

Received: October 2023 Accepted: December 2023

DOI: <https://doi.org/10.58262/ks.v12i1.091>

## Marketing Agility in the Age of Digital Transformation Industrial Sector Analysis

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### Abstract

*The current study aims to analyze the concept of marketing agility in the age of digital transformation (Data-driven decision-making, Automation and personalization, Cross-functional collaboration, and agile methodology) within the Jordanian industrial sector. Quantitative methodology was adopted, and a questionnaire was distributed to a sample of (38) marketing managers within the industrial sector in Jordan. SPSS was employed to process primary data gathered; the results of the study indicated the acceptance of what the study hypothesized, arguing that digital transformation can pave the way for better marketing agility as digital transformation provides marketers with the data, automation tools, cross-functional collaboration opportunity, and agile methodology to respond swiftly and accurately to changing market conditions which helps them adapt more quickly and compete effectively. The study recommended hiring a versatile team with diverse skills can help organizations achieve better marketing agility. Further recommendations were presented in the study.*

**Keywords:** *Marketing Agility, Digital Transformation, Lean Six Sigma, Data-driven decision-making, Automation and personalization, Cross-functional collaboration, Agile methodology*

### 1. Introduction

Moi and Cabiddu (2021) argued that although studies have been conducted to examine the relationship between digital transformation and marketing agility, there is still a significant literature gap that should be addressed, despite the growing importance of digital transformation in today's business environment; there is a lack of empirical evidence showing how digital transformation initiatives impact marketing agility. Sultana et al. (2022) added that one of the key areas that need more attention is the specific digital technologies that are most effective at enhancing marketing agility. While researchers have suggested that digital transformation initiatives can help organizations become more agile, few studies have explored how different types of digital technologies, such as social media, data analytics, or automation, can improve marketing agility.

Foltean and van Bruggen (2022) noted that another significant gap in the literature is the lack of focus on the organizational factors that facilitate or hinder the relationship between digital transformation and marketing agility. Specifically, there is a need for more research exploring how leadership, culture, and structure impact the success of digital transformation initiatives in enabling greater marketing agility. Lewnes (2020) stated that there is a need for more research

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that identifies the specific challenges that organizations face when trying to become more agile through digital transformation. For example, organizations may struggle to keep up with emerging technologies or lack the necessary skills to use those technologies effectively. Understanding these challenges could help organizations to implement digital transformation initiatives more effectively and develop stronger marketing agility as a result.

However, there is a need for more research that examines the impact of digital transformation on marketing agility across various industries and contexts. Existing studies have mostly focused on specific industries or regions, and therefore more research is needed to generalize the effect of digital transformation on marketing agility across different industries, regions, and company sizes. Overall, addressing these literature gaps is essential to developing a better understanding of the relationship between digital transformation and marketing agility, and to enable organizations to implement digital transformation initiatives more successfully.

Launching from above argument, current study aimed at examining the role of digital transformation (Data-driven decision-making, Automation and personalization, Cross-functional collaboration, Agile methodology) on marketing agility within industrial sector in Jordan. The motive behind carrying out this current research is attributed to the fact that by examining the role of digital transformation in marketing agility, organizations can stay competitive in an increasingly digital and fast-paced marketplace. Furthermore, marketing agility can help organizations build a more loyal customer base by being responsive to customers' changing needs and preferences. Overall, the theoretical and practical implications of examining the role of digital transformation in marketing agility are significant for organizations looking to stay competitive and meet the ever-changing needs of their customers.

## **2. Literature Review**

### **2.1. The Concept of Agility in Industrial Sector**

Stylos et al. (2021) argued that the concept of agility has gained significant attention in the industrial sector in recent years, driven by the need for businesses to quickly respond to changing market conditions and evolving customer needs. Agility in the industrial sector can be defined as the ability of businesses to rapidly adapt their operations and processes to changing market conditions, customer demands, and technological advancements; industrial companies need to be agile to remain competitive, minimize waste and downtime, and optimize their operations for better results.

From perspective of Almahirah et al. (2020), one of the key challenges in developing agility in the industrial sector is the need to balance the competing demands of flexibility and efficiency. For instance, industrial companies must balance the need for flexible production processes that can quickly adapt to changing demands with the need for efficient, streamlined production processes that minimize waste and downtime. Additionally, agility in the industrial sector requires a culture of continuous improvement, where businesses are constantly looking to optimize their operations, reduce waste, and improve efficiency.

