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Development of Digital Marketing Model in the B2B Commerce; a Mixed Approach

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Abstract

Purpose: This research aims to develop a digital marketing model for the business-to-business (B2B) commerce sector.

Method: This applied research, which used a mixed-methods approach, started with a qualitative phase to create initial model. This was followed by thematic Subsequently, an interpretive structural modeling at the thematic interpretive structural modeling. A quantitative validation of the model was then conducted. The qualitative sample included 15 experts, selected based on theoretical saturation. In the quantitative phase, a random sample of 384 managers from industrial companies was drawn from an effectively infinite population. Thematic analysis was used for qualitative phase, while partial least squares technique was employed in the quantitative analysis.

Findings: The qualitative phase identified key themes: infrastructure, training and learning, organizational culture, regulations, relation channels, social network, customer orientation, cost and income, investment and competitive advantages. Based on these, thirteen hypotheses were developed and tested. The results indicated that infrastructure has a significant impact on regulations, organizational culture, and training and learning; regulations have

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a significant impact on social networks; organizational culture has a significant impact on social networks and communication channels; training and learning have a significant impact on communication channels; social networks have a significant impact on customer orientation; communication channels have a significant impact on customer orientation; customer orientation has a significant impact on capital attraction, cost performance, and revenue; capital attraction has a significant impact on competitive advantage; cost performance has a significant impact on competitive advantage.

Conclusion: The study concluded that B2B digital marketing is a complex topic and B2B businesses should carefully consider the subtleties of this form of marketing.

Keywords: Business-to-Business Commerce, Digital Marketing, Digital Transformation, Technological Factors

Introduction

A few years ago, online buying and selling were considered a luxury. However, digital advancements in the business sector have occurred at such a rapid pace that ignoring digital innovations in marketing will have consequences beyond just being left behind in the competition. As Rizvanović et al. (2023) recently stated, digital marketing is no longer a choice but an undeniable necessity in the business realm. To better understand the importance of digital marketing, let's look at some numbers that demonstrate how digital marketing has completely transformed all aspects of marketing: 3.2 billion people, approximately 42% of the population, are active on social media platforms every day. According to the analysis conducted by "Global World Index," an average person spends about 2 hours and 22 minutes on the internet. 98% of sales representatives reach their sales targets using social networks. 51% of consumers identify brands and market items using their mobile devices (Shminan et al., 2023).

Perhaps B2B businesses may think they don't have the time or resources to compete in online transactions. As a result, many prefer to proceed slowly and stick to one or two traditional advertising methods, assuming that their business will evolve over time. However, the reality is that the market is competitive, and while word-of-mouth recommendations and referrals can help increase visibility, customers struggle to find your business unless you appear in the places they spend time. Nevertheless, 4.6 billion people use the internet for various reasons. This figure represents a 60% global internet penetration. In such circumstances, B2B companies have no choice but to provide the necessary platform for implementing digital marketing (Setkute et al., 2022).

While digital marketing is considered an attractive subject for B2B businesses, there are a wide range of factors that act as barriers to implementing digital marketing. The digital transformation not only imposes significant costs on organizations but also requires a considerable amount of time, which is considered wasted if the goals are not achieved, putting the organization at a disadvantage compared to others. New systems require clean, operational, and online data, and the data acquisition process requires fundamental redesign. Old systems lack the capacity to support digital systems and services, and organizations must transition from current systems to new ones. In general, as reported by other researchers, neglecting the challenges and obstacles will lead to failure in digital marketing for B2B companies (Srivastava et al., 2022) .

Digital marketing has been in the business arena in Iran for over a decade, and many companies within the country (especially industrial companies) lack a comprehensive strategy and framework for implementing digital marketing. This has resulted in a low success rate of digital marketing in domestic companies. Meanwhile, even in neighboring countries, digital marketing facilities have been significantly utilized, increasing the competitiveness of those companies. In summary, considering the aforementioned points, the main issue of this research can be conceptualized as follows: 1) the marginal share of digital marketing studies in the B2B field compared to research conducted in B2C businesses; 2) the focus of previous studies on driving factors and insufficient attention to identifying inhibiting factors in B2B digital marketing; and 3) the challenges faced by industrial companies in Iran in the field of digital marketing. Given the above, there is a need for a framework to identify the challenges and barriers to digital marketing in the B2B sector. With these explanations, the present study aims to provide a framework for the development of digital marketing in the B2B sector based on analyzing barriers and inhibiting factors. The contribution of this article is to strengthen the literature related to B2B digital marketing, which creates new insights on this topic. In addition, this paper introduces a combination of drivers and inhibitors of B2B digital marketing, which can strengthen the research literature. On the other hand, due to the use of grounded theory, the challenges of industrial companies in Iran in the field of digital marketing are also identified.

Literature Review

In its simplest yet most accurate definition, digital marketing refers to the use of digital channels or technologies to sell or advertise a product or service. Content marketing, email marketing, pay-per-click advertising, and SEO all fall under the umbrella of digital marketing. Digital marketing helps brands reach their target audience and promote their products or services. While the goal of a traditional marketing campaign is the same, digital marketing allows brands to target a more specific or niche audience. Establishing digital communication with customers helps create a broader base of customers who trust the company's brand. This is especially important for B2B businesses that deal with a wealth of customer data and often have a significant geographical distance from them (Hawaldar et al., 2022).

