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RESEARCH ARTICLE **Open Access**

Designing and Validating an Integrated Digital Marketing Model

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Abstract

This research aims to design an integrated model for digital marketing based on marketing intelligence and validate the model in the ISACO Company. The research uses a mixed-methods descriptive survey design. In the qualitative phase, the model and nine theoretical hypotheses were proposed using grounded theory and a semi-structured questionnaire. Fourteen academic experts and managers in the area of marketing and sales were interviewed until theoretical saturation was achieved. Then, the model and proposed hypotheses were validated using the quantitative method of structural equation modeling. A questionnaire rated by the Likert scale was distributed among 340 active employees in the relevant areas to the research topic with at least a Bachelor's degree chosen by the convenience sampling method in the ISACO Company and affiliated companies. The structural model and hypotheses related to causal factors, core category, contextual factors, strategies, and consequences (except the moderating role of environmental factors) were validated by the research findings.

***Key words**:* Digital Marketing, Marketing Intelligence, Promotional Activities, ISACO Company, Grounded Theory

Introduction

In today's business environment, all companies are undoubtedly seeking more profitability and sale. However, the competition level has increased, and the products are sold hardly because of the large number of competitors and diversity of products and services provided daily (De Ruyter et al., 2018). In this regard, companies are trying to attract and motivate customers to purchase their products or services through promotional activities and advertising on different media (Mogaji et al., 2020). On the one hand, advertising on collective media, particularly on the national media, leads to great costs for companies, and most companies do not have the financial ability to attend advertising on these media continuously (Kim et al., 2019). The audience's pessimism and lack of interest in advertisements have also caused further problems (De Pelsmacker et al., 2018). Nevertheless, companies need to hold a relationship with customers so that they can send them their products, use their ideas, and learn from them, and meet their social requirements (Lankova et al., 2018). Meanwhile, in recent years, one of the most applicable approaches to make advertising and promotional activities effective was the use of social media on the web (Eckler and Bolls, 2011).

Virtual space is shaped based on social structures, and technological growth, media convergence, and their relevant issues in different social conditions have had diverse outcomes (Seo and Park, 2018). Therefore,

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high diversity of tools in such medium enables companies to establish a relationship with a large range of their potential customers (Guesalaga, 2017). Thus, the growth of social media and increasing use of them by customers have turned these media into a unique tool to build a relationship between the company and customers and conduct marketing activities (Ueda and Ban, 2014).

The social media revolution has transformed the communication outlooks and has significantly affected marketing communications. Such a revolution has led to huge changes in the practices and approaches linked to the marketing activities of companies and mainly their activities in the field of branding and brand management. The rise in the value of social media applications in the lives of clients has been able to affect their communication habits in a significant way (Kafilaleh and Et al., 2021).

Accordingly, it seems the effectiveness of promotional activities and companies' advertising to a great extent rely on marketing activities in today's media space referred to as digital marketing.

De Ruyter et al. (2018) believe that digital marketing based on social media can be defined as an attempt to use these media in order to persuade customers to consume the products or services of a company.

Today, social media has a significant effect on all aspects of life in human societies, including political, economic, communication and interaction. With the advent of diverse social media, consumers are increasingly using these media to gather information about their decisions. Today, social mediais one of the most powerful marketing tools that many world famous brands are not unaware of (Majidian, Mahmoudzadeh Vashan & Hakimpour, 2021).

Guesalaga (2016) also believes that the main purpose of digital marketing is to establish a business based on customer orientation and the credibility of a company to develop and manage work. Rezaei et al. (2017) also noted that in digital marketing, companies mainly focus on being viewed using different techniques because, in traditional marketing, the marketing message is ignored by many receivers due to various causes.

On the other hand, Kotler (2006) believes that marketing is not a stochastic phenomenon but the result of careful planning, design, and execution. Kotler (2006) also notes that although marketing activities are improving continuously in all industries, marketing excellence is hard to achieve. Indeed, increasing complexities and severe competition in the working environment have doubled the need for adequate and effective market inspection. Therefore, it is necessary to monitor the business environment and the market using a strategic approach, and suitable marketing strategies are designed and executed based on environmental evolutions. In this regard, Mostaghel et al. (2019) believe that having an intelligent system for marketing activities is an essential factor to identify the surrounding environment, prepare effective marketing plans, and implement the plans accurately and timely. They noted that marketing intelligence provides a set of processes and resources utilized by managers to achieve intelligent capabilities of dynamic market concerning the development trend of promotional activities for trading and servicing businesses. Rakthin et al. (2016) also stated that the fundamental purpose of marketing intelligence is to help marketing managers adopt intelligent and strategic decisions facing them every day in various areas of their effectiveness-based responsibilities. Therefore, in recent years, marketing intelligence has been introduced as a vital tool to realize marketing strategies in line with the effective implementation of promotional activities and advertising in various companies.

The Iran Khodro Spare Parts and After-Sale Services Company (ISACO), as an economic firm benefiting from electronic business infrastructures on the Internet for sale and

after-sale agents network, is not excluded from performing marketing activities on the web. Undoubtedly, regarding specific features of this company, products, a wide range of customers, and increasing competition in the spare parts market, company's managers are required to implement digital marketing tools to establish marketing strategies successfully, as well as to benefit from marketing intelligence to identify critical success factors and factors affecting business goals in the volatile competitive and economic conditions.

In this regard, a look at the above literature review indicates that companies have tried to improve the effectiveness of their promotional activities using different strategies and approaches. In this respect, Mogaji et al. (2020) and Ueda and Ban (2014) showed that the use of capacities of virtual space plays an instructive role in implementing the marketing activities. In addition, Mostaghel et al. (2019) and Rakthin et al. (2016) believe that success in digital marketing necessitates an intelligent system for marketing activities. Summarizing the review of the literature shows that although the topic has been regarded by researchers in recent years, no certain model has been provided to represent how web-hosted marketing activities based on intelligent marketing systems can be integrated to enhance the effectiveness of promotional activities and advertising. Therefore, this research aims to bridge the gap in this respect. In the first step, it is tried to present an integrated digital marketing model based on marketing intelligence in order to increase the effectiveness of promotional activities in the ISACO Company. Then, the proposed hypotheses are tested to validate the categories and their relationships structured in the model.

Theoretical Foundations

Digital marketing

Marketing is the only business activity whose main role is to understand the needs, wants and preferences of customers and satisfy their needs in a way better than the competitors. The marketing capabilities can be known as the enterprise ability to understand the market and the customer relationship (Hosseini Astaraei and Et al., 2019).

