

Design and validation of marketing audit model of fixed internet provider companies

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Abstract

Monitoring the situation and evaluating the position of fixed internet provider companies that operate in a competitive industry with a lot of changes requires a systematic model known as a marketing audit. In this study, an effort has been made to provide a model for the marketing audit of fixed internet provider companies in the country. This research was done with an approach based on an interpretative paradigm and with a deductive-inductive method. Also, in terms of the purpose of this research, it is applied-developmental research, and from the point of view of the method of data collection, it is descriptive research with a cross-sectional survey method. The statistical population in the template presentation section includes experienced managers of Internet providers. Sampling was done with a targeted method and 11 people participated in the design of the model. In the model validation section, 384 managers and experts of Internet provider companies were determined by Cochran's formula and randomly sampled. The relationships between the underlying categories of the marketing audit pattern of fixed internet provider companies were identified with the structural-interpretive method and MicMac software. The partial least squares method and Smart PLS software were used to validate the model. The research findings showed that marketing operations, strategic marketing and marketing structure are the basic elements of the model that directly impact the marketing campaign and customer experience management. These factors also affect the acquisition of competitive advantage and in this way, a marketing audit can be achieved. The result of establishing a marketing audit is to achieve things such as organizational branding, human resource branding and marketing efficiency.

Keywords: marketing audit, fixed internet provider companies, structural-interpretive modeling
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1 Introduction

A well-considered and scientific acquaintance with the field of marketing and the strengths and weaknesses of each company requires periodic and continuous reviews of the performance of that company, without which it will not be possible to improve the performance of a company. The tool for implementing this important and sensitive process is a marketing audit. It is in the shadow of the marketing audit that a wide and comprehensive research is possible on the status of all the elements and activities of the company [3]. A marketing audit is a comprehensive assessment of all aspects of marketing performance in an organization. This means regular evaluation of plans, goals, strategies,

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activities and organizational structure as well as marketing staff. Marketing audit plays a key role in developing relational marketing skills and increasing customer satisfaction and loyalty [8]. Marketing planning is not complete unless it includes periodic reviews of all of the company's marketing efforts. These revisions are called marketing audits, which are designed to identify the strengths and weaknesses of marketing objectives, organization, personnel, and operational procedures [31].

The central idea of the marketing audit is to evaluate the overall conditions of the marketing plan, based on which the organization can invest on its strengths and improve its weaknesses. The correct implementation of marketing audit prevents the bankruptcy and liquidation of businesses and gives them the opportunity to focus their resources to earn more profit and prevent the waste of resources [13]. A well-considered and scientific acquaintance with various markets and the strengths and weaknesses of each company requires self-knowledge. You should start from the point of self-knowledge and get to know and understand the obvious and hidden needs of customers. The tool for implementing this important and sensitive process is marketing audit [1]. Marketing audit is a comprehensive approach that organizes the status of all dimensions and business activities. By applying and implementing a marketing audit, one can understand where the business is and how it can move towards excellence [17].

Through strategic control, marketing audit monitors the compatibility of the organization's main strategy with environmental opportunities. Marketing strategies and plans can quickly become outdated, and every organization must continuously re-evaluate its overall approach to the market. Marketing audit provides a vital tool for strategic control to the organization [7]. Marketing audit is a systematic evaluation of all internal and external factors that affect the business performance of the organization in a specific period of time, especially for organizations that have several types of strategic activity units with different market-products [22]. Marketing audit is a control and planning activity that includes a comprehensive review of all marketing efforts of the organization or strategic activity unit for all products and activity units. Therefore, it has a wider control scope and a longer time horizon than profitability and sales analyzes [32].

In general, it can be said that accurate knowledge of various markets can be obtained through periodic and continuous reviews of the organization's performance. Without conducting these investigations, it will not be possible to improve the performance of a company. The tool for implementing this important and sensitive process is a marketing audit, which is an extensive and comprehensive research on the status of all the elements and activities of the organization [25]. Marketing audit is the observance of the set of rules that are observed during the design to the sale of the product so that the customer feels the best impression in buying the product in his unconscious and conscious mind [24]. Marketing audit as one of the most important axes in evaluation processes is relevant to the activities of the organization. Investigating the position of the holding company and the importance of the marketing audit issue as a part of control and monitoring systems in the form of internal and external audits to achieve organizational goals has always been emphasized [26].