Industrial marketing, also known as business-to-business (B2B) marketing, business marketing, or organizational marketing, refers to the marketing of goods and services in relation to business organizations. Business organizations, or industrial organizations, include manufacturing companies, government agencies, private sector organizations, educational institutions, hospitals, distributors, or intermediaries. Industrial organizations purchase goods and services to fulfill objectives such as production, profit generation, cost reduction, and so on (Shankar et al., 2022). In contrast, consumer goods and services marketing refers to the marketing of goods and services in relation to individuals, households, and consumers. In this case, consumers purchase goods and services for their personal consumption. Companies (selling organizations) that sell products such as steel, tools, machinery, computers, travel guidance services, and other goods and services to business institutions (buying organizations) identify the needs, resources, policies, and purchasing strategies of buyers (Voola et al., 2022) **.**

In late 2018, the B2B e-commerce market reached over $1.134 trillion, surpassing the $954 billion forecasted for 2018 in a 2017 published prediction. This accounts for approximately 12% of the total $9 trillion B2B sales in that year. It is expected that this percentage will increase to 17% by the end of 2023 (Vial, 2019). The internet provides a powerful environment where businesses can gather information about products and services and lay the groundwork for future transactions between businesses. Company websites enable interested individuals to learn about a business's products and services and establish communication. Online marketplaces allow businesses to search for products and services and initiate purchases through electronic procurement interfaces. Specialized online directories provide information about industries, companies, and the products and services they offer, facilitating B2B transactions (Setkute et al., 2022)**.**

Successful business transactions in the B2B realm require planning. Such transactions rely on account management personnel to establish business relationships with customers. Business-to-business relationships also need to be strengthened, typically through pre-sales professional interactions, to facilitate successful deals. Traditional marketing methods also assist businesses in establishing connections with commercial customers. Business publications aid in this effort, providing opportunities for print and online advertising. The presence of a business at conferences and trade shows enhances awareness of the products and services it offers to other businesses (Behera et al., 2022)**.**

B2B transactions and accounts with large corporations are very common for manufacturing companies. For example, Samsung is one of the major suppliers to Apple in the production of iPhones. Apple also has B2B relationships with companies such as Intel, Panasonic, and semiconductor manufacturer Micron Technology. B2B transactions are also the backbone of the automotive industry. Many automotive parts are produced independently, and automakers purchase these parts for vehicle assembly. For example, tires, batteries, electronic components, hoses, and door locks are usually manufactured by different companies and sold directly to automakers. Service providers also engage in B2B transactions. For instance, companies specializing in property management, housekeeping, and industrial production often sell these services exclusively to other businesses (Hawaldar et al., 2022).

Digital B2B marketing refers to the market where businesses are buyers of goods and services from other businesses. These other businesses need what a commercial company has to complete their products or services (such as General Motors) or to enhance or sustain their own business operations. Therefore, the goal of digital B2B marketing strategy is to introduce the brand to other businesses, showcase the company's products or services, and demonstrate how it can directly benefit their business, ultimately converting them into paying customers. Additionally, digital B2B marketing can create long-term revenue potential with prospective customers (Dunakhe et al., 2022).

Arsova et al. (2024) investigate the application of digital marketing in shipping companies as an example of B2B business. The authors concluded that digital marketing benefits companies, in this case shipping companies. Furthermore, the findings show us that most successful shipping companies build their digital marketing on social media platforms and use a B2C marketing approach that proves successful. Ravat et al. (2024) studied the role of digital-based innovation of marketing practices in B2B firms. The paper proposes a capability model for the data-driven innovation capability of marketing that articulates building blocks according to three major phases: (1) ideation, (2) analysis, and (3) deployment. Saura et al. (2023) investigated the major strategies of digital marketing in small industrial firms. Based on a systematic review, the authors concluded that all industrial firms including small and medium-size enterprises need to implement digital marketing to survive in the current uncertain market. Zanubiya et al. (2023) studied the outcome of digital marketing in customer side. Based on the results reported by these authors, digital marketing enhances customer satisfaction which ultimately results in customer loyalty. Setkute et al. (2022) conducted a study titled "Barriers to Digital Marketing in B2B Small and Medium Enterprises (SMEs)." This study identifies internal and external factors relevant to the B2B SME domain that both influence and act as barriers to digital marketing. Ultimately, a distinct pattern of marketing approaches resulting from this combination of factors and the limited role of digital marketing in it is presented.

Srivastava et al. (2022) conducted a study titled "Identifying Critical Barriers to Digital Marketing in India." The results indicate that the most significant barrier to digital marketing is poor connectivity. The second significant factor is geographical distance. The third important factor is the lack of devices in India. The fourth important factor is the lack of modern education. Cartwright et al. (2021) conducted a study titled "Strategic Use of Social Media in Marketing (B2B): A Systematic Literature Review." This article extracts from the literature three themes of relationship-centeredness in social media, namely using them as tools for: 1) facilitating sales, 2) integrated communications, and 3) employee engagement. Hien et al. (2022) focused on examining the role of digital marketing in business development in the B2B domain. They demonstrated that this system leads to cost reduction in financial transactions, reduction in production costs, reduction in customer costs, and value creation in the supply chain. Saura et al. (2021) investigated the barriers and drivers of digital marketing in the B2B model from the perspective of industrial sellers. They showed that barriers such as technological and organizational knowledge gaps and unfamiliarity with processes are obstacles in this system, while the benefits include the development of purchasing and sales channels, market diversity, and customer satisfaction.

Method

This is an applied research conducted with a mixed (qualitative-quantitative) approach. The statistical population in the qualitative section includes 15 experts who were selected by a non-random purposeful method. The sample size was determined based on the theoretical saturation point. In the qualitative part, semi-structured interviews were used to collect data. Qualitative data analysis was performed by theme analysis using MaxQDA software.