Awan et al. (2021) added that to become more agile, industrial businesses need to focus on several key areas. One of these is adopting a customer-centric approach, where the needs and preferences of customers are the driving force behind business operations and decision-making. This can involve using customer data and feedback to identify changing demands and trends, and to develop new products and services that align with these demands. However,

another key area for developing agility in the industrial sector is through the adoption of new technologies, such as automation and data analytics. These technologies enable businesses to improve efficiency, reduce waste and downtime, and quickly respond to changing market conditions. Moreover, industrial companies can benefit from developing a culture of continuous improvement, where employees are encouraged to constantly search for new ways to optimize processes, improve efficiency (Al Humdan et al., 2020).

## 2.2. Marketing Agility

According to Kalaignanam et al. (2020), marketing agility refers to a company's ability to make adjustments to its marketing strategy in response to changing market conditions; this requires a flexible and adaptable approach that can be quickly implemented using digital tools. From Gomes et al. (2020) perspective, marketing agility is the ability of an organization to respond quickly and effectively to changing market conditions, customer demands, and competitive pressures. In other words, it is the ability to adapt to new circumstances and adjust marketing strategies and tactics in a timely manner.

Asseraf et al. (2019) stated that marketing agility is becoming increasingly important in today's fast-paced business environment, where new technologies, global competition, and shifting consumer preferences can disrupt established marketing plans and strategies. Companies that are agile can react quickly to changes in the market, seize new opportunities, and stay ahead of the competition.

Khan (2020) argued that to achieve marketing agility, companies need to be flexible, innovative, and collaborative in their approach to marketing, they should be willing to experiment with new ideas and technologies, gather feedback from customers and stakeholders, and be open to making changes in response to new information. Marketing agility also requires a strong focus on data and analytics. Companies need to collect and analyze data on customer behavior, market trends, and competitive activity in order to make informed decisions and develop effective marketing strategies (Osei et al., 2019).

## 2.3. Dimensions of Marketing Agility

Zhou et al. (2019) stated that there are several dimensions of marketing agility that companies can focus on to become more responsive and adaptable to changing market conditions. These may include (Hajli et al., 2020):

1. Speed: The ability to quickly respond to market changes, launch new products or campaigns, and make adjustments to marketing strategies in real-time.
2. Flexibility: The ability to adapt marketing plans and tactics to changing customer needs, preferences, and behaviors, as well as to changing competitive and market conditions.
3. Customer-centricity: The ability to understand and respond to customer needs, feedback, and preferences in a timely and effective manner, and to tailor marketing messages and campaigns accordingly.
4. Collaboration: The ability to work effectively with internal and external stakeholders, including cross-functional teams, external partners, and customers, to develop and execute marketing strategies.
5. Experimentation: The ability to test and learn from new marketing approaches, technologies, and channels, and to quickly iterate and optimize marketing campaigns based on feedback and results.
6. Data-driven decision-making: The ability to collect, analyze, and leverage data and insights to inform marketing decisions and strategies, and to measure and optimize marketing performance.

Vaillant and Lafuente (2019) noted that by focusing on these dimensions of marketing agility, companies can become more nimble and responsive in their marketing efforts, better able to meet customer needs and expectations, and more successful in achieving their business goals.

## **2.4. Digital Transformation**

According to Miklosik and Evans (2020), digital transformation refers to the process of integrating digital technologies across all aspects of a business, including marketing. Digital transformation enables companies to become more agile in their marketing strategies by providing them with the tools they need to react quickly to changes in the market, in other words, it is the integration of digital technologies into all areas of a business, resulting in fundamental changes to how the business operates and delivers value to its customers. Marketing agility refers to the ability of an organization to quickly and effectively respond to changes in the market environment (Ziółkowska, 2021; Dash and Chakraborty, 2021).

Therefore, digital transformation is a vital ingredient in achieving marketing agility, as it provides the technological infrastructure and resources needed to develop and execute agile marketing strategies. By embracing digital technologies and transforming their business, companies can remain responsive and competitive in today's fast-paced business environment (Melović et al., 2020).

### **2.4.1. Data-Driven Decision-Making**

Data-driven decision-making is the process of using data analysis to make informed and evidence-based decisions. In the field of marketing, data-driven decision-making involves collecting and analyzing consumer data, such as purchase history or website browsing behavior, to identify patterns and insights that can inform marketing strategies. By applying data-driven decision-making, marketers can develop targeted and relevant marketing campaigns that are more likely to resonate with their target audience and yield better results (Rathore, 2021).

### **2.4.2. Automation and Personalization**

Automation and personalization are two key trends in modern marketing. Automation involves using software and algorithms to streamline processes and tasks, such as lead generation or email campaigns, to increase efficiency and reduce human error. Personalization, on the other hand, involves creating tailored experiences for individual customers based on their past behavior, preferences, and history with a brand; by implementing automation and personalization, marketers can deliver more relevant and engaging experiences to their customers while also reducing costs and improving efficiency (Stegmann et al., 2021).