Therefore, marketing audit is a powerful tool in today's marketing that can determine the position of any organization in the competitive environment. This tool is especially important for businesses operating in competitive industries. Fixed internet provider companies also operate in a fast-changing and highly competitive field by their very nature. Based on the studies conducted, the researcher's experiences in the field of telecom and the interviews he has conducted with the elites and experts of this important sector, it has been concluded that the void of a marketing audit model that is specifically related to Internet service provider companies is often felt. to be Since the companies active in this field have comprehensive and good information about their customers and the products offered have a long life and the after-sales service is highly regarded, the customer's experience of the service, the existence of communication management mechanisms with customers from They are among the influential concepts in the field of modern marketing. So, in fact, it is necessary to present a marketing audit model, so that under this model, all the activities of an active operator in the field of information and communication technology can be observed, and problematic bottlenecks can be identified by analysis and investigation, and in the next step, under this model, proposed solutions can be found. provided In this study, an attempt has been made to provide a model for marketing audit in the field of telecom. The present study answers the key question, what are the underlying factors of the marketing audit of fixed internet provider companies and what is the causal relationship pattern of these factors?

2 Theoretical Foundations

Marketing audit is an idea that dates back to the 1950s. In 1959, the American Management Association developed this concept extensively in the area of marketing performance improvement. During the 1960s, marketing audits gained the attention of industry activists and were then used as a powerful tool by managers and management consultants. Since then, there have been many definitions of this concept. According to the definition of the American Marketing

Association, this term is: systematic and comprehensive evaluation of marketing, philosophy, goals and strategy of a company, with a view to doing the right things, if needed. Inspection can be applied to ongoing marketing programs (control audit), in an effort to determine the effectiveness of these programs, or to implemented programs (review audit), in an effort to evaluate their effects (Wu et al. [29]). In another definition, marketing audit is a comprehensive, systematic, independent and unbiased review and evaluation of the basic goals and policies of marketing performance. It also includes the organization of methods, procedures and employees that are used to implement these policies and achieve these goals. The marketing audit covers consumer lifestyles, market growth, strategies and objectives of major competitors, performance of distribution channel intermediaries, supplier reliability, transportation costs, interest rates, and exchange rates [11].

In a comprehensive definition, marketing audit is a comprehensive, systematic, independent and impartial evaluation of the organization's marketing performance. A marketing audit shows where the company is located and also shows the method of achieving the goal of earning profit and increasing market share [27]. In order to choose the right marketing strategy, it must first be determined what the company's situation is in terms of marketing performance. This clear recognition of the organization's marketing situation is the issue that the marketing audit gives us the answer to. Marketing evaluation usually makes sense when there is competition. Marketing audit is a very essential activity in marketing. The purpose of marketing audit is to identify opportunities and threats, formulate strategies, policies, methods, procedures and practices that are used to implement policies and achieve goals [20].

Based on this analysis, the organization can express its long-term goals clearly and transparently, so that both the direction of the organization's efforts are determined and certain milestones are obtained to record the process of achieving success. Determining such goals shows what strategies a company can choose. Marketing audit suggests techniques for identifying and selecting strategic options. The popularity of marketing audit is increasing, especially for companies that have several types of strategic activity units with different market orientations [18]. Marketing audit is a control and planning activity that includes a comprehensive review of all marketing efforts of the company or strategic activity unit for all products and activity units; Therefore, it is wider in terms of scope of control and has a longer time horizon than sales and profitability analysis. Marketing audit is a part of a much larger audit of the company or business and will only take place when the top management of the company feels that there is a special need in this area [12]. Business audit should be done by the entire organization, department by department, function by function, area by area. HR, financial, production, administrative, marketing, etc. data will all be collected and analyzed from within the various units. Then all information is gathered together for business audit and analysis of strengths, weaknesses and opportunities, threats [6].

3 Research background

A study titled the future and the future of marketing audit: in Taiwanese companies was conducted in 2015 by Wu and Chen [29]. The purpose of this study was to develop and test a model of the antecedents and consequences of marketing audit. In this research, the researcher has used mail to send data and has taken help from the structural equation model and PLS software for analysis, which was done to test the hypotheses. The results indicate that the marketing audit has not been implemented properly, a preventive business strategy helps significantly in the implementation of the marketing audit, marketing audits can significantly contribute to marketing. Performance and mastery mediate the relationship between environmental factors and marketing performance.