The study population in the quantitative research consists of managers of industrial companies, especially CEOs and their deputies and senior managers, who possess skills, analytical abilities, and knowledge about various offline and online services in the industrial company domain. The sample size was calculated using the specific formula for structural equation modeling ($5Q < n < 15Q$), where Q represents the number of observed variables or the number of items (questions) in the questionnaire, and n represents the sample size. Accordingly, based on the number of items in the questionnaire, the appropriate sample size ranged from a minimum of 145 to 435 questionnaires. To ensure greater confidence, a total of 450 questionnaires were randomly distributed among CEOs and senior managers of all industrial companies. Ultimately, 408 questionnaires were received, out of which 24 incomplete questionnaires were discarded, leaving 384 complete and valid questionnaires.

In the quantitative section, a researcher-made questionnaire consisting of 27 items was used to collect data. The questionnaire items were developed based on the identified indicators in the qualitative phase of the research. To assess the reliability of the questionnaire, Cronbach's alpha coefficient was calculated, and for validity, both face-content validity (CVR-CVI) and construct validity (convergent validity and discriminant validity) methods were employed

MicMac software was used for interpretive structural modeling. For data analysis and testing research hypotheses, inferential statistics and the Partial Least Squares (PLS) technique were utilized.

Findings

The demographic characteristics of the participants in the interviews, categorized by gender, age, education, and work experience, are presented in the table below.

Table 1. Demographic Characteristics of the Experts

Demographic Features		Frequency	Percentage
Gender	Male	12	80
	Female	3	20
Age	<40	2	13
	40-50	4	27
	>50	9	60
Education	PhD	15	100

	Total	15	100

According to the frequency composition observed, 80% of the participants are men. All people have PhD degrees; 13% of the participants are under the age of 40, 27% of the participants are between the ages of 40 and 50, and 60% of the participants are over the age of 50.

To assess the reliability through test-retest method, a selected sample of interviews and the identified codes were compared for each interview with a one-month interval. The reliability percentage is calculated as follows: Reliability Percentage = Number of Agreements * 2 / Total Number of Data * 100. In this study, three interviews were selected as the sample and re-coded with a one-month interval. Considering that the test-retest reliability is 98%, which is higher than 60%, the coding reliability is acceptable.

To calculate the inter-rater reliability using the method of inter-coder agreement, a management student was requested to participate in the study as a research collaborator. The percentage of inter-coder agreement is used as an indicator of reliability. It is calculated as follows: Reliability Percentage = Number of Agreements * 2 / Total Number of Data * 100. With an inter-coder reliability of 77%, which is higher than 60%, the coding reliability is considered acceptable.

The six-step process of thematic analysis is described below. Thematic analysis is an iterative process that involves moving back and forth between the mentioned stages. The stages of thematic analysis are as follows: familiarizing with the data; generating initial codes; searching for themes. This stage involves categorizing different codes into potential themes and organizing all the coded data into identified themes. The researcher starts to analyze their codes and considers how different codes can be combined to create broader themes.

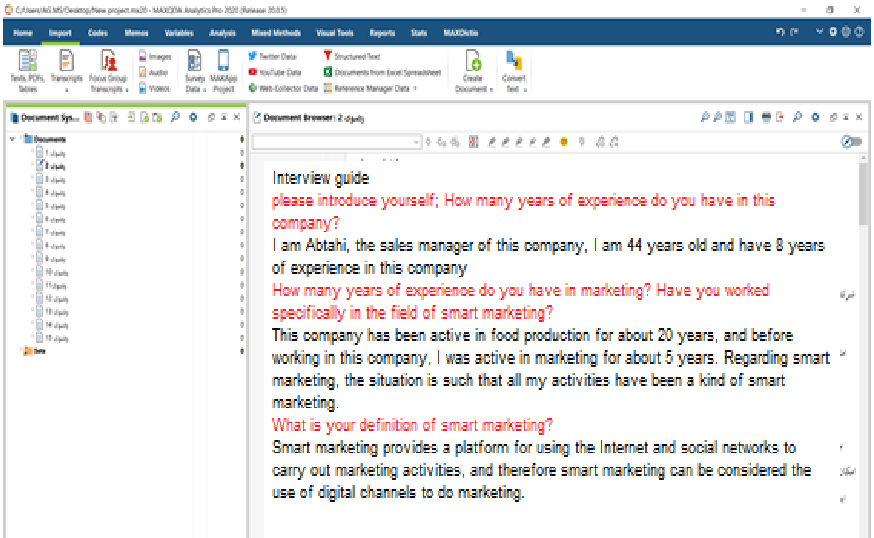

Figure 1 . Sample Code Extraction from Interview Texts

Themes Review begins when the researcher has created a set of themes and subjects them to review. This stage consists of two steps: review and refinement of themes. In this stage, several raw data with common meanings and concepts are presented in the form of an initial code, which encompasses the raw data itself.

Defining and Naming Themes starts when a satisfactory map of themes is established. In this stage, the researcher defines and reviews the themes proposed for analysis and then analyzes the data within them

Report Preparation commences when the researcher has a collection of fully developed themes. This stage involves final analysis and report writing.

Table 2 - Axial Code Table and Translation Terms.