### **2.4.3. Cross-Functional Collaboration**

Cross-functional collaboration refers to the practice of bringing together individuals from different departments or teams within an organization to work on a common goal or project. When it comes to marketing, cross-functional collaboration involves working with other teams such as sales, product development, and customer service to ensure that marketing campaigns are aligned with each team's specific goals and objectives. By collaborating across departments, marketers can gain a better understanding of customer needs and preferences, develop more effective strategies, and ultimately drive better business results (Gillpatrick, 2019).

#### **2.4.4. Agile Methodology**

Agile methodology is an iterative approach to project management that involves breaking down complex tasks into smaller, more manageable parts and continually refining them based on feedback and data. This approach is well-suited for marketing because it allows marketers to quickly respond to changing market conditions and customer needs, adapt marketing campaigns based on real-time data, and maintain a continuous feedback loop with other teams and stakeholders. By using agile methodology, marketers can improve the speed and accuracy of their decision-making, increase collaboration across departments, and ultimately deliver better results for their organization (Rathore, 2021).

#### **2.5. Reality of Marketing Agility in Jordan**

According to Khraim and Afaishat (2021), the reality of agile marketing in Jordan is still in its early stages, with many businesses yet to fully embrace this approach, the traditional marketing approach still dominates the market, with many businesses relying on long-term, predefined marketing plans that do not take into account changing market conditions or customer needs. However, there are signs that the situation is changing, with an increasing number of businesses recognizing the need to become more agile.

Mohammad (2022) argued that one of the key challenges in adopting agile marketing in Jordan is the lack of awareness and understanding of the principles and methodologies involved. Many businesses are not familiar with the concepts of iterative development, continuous feedback, or cross-functional collaboration, and therefore are not able to fully embrace agile marketing practices. Moreover, there is a shortage of skilled professionals who are knowledgeable in agile marketing, making it difficult for businesses to find people with the right expertise to lead their marketing efforts.

However, Al-Qeed (2020) stated that despite these challenges, some businesses in Jordan have already started to adopt agile marketing practices. For instance, some companies have introduced cross-functional teams that bring together individuals from marketing, sales, and customer service to work on projects collaboratively. Others have introduced agile marketing tools and platforms to facilitate iterative development and continuous feedback. Moreover, there are a growing number of workshops and training programs being offered that aim to increase awareness of agile marketing practices among businesses and professionals in Jordan.

In conclusion, the reality of agile marketing in Jordan is that it is still in its early stages. While businesses are starting to realize the benefits of being more agile, there are still several barriers that need to be overcome, including the lack of awareness and understanding of agile marketing methodologies, the shortage of skilled professionals, and the need for more education and training. Nevertheless, with an increasing number of businesses adopting agile marketing practices, it is likely that this approach will become more prevalent in Jordan in the coming years.

#### **2.6. Related Studies**

Moi and Cabiddu (2020) investigated the role of agile marketing capability in leading digital transformation in organizations using the case study of Spotahome, a leading real estate digital platform. The study adopted a qualitative case study approach that utilized semi-structured interviews and document analyses to collect data. The participants of the study were four senior managers at Spotahome, who were responsible for leading digital transformation and agile marketing capability development within the organization. The data collected were analyzed

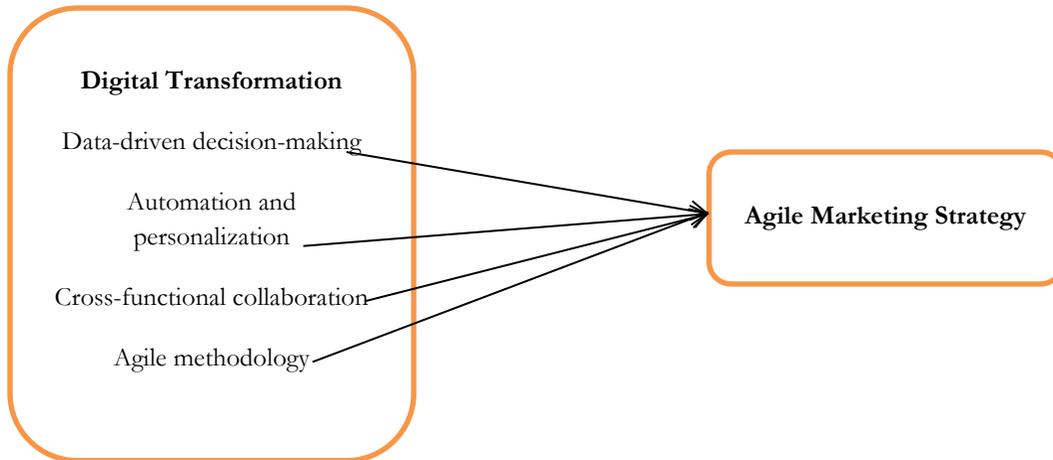
using thematic analysis. Findings of the study reveal that agile marketing capability plays a critical role in leading digital transformation in organizations. Specifically, agile marketing capability helps organizations to quickly respond to changing market conditions and customer needs, accelerate the pace of innovation and new product development, build cross-functional collaboration and break down silos within the organization, foster a culture of continuous learning and experimentation and develop a customer-centric approach to marketing and product development.

