quaiser, B., Wieseke, J., & Rese, M. (2014). Footprints in the Sands of Time: A Comparative Analysis of the Effectiveness of Customer Satisfaction and Customer-Company Identification over Time. *Journal of Marketing*, 78(6), 78-102. <https://doi.org/10.1509/jm.13.0509>
- Hurley, R. F., & Hult, G. T. M. (1998). Innovation, Market Orientation, and Organizational Learning: An Integration and Empirical Examination. *Journal of Marketing*, 62(3), 42-54. <https://doi.org/10.1177/002224299806200303>
- Jiménez-Jiménez, D., & Sanz-Valle, R. (2011). Innovation, organizational learning, and performance. *Journal of Business Research*, 64(4), 408-417. <https://www.sciencedirect.com/science/article/pii/S0148296310001906>
- Kalaighanam, K., Tuli, K. R., Kushwaha, T., Lee, L., & Gal, D. (2021). Marketing Agility: The Concept, Antecedents, and a Research Agenda. *Journal of Marketing*, 85(1), 35-58. <https://doi.org/10.1177/0022242920952760>
- Kamasak, R., Yavuz, M., Karagulle, A. O., & Agca, T. (2016). Importance of Strategic Flexibility on the Knowledge and Innovation Relationship: An Emerging Market Study. *Procedia - Social and Behavioral Sciences*, 229, 126-132. <https://www.sciencedirect.com/science/article/pii/S1877042816310564>
- Keith, T. Z. (2019). *Multiple regression and beyond: An introduction to multiple regression and structural equation modeling*. Routledge.
- Keskin, H. (2006). Market orientation, learning orientation, and innovation capabilities in SMEs: An extended model. *European Journal of Innovation Management*, 9(4), 396-417.
- Khan, H. (2020). Is marketing agility important for emerging market firms in advanced markets? *International Business Review*, 29(5), 17-33. <https://doi.org/10.1016/j.ibusrev.2020.101733>.
- Khristianto, W., Suharyono, S., Pangestuti, E., Mawardil, M. K., & Business. (2021). The effects of market sensing capability and information technology competency on innovation and competitive advantage. *The Journal of Asian Finance, Economics*, 8(3), 1009-1019.
- Kotler, P., & Keller, K. L. (2015). *Marketing management, global edition*. Pearson Education UK.
- Kunz, W., Schmitt, B., & Meyer, A. (2011). How does perceived firm innovativeness affect the consumer? *Journal of Business Research*, 64(8), 816-822. <https://www.sciencedirect.com/science/article/pii/S0148296310002055>
- Lages, L. F., Asseraf, Y., & Shoham, A. (2019). Assessing the drivers and impact of international marketing agility. *International Marketing Review*, 36(2), 289-315. <https://doi.org/10.1108/IMR-12-2017-0267>
- Lawson, B., & Samson, D. (2001). Developing innovation capability in organisations: a dynamic capabilities approach. *International Journal of Innovation Management*, 5(03), 377-400.