Many researchers define digital marketing as advertising and promoting products and brands among consumers via all digital media and touchpoints (Wanjuki, 2014). Although digital marketing is highly similar to internet marketing, digital marketing is something beyond internet marketing because it gets rid of a single touchpoint and gets access to all digital media (Chaffey and Smith, 2013). Therefore, the term "digital marketing" seeks to provide marketers with all interactive digital instruments to advertise and promote products and services, besides developing more direct and individual relationships with consumers (Kannan and Li, 2017).

Some other researchers stated that digital marketing is similar to electronic marketing in concept and meaning. In this view, digital marketing is associated with marketing management and execution using electronic media, such as web, wireless media, interactive television, and email, along with digital data on customers' characteristics and behaviors (Clarke and Svanaes, 2012). In addition, the Institute of Direct and Digital Marketing (IDM) has stated a more accurate explanation of digital marketing, as follows: the use of technologies providing an online channel with the market, such as web, email, databases, mobile devices, wireless, and digital television. Digital marketing supports marketing activities aiming at earning more profit and retaining customers in a multi-channel purchase process and customers' lifecycle to achieve the goal in this definition (Kannan and Li, 2017).

Researchers believe that social networks can reduce marketing costs, improve the interaction between consumers and firms, and increase the efficiency of promotional and advertising activities (Mogaji et al., 2020). Social media-based digital marketing is a process in line with producing attractive

content and grabbing the visitors' attention so that the target content is shared by visitors on social networks and the internet effectively, and consequently the goals of social networks marketing is fulfilled with no cost through social networks (Kim et al., 2019).

So far, several models have been proposed for digital marketing. Table 1 presents some of the most important models.

Table 1.
Digital marketing models (Source: Hanlon and Chaffey, 2013)

Model name	Model steps and elements
STDC model proposed by Avinash Kaushik	This model is the abbreviation for "See-Think-Do-Care," which is a desirable model because it is from the customer view rather than the firm view. This model delivers the right message to the customer at the right time. Many marketing efforts only pay attention to individuals who are at the conversion stage (Do stage). This causes to resign those who are accessible while they still are at the initial stages (See-Think stage). The Care stage is also related to creating loyalty and remarketing.
ACCD model	This model converts individuals into its customers through four stages, namely Attract, Convert, Close, and Delight.
RACE model	This model was published by Chaffey (2012) and revisited in 2015. The model includes four stages, namely Reach, Act, Convert, and Engage. Besides these stages, this model states key performance indicators for each stage.
HoneyComb model	This model was introduced by three Canadian professors and was specially designed for social media strategies. It includes seven elements, namely Identify, Presence, Relationships, Reputation, Groups, Conversations, and Sharing. This model suggests a clear approach to understanding the aspects of social media and its role in your social media strategies.
4Cs model	This model is the digital application of the 4Ps model proposed by Philip Kotler in the marketing mix. The model includes Cost, Convenience, Customer value, and Communication, and it applies to digital projects such as the development of websites and programs.

Marketing Intelligence

As noted in previous sections, nowadays, various tools are used to overcome difficulties in marketing activities in the existing competitive environment, such as intelligence of marketing systems. It should be noted that intelligence is different from data and information because intelligence requires a type of analysis aiming at conceptualizing data and information that may be latent in an organization. Nowadays, experts consider the concept of intelligence as a process improving competitiveness and strategic planning (Rakthin et al., 2016). Marketing intelligence is daily information on changes in the marketing environment that helps managers to prepare and conform marketing plans. Indeed, a marketing intelligence system specifies what intelligence type is required to be received from the environment and delivered to the organization (Falahat et al., 2020). Rakthin et al. (2016) also believe that marketing intelligence is not merely market research but a practical intelligence to help managers.

Tan and Ahmed (1999) proposed the most comprehensive definition of marketing intelligence as "a continuous and interactive structure of individuals, equipment, and procedures to collect, classify, analyze, and distribute relevant, timely, and accurate information to be used by marketing decision-makers in order to enhance their marketing planning, implementation, and control" (Hajli and Larouche, 2018). In addition, Kotler states that marketing intelligence is everyday information on the changes in the marketing

environment that help managers to prepare and adopt marketing plans. The marketing intelligence system characterizes the kind of intelligence that should be received from the environment and delivered to the organization (Lee and Kotler, 2011).

Nadareishvili (2017) notes that marketing intelligence systems enable companies to respond to customers' needs. He believes that when the company presents products and services, marketing managers assess customer satisfaction using marketing intelligence systems. Marketing intelligence systems provide managers with market information that may be used to adjust, improve, or stop the production process (Falahat et al., 2020). In the competition era, companies not benefiting from marketing intelligence systems may not perform effectively and efficiently. Therefore, marketing intelligence systems are an essential tool for companies to compete in the market (Rakthin et al., 2016).

Generally, a marketing intelligence system has some features as follows:

1. Relevance: Intelligence should provide main decision-makers with important information related to the situation and avoid reporting irrelevant and unimportant information.
2. Usefulness: Intelligence should be useable and understandable for managers, motivate them, and provide information in a way that they can utilize it in different areas.
3. Timeliness: Intelligence should be delivered to the receiver at the right time so that the receiver can make effective decisions. Also, its security should be considered.
4. Accuracy and precision: Intelligence should really be correct, analyzes should be conducted accurately according to different conditions, information receiver should trust in the sender, and, finally, the intelligence should have the highest quality.
5. Goals: Intelligence should be free of orientation and inclination, personal views should be specified as individual opinions, and intelligence should concentrate on organizational goals.
6. Completeness: Intelligence should involve all possible procedures and cases, be analyzed truly, and be clear and transparent to decision-makers (Fahey, 2007).

Promotional Activities

Promotional activities comprise all measures taken to give notice or persuade customers and the target community to use products or services. Holzer (2020) believes that the aim of promotion is to raise awareness, attract customers, increase the sale of products, and create an authentic trademark. Promotion is a type of direct marketing and marketing via email and virtual networks but differs from other marketing methods in presenting a credit in response to the purchase of a product in order to motivate customers. All promotion methods in marketing aim to increase awareness and product demand (Karimi Harisiri, 2016).