Lewnes (2020) highlighted the importance of agile marketing, to provide an overview of its key principles, and to present the benefits of adopting an agile approach to marketing. Authors identified the key principles of agile marketing, such as focusing on customer needs, embracing change, and promoting collaboration and experimentation. Moreover, the author suggests that adopting an agile approach to marketing can lead to several benefits for organizations, including more efficient and effective marketing campaigns, greater customer engagement and loyalty, increased innovation and competitive advantage, better alignment between marketing efforts and business objectives and increased employee satisfaction and engagement.

Sultana et al. (2022) investigated the relationship between data-driven innovation capability, marketing agility, and competitive performance within organizations. To achieve this aim, the researchers conducted a survey of 275 companies across diverse industries. The survey asked about the data-driven innovation capability within these companies, including the ability to collect, analyze, and leverage customer data for digital marketing purposes. The survey also asked about the agility and competitive performance of the organizations. The research found that there was a significant positive relationship between data-driven innovation capability and marketing agility. The study also revealed that organizations with higher data-driven innovation capability had significantly better competitive performance than those with lower innovation capability. In addition, the research showed that marketing agility mediated the relationship between data-driven innovation capability and competitive performance.

Foltean and van Bruggen (2022) investigated the role of digital technologies, marketing agility, and marketing management support systems (MMSS) in enabling firms to remain competitive in the dynamic and rapidly changing markets. To achieve this aim, the researchers conducted an empirical study of 85 firms from diverse industries. The survey assessed the role of digital technologies, marketing agility, and MMSS in enhancing firms' competitive performance. The survey also examined the mediating role of marketing agility in the relationship between digital technologies and MMSS on firms' competitive performance. The study's results showed that digital technologies have a significant positive relationship with MMSS, marketing agility, and competitive performance. The research also found that MMSS has a significant positive relationship with marketing agility and competitive performance. In addition, the study found that the relationship between digital technologies and competitive performance is mediated by marketing agility. Overall, the study's findings suggest that digital technologies facilitate the adoption of MMSS, which in turn enhances marketing agility and competitive performance. The study's results also highlight the importance of marketing agility in mediating the relationship between digital technologies and competitive performance. Thus, the study provides valuable insights into the role of digital technologies in enhancing marketing agility and competitiveness in dynamic markets.

So, launching from related studies above, researcher has built a study model in order to highlight the relationship between variables and from which study hypotheses were extracted:



**Figure 1.** Study Model

**Source:** Rodriguez et al. (2020); Perkin (2022); Sachdeva and Kumar (2022); Moi and Cabiddu (2020).

### Main Hypothesis

**H:** *Digital transformation is able to support better agile marketing strategies within industrial sector*

### Sub-Hypotheses

**H1:** *data-driven decision-making is able to support better agile marketing strategies within industrial sector*

**H2:** *Automation and personalization is able to support better agile marketing strategies within industrial sector*

**H3:** *Cross-functional collaboration is able to support better agile marketing strategies within industrial sector*

**H4:** *Agile methodology is able to support better agile marketing strategies within industrial sector*

## 3. Methods and Materials

### 3.1. Methodological approach and Study Tool

Achieving hypotheses of current study was done depending on quantitative approach through which numerical data was used in order to generalize results and present explanations for study phenomenon. This was done through adopting a questionnaire as a study tool, the questionnaire was built by researcher and consisted of two main sections; the first took into perspective demographics of study sample (gender, age, qualifications and experience), while the other section presented statements related to study sub-variables (Data-driven decision-making, Automation and personalization, Cross-functional collaboration, Agile methodology). The questionnaire was built on Likert 5 point scale (1) Strongly disagree; (2) Disagree; (3) Neither agree nor disagree; (4) Agree; (5) Strongly agree and was self-administered by study sample.