- Lei, H., Nguyen, T. T., & Le, P. B. (2019). How knowledge sharing connects interpersonal trust and innovation capability. *Chinese Management Studies*, 13(2), 276-298. <https://doi.org/10.1108/CMS-06-2018-0554>
- Lim, L. G., Tuli, K. R., & Grewal, R. (2020). Customer Satisfaction and Its Impact on the Future Costs of Selling. *Journal of Marketing*, 84(4), 23-44. <https://doi.org/10.1177/0022242920923307>
- Lin, J.-H., & Wang, M.-Y. (2015). Complementary assets, appropriability, and patent commercialization: Market sensing capability as a moderator. *Asia Pacific Management Review*, 20(3), 141-147. <https://www.sciencedirect.com/science/article/pii/S1029313214000141>
- Lin, R. J., Chen, R. H., & Kuan-Shun Chiu, K. (2010). Customer relationship management and innovation capability: an empirical study. *Industrial Management & Data Systems*, 110(1), 111-133. <https://doi.org/10.1108/02635571011008434>
- Mavondo, F. T., Chimhanzi, J., & Stewart, J. (2005). Learning orientation and market orientation. *European Journal of Marketing*, 39(11/12), 1235-1263. <https://doi.org/10.1108/03090560510623244>
- Migdadi, M. M. (2022). Knowledge management processes, innovation capability and organizational performance. *International Journal of Productivity and Performance Management*, 71(1), 182-210. <https://doi.org/10.1108/IJPPM-04-2020-0154>
- Morgan, N. A., Slotegraaf, R. J., & Vorhies, D. W. (2009). Linking marketing capabilities with profit growth. *International Journal of Research in Marketing*, 26(4), 284-293. <https://www.sciencedirect.com/science/article/pii/S0167811609000664>
- Mu, J. (2015). Marketing capability, organizational adaptation and new product development performance. *Industrial Marketing Management*, 49, 151-166. <https://doi.org/10.1016/j.indmarman.2015.05.003>
- Najafi-Tavani, S., Sharifi, H., & Najafi-Tavani, Z. (2016). Market orientation, marketing capability, and new product performance: The moderating role of absorptive capacity. *Journal of Business Research*, 69(11), 5059-

5064. <https://doi.org/10.1016/j.jbusres.2016.04.080>
- Nasution, H. N., Mavondo, F. T., Matanda, M. J., & Ndubisi, N. O. (2011). Entrepreneurship: Its relationship with market orientation and learning orientation and as antecedents to innovation and customer value. *Industrial Marketing Management*, 40(3), 336-345. <https://doi.org/10.1016/j.indmarman.2010.08.002>
- Nemkova, E. (2017). The impact of agility on the market performance of born-global firms: An exploratory study of the 'Tech City' innovation cluster. *Journal of Business Research*, 80, 257-265.
- Ni, G., Xu, H., Cui, Q., Qiao, Y., Zhang, Z., Li, H., & Hickey, P. J. (2021). Influence Mechanism of Organizational Flexibility on Enterprise Competitiveness: The Mediating Role of Organizational Innovation. *Sustainability*, 13(1).
- Ordanani, A., & Parasuraman, A. (2010). Service Innovation Viewed Through a Service-Dominant Logic Lens: A Conceptual Framework and Empirical Analysis. *Journal of Service Research*, 14(1), 3-23. <https://doi.org/10.1177/1094670510385332>
- O'Sullivan, D., & McCallig, J. (2012). Customer satisfaction, earnings and firm value. *European Journal of Marketing*, 46(6), 827-843. <https://doi.org/10.1108/03090561211214627>
- Osei, C., Amankwah-Amoah, J., Khan, Z., Omar, M., & Gutu, M. (2019). Developing and deploying marketing agility in an emerging economy: the case of Blue Skies. *International Marketing Review*, 36(2), 190-212. <https://doi.org/10.1108/IMR-12-2017-0261>
- Ramasesh, R., Kulkarni, S., & Jayakumar, M. (2001). Agility in manufacturing systems: an exploratory modeling framework and simulation. *Integrated Manufacturing Systems*, 12(7), 534-548. <https://doi.org/10.1108/EUM0000000006236>
- Roberts, N., & Grover, V. (2012). Investigating firm's customer agility and firm performance: The importance of aligning sense and respond capabilities. *Journal of Business Research*, 65(5), 579-585. <https://www.sciencedirect.com/science/article/pii/S0148296311000427>
- Rosenberg, L. J., & Czepiel, J. A. (1984). A marketing approach for customer retention. *Journal of Consumer Marketing*, 1(2), 45-51. <https://doi.org/10.1108/eb008094>
- Sandvik, I. L., & Sandvik, K. (2003). The impact of market orientation on product innovativeness and business performance. *International Journal of Research in Marketing*, 20(4), 355-376. <https://www.sciencedirect.com/science/article/pii/S0167811603000508>
- Sardeshmukh, S. R., & Vandenberg, R. J. (2016). Integrating Moderation and Mediation: A Structural Equation Modeling Approach. *Organizational Research Methods*, 20(4), 721-745. <https://doi.org/10.1177/1094428115621609>
- Sharma, M., Sushil, P., & Jain, P. K. (2010). Revisiting Flexibility in Organizations: Exploring its Impact on Performance. *Global Journal of Flexible Systems Management*, 11, 51-68.