The implementation of promotion in marketing requires specifying the company's goals. Generally, some marketing plans are used to attract new customers, and some serve to stabilize the position of the business or product in the market (retaining potential customers). Marek and Jolanta (2015) believe that in the promotion method, the target market and special customers should be determined based on which one can establish and implement marketing campaigns and prevent extra costs. Nowadays, various methods are used for promotion and advertising, such as radio advertising, television advertising, printed advertising, electronic advertising, word-of-mouth advertising, and public advertising. In the following, the research methodology is described.

Research Methodology

This research aims firstly to design an integrated digital marketing model based on marketing intelligence to increase the effectiveness of promotional activities and

secondly to validate the model based on field data in the target population. Therefore, the research is an applied study regarding the purpose and descriptive survey in terms of the research implementation strategy. In addition, the research is conducted as both library study and field study (semi-structured interviews and two questionnaires). The study is a mixed-methods (qualitative-quantitative) research regarding the type of data and cross-sectional research in both qualitative and quantitative phases in terms of the time period.

The statistical population in the model presentation phase included a number of academic experts and executive managers in the area of marketing and digital selling in the ISACO Company. Also, the sample was chosen using the purposive judgmental sampling approach until theoretical saturation was achieved. Fourteen experts (five academic experts in marketing and nine people among marketing and sales managers at ISACO Company and affiliated companies) were identified and participated in interviews. In addition, the statistical population for the model validation stage included all managers, experts, and employees of the company and affiliated companies in the area of marketing and sales with at least a Bachelor's degree. The sample size was determined 340 people based on the rules for structural equation modeling (at least five and at most 10 cases per indicator for a normal distribution), and the questionnaires were distributed using convenience sampling.

This research was organized in two general phases. In the first phase, the grounded theory was used to present an integrated digital marketing model based on marketing intelligence. In this regard, the themes and categories related to the research subject were identified using open coding. Then, the structural model and hypotheses were derived using axial and selective coding. In addition, in the second phase, it was tried to validate the structural model, and the relationships between the categories based on structural equation modeling were tested.

The validity of the interview results was tested using the credibility and confirmability criteria based on reviewing the interviewees' oral expressions. In addition, the reliability of interviews was evaluated using the pretest method. For this purpose, three interviews were selected among interviews, and each was coded twice by the researcher with a time distance of 15 days. The value of 89.28% for the reliability of the pretest indicated that the coding of interview texts in the two different periods was nearly 90% similar. Also, a questionnaire containing 68 items rated by the five-point Likert scale was designed and distributed among the marketing and sales employees in the studied population to validate the structural model derived in the qualitative phase. Generally, the structural model of the research is composed of eight reflective measurement models. The reliability of the reflective measurement models was evaluated by SmartPLS using two different indicators, namely the reliability of observed variables (indicator reliability) and composite reliability. Table 2 represents the results.

Table 2.
Reliability tests for reflective measurement models

Latent variable	Composite reliability	Observed variable	Number of items	Factor loadings	T-value
Marketing intelligence antecedents	0.845	Individual factors	8	0.889	34.789
		Organizational factors	9	0.865	33.314
Marketing intelligence process	0.796	Determining the type of information required	3	0.747	24.770

Latent variable	Composite reliability	Observed variable	Number of items	Factor loadings	T-value
		Determining the information resources	2	0.688	17.853
		Analysis of information collected	2	0.695	16.819
		Continuous use of market-related information	2	0.679	16.576
Environmental factors of marketing intelligence	0.757	Legal and political factors	2	0.652	12.559
		Economic factors	2	0.690	16.410
		Cultural and social factors	2	0.697	16.437
		Technological factors	2	0.555	8.227
		Competitive factors	2	0.621	11.799
Contextual factors of digital marketing process	0.796	Marketing channels with customers	3	0.763	21.543
		Content marketing	4	0.693	19.138
		Marketing information system	3	0.722	19.903
		Marketing strategies	4	0.633	13.179
Digital marketing process	0.808	Planning for digital marketing strategies	3	0.700	18.892
		Audience recognition and customer acquisition	2	0.711	17.470
		Customer decision to purchase	2	0.657	13.519
		Implementing the purchase process	2	0.649	13.627
		Establishing electronic customer loyalty	2	0.664	15.431
Digital marketing consequences	0.833	Consequences of advertising scope	4	0.785	27.124
		Consequences of promotion scope	2	0.734	23.315

The absolute value of factor loadings was greater than 0.4, and t-values were larger than 1.96. Thus, the reliability of indicators was confirmed. In addition, the value of composite reliability for variables was above 0.7, indicating that composite reliability was also confirmed. In addition, the validity of reflective measurement models was assessed by SmartPLS software using two criteria, namely convergent validity and discriminant (divergent) validity. In this research, discriminant validity was evaluated at the construct level, i.e., the Fornell-Larcker criterion.

Table 3.
Convergent and discriminant validity of reflective measurement models

Latent variables	Individual factors	Organizational factors	Marketing intelligence process	Contextual factors of digital marketing	Digital marketing process	Advertising effectiveness	Promotional activities
Individual factors	AVE=0.570 √AVE=0.755						
Organizational factors	0.726	AVE=0.521 √AVE=0.722					
Marketing intelligence process	0.599	0.625	AVE=0.594 √AVE=0.770				
Contextual factors of digital marketing	0.574	0.576	0.603	AVE=0.596 √AVE=0.772			
Digital marketing process	0.551	0.630	0.549	0.563	AVE=0.558 √AVE=0.747		
Advertising effectiveness	0.495	0.582	0.591	0.511	0.596	AVE=0.659 √AVE=0.812	
Promotional activities	0.418	0.508	0.464	0.441	0.507	0.581	AVE=0.662 √AVE=0.789

Since the value of AVE for all latent variables is greater than 0.5, all latent variables were explained by associated observed variables, and convergent validity of reflective measurement models was confirmed. Also, since the values on the main diagonal (√AVE) for each latent variable were larger than the correlation between the corresponding variable and other reflective latent variables in the model, discriminant validity for each reflective measurement model was confirmed. Now, the research findings are analyzed.

Grounded Theory Findings and the Model

After collecting data and interviews, it was tried to draw the theory using the grounded theory based on open, axial, and selective coding. In the following, the three-stage procedure of grounded theory is described.

Stage 1 (Open coding): Based on the findings in this section, 195 codes (oral expressions) were extracted from interviews and formulated as 68 codes (selected concepts). Also, the concepts were categorized into 22 sub-categories. Then, sub-categories were classified into eight main categories. Table 4 shows the results of open coding.