Basic Themes	Organizing Themes	General Themes
Lack of adequate IT capabilities of customers	Infrastructure	Technological Factors
Lack of technological infrastructure		
Lack of specialized expertise in web and companies		
Big data analysis and management		

Incorrect selection of channels and gateways suitable for the target group Lack of designing and providing a suitable digital-centered method to sustain the sales process of services/products Absence of marketing channels and gateways	Communication channels	
Resistance to employee learning Lack of training content Lack of training for employees and general customers Lack of public awareness of digital marketing Knowledge deficiency in companies	Education and learning	Social and cultural factors
Lack of culture within the organization Lack of public trust	Organizational culture	
Lack of international laws and regulations Lack of operational support for web-based businesses Resistance and diminishing role of representatives Lack of economic infrastructure	Laws and regulations	

Lack of systematic strategy in utilizing digital marketing tools Lack of timely customer access to product features	Competitive advantage	Marketing factors
Lack of quick and direct customer access to the product Failure to attract interested and loyal customers Lack of creating valuable, relevant, and sustainable content Failure to generate engaging content	Customer-centricity	
Failure to select social media platforms Failure to pay expenses Lack of sales at any given time Lack of expenses on social media Lack of investment in the digital sector		

After reviewing the literature and obtaining expert opinions, while avoiding the use of the paradigmatic template as an outdated model even recommended as a minimum standard by its authors, the researcher classified the conceptually related themes. Finally, five prevalent main themes were identified, including technological factors, socio-cultural factors, legal factors, marketing factors, and financial factors. Now, Table 2 and the following tree diagrams represent the independent units of meaning and their main and sub-themes

In order to facilitate a better understanding of the extracted themes, their dimensions, and the corresponding concepts from all research topics, an attempt was made to present the extracted themes in the form of a map using MaxQda software.

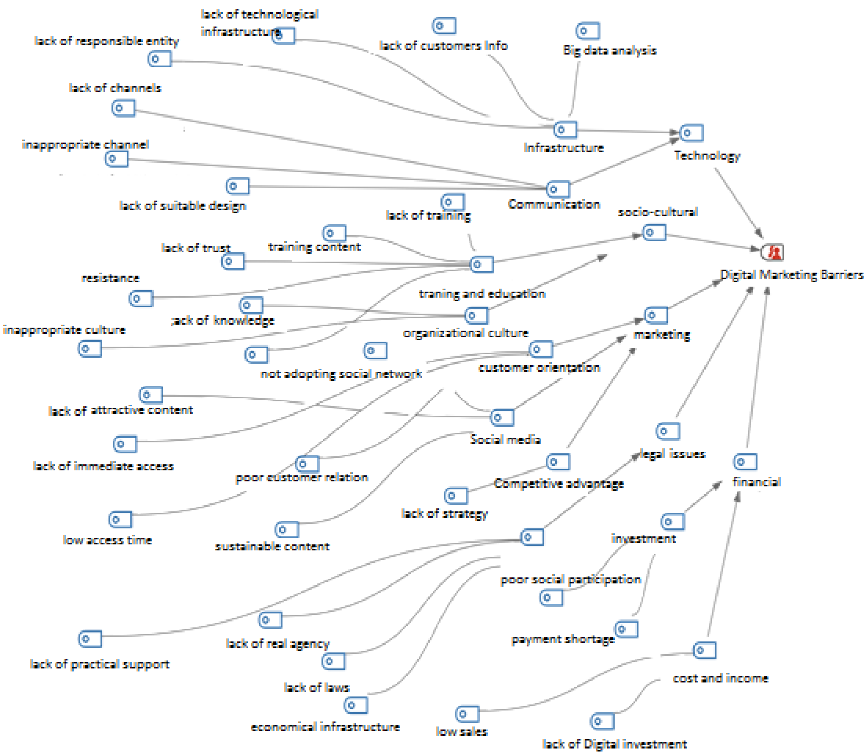

Figure 2 . Tree Diagram of Digital Marketing Barriers

A structural-interpretive modeling approach has been used to present a digital marketing development framework in the commerce sector, based on the analysis of barriers and inhibiting factors. To determine the relationships and level of criteria, the set of outputs and inputs for each criterion should be extracted from the input matrix.

- Set of attainments (row elements, outputs, or impacts): Variables that can be achieved through this variable.
- Set of prerequisites (column elements, inputs, or influences): Variables through which this variable can be reached.

Table 3 . Set of Inputs and Outputs for Level Determination

Variables	Effectiveness	Impressionability	Participation
C01	C01,C02,C03,C04,C05, C06,C07,C08,C09,C10	C01,C04	C01,C04
C02	C02,C03,C05,C06,C07, C08,C09,C10	C01,C02,C04	C02,C12

C03	C03,C05,C07,C09	C01,C02,C03,C04,C06,C08, C10	C03
C04	C01,C02,C03,C04,C05, C06,C07,C08,C09,C10	C01,C04	C01,C04
C05	C05,C07,C09	C01,C02,C03,C04,C05,C06, C07,C08,C10	C05,C07
C06	C03,C05,C06,C07,C08, C09	C01,C02,C04,C06,C08,C10, C12,C13	C06,C08
C07	C05,C07,C09	C01,C02,C03,C04,C05,C06, C07,C08,C10	C05,C07
C08	C03,C05,C06,C07,C08, C09	C01,C02,C04,C06,C08,C10	C06,C08
C09	C09,C11	C01,C02,C03,C04,C05,C06, C07,C08,C09,C10	C09,C11
C10	C03,C05,C06,C07,C08, C09,C10	C01,C02,C04,C10	C10

The set of outputs includes both the criterion itself and the criteria influenced by it. The set of inputs includes both the criterion itself and the criteria that have an impact on it. Then, the set of two-way relationships between the criteria is determined.

For variable C_i, the set of attainments (outputs or impacts) includes the variables that can be achieved through C_i. The set of prerequisites (inputs or influences) includes the variables through which C_i can be reached. After determining the set of attainments and prerequisites, their intersection is calculated. The first variable that shares the intersection with the set of attainments (outputs) determines the first level. Therefore, the first-level elements will have the highest level of influence in the model. After determining the level, the criterion with the known level is removed from the entire set, and the set of inputs and outputs is reformed to determine the level of the next variable.
Thus, Competitive Advantage (C06) is at the first level. Capital Attraction variables (C010) and Cost and Revenue Performance (C09) are at the second level. Customer-centricity (C07) is at the third level. Social Networks (C08) and Communication Channels (C02) are at the fourth level. Legal Factors (C05), Organizational Culture (C04), and Training and Learning (C03) are at the fifth level. Lastly, Infrastructure (V01) is at the sixth level.