- Shekarian, M., Reza Nooraie, S. V., & Parast, M. M. (2020). An examination of the impact of flexibility and agility on mitigating supply chain disruptions. *International Journal of Production Economics*, 220, 107438. <https://doi.org/10.1016/j.ijpe.2019.07.011>
- Slater, S., & Narver, J. (2012). Intelligence and Superior Customer Value. *Journal of the Academy of Marketing Science*, 28, 120-127.
- Sorescu, A. B., & Spanjol, J. (2008). Innovation's Effect on Firm Value and Risk: Insights from Consumer Packaged Goods. *Journal of Marketing*, 72(2), 114-132. <https://doi.org/10.1509/jmkg.72.2.114>
- Stachowiak, A., & Oleśków-Szlapka, J. (2018). Agility Capability Maturity Framework. *Procedia Manufacturing*, 17, 603-610. <https://www.sciencedirect.com/science/article/pii/S2351978918312198>
- Swaminathan, V., Sorescu, A., Steenkamp, J.-B. E. M., O'Guinn, T. C. G., & Schmitt, B. (2020). Branding in a Hyperconnected World: Refocusing Theories and Rethinking Boundaries. *Journal of Marketing*, 84(2), 24-46. <https://doi.org/10.1177/0022242919899905>
- Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic Capabilities and Organizational Agility: Risk, Uncertainty, and Strategy in the Innovation Economy. *California Management Review*, 58(4), 13-35. <https://doi.org/10.1525/cmr.2016.58.4.13>
- Troy, L. C., Szymanski, D. M., & Varadarajan, P. R. (2001). Generating New Product Ideas: An Initial Investigation of the Role of Market Information and Organizational Characteristics. *Journal of the Academy of Marketing Science*, 29(1), 89-101. <https://journals.sagepub.com/doi/abs/10.1177/0092070301291006>
- Wang, C. L., & Ahmed, P. K. (2004). The development and validation of the organisational innovativeness construct using confirmatory factor analysis. *European Journal of Innovation Management*, 7(4), 303-313. <https://doi.org/10.1108/14601060410565056>
- Wei, Y., Samiee, S., & Lee, R. (2014). The influence of organic organizational cultures, market responsiveness, and product strategy on firm performance in an emerging market. *Journal of the Academy of Marketing Science*, 42, 49-70.
- Wei, Y., & Wang, Q. (2011). Making sense of a market information system for superior performance: The roles of organizational responsiveness and innovation strategy. *Industrial Marketing Management*, 40(2), 267-277. <https://www.sciencedirect.com/science/article/pii/S0019850110001227>
- Williams, A., & Naumann, E. (2011). Customer satisfaction and business performance: A firm-level analysis. *Journal of Services Marketing*, 25, 20-32.
- Zahoor, N., & Lew, Y. K. (2023). Enhancing international marketing capability and export performance of emerging market SMEs in crises: strategic flexibility and digital technologies. *International Marketing Review*, 40(5), 1158-1187. <https://doi.org/10.1108/IMR-12-2021-0350>
- Zhang, Q. C., & Mei (2018). Exploring antecedents of supply chain collaboration: Effects of culture and interorganizational system appropriation. *International Journal of Production Economics*, 195, 146-157.

- Zhou, J., Mavondo, F., & Saunders, S. (2018). The relationship between marketing agility and financial performance under different levels of market turbulence. *Industrial Marketing Management*, 83. <https://doi.org/10.1016/j.indmarman.2018.11.008>
- Zhou, K. Z., & Wu, F. (2010). Technological capability, strategic flexibility, and product innovation. *Strategic Management Journal*, 31(5), 547-561. <https://doi.org/10.1002/smj.830>
- Zhou, K. Z., Yim, C. K., & Tse, D. K. (2005). The Effects of Strategic Orientations on Technology- and Market-Based Breakthrough Innovations. *Journal of Marketing*, 69(2), 42-60. <https://doi.org/10.1509/jmkg.69.2.42.60756>