### 3.2. Population and Sampling of Study

Population of study consisted of marketing managers and leaders within industrial public shareholding companies in Jordan. A convenient sample of (53) marketing managers was chosen to represent population of study. After application process researcher was able to retrieve (38) properly filled questionnaires which indicated a response rate of (71.6%) as statistically accepted.

### 3.3. Statistical Processing of Primary Data

Statistical Package for Social Sciences SPSS was chosen as a tool to process primary data. The reliability of the questionnaire was analyzed using Cronbach's alpha, and the results are shown in table 1 below. All of the variables' Alpha values were more than 0.70 which was the minimum considered adequate.

**Table 1.** Reliability Test.

Variable	Alpha value
Data-driven decision-making	0.903
Automation and personalization	0.731
Cross-functional collaboration	0.797
Agile methodology	0.813
Agile Marketing Strategy	0.903

**Source:** Spss Output.

Other statistical tool used included:

- Frequency and percentage
- Mean and standard deviation

## 4. Results and Discussion

### 4.1. Demographics

Frequency and percentage were used to present results that are able to describe demographics of study sample. Following table indicated that majority of respondents were within age range of 31– 36 years forming 50% of total sample. Also, analysis indicated that majority of the sample held MA degree forming 78.9% of the sample with qualification of 6-13 years forming 52.6% of total sample.

**Table 2.** Sample Demographics.

	f	%
Age		
25-30	11	28.9
31-36	19	50.0
37+	8	21.1
Educational Level		
Diploma	1	2.6
BA	1	2.6
MA	30	78.9
PhD	6	15.8
Experience		
2-5	6	15.8
6-9	10	26.3
10-13	10	26.3
14-17	8	21.1
+18	4	10.5
Total	38	100.0

**Source:** Spss output.

## 4.2. Questionnaire Analysis

Mean and standard deviation were used in order to highlight the tendencies of respondents' answering to the questionnaire of the study. As in table below, it appeared that all statements scored higher than mean of scale 3.00 which was statistically positive. Among the highest variables appeared to be (Automation and personalization) which scored a mean of 3.99/5.00 compared to the lowest (Agile Marketing Strategy) which scored a mean of 3.07/5.00 but still positive given that it was higher than mean of scale.

**Table 3.** Descriptive Statistics

Statement	Mean	Std. Deviation
Data-driven decision-making helps marketers to identify and respond to changes in customer behavior and preferences quickly and efficiently	3.658	1.279
By analyzing customer data, marketers can gain insights into the effectiveness of their campaigns and make changes	4.342	.534
With data-driven decision-making, marketers can continuously monitor and evaluate their marketing performance	4.211	.622
Data-driven decision-making enables marketers to experiment with different tactics and strategies	3.711	1.250
Using data to inform marketing decisions helps to reduce the risk of making assumptions or basing strategies on incorrect or incomplete information	4.105	.894
Incorporating insights from customer data into their marketing strategy, marketers can optimize their campaigns based on real-time market feedback	3.816	1.205
Data-driven decision-making provide marketers with the knowledge they need to make necessary adjustments to their campaigns	4.026	.972
Agile marketing requires a high level of flexibility and responsiveness, which can be achieved through data-driven decision-making	3.447	1.288
Data-driven decision-making	3.914	.805
Automation allows marketers to focus on strategic initiatives such as content creation and marketing campaigns	3.684	1.276
Personalization helps marketers create targeted marketing campaigns aimed at individual consumers	3.947	.985
Using automation to aggregate data from multiple sources, marketers are able to personalize emails, ads, and other marketing content	4.500	.507
Utilizing automated systems and tools support marketers to focus on creative initiatives that align with agile principles	3.711	1.206
With automation, marketers can create a seamless and personalized customer experience across multiple touch-points	4.079	.969
Automation and personalization support the agile marketing goal of delivering meaningful and relevant content to consumers	3.737	1.083
Personalization driven by automation allows marketers to personalize content based on individual consumer browsing history, purchase history, and demographics	4.132	.777
Automation can help marketers respond to real-time market feedback using A/B testing and machine learning algorithms	4.132	1.256
Automation and personalization	3.990	.611
Cross-functional collaboration brings together different departments within an organization to work towards a common goal	3.763	1.364