A study entitled the consequences of marketing audit in Nigerian universities in 2014 was conducted by Achua and Alabar [2]. In this research, those researchers have shown that there is no proper understanding of internal audit in the university system in Nigeria, which they explained mainly to the ignorance of the customers. In this research, the researchers have stated that due to the lack of proper understanding of the internal marketing audit, the activities and potentials of the university education system are of little value, little use and often accompanied by misunderstandings. The purpose of this article was to explain the concept of internal marketing audit as a necessity for improvement and value creation.

A research titled customer analysis, definition of marketing audit elements was conducted in 2012 by Radulescu and Cetina [23] and was published in Elsevier magazine. In this article, the researcher concludes that marketing, which is used successfully, requires the organization to understand the value of the customer, create value and provide value for the consumer. In this sense, it is necessary to periodically evaluate the marketing performance of the organization in relation to the goals and consumption resources. Evaluation of the company's marketing performance and control can be one of the important components of strategic marketing planning through marketing audit. To be effective and serve the purpose, the marketing audit should include all the main activities of the company, not just cause problems. Also, you should focus on periodically reviewing the organization's micro and macro environment, marketing goals and

strategies, marketing systems, and specific activities. In the marketing audit, the customer analysis company plays an important role in three ways: in correctly determining the target market and consumer characteristics, analyzing the consumer value provided by the company through the solutions used in the product, price, distribution and promotion and Analysis of customer value for the company. In this regard, this article is presented to the organization with the aim of providing some methods to assess customer satisfaction and customer value. For a correct and appropriate audit to identify the problems facing the company, two fields of work are important. Consumer satisfaction survey provides information about the reasons for buying or not buying products and services, strengths and weaknesses of the company and its offer compared to competitors. Customer value analysis allows the organization to categorize them.

A study under the title of marketing audit and factors that are practically used in the company (from the point of view of an expert) has been researched by Lipnicka and Dado [19]. In this article, marketing audit is presented as a factor for company growth and future success. The aforementioned marketing activity is becoming a new trend in business management. It can help different types of companies to review their marketing structure and therefore can contribute to the rejuvenation of the entire business and improve not only marketing but also the overall performance of the company. The main purpose of this article is to define and create preconditions for the successful implementation of marketing audit to the marketing management of Slovak companies. This article presents the results of its research conducted by the Delphi method with an expert panel from the field of marketing and marketing audit. The research was done in two stages and the questionnaire was chosen as the research tool. The researcher points out that: we were able to get the opinions and opinions of experts on the topic of marketing audit by using the Delphi method. Based on the research done, this article describes the main factors affecting the efficiency and results of marketing audits, as well as the main obstacles affecting the use of marketing audits in the performance of companies. In the end, the article presents the main hypotheses and conditions for the successful implementation of marketing audit to the performance of companies operating in the Slovak market.

A study under the title of marketing audit in holding companies was written in [26]. The purpose of this study is to examine the position of the holding company and the importance of marketing audit as a part of control and monitoring systems in the form of internal and external audits to achieve the desired goals. The main question of the research is whether the issue of marketing audit in holding companies is important. This research investigates the position of marketing audit in holding companies. The research method is a review and library method. The results of the survey show that holding companies should feel the need for marketing audit more than before in the management of their subsidiaries and consider it in their basic plans. It is suggested that, while examining the real position of marketing audit in holding companies based on global standards, marketing audit should be prioritized compared to other internal and external audits and controls based on valid domestic and international models.

A study under the title of industrial marketing audit (case study of Bahman Group component manufacturing companies) was written in [21]. The present study was conducted to investigate the marketing status of the Bahman group component companies. This research is an applied research which is descriptive and survey type. In this research, judgmental sampling was used, and 29 managers and experts of the Bahman group component companies were examined according to the opinion of the senior managers of these companies. The results of the questionnaire data analysis indicated that the Bahman Group component companies do not have a suitable marketing situation and their marketing method is more traditional than scientific and systematic.

A study under the title of presenting a quantitative model for auditing the compliance of production and marketing strategies was also written in 2016 by Jafarnejad and Mokhtarzadeh [15]. In the abstract of this article, it is stated that in highly competitive markets with different customer needs, the continued profitable and successful life of a leading organization depends on the integrated performance of all sub-systems and organizational units. The lack of strategic adaptation in the process output of different units in the long term prevents the organization from achieving a stable competitive position. Marketing and production units are among the most key components of the organization, and their strategic adaptation guarantees the progress and excellence of the organization. In this article, a quantitative model is presented based on the factors of "creating customer value" and "key performance results" and related variables to measure the strategic integration of production and marketing processes in the organization, and using statistical planning techniques, a method for quantitative targeting of this Strategic adaptation is introduced.