The final pattern of identified variable levels is shown in Figure 3. In this representation, only meaningful relationships between elements of each level to the elements of the lower level, as well as significant internal relationships between elements of each row, are considered.

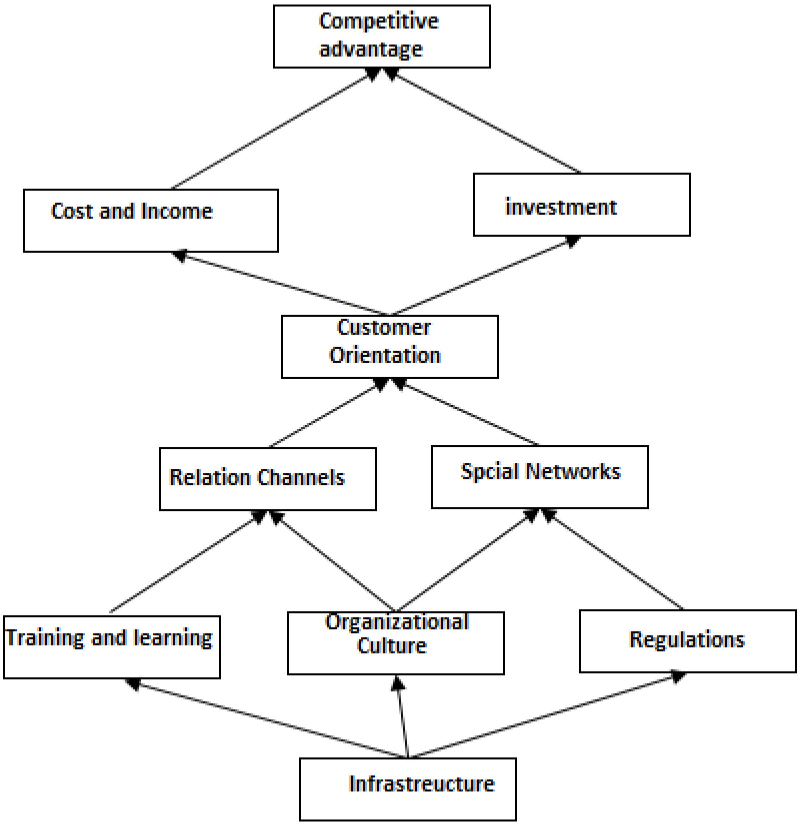

Figure 3 . Presentation of the Digital Marketing Development Model in the Commerce Sector based on the Analysis of Barriers and Inhibiting Factors

Table 3 . Validity and Reliability Values of the Questionnaire

Variables	Cronbach's Alpha	Composite Reliability	rho-A	Inter-rater reliability
Education and learning	0.939	0.954	0.939	0.805
Capital acquisition	0.887	0.947	0.888	0.899
Infrastructure	0.958	0.969	0.958	0.887
Social media	0.907	0.941	0.907	0.843
Cost and revenue performance	0.763	0.892	0.798	0.806
Organizational culture	0.863	0.936	0.863	0.880
Laws and regulations	0.890	0.925	0.895	0.754
Competitive advantage	0.849	0.930	0.849	0.869

Customer-Orientation	0.859	0.934	0.859	0.877
Communication channels	0.902	0.939	0.904	0.836

To examine the model, the Kolmogorov-Smirnov test was used to assess the distribution of variables. The significance level for the Kolmogorov-Smirnov test for the research variables is less than 0.05. Therefore, the null hypothesis is rejected, indicating that the variables are not normally distributed. Hence, partial least squares software is employed. The result of the KMO test indicates that the KMO value for all scales is greater than 0.6, indicating that the sample size is sufficient for conducting factor analysis. The Cronbach's alpha reliability values for all variables in the research model are above 0.7, indicating good reliability. The composite reliability value for all variables in the research model is above 0.7, indicating the necessary composite reliability. Additionally, the communalities value for all variables in the research model is greater than 0.5. Furthermore, based on the obtained results, it is determined that the conditions of convergent validity are also satisfied, confirming convergent validity. The results of the Fornell-Larcker test also confirm the validity of the instrument. The coefficient of determination (R2) test and the Goodness of Fit (GOF) index (equal to 0.698) also confirm a good fit of the research model.

To evaluate the fit of the structural model, several criteria are used, with the primary criterion being the significance of the T-values. The fit of the structural model using T-values is such that these coefficients should be greater than 1.96 to confirm their significance at a 95% confidence level.