Table 4.
Open coding of interviews

Main category	**Sub-category**	**Selected concept**
Marketing intelligence antecedents	Individual factors	High technological and scientific knowledge
		Risk-taking
		Job position
		Income level
		Working experience
		Innovativeness
		Having internal motivation
		Responsiveness
	Organizational factors	Establishing a supportive organizational culture
		Organizational entrepreneurship

Main category	Sub-category	Selected concept
		Organizational flexibility
		Employees' participation in the decision-making process
		Designing an appropriate structure for the marketing intelligence unit
		Strategic management of financial resources
		Strategic management of organizational talents
		Designing motivational packages for marketing intelligence
		Appraisal and presenting appropriate feedback
Marketing intelligence process	Determining the type of information required	Contents generated on digital marketing channels of competitors
		Trend analysis of environmental digital marketing networks
		Customers and consumers' information
	Determining the information resources	Intra-organizational information resources
		Inter-organizational information resources
	Analysis of information collected	Qualitative information analysis instruments
		Quantitative information analysis instruments
	Alterative use of market-related information	Using the information in the decision-making process
		Using information to monitor the market environment
Environmental factors of marketing intelligence	Legal and political factors	National-level rules and policies
		Market and industry-level rules and policies
	Economic factors	Internal economic factors
		External economic factors
	Cultural and social factors	Cultural factors
		Social factors
	Technological factors	Technological tools for marketing
		Technological and structural contexts
	Competitive factors	Competitive position analysis based on Porter's Five Forces
		Competition based on pricing
Contextual factors of digital marketing process	Marketing channels with customers	B2B marketing channel
		B2C marketing channel
		C2C marketing channel
	Content marketing	Determining the goals of the message content (based on the target market)
		Planning and content generation
		Content publishing and distribution
		Content assessment and promotion
	Marketing information system	Determining information resources required for marketing procedure
		Structure of input information for marketing information system
		Output for marketing information system
	Marketing strategies	Explaining the marketing goals and perspectives
		State analysis based on SWOT matrix
		Formulating a strategic marketing plan
		Determining the marketing and budgeting tools
Digital marketing process	Planning for digital marketing strategies	Formulating digital marketing plans
		Implementing digital marketing plans
		Controlling and evaluating the plans
	Audience recognition and customer acquisition	Customer identification and acquisition methods
		Customer acquisition instruments

Main category	Sub-category	Selected concept
	Customer decision to purchase	Customer awareness of products
		Customer perceived value
	Implementing the purchase process	Customer stimulation to purchase
		Planning for customer relationship continuance and repurchase
	Establishing electronic customer loyalty	Enhancing the quality of electronic services
		Continuance of electronic satisfaction
Digital marketing consequences	Consequences of advertising scope	Branding and brand introduction
		Reducing the advertising cost
		Quick interaction with customers
		Customer access to product information
	Consequences of promotion scope	Increasing the sale level
		Developing the target markets
		Increasing the number of customers

Stage 2 (Axial coding): This stage aims to establish a relationship between dimensions (categories) produced in the open coding stage. This task was fulfilled based on the paradigm model. The core category identified in this research was "marketing intelligence process," and other categories were presented as causal conditions, contextual conditions, intervening conditions, strategies, and consequences, as seen in Figure 1.

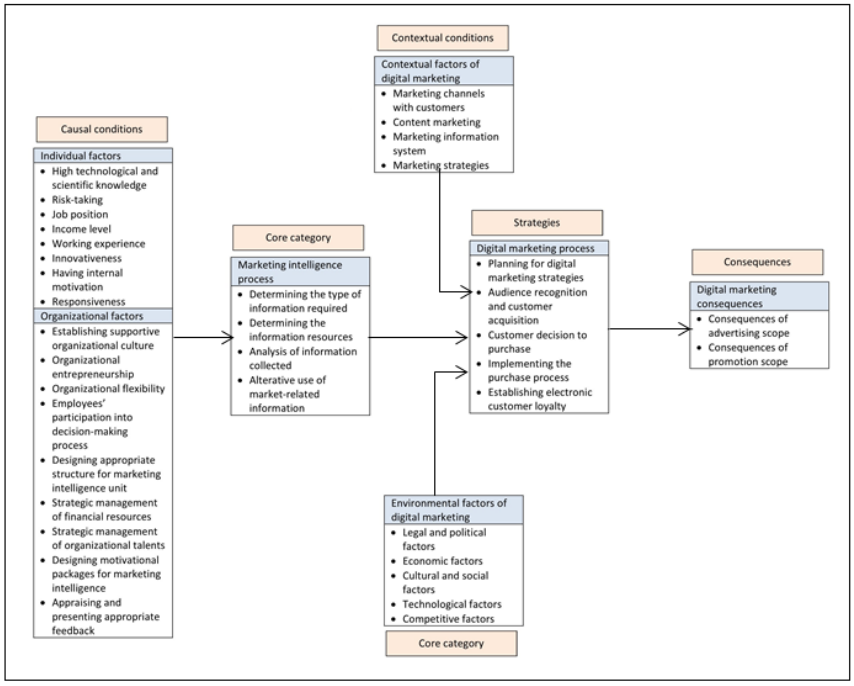

Figure 1. The paradigm model for integrated digital marketing model based on marketing intelligence

Stage 3 (Selective coding): As noted before, this research examines an integrated digital marketing model based on marketing intelligence for ISACO Company. Some new categories were revealed based on which open coding table was designed. Then, in the axial coding stage, further categories were developed based on the paradigm model

around the category of "marketing intelligence process" as the main category, and some relationships between the new categories and the core category were established. Figure 2 represents the selected model.

Theoretical Propositions

Theoretical propositions show a general relationship between the core category and other categories so that they lead to final results and consequences. Propositions include conceptual relationships and structures presented in Figure 2. Nine propositions were stated, and it was tried to express these propositions as research hypotheses. Then, the model was validated, and research hypotheses were tested by structural equation modeling.