In general, it can be said that a well-considered and scientific acquaintance with various markets and the strengths and weaknesses of each company requires self-knowledge. The company must move from the point of its knowledge to understand and understand the obvious and hidden needs of customers. The tool for implementing this important and sensitive process is "marketing audit", which organizes a wide and comprehensive research on the status of all the elements and activities of the organization. Marketing effectiveness can be achieved through this evaluation. The company is in the shadow of the marketing audit, which can find out what position it is in and how it can move

towards organizational excellence. Despite the novelty of this category, it has been widely accepted and has found many uses. The correct implementation of marketing audit prevents the bankruptcy and liquidation of companies and organizations and gives them the opportunity to focus their resources to gain more profit and prevent them from wasting. The output of the marketing audit process is a plan in which suggestions are made to improve the company's marketing performance. Many people tend to associate audits in general with complicated and tedious paperwork. This category covers all the marketing areas of a business. In a marketing audit, the environment, strategies, organization, marketing mix and profitability of marketing operations are evaluated. According to previous studies, several factors are involved in the marketing audit of companies. Each of the main factors is composed of smaller indicators that can be used to measure them. The set of factors and indicators related to the marketing audit pattern of fixed internet provider companies is presented in Table 1.

Table1: Indicators of companies' marketing audit pattern

Main categories	Subcategories	Sources
Marketing audit	"Comprehensive, independent, systematic and periodic evaluation"; "Adoption of competitive and marketing strategies"; "Implementation of marketing plans"; "Systematic evaluation of internal and external factors of the company"; "Using marketing information systems and business intelligence"	(Laban et al. [18]) (Gulyash et al. [12])
Strategic marketing	"Draw the vision of the company"; "Development of goals, missions and current strategies"; "optimal situation design"; "Creating a roadmap"	(Zyma et al. [32]) (Rahjo et al.[24])
Customer Experience Management	"Application of relevant ISO standards"; "Establishment of customer satisfaction model"; "Using customer relationship management software"; "Different portals reflecting customer satisfaction"; "Interaction between the company and customers"; "Correct and quick response to customers"; "Assessment of needs and extraction of customer needs"; "Using various sales and distribution channels"* (Rashidi et al. [26]) (Kupec and Pisari, [17])	
Marketing structure	"Placing human resources development oriented thinking"; "Development and training of marketing forces"; "Innovation and brainstorming sessions"; "Identification of internal and inter-unit marketing processes"; "Outsourcing marketing activities"	(Abbasi, [1]) (Hadrian, [13])
Marketing operations	"Analysis of the existing situation"; "Adoption of discount policies"; "Using direct, indirect and offline marketing"; "Types of static, banner, Google ads"; "The existence of a suitable digital marketing team"	(Maleki and Shabani, [20])
Gaining a competitive advantage	"Changing the language of management behavior in the world due to technology"; "Identifying goals, strategies, weaknesses and strengths of competitors"; "The impact of the company on the environment"; "Pricing strategy and tactics compared to competitors"	(Surya et al. [27]) (Zamkova et al. [31])
Marketing efficiency	"Improving the analysis of the company's profitability"; "Improving the company's marketing performance"; "Increasing the compliance of internal processes with the company's strategic goals"; "Estimation of cost effectiveness"; "Strengthening public relations"	(Wu et al. [29]) (Camilleri, [6])
Organizational branding	"Creating a brand positioning matrix"; "Increasing brand awareness"; "Improving the book brand"; "Increasing brand value"; "Strengthening the brand's product portfolio and the type of branding strategy"; "Rebranding Improvement"	
Branding of human resources	"Providing training and improving the expertise of marketing forces"; "Increasing service compensation and giving bonuses to marketing forces"; "Improving the appropriateness of capabilities and responsibilities of marketing forces"; "Increasing the motivation, ability and effort of marketing forces"	(Rajabi and Zarin, [25]), (Derev and Benivska, [11])
Marketing campaign design	"Compilation of marketing plan and codified action plans"; "event-based marketing"; "Analysis of previous products and services"; "Developing a plan for the campaign"	(Chegini, [8]) (Ashkazari et al., [3])

These factors can be categorized in the form of marketing audit factors, strategic marketing, customer experience management, marketing structure, marketing operations, gaining competitive advantage, marketing efficiency, organizational branding, human resource branding, and marketing campaign design.