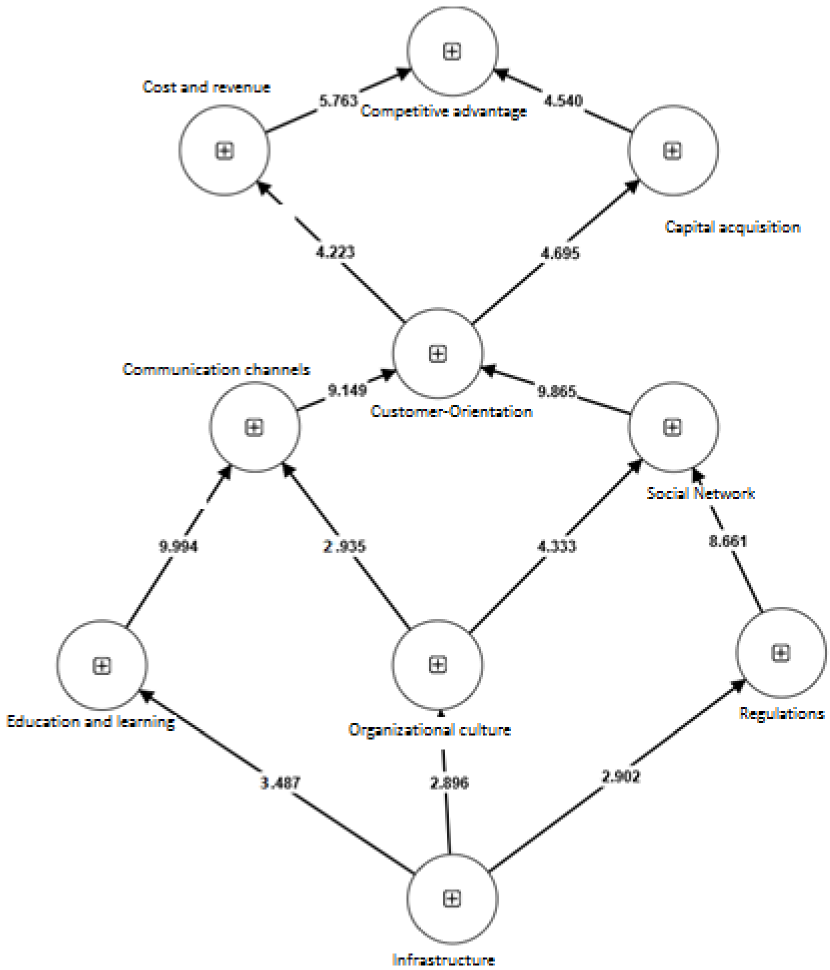

Figure 4 . Inner Structural Model with Significant Coefficients

The second criterion for evaluating the fit of the structural model in a research study is the coefficients related to latent (dependent) variables within the model. This criterion indicates the influence of exogenous variables on an endogenous variable. It considers values of 0.19, 0.33, and 0.67 as weak, moderate, and strong, respectively. If in a model, an endogenous construct is influenced by only one or two exogenous constructs, a path coefficient value of 0.33 or higher indicates a strong relationship between that construct and the endogenous construct.

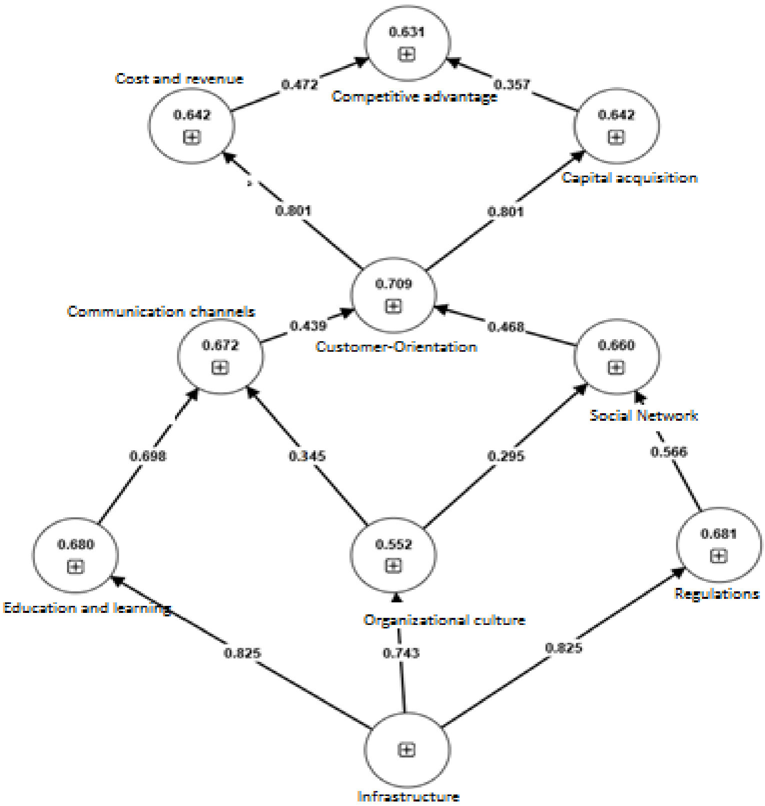

Figure 5 . Inner Structural Model in the Estimation of Standard Coefficients

Table 4. of results of research assumptions

Predictor Variable	Criterion Variable	β Path coefficient	t-value
Infrastructure	Laws and regulations	0.825	2.902
Infrastructure	Organizational culture	0.743	2.896
Infrastructure	Training and learning	0.825	3.487
Laws and regulations	Social media	0.566	4.333
Organizational culture	Social media	0.295	2.935
Organizational culture	Communication channels	0.345	2.935
Training and learning	Communication channels	0.698	9.994
Social media	Customer-centricity	0.468	9.865
Communication channels	Customer-centricity	0.439	9.149
Customer-centricity	Capital attraction"	0.801	4.695

Customer-centricity	Cost and revenue performance"	0.801	4.223
Capital attraction"	Competitive advantage	0.357	4.540
Cost and revenue performance"	Competitive advantage	0.472	5.763

- Hypothesis 1: Infrastructure has a significant impact on regulations. With a t-value of 2.902, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 825/0, it has a strong positive effect.
- Hypothesis 2: Infrastructure has a significant impact on organizational culture. With a t-value of 656/5, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 743/0, it has a strong positive effect.
- Hypothesis 3: Infrastructure has a significant impact on training and learning. With a t-value of 487/3, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 825/0, it has a strong positive effect.
- Hypothesis 4: Regulations have a significant impact on social networks. With a t-value of 333/4, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 566/0, it has a moderate positive effect.
- Hypothesis 5: Organizational culture has a significant impact on social networks. With a t-value of 333/4, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 295/0, it has a weak positive effect.
- Hypothesis 6: Organizational culture has a significant impact on communication channels. With a t-value of 935/2, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 345/0, it has a moderate positive effect.
- Hypothesis 7: Training and learning have a significant impact on communication channels. With a t-value of 994/9, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 698/0, it has a strong positive effect.
- Hypothesis 8: Social networks have a significant impact on customer orientation. With a t-value of 865/9, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 468/0, it has a moderate positive effect.
- Hypothesis 9: Communication channels have a significant impact on

customer orientation. With a t-value of 149/9, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 439/0, it has a moderate positive effect.