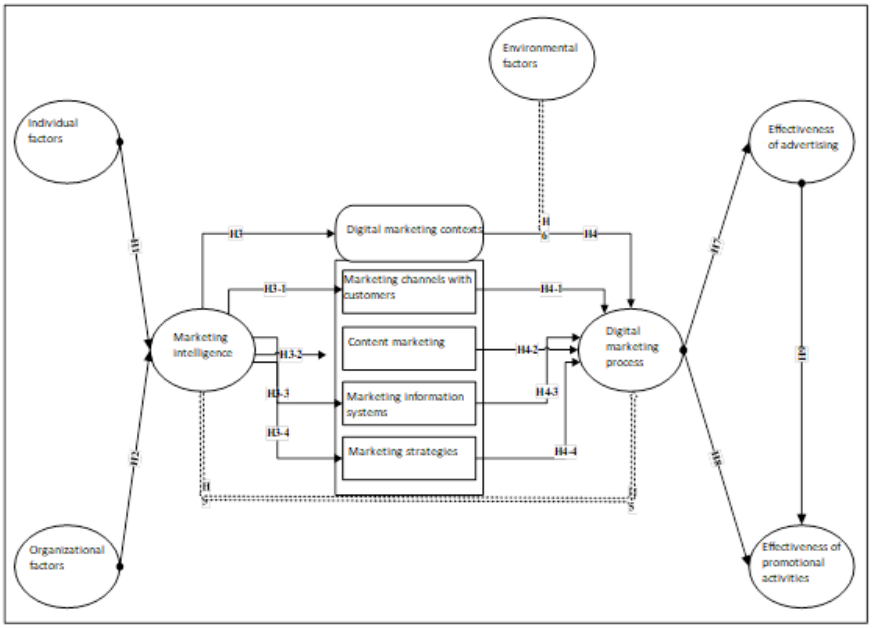

Figure 2. Selected model based on propositions

Findings of a Structural Equation Modeling

After providing the integrated digital marketing model based on marketing intelligence using grounded theory, model validation was dealt with by structural equation modeling using a Questionnaire rated by the five-point Likert scale. In this regard, the structural model, as presented in Figure 2, was evaluated using the SmartPLS software. The relationships between tested variables were examined based on beta coefficients and multivariate regressions. Figures 3 and 4 represent the output for the structural associated with path coefficient and significance level for each latent variable without considering moderating variable "environmental factors."

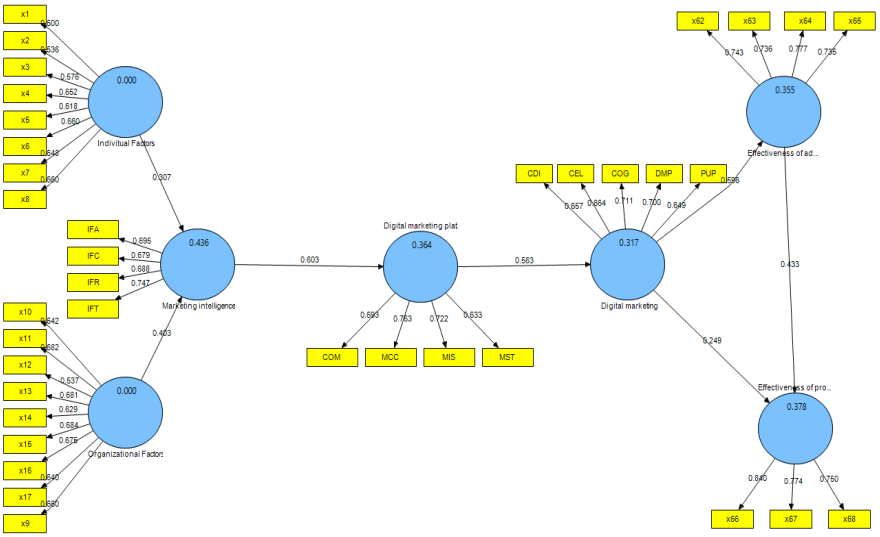

Figure 3. The structural model with path coefficients without the moderating variable

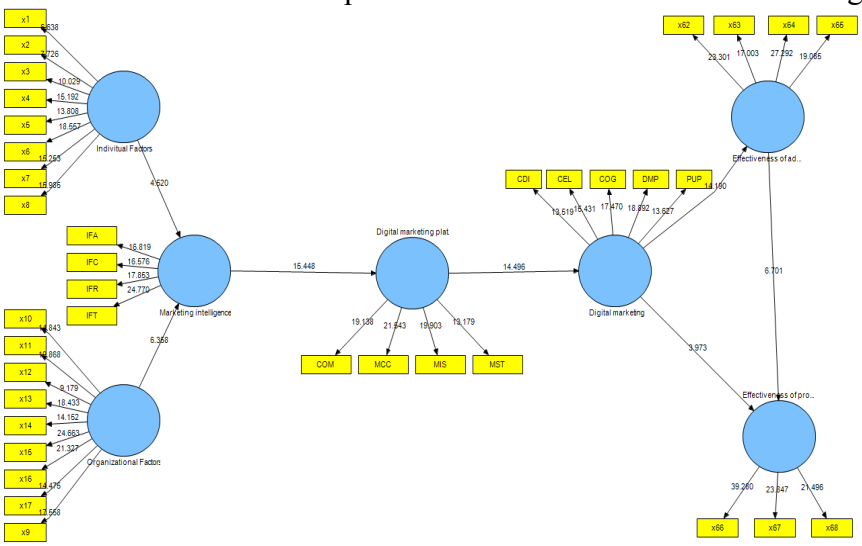

Figure 4. The structural model with significance levels without the moderating variable

Table 5 presents the value of the coefficient of determination (R^2), predictive relevance (Q^2) or redundancy index, and goodness-of-fit (GOF).

Table 5.
Indexes to assess the structural model

Latent variable	**R^2**	**Q^2**	**GOF**
Marketing intelligence	0.435	0.213	-
Digital marketing contexts	0.364	0.180	-
Digital marketing process	0.317	0.144	-
Effectiveness of advertising	0.355	0.197	-
Effectiveness of promotional activities	0.378	0.224	0.387

Table 5 indicates that the value of the coefficient of determination (R2) for endogenous variables is satisfactory. Also, positive values of the redundancy index (Q2) for latent variables imply that the structural model has the quality required to predict

endogenous variables. Furthermore, the value of 0.378 for GOF denotes the strong overall performance of the structural equation model.

Since the "environmental factors" play the role of a moderating variable in the relationships between endogenous and exogenous variables in the conceptual model, the structural model should be tested to assess the moderating impact of the mentioned variable. For this purpose, the model designed is tested to investigate the moderating effects of the variable and associated significance levels in the relationships with other variables using the SmartPLS software with a multiplicative approach. It should be noted that regarding the structural model with the presence of the moderating variable, other model testing criteria such as R2 and Q2 are not presented, and only path coefficients (betas) and their significance levels are dealt with to assess the moderating effects of the variable and significance levels in the relationships with other variables of the conceptual model. Finally, in the case of significance, the moderating effects are measured. Figures 5 and 6 represent the diagram of the structural model with the presence of the moderating variable.