Statement	Mean	Std. Deviation
Collaboration encourages communication between teams, fostering a culture of agility that enables quick decision-making	3.684	1.416
Collaboration facilitates knowledge sharing between teams, allowing marketing professionals to gain insights into customer behavior and preferences	3.684	1.358
Fostering cross-functional collaboration helps marketers ensure that their campaigns align with organizational goals	2.395	1.306
Cross-functional teams can share responsibilities related to marketing campaign planning, implementation, and optimization	3.395	1.220
Working collaboratively allows marketing teams to access resources and insights from other departments	3.474	1.428
Cross-functional collaboration allows for greater flexibility and responsiveness	2.500	1.310
Cross-functional collaboration	3.271	.801
Agile methodology is designed to deliver value quickly and efficiently	3.658	1.300
Agile methodology allows marketers to work iteratively, delivering small incremental changes	3.105	1.247
Agile methodology encourages collaboration, communication and alignment among teams	3.895	1.467
With agile methodology, marketers can set priorities effectively, focusing on tasks that deliver the most value in the shortest possible time	3.553	1.519
Agile methodology allows teams to adjust and pivot quickly, enabling them to respond to changes in the market and customer needs	3.500	1.573
Agile methodology emphasizes a “fail fast, learn fast” mentality that complements the agile marketing philosophy of rapid experimentation and iteration	3.500	1.520
Using agile methodology, marketers can work in short, focused sprints with measurable goals	2.368	1.324
Agile methodology	3.368	.979
An Agile Marketing Strategy is based on a data-driven approach	3.184	1.333
By incorporating Agile Marketing Strategy into their operations, businesses can break down silos and streamline their marketing process	3.342	1.529
Agile Marketing Strategy enables marketers to be quick and efficient in meeting the changing demands of the market	2.395	1.326
An Agile Marketing Strategy can help businesses stay ahead of the competition	3.553	1.350
Agile Marketing Strategy is particularly effective at helping businesses to respond to real-time market feedback	3.026	1.284
Agile Marketing Strategy can provide a high level of flexibility for marketing efforts	3.237	1.261
By embracing an Agile Marketing Strategy, businesses can deep dive into customer data quickly and leverage automation	3.368	1.496
Having an agile marketing means being flexible, innovative, and collaborative in the approach to marketing	2.500	1.351
Agile Marketing Strategy	3.076	.950

**Source:** Spss Output.

### 4.3. Multicolleniarity Test

Independent variables were subjected to VIF and Tolerance analyses to check for multicollinearity. The following are findings that may be traced back to these calculations:

**Table 4.** Multicolleniarity Test.

variable	Tolerance	VIF
Data-driven decision-making	.386	2.591
Automation and personalization	.340	2.945
Cross-functional collaboration	.185	5.403
Agile methodology	.214	4.682

**Source:** Spss Output.

There was no evidence of multicollinearity in the data because every VIF value is less than 10 and every Tolerance value is more than 0.10. A research found (Gujarati & Porter, 2009).

### 4.4. Hypotheses Testing

#### 4.4.1. Main Hypothesis

**Table 5.** Main Hypothesis Testing.

Model	Coefficients							
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	F Value	R	R Square
	B	Std. Error	Beta					
(Constant)	-.378	.598		-.632	.532	19.608	.839	.704
1								
Data-driven decision-making	.251	.180	.213	1.395	.172			
Automation and personalization	-.094	.253	-.060	-.371	.713			
Cross-functional collaboration	.840	.261	.708	3.217	.003			
Agile methodology	.030	.199	.031	.150	.882			

**Source:** Spss Output.

The aforementioned hypothesis is tested through the use of multiple regression, and the F value of 19.608 is significant at the 0.05 level. This indicates that Digital transformation is able to support better agile marketing strategies within industrial sector. The high degree of correlation ( $r=0.839$ ) also suggests that the independent variables explain 70.4% of the variation in the dependent variable.

### 4.5. Sub-Hypotheses

Sub-hypotheses were tested depending on linear regression, reading table 6 below; following findings were reached:

- The 1<sup>st</sup> hypothesis was accepted with F value of 23.267 and was significant at the 0.05 level. This indicated that data-driven decision-making is able to support better agile marketing strategies within industrial sector. The high degree of correlation ( $r=0.627$ ) also suggests that the independent variable explains 39.3% of the variation in the dependent variable.

- 2<sup>nd</sup> sub-hypothesis was also accepted with an F value of 21.445, the results was significant at the 0.05 level which indicated that Automation and personalization is able to support better agile marketing strategies within industrial sector. The high degree of correlation ( $r=0.611$ ) also suggests that the independent variable explains 37.3% of the variation in the dependent variable.

- 3<sup>rd</sup> sub-hypothesis was tested and the result indicated that F value of 76.748 , this was significant at the 0.05 level and indicated that Cross-functional collaboration was able to support better agile marketing strategies within industrial sector. The high degree of correlation ( $r=0.825$ ) also suggests that the independent variable explains 68.1% of the variation in the dependent variable.