- Hypothesis 10: Customer orientation has a significant impact on capital attraction. With a t-value of 695/4, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 801/0, it has a strong positive effect.
- Hypothesis 11: Customer orientation has a significant impact on cost and revenue performance. With a t-value of 223/4, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 801/0, it has a strong positive effect.
- Hypothesis 12: Capital attraction has a significant impact on competitive advantage. With a t-value of 540/4, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 357/0, it has a moderate positive effect.
- Hypothesis 13: Cost and revenue performance have a significant impact on competitive advantage. With a t-value of 763/5, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 472/0, it has a moderate positive effect.
- Hypothesis 13: Cost and revenue performance have a significant impact on competitive advantage. With a t-value of 763/5, which is greater than 1.96, we conclude that the hypothesis is supported. With a standard coefficient of 472/0, it has a moderate positive effect.

Conclusion

Technological factors have been identified as the primary theme in the digital marketing development model in the business-to-business (B2B) sector. Digital marketing is essentially based on technology, and the emergence of this form of marketing is closely tied to the phenomenon of information technology. The impact of information technology on marketing should lead to customer attraction and the potential for purchase or order placement. It should be noted that the way companies utilize technology plays a key role in the development of digital marketing in B2B. In other words, based on the research literature, two factors contribute to effective marketing technology. The findings of this study are consistent with those reported by other authors (Setkute and Dibb, 2022; Srivastava and Gupta, 2022; Matt et al., 2015; Behera et al., 2022; Dunakhe and Panse, 2022).

Cultural and social factors are among the other identified themes in the digital marketing development model in the business-to-business (B2B) sector. With the emergence of transformative technologies, many companies are either transformed or disrupted. Only those who create a culture of innovation, embrace new methods of work, and place customers at the center of their strategies will succeed. Unfortunately, old habits like silo mentality, which works in a vacuum to provide technological solutions, are no longer sufficient. Organizations must adopt a customer-centric mindset and innovate from within. Many IT decision-makers believe that due to a cultural gap in delivering information technology, they are unable to deliver digital projects. On the other hand, the changes that have occurred in companies and industries over the past decade have led to increased business collaborations between different industries (B2B business development). These advancements have made organizations more interdependent. All businesses need to join and globalize to grow and expand. The findings of this study are consistent with those reported by Varshney (2020), Rizvanović et al. (2023), Wright et al. (2019), Cartwright et al., (2021), Zamani et al., (2022), Mesibi et al. (2022), and Rostamzad (2021) regarding cultural and social factors.

Legal factors are another identified theme in the digital marketing development model in the business-to-business (B2B) sector. To explain this finding, we can refer to the results obtained in a study conducted last year. According to Li (2023), only 27% of consumers fully understand how companies use their personal information, and 86% are demanding more transparency. Digital marketers are constantly faced with evolving privacy laws and the gradual elimination of third-party cookies. Furthermore, most jurisdictions worldwide have privacy protection laws that require informing individuals before collecting their personal information. Proper regulation is necessary for the development of the digital economy and informal businesses, as it can provide a framework for both buyers and sellers and ensure security and trust in the process. The findings regarding legal factors in B2B digital marketing align with the findings reported by Hien et al. (2022), Pandey et al. (2020), Behera et al. (2022), Safavi and Taherzadeh (2019), Naami, Yazdanfar and Azad (2019), and Dunakhe and Panse (2022).

Marketing factors are other identified themes in the digital marketing development model in the business-to-business (B2B) sector. Regarding these factors, components such as customer-centricity and the use of social media channels can be mentioned as tools for the development of B2B digital marketing. In fact, this result reflects the priority of customer-centricity and customer-oriented marketing for all organizational strategies in the direction of B2B digital marketing development. In fact, if a buyer is satisfied with the products and services of an organization, they will recommend it to others without any cost to you. On the other hand, an unsatisfied customer can share their dissatisfaction with others through social networks, leading to the loss of a significant portion of customers. The main pillar of any business is the customer, so their rights should be taken into account. The organization's duty towards the customer is not only to provide products or services in exchange for money but also to respect the buyer as a seller and have a friendly interaction with them. The results obtained in this study are consistent with the findings of Varshney (2020), Saura et al. (2020), Wright et al. (2019), Cartwright et al. (2021), Li et al. (2023), and Hawaldar et al. (2022).

Financial factors have been identified as another pervasive theme in the pattern of digital marketing development in the business sector. Financial management plays a central role in companies and is essential for budgeting, financial supply in financial markets, and evaluating capital investment projects and effective marketing. Nowadays, with the advent of more advanced financial analysis methods and the increasing complexity of stock markets, as well as the globalization of many companies that require external financing, financial management plays a crucial role in organizing conditions and strategic marketing. Financial considerations provide a framework for assessing economic value and determining the feasibility of marketing initiatives. Financial managers can help assess the financial impact of strategic marketing decisions and provide valuable insights. Financial analysis allows for a better understanding of financial risks and opportunities. The interaction between financial management and strategic marketing includes cost management as a key factor in gaining a competitive advantage, even in the overall strategy of gaining competitive advantage. This finding is consistent with the results of Srivastava et al., (2022), Cartwright et al., (2021), Ghorbani et al., (2022), Zamani et al., (2022), Saura et al., (2020), Shankar et al., (2022), and Voola et al., (2022).