4 research methodology

The present study is based on the interpretivist paradigm from a philosophical point of view and was conducted with a deductive-inductive approach. From the point of view of the purpose of an applied-developmental research and from the point of view of the method of data collection, it is a descriptive research that was carried out with a cross-sectional survey method.

The statistical population in the initial model design section includes theoretical experts (university professors) and experimental experts (managers with experience in fixed internet provider companies). Sampling was done in a purposeful way and the opinions of 11 experts were used. The statistical population in the quantitative and validation part of the research model includes managers and experts of fixed internet provider companies. To calculate the sample size, Cochran's formula was used for indeterminate and large communities as follows.

$$n = \frac{t^2 pq}{d^2} = \frac{(1.96)^2(0.5)(0.5)}{(0.05)^2} = 384$$

$$d = 0.05; t = 1.96; p = 0.5; q = 0.5$$

Sampling continued with simple random method until obtaining 384 correct questionnaires.

The main tool for collecting research data is a questionnaire. The research questionnaire includes 10 main constructs, 50 specialized questions with a five-point Likert scale and three general questions.

To check the validity of the questionnaire, content validity (opinion from experts) was used and its validity was confirmed. Also, the total Cronbach's alpha of the questionnaire was 0.875 in a preliminary study. After distributing the questionnaire in the selected sample, the validity of the questionnaire was checked with three methods of construct validity (external model), convergent validity (AVE) and divergent validity. AVE value for all variables should be greater than 0.5. In order to calculate the reliability, composite reliability (CR) and Cronbach's alpha coefficient of each factor were calculated. The combined reliability and Cronbach's alpha of all dimensions should be greater than 0.7 (Azer et al., [4]; Davari and Rezazadeh, [10]). HTMT single-dual validity criterion was used for validity evaluation. This criterion replaced the old Fornell-Larker method. The permissible limit of HTMT criterion is 0.85 to 0.9. If the values of this criterion are less than 0.9, divergent validity is acceptable (Hensler et al. [14]). Divergent validity is another criterion for measuring the fit of measurement models in PLS method.

The structural-interpretive modeling method was used to design the initial model. Then partial least squares method was used to validate the designed model. This method includes two external (measurement) models and internal (structural) models. After ensuring the measurement model through the reliability test, convergent validity and divergent validity, the results of the external model can be presented. Data analysis was done with MicMac and Smart PLS software.

5 Research findings

In the first part, the views of 11 experts were used to present the initial model. In terms of gender, 8 people are men and 3 people are women. In terms of age, 1 person is less than 35 years old, 5 people are between 35 and 45 years old, and 5 people are over 45 years old. In terms of education, 3 of the experts have a master's degree and 8 have a doctorate. Finally, 4 people have between 10 and 20 years of work experience and 7 people have more than 20 years of work experience. Demographic characteristics of experts are presented in Table 2.

In the quantitative part and validation of the model, the point of view of 384 managers and experts of fixed internet provider companies was used. In terms of gender, 253 people (66%) are men and 131 people (34%) are women. In terms of education, 205 people (53%) have a bachelor's degree, 143 people (37%) have a master's degree, and 36 people (9%) have a doctorate. In terms of age, 85 people (22%) are less than 35 years old. 189 people (49%) are between 35 and 45 years old and 110 people (29%) are 45 years old and older. In terms of work experience, 84 people (22%) have less than 10 years of experience, 125 people (22%) have between 10 and 15 years of experience, 94 people (24%) have between 15 and 20 years of experience, and 81 people (21%) have more than 20 years of experience.

The structural-interpretive modeling method was used to identify the relationships between the underlying factors of the marketing audit of fixed internet provider companies and provide the initial model. The relationships between the factors are specified based on the pattern shown in Table 4.

Relationships among marketing audit factors are presented in the Structural Self-Interaction Matrix (SSIM).