- The 4<sup>th</sup> sub-hypothesis resulted with F value of 45.764 was significant at the 0.05 level; it indicated that Agile methodology is able to support better agile marketing strategies within industrial sector. The high degree of correlation ( $r=0.748$ ) also suggests that the independent variable explains 56% of the variation in the dependent variable.

**Table 6.** Sub-Hypotheses Testing

		Coefficients			t	Sig.		
Model	Unstandardized Coefficients		Standardized Coefficients	R			R Square	
	B	Std. Error	Beta					
1	(Constant)	.184	.612		.301	.765		
1	Data-driven decision-making	.739	.153	.627	4.824	.000		
H1: data-driven decision-making is able to support better agile marketing strategies within industrial sector								
		Coefficients			t	Sig.	R	R Square
Model	Unstandardized Coefficients		Standardized Coefficients					
	B	Std. Error	Beta					
1	(Constant)	-.716	.828		-.865	.393	.611 <sup>a</sup>	.373
1	Automation and personalization	.950	.205	.611	4.631	.000		
H2: Automation and personalization is able to support better agile marketing strategies within industrial sector								
		Coefficients			t	Sig.	R	R Square
Model	Unstandardized Coefficients		Standardized Coefficients					
	B	Std. Error	Beta					
1	(Constant)	-.123	.376		-.327	.746	.825 <sup>a</sup>	.681
1	Cross-functional collaboration	.978	.112	.825	8.761	.000		
H3: Cross-functional collaboration is able to support better agile marketing strategies within industrial sector								
		Coefficients			t	Sig.	R	R Square
Model	Unstandardized Coefficients		Standardized Coefficients					
	B	Std. Error	Beta					
1	(Constant)	.633	.376		1.684	.101		
1	Agile methodology	.725	.107	.748	6.765	.000		
H4: Agile methodology is able to support better agile marketing strategies within industrial sector								

Source: Spss Output.

## 4.6. Discussion

Current study aimed at examining the concept of marketing agility in the age of digital transformation, in other words, the main aim of the study is to explain the role of digital transformation in increasing influence of marketing agility within industrial sector in Jordan. Quantitative approach was adopted, and a questionnaire was distributed on a sample of (38) marketing managers within industrial sector in Jordan. SPSS was employed in order to screen and analyze gathered data, results of study indicated that:

### **Better Digital Transformation Means Better Agile Marketing Strategies**

Results of study accepted the hypothesis arguing that "digital transformation can support better agile marketing strategies within industrial sectors". Results were able to indicate that companies can become more agile in their marketing efforts, able to respond quickly to changing market conditions and customer needs when adopting better digital tools. Study results also highlighted that with the help of digital tools such as social media platforms, web analytics, and customer relationship management (CRM) systems, companies can gain insights into customer needs and preferences in real-time, this information can then be used to develop more targeted and effective marketing campaigns that are better aligned with customer needs and preferences. In addition, digital technologies also enable companies to experiment with new marketing approaches and channels more easily. For example, companies can quickly launch and test new digital marketing campaigns, such as social media ads or email marketing campaigns, and quickly adjust them based on real-time feedback and results, this agreed with Moi and Cabiddu (2020) and Lewnes (2020).

#### *Access to Data Means More Agile Marketing Strategies*

Digital transformation provides access to vast amounts of data on customer behavior, interests, preferences, and purchasing habits, which can be used to inform marketing strategies in real-time. Marketers can use data analytics tools to track and analyze customer interactions, feedback, and behavior, and then use this information to make decisions about their marketing strategies - this helps marketers to be more agile and responsive to changes in the market, as was reached to by Sultana et al. (2022).

In the industrial sector, a data-driven approach is becoming essential for agile marketing strategies. By utilizing data-driven decision-making, industrial marketers can identify the needs and preferences of their customers in real-time, and create targeted marketing campaigns that address those needs. With the help of data analytics, it is possible to identify the buying patterns and preferences of customers, and accordingly adjust marketing strategies. By analyzing data, marketers can determine which campaigns have been successful and which campaigns are not performing as expected, and alter them in real-time for better optimization. Therefore, it can be concluded that data-driven decision-making has the potential to support better agile marketing strategies in the industrial sector.