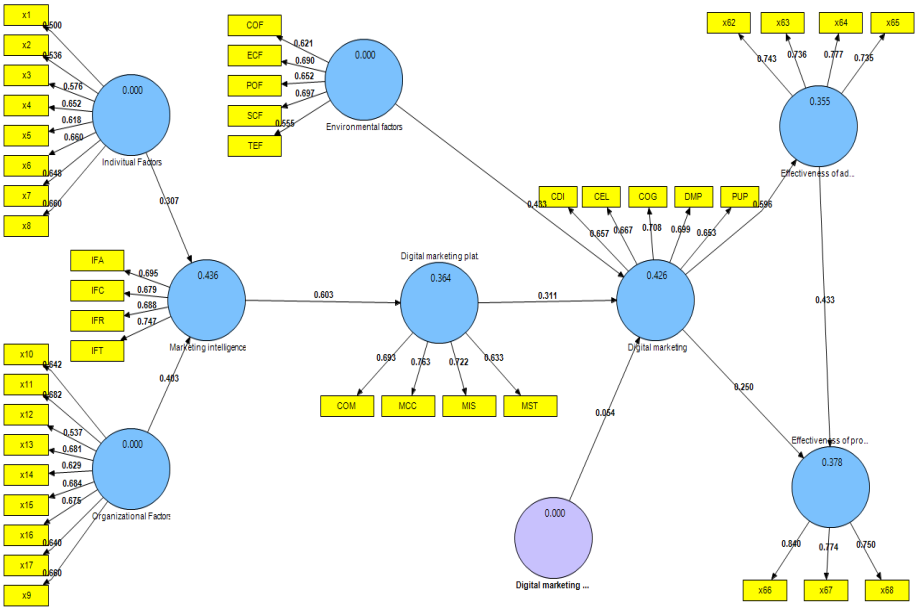

Figure 5. The structural model with path coefficients in the presence of the moderating variable

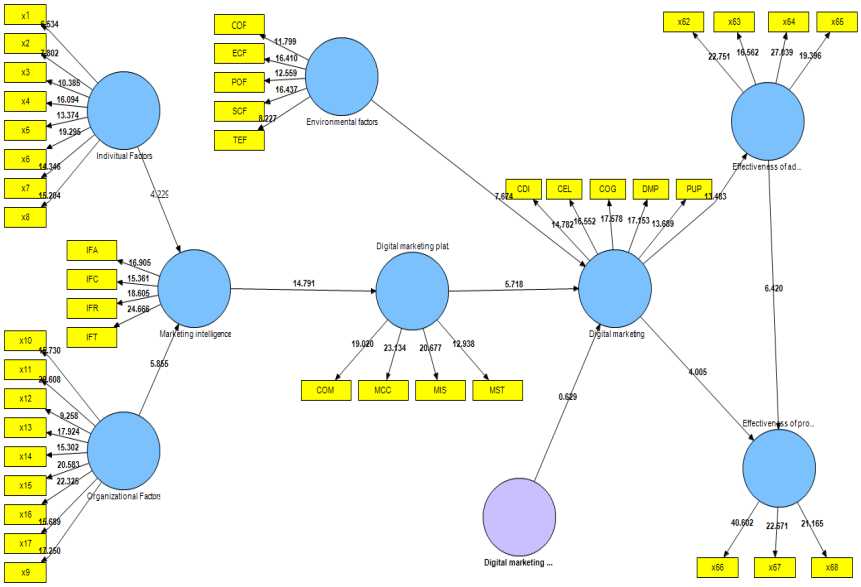

Figure 6. The structural model with significance levels in the presence of the moderating variable

Now, each hypothesis is assessed based on the path coefficients between endogenous and exogenous latent variables in the structural model, and significant levels are presented separately for each hypothesis. Table 6 shows the results.

Table 6.
Beta coefficients and significance levels for the research hypotheses

No.	Hypothesis	Beta	Sig.	Result
1	Individual factors → Marketing intelligence process (direct effect)	0.307	4.520	Accepted
2	Organizational factors → Marketing intelligence process (direct effect)	0.403	6.358	Accepted
3	Marketing intelligence → Digital marketing contexts (direct effect)	0.603	15.448	Accepted
	Marketing intelligence → Marketing channels with customers (direct effect)	0.549	13.158	Accepted
	Marketing intelligence → Content marketing (direct effect)	0.547	12.775	Accepted
	Marketing intelligence → Marketing information systems (direct effect)	0.540	12.752	Accepted
	Marketing intelligence → Marketing strategies (direct effect)	0.581	14.388	Accepted
4	Digital marketing contexts → Digital marketing process (direct effect)	0.563	14.496	Accepted
	Marketing channels with customers → Digital marketing process (direct effect)	0.283	4.776	Accepted
	Content marketing → Digital marketing process (direct effect)	0.292	5.227	Accepted
	Marketing information systems → Digital marketing process (direct effect)	0.117	2.275	Accepted
	Marketing strategies → Digital marketing process (direct effect)	0.165	2.874	Accepted
5	Marketing intelligence → Digital marketing contexts → Digital marketing (indirect effect)	0.340	6.626*	Accepted
	Marketing intelligence → Marketing channels with customers → Digital marketing (indirect effect)	0.337	6.125*	Accepted
	Marketing intelligence → Content marketing → Digital marketing (indirect effect)	0.321	6.098*	Accepted

No.	Hypothesis	Beta	Sig.	Result
	Marketing intelligence → Marketing information systems → Digital marketing (indirect effect)	0.247	5.424*	Accepted
	Marketing intelligence → Marketing strategies → Digital marketing (indirect effect)	0.289	5.896*	Accepted
6	Digital marketing contexts → Digital marketing processes (moderating effect of environmental factors)	0.054	0.629	Rejected
7	Digital marketing processes → Effectiveness of advertising (direct effect)	0.596	14.190	Accepted
8	Digital marketing processes → Effectiveness of promotional activities (direct effect)	0.249	3.973	Accepted
9	Effectiveness of advertising → Effectiveness of promotional activities (direct effect)	0.433	6.701	Accepted
*The significance level for indirect effect between variables was calculated by the Sobel test				

Generally, the results of hypothesis testing and regression coefficients in Table 6 imply that all the research hypotheses (except the sixth hypothesis) are confirmed since the significance level is greater than 1.96.