The first hypothesis demonstrated that infrastructure has a significant impact on regulations. The findings indicate that an organization must, on one hand, have suitable information technology infrastructure, including software and hardware, and, on the other hand, have a responsible unit to monitor the proper functioning of the infrastructure in order to align its digital marketing activities with regulatory and legal factors. This finding aligns with the results of Behera et al. (2022) and Dunakhe and Panse (2022).

The second hypothesis showed that infrastructure has a significant impact on organizational culture. With a t-value of 5.656, which is greater than 1.96, we conclude that the hypothesis is confirmed. Additionally, with a standardized coefficient of 0.743, it has a strong positive impact. Since organizational culture represents organic communication within the organization, it is necessary to have the necessary infrastructure for the formation of such relationships within the organization, as previously mentioned by Shminan et al. (2023).

The third hypothesis demonstrated that infrastructure has a significant impact on training and learning. Organizational training and learning are not abstract concepts but require appropriate hardware and software equipment. Specifically, in the context of digital transformation, an organization must be equipped with the latest hardware facilities and high technical knowledge to implement training and learning programs effectively. This finding is consistent with the results of Hien et al. (2022) and Naeemi et al. (2019).

The fourth hypothesis demonstrated that regulations have a significant impact on social media. Engaging in social media activities, particularly for companies and brands, requires compliance with specific laws and regulations determined by the legal system of each country. Topics such as avoiding spreading rumors, false advertising, disclosure of advertisements, etc., all fall under the category of laws and regulations that affect a company's performance on social networks. This finding is consistent with the results of Cartwright et al. (2021) and Zamani et al. (2022).

The fifth hypothesis showed that organizational culture has a significant impact on social media. The presence of a strong and cohesive organizational culture will not only lead managers to engage in social media as brand ambassadors but also encourage employees to actively promote their organization's brand. Additionally, organizational culture, through the internalization of certain beliefs and values in employees' minds, influences their behavior on social media platforms. This result aligns with the findings of Varshney (2020) and

Raath et al. (2020).

The sixth hypothesis demonstrated that organizational culture has a significant impact on communication channels. This hypothesis indicates that the way communication is established between an organization and its customers, particularly in the B2B domain with another business entity, depends on the organizational climate and culture. If the organizational culture is based on value creation and customer-centricity, the likelihood of successful long-term relationships with customers increases. This finding is in line with the results of Shankar et al. (2022) and Setkute and Dibb (2022).

The seventh hypothesis demonstrated that training and learning have a significant impact on communication channels. Nowadays, communications have become an inseparable component of all marketing activities. In such circumstances, relying solely on employees' inherent intelligence and personal skills is not sufficient; adequate training must be provided to employees. This finding aligns with the results of Cartwright et al. (2021) and Li et al. (2022).

The eighth hypothesis demonstrated that social media has a significant impact on customer orientation. This finding highlights the importance and high potential of social media in building close relationships with customers and aligning marketing efforts with customer needs. In other words, social media provides organizations with valuable feedback to align their products and services with customer needs. This result is consistent with the findings of Pandey et al. (2020), Behera et al. (2022), and Safavi and Taherzadeh (2019).

The ninth hypothesis demonstrated that communication channels have a significant impact on customer orientation. Customer orientation is not possible without establishing a relationship with customers. Therefore, an organization must first establish a long-term relationship with customers through appropriate communication channels and then offer products and services that align with their needs. This finding is in line with the results of Varshney (2020), Ravat et al. (2020), and Jaas (2022).

Hypothesis ten demonstrated that customer-centricity has a significant impact on capital acquisition. Through customer-centricity and identifying customer needs, an organization can identify financial bottlenecks and take appropriate measures to attract capital. This notion has also been addressed by Shankar et al. (2022) and Setkute et al. (2022).

Hypothesis eleven showed that customer-centricity has a significant impact on cost and revenue performance. The findings suggest that one of the benefits of customer-centricity is determining the needs of target customers, enabling the organization to allocate its financial resources in a way that not only saves costs but also fulfills customer demands. The results align with the findings of Shankar et al. (2022) and Varshney (2020).

Hypothesis twelve indicated that capital acquisition has a significant impact on competitive advantage. Gaining a competitive advantage requires sufficient financial capacity to execute organizational plans. As financial difficulties are a common problem for many organizations, attracting capital enhances the organization's financial capacity, thereby increasing its ability to implement plans and improving its competitive strength. The results align with the findings of (Rath et al., 2020; Wright et al., 2019; Li et al., 2022; and Shminan, 2023).

Hypothesis thirteen demonstrated that cost performance has a significant impact on competitive advantage. Cost performance implies that senior managers have full control over the organization's income and expenses, and by adopting approaches such as cost leadership and financial efficiency, they can gain a larger market share, leading to an increase in competitive advantage for the organization. The findings align with the studies of Naami, Yazdanfar, and Azad (2019) and Rizvanović et al. (2023).

Based on the results, some practical suggestions are provided as follows:

It is recommended to provide technological infrastructure and big data analysis to institutionalize digital marketing in the organization. Considering the resistance of employees to digital transformations, it is recommended to allocate more funds and prepare appropriate educational content for employees to learn. Aligning the organization's internal laws with national digital laws and regulations, as well as hiring a legal consulting team is recommended. It is recommended to produce attractive content and choose popular social networks such as Instagram for success in digital marketing.

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