#### *Automation and personalization support agile marketing strategies*

Digital transformation allows marketers to automate repetitive tasks, such as email marketing, social media scheduling, and ad targeting. This enables marketers to focus more on strategic initiatives, like content creation and campaign planning. With automation, marketers can personalize their messaging and tailoring it to relevant target audience towards the goals and objectives of their brand. Automation and personalization are the two major elements that can help in supporting agile marketing strategies for industrial sectors. Automation helps to

streamline the marketing process by automating tasks and reducing the time and effort required for manual tasks. On the other hand, personalization ensures that each customer receives targeted and personalized messaging, increasing the chances of conversion. The industrial sector largely depends on repeat business and long-term relationships with customers. Personalized marketing helps create a connection with customers by catering to their specific needs and preferences. Automation further ensures that personalized marketing is scalable by reducing the manual efforts required to carry out such personalized services. Therefore, it can be concluded that automation and personalization can effectively support better agile marketing strategies in the industrial sector, matching results of Foltean and van Bruggen (2022).

#### *Cross-Functional Collaboration Paves the Way for Agile Marketing*

Digital transformation enables cross-functional collaboration between different departments in a company. For example, sales and marketing can collaborate to share customer data and develop targeted campaigns that drive conversions. By breaking down silos between departments, digital transformation creates a more integrated and efficient marketing process. In the industrial sector, cross-functional teams are often required to put together an effective marketing strategy. When cross-functional teams are working together well, they can bring different perspectives and ideas to the table, leading to a more effective strategy. Cross-functional collaboration can be used to ensure that marketing strategies are aligned with overall company goals. Additionally, different perspectives can help to identify new sales channels and market segments that may have been missed using traditional marketing practices.

#### *Agile Methodology Is Agile Marketing Strategies*

Digital transformation can enable agile methodologies such as SCRUM, Kanban, and Lean Six Sigma for marketing team sprints. These iterative methodologies can help marketing teams work collaboratively and move quickly to test, iterate and improve campaigns. In the industrial sector, agile methodology can be used to identify areas of opportunity in real-time and address them quickly with an improved marketing strategy, leading to better results. Using agile methodology, industrial marketers can quickly adjust their approach, measure results, and pivot if necessary. Agile methodology also emphasizes collaboration, which can lead to more effective teams and more robust marketing strategies.

## **5. Conclusion and Recommendations**

### **5.1. Conclusion**

According to study results, it can be seen that digital transformation gives the organization the ability to collaborate more effectively with internal and external stakeholders. Overall, there is ample evidence to suggest that digital transformation can support better agile marketing strategies within industrial sectors. Companies that embrace digital transformation and adopt agile marketing practices are likely to be better equipped to meet the needs and expectations of today's customers, and to succeed in an increasingly competitive marketplace.

### **5.2. Theoretical and Practical Implications**

There are theoretical and practical implications of examining the role of digital transformation in marketing agility are significant for both academics and practitioners. From a theoretical perspective, examining the role of digital transformation in marketing agility can help

researchers develop a deeper understanding of how digital technologies can be leveraged to enhance marketing agility. Specifically, it can lead to the development of theoretical frameworks that identify the key factors that enable digital transformation to increase marketing agility. This can help academics develop and test hypotheses that can be used to explain the relationship between digital transformation and marketing agility.

From a practical perspective, examining the role of digital transformation in marketing agility can provide insights that can help organizations improve their marketing efforts. By understanding how digital technologies can be leveraged to enhance marketing agility, organizations can implement strategies that allow them to respond quickly and effectively to changes in the marketplace. Additionally, it can help organizations identify the specific digital technologies that are most effective at improving their marketing agility, allowing them to make more informed decisions when investing in new technology.

### 5.3. Future Studies

- Researchers can use a mixed-methods approach that combines qualitative and quantitative research methodologies. This could help capture both quantitative data on the impact of digital transformation on marketing agility, as well as qualitative insights from key stakeholders in the industrial sector.
- Examine how marketing agility can be operationalized in the context of the industrial sector by providing a clear understanding of the attributes and dimensions of marketing agility and how these relate to digital transformation.
- Examine the key variables that affect marketing agility within the industrial sector, including technological capabilities, human capital, organizational structure, and external factors. Researchers could also explore the relationships between these variables and marketing agility to develop a more nuanced understanding of the impact of digital transformation on marketing agility.
- Establishing a clear and contextual understanding of what digital transformation means in the industrial sector in order to help researchers and readers better understand the objectives and impact of digital transformation on marketing agility.

### 5.4. Recommendations

Based on above results, discussion and conclusion, current study recommended:

1. Improving marketing agility requires the need to regularly seek customer feedback.
2. Digital technologies such as CRM software, automation tools, and data analytics can help industrial sector marketers improve their marketing agility.
3. Hiring a versatile team with a diverse range of skills can help organizations to achieve better marketing agility.
4. Cross-functional collaboration should be encouraged within industrial sector organizations.
5. It is important to monitor and tweak marketing strategies regularly to respond and adapt to emerging trends and industry shifts.

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