Conclusion and Recommendations

This research aimed to design and validate an integrated digital marketing model based on marketing intelligence in a target population. For this purpose, regarding the limited number of studies in this area, it was tried to establish a theory using the grounded theory approach. In this regard, an integrated digital marketing model based on marketing intelligence in the ISACO Company was proposed using the mentioned method based on three coding steps, namely open, axial and selective coding stages. Nine propositions were created. Then, in the second part, the propositions were formulated as research hypotheses and tested using structural equation modeling.

The results in the grounded theory step indicated that influential causal conditions included two general categories, namely individual factors and organizational factors. Also, according to the results, the category "individual factors" involved concepts such as high technological and scientific knowledge, risk-taking, job position, income level, working experience, innovativeness, having internal motivation, and responsiveness. In addition, the category "organizational factors" incorporated some concepts such as establishing supportive organizational culture, organizational entrepreneurship, organizational flexibility, employees' participation in the decision-making process, designing an appropriate structure for marketing intelligence unit, strategic management of financial resources, strategic management of organizational talents, designing motivational packages for marketing intelligence, and appraising and presenting appropriate feedback.

On the other hand, digital marketing contexts involved four general categories, namely marketing channels with customers, content marketing, marketing information system, and marketing strategies. The category "marketing channels with customers" embraced B2B marketing channel, B2C marketing channel, and C2C marketing channel. The "content marketing" channel involved four stages, namely determining the goals of the message content (based on the target market), planning and content generation, content publishing and distribution, and content assessment and promotion. The "marketing information system" category included determining information resources required for the marketing procedure, the structure of input information for the marketing information system, and the output for a marketing information system. Finally, the "marketing strategies" category comprises explaining the marketing goals and perspectives, state

analysis based on the SWOT matrix, formulating a strategic marketing plan, and determining the marketing and budgeting tools.

Also, intervening factors of the digital marketing process encompassed five general categories, namely legal and political factors, economic factors, cultural and social factors, technological factors, and competitive factors. The "legal and political factors" category embraced two scopes, namely national-level rules and policies and market and industry-level rules and policies. In addition, the "economic factors" category incorporated internal economic factors and external economic factors, and the "cultural and social factors" category involved cultural factors and social factors. The "technological factors" category also consisted of technological tools for marketing and technological and structural contexts. Finally, the "competitive factors" category included competitive position analysis based on Porter's Five Forces and competition based on pricing.

Generally, the factors explained in this research have been occasionally referred to in some previous research. Kannan and Li (2018) and Rakthin et al. (2016) pointed at some organizational factors such as organizational culture, employees' participation in the decision-making process, motivational packages, and agile organizational structure in the implementation of marketing intelligence. Kriechbaumer and Christodoulidou (2014) investigated the factors affecting website implementation for small and medium-sized enterprises (SMEs) in the hospitality industry to develop a roadmap for digital marketing. Stone and Woodcock (2014) assessed the future of digital marketing by integrating business intelligence and customer insight to support interactive marketing. They referred to the effective role of contextual factors such as content marketing and careful implementation of marketing strategies in this area. Banderas and Kajasa (2014) investigated the digital marketing strategies in the manufacturing industries and assessed the use of the Internet and digital marketing channels.

On the other hand, the model derived denoted that dimensions and components of marketing intelligence with respect to digital marketing consisted of four general elements, namely determining the type of information required, determining the information resources, analysis of information collected, continuous use of market-related information. In this regard, Venter and Rensburg (2014), Coublbock (2013), Faryabi and Zafarianpoor (1393) also referred to some dimensions of marketing intelligence for service companies. However, the components derived were not related to the integrated digital marketing model, and indeed, they did not shape a context to implement the integrated digital marketing process in the company.

The above results found planning for digital marketing strategies, audience recognition and customer acquisition, customer decision to purchase, implementing the purchase process, and establishing electronic customer loyalty as the most effective strategies for digital marketing based on marketing intelligence. According to strategies identified in this research, some suggestions are provided. First, managers of the company are recommended to assess the existing situation to design digital marketing plans and their contribution to digital marketing, competitive advantages, analysis of the public environment, differentiating features, and analysis of strengths, weaknesses, opportunities, and challenges. Second, managers are proposed to try to formulate and adopt associated operational plans concerning targeting (profit, cost, audience number, subscription number, PPC advertising, etc.), determining instruments, presenting instruments, designing messages, organizing marketing activities, and feedback information system. Third, it is suggested to consider feedbacks of customers and even operators and revise the conditions periodically. Fourth, the target community and audience should be

recognized well, and offhand use of instruments should be avoided. In addition, analytic audience platforms and social listening tools can be used to find a set of valuable data favorable to the audience concerning tools and media used by them, referrals, popular content. Fifth, complete and useful information about the product should be available to customers, and comments of users should be presented to other people. Sixth, Some methods such as sharing users' views (about cars, agent services, etc.), user experience (UX) optimization, a quick search for products, different payment options, website page optimization for mobiles, etc. can be used to stimulate users.

In the end, it should be noted that the moderating role of environmental factors on model categories was not confirmed. Nevertheless, it seems these factors have a determinant role in the relationships between other variables. In this regard, future research is suggested to evaluate the model in other companies and test the role of environmental factors.

References

Chaffey, D., & Patron, M. (2012). From web analytics to digital marketing optimization: Increasing the commercial value of digital analytics. *Journal of Direct, Data and Digital Marketing Practice*, *14*(1), 30-45. https://doi.org/10.1057/dddmp.2012.20.

Creswell, J. W., Fetters, M. D., & Ivankova, N. V. (2004). Designing a mixed methods study in primary care. *The Annals of Family Medicine*, *2*(1), 7-12. https://doi.org/10.1370/afm.104.

Danaei, A., Moeen, M. (2017). Analysis of the Effect of Social Media Strategy on Social Media Marketing Strategy and Organizational Performance of Chain Supermarkets. *Strategic Management Researches*, 23(66), 111-141. https://dorl.net/dor/20.1001.1.22285067.1396.23.66.5.8

De Pelsmacker, P., Van Tilburg, S., & Holthof, C. (2018). Digital marketing strategies, online reviews and hotel performance. *International Journal of Hospitality Management*, *72*, 47-55. https://doi.org/10.1016/j.ijhm.2018.01.003.

de Ruyter, K., Keeling, D. I., & Ngo, L. V. (2018). When nothing is what it seems: A digital marketing research agenda. *Australasian Marketing Journal (AMJ)*, *26*(3), 199-203. https://doi.org/10.1016/j.ausmj.2018.07.003.