Table 2: Demographic characteristics of experts

Percentage	Abundance	Demographic characteristics	
72%	8	Man	gender
27%	3	Female	
10%	1	Less than 35 years	Age
45%	5	35 to 45 years	
45%	5	45 years and more	
27%	3	Masters	education
72%	8	P.H.D	
36%	4	10 to 20 years	Work Experience
64%	7	Over 20 years old	
100%	11	Total	

Table 3: Demographic characteristics of fixed internet provider companies

Percentage	Abundance	Demographic characteristics	
66%	253	Man	gender
34%	131	Female	
22%	85	Less than 35 years	Age
49%	189	35 to 45 years	
29%	110	45 years and more	
53%	205	Masters	education
37%	143	Masters	
9%	36	P.H.D	
22%	84	Less than 10 years	Work Experience
33%	125	10 to 15 years	
24%	94	15 to 20 years	
21%	81	More than 20 years	
100%	384	Total	

It is obtained by transforming the structural self-interaction matrix into a two-valued matrix of zero and one, which is called the received matrix (RM). In the received matrix, the dimensions of the main diameter are equal to one. Also, to be sure, secondary relationships should be controlled (Azar and Gholamzadeh, [4] p. 260). The final access matrix is presented in Table 6.

After forming the achievement matrix, "achievement set" and "prerequisite set" should be identified to determine the relationships and leveling of indicators. For the C_i variable, the access set (output or effects) includes the variables that can be reached through the C_i variable. The prerequisite set (inputs or effects) includes the variables through which the variable C_i can be reached.

Therefore, the relationships of marketing audit variables are shown in Figure 1

Based on the results of structural-interpretive modeling, therefore, the variables of marketing productivity, organizational branding and human resource branding are first level or dependent. The marketing audit variable is on the second level. The variable of gaining competitive advantage is on the third level. The variables of marketing campaign and customer experience management are on the fourth level. The variables of strategic marketing, marketing operations and marketing structure are the fifth level.

The set of inputs and outputs for each element is used in the formation of influence-dependency matrix (MICMAC analysis). The influence-dependence matrix is presented in Table 8. In the model (ISM), the interrelationships and influence between the criteria and the relationship of the criteria of different levels are well shown, which leads to a better understanding of the decision-making environment by managers. In order to determine the key criteria, the influence and dependence of the criteria are formed in the final access matrix.

Based on the influence-dependence diagram of strategic marketing variables, marketing operations and marketing structure have high influence power and have little influence and are placed in the area of independent variables. The variables of marketing audit, organizational branding, branding of human resources and marketing efficiency

Table 4: Signs used in the design of structural-interpretive model

symbol	V	A	X	O
Relation	Variable i and j have an effect	Variable j affects i	Two-way relationship	Absence of relationship

Table 5: The structural self-interaction matrix of the marketing audit pattern of fixed internet provider companies

SSIM	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10
C01		X	X	V	V	V	O	V	V	V
C02			X	V	V	V	V	V	V	O
C03				V	V	V	V	V	O	V
C04					V	V	V	V	X	V
C05						V	V	O	A	V
C06							V	V	A	V
C07								O	A	O
C08									A	O
C09										V
C10										

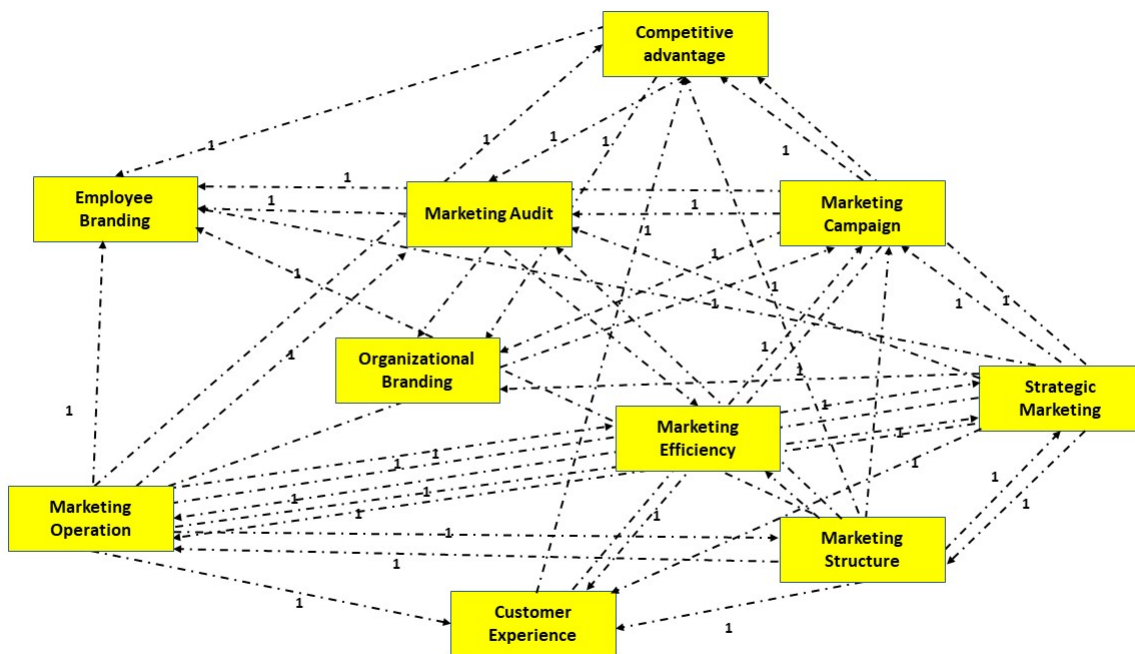


Figure 1: The set of inputs and outputs of each of the marketing audit structures

also have high dependence but little influence, so they are considered dependent variables. The variables of gaining competitive advantage, customer experience management and marketing campaign have similar influence and degree of dependence, so they are linked variables. It should be noted that no variable has been placed in the first quadrant, i.e. the autonomous region. Finally, after determining the relationships and leveling, the initial model of marketing audit of fixed internet provider companies is shown in Figure 5.

Finally, Partial Least Squares (PLS) method was used to validate and present the final model of marketing audit of fixed internet provider companies. The validation results of the marketing audit model in the standard estimation mode are shown in Figure 5. The t-statistic to check the significance of the relationships with the bootstrapping

Table 6: Achievement matrix after adaptation

TM	C01	C02	C03	C04	C05	C06	C07	C08	C09	C10
C01	1	1	1	1	1	1	1*	1	1	1
C02	1	1	1	1	1	1	1	1	1	1*
C03	1	1	1	1	1	1	1	1	1*	1
C04	0	0	0	1	1	1	1	1	1	1
C05	0	0	0	0	1	1	1	1*	0	1
C06	0	0	0	0	0	1	1	1	0	1
C07	0	0	0	0	0	0	1	0	0	0
C08	0	0	0	0	0	0	0	1	0	0
C09	0	0	0	1	1	1	1	1	1	1
C10	0	0	0	0	0	0	0	0	0	1

Table 7: Set of inputs and outputs to determine the level

	Output: effect	Input: Effectiveness	Subscription	level
C01	C01,C02,C03,C04,C05,C06, C07,C08,C09,C10	C01,C02,C03	C01,C02,C03	
C02	C01,C02,C03,C04,C05,C06, C07,C08,C09,C10	C01,C02,C03	C01,C02,C03	
C03	C01,C02,C03,C04,C05,C06, C07,C08,C09,C10	C01,C02,C03	C01,C02,C03	
C04	C04,C05,C06,C07,C08,C09,C10	C01,C02,C03,C04,C09	C04,C09	
C05	C05,C06,C07,C08,C10	C01,C02,C03, C04,C05,C09	C05	
C06	C06,C07,C08,C10	C01,C02,C03,C04, C05,C06,C09	C06	
C07	C07	C01,C02,C03,C04, C05,C06,C07,C09	C07	1
C08	C08	C01,C02,C03,C04,C05,C06, C08,C09	C08	1
C09	C04,C05,C06,C07,C08,C09,C10	C01,C02,C03,C04,C09	C04,C09	
C10	C10	C01,C02,C03,C04,C05, C06,C09,C10	C10	1

Table 8: The power of penetration and the degree of dependence of the indicators of the marketing

level	Penetration power	The degree of dependence	Marketing Audit Variables in Internet Companies
5	10	3	Strategic Marketing (C01)
5	10	3	Marketing Operations (C02)
5	10	3	Marketing Structure (C03)
4	7	5	Marketing campaign (C04)
3	5	6	Gaining competitive advantage (C05)
2	4	7	Marketing audit (C06)
1	1	8	Marketing Efficiency (C07)
1	1	8	Corporate branding (C08)
4	7	5	Customer Experience Managem
1	1	8	Marketing Audit Variables in Internet Companies

method is shown in Figure 5.

The coefficient of influence of strategic marketing on marketing campaign design is 0.329 and the t-statistic is 3.433. The coefficient of impact of marketing operations on marketing campaign design is 0.281 and the t-statistic is 2.498. The coefficient of impact of marketing structure on marketing campaign design is 0.233 and the t-statistic is 2.796. Therefore, it can be claimed with 95% certainty: strategic marketing, strategic operations and marketing



Figure 2: Marketing audit pattern of fixed internet provider companies

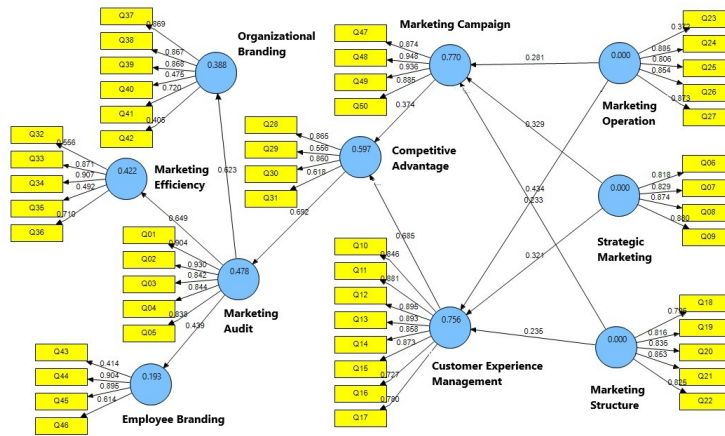


Figure 3: Path coefficients of partial least squares model variables (standard estimation)

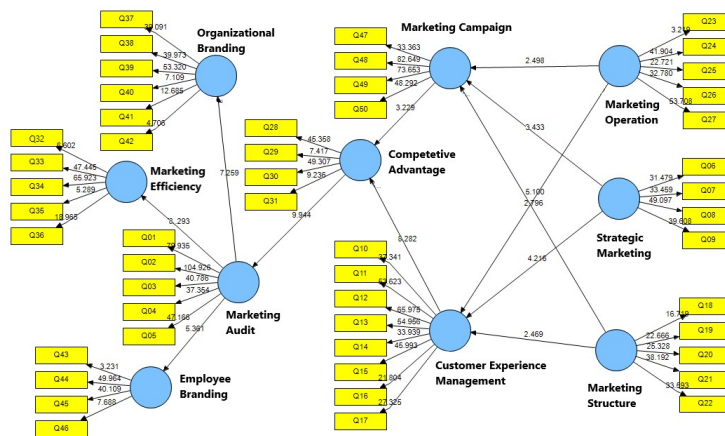


Figure 4: Significance of partial least squares model (bootstrapping)

structure have a positive and significant impact on the design of marketing campaigns.

The coefficient of influence of strategic marketing on customer experience management is 0.321 and the t-statistic is 4.216. The coefficient of impact of marketing operations on customer experience management is 0.434 and the t-statistic is 5.100. The coefficient of impact of marketing structure on customer experience management is 0.235 and the t-statistic is 2.469. Therefore, it can be claimed with 95% certainty: strategic marketing, strategic operations and marketing structure have a positive and significant impact on customer experience management.

The effect coefficient of marketing campaign design on gaining competitive advantage is 0.374 and the t-statistic is 3.229. The effect coefficient of customer experience management on gaining competitive advantage is 0.685 and the t-statistic is 8.282. Therefore, we can claim with 95% certainty: marketing campaign design and customer experience management have a positive and significant impact on gaining a competitive advantage.

The coefficient of impact of gaining competitive advantage on marketing audit is 0.892 and the t-statistic is 9.944. Therefore, it can be claimed with 95% certainty: gaining a competitive advantage has a positive and significant impact on marketing audit. The coefficient of impact of marketing audit on organizational branding is 0.623 and the t-statistic is 7.259.

The coefficient of impact of marketing audit on human resource branding is 0.439 and the t-statistic is 5.361. The coefficient of impact of marketing audit on marketing productivity is 0.649 and the t-statistic is 8.293. Therefore, it can be claimed with 95% certainty: marketing audit has a positive and significant impact on organizational branding, human resources branding and marketing productivity.

Table 9: Summary of the test results of research hypotheses

independent variable	The dependent variable	operational burden	t statistic	Result
Strategic marketing	Marketing campaign design	0.329	3.433	confirmation
Marketing operations	Marketing campaign design	0.281	2.498	confirmation
Marketing structure	Marketing campaign design	0.233	2.796	confirmation
Strategic marketing	Customer Experience Management	0.321	4.216	confirmation
Marketing operations	Customer Experience Management	0.434	5.100	confirmation
Marketing structure	Customer Experience Management	0.235	2.469	confirmation
Marketing campaign design	Gaining a competitive advantage	0.374	3.229	confirmation
Customer Experience Management	Gaining a competitive advantage	0.685	8.282	confirmation
Gaining a competitive advantage	Marketing audit	0.892	9.944	confirmation