Eckler, P., & Bolls, P. (2011). Spreading the virus: Emotional tone of viral advertising and its effect on forwarding intentions and attitudes. *Journal of Interactive Advertising*, *11*(2), 1-11. https://doi.org/10.1080/15252019.2011.10722180.

Fahey, L. (2008). Connecting strategy and competitive intelligence: refocusing intelligence to produce critical strategy inputs. *IEEE Engineering Management Review*, *36*(3), 60-60. https://doi.org/10.1108/10878570710717236.

Falahat, M., Ramayah, T., Soto-Acosta, P., & Lee, Y. Y. (2020). SMEs internationalization: The role of product innovation, market intelligence, pricing and marketing communication capabilities as drivers of SMEs' international performance. *Technological Forecasting and Social Change*, *152*, 119908. https://doi.org/10.1016/j.techfore.2020.119908.

Guesalaga, R. (2016). The use of social media in sales: Individual and organizational antecedents, and the role of customer engagement in social media. *Industrial Marketing Management*, *54*, 71-79. https://doi.org/10.1016/j.indmarman.2015.12.002.

Hajli, N., & Laroche, M. (2019). Applications of business intelligence and analytics in social media marketing. http://dx.doi.org/10.1016/j.ijinfomgt.2018.12.014.

Holzer, P. S. (2020). The effect of time-varying factors on promotional activity in the German milk market. *Journal of Retailing and Consumer Services*, *55*, 102090. https://doi.org/10.1016/j.jretconser.2020.102090.

Hosseini Astaraei, F., shojaie, S., Saeidi, P., Mostaghimi, M. R. (2019). Providing a Model of the Enterprise Market Capabilities with an Emphasis on Organizational Entrepreneurship, *Journal of System Management*, Volume 5, Issue 4, Pages 103-112. https://dorl.net/dor/20.1001.1.23222301.2019.5.4.9.6.

Huster, M. (2005) .Marketing intelligence: a first mover advantage, *Journal of Competitive Intelligence Magazine*, 8 (2): 13-17.

Jalali Kaldeh, A., Faryabi, M., Faryabi, M., Nikbakht, F. (2011). Investigating the Effect of Individual Characteristics on Marketing Intelligence in an Organization (Case Study: Tehran Scientific Centers and Manufacturing Companies). *New Marketing Research Journal*, 1(1), 71-100. https://www.sid.ir/en/journal/ViewPaper.aspx?id=203773.

Kafilaleh, Y., Bodaghi Khajeh Noubar, H., Motemani, A., Peyvasteh, A. (2021). Validation of the Pattern of Brand Marketing Efforts on Social Media with Customers in the Dermato-Cosmetic Industry, *Journal of System Management*, Volume 7, Issue 3, Pages 311-

331. https://dx.doi.org/10.30495/jsm.2021.1942981.1544
Kannan, P. K. (2017). Digital marketing: A framework, review and research agenda. *International Journal of Research in Marketing*, *34*(1), 22-45. https://doi.org/10.1016/j.ijresmar.2016.11.006.
Karimi Harisiri S. (2016). Investigating the Impact of Media and Non-media Promotional Activities on Brand Equity in Small Appliance Industries (Case Study: Pars Khazar Industrial Company). Msc Thesis, University of Tehran.
Kim, J., Kang, S., & Lee, K. H. (2019). Evolution of digital marketing communication: Bibliometric analysis and network visualization from key articles. *Journal of Business Research*. https://doi.org/10.1016/j.jbusres.2019.09.043.
Lee, N. R., & Kotler, P. (2011). *Social marketing: Influencing behaviors for good*. Sage Publications.
Majidian, h., Mahmoudzadeh Vashan, m., Hakimpour, H. (2021). *Journal of System Management*, Volume 7, Issue 4, Pages 271-287. https://dx.doi.org/10.30495/jsm.2021.1943152.1552.
Mogaji, E., Soetan, T. O., & Kieu, T. A. (2020). The implications of artificial intelligence on the digital marketing of financial services to vulnerable customers. *Australasian Marketing Journal (AMJ)*. https://doi.org/10.1016%2Fj.ausmj.2020.05.003.
Mostaghel, R., Oghazi, P., Patel, P. C., Parida, V., & Hultman, M. (2019). Marketing and supply chain coordination and intelligence quality: A product innovation performance perspective. *Journal of Business Research*, *101*, 597-606. https://doi.org/10.1016/j.jbusres.2019.02.058.
Nadareishvili, E. (2017). *An investigation of marketing intelligence as a strategy to enhance competitiveness in the apparel industry: The case study of two apparel companies in post-Soviet Georgia* (Doctoral dissertation, Cardiff Metropolitan University). http://hdl.handle.net/10369/9258.
Rakthin, S., Calantone, R. J., & Wang, J. F. (2016). Managing market intelligence: The comparative role of absorptive capacity and market orientation. *Journal of Business Research*, *69*(12), 5569-5577. https://doi.org/10.1016/j.jbusres.2016.03.064.
Rezaei, F., Aghaei, T., Shabanzadeh, M. (2017). Investigating the Effect of Social Media Marketing on Purchase Intention and Customer Brand Loyalty (Case Study: Tehran Digital Appliance Stores). *International Conference on Management, Economy, and Marketing, Tehran, Koosha Gostar Conferences Center.*
Strauss, A., & Corbin, J. (1998). *Basics of qualitative research techniques*. Thousand Oaks, CA: Sage publications.
Ueda, T., & Ban, H. (2018). Active Learning on Digital Marketing for Advertising A University Museum Exhibition. *Procedia computer science*, *126*, 2097-2106. https://doi.org/10.1016/j.procs.2018.07.242.
Wanjuki, C. W. (2014). *The growth of digital marketing and its impact on customer service at Barclays Bank of Kenya, Meru Branch* (Doctoral dissertation, University of Nairobi).
Zafarianpour, E., Faryabi, M. (2014). Investigating the Impact of Marketing Intelligence on Competitive Advantage in Smes. *New Marketing Research Journal*, 4(4), 25-46.
Clarke, B., & Svanaes, S. (2012, May). Digital marketing and advertising to children: a literature review. In *Advertising Education Forum* (Vol. 79).
Marek, G., & Jolanta, R. (2015). 3.1. The role of human factor in promotion activity of tourism enterprise. In *Problems of accounting, analysis and audit: the institutional dimension* (pp. 52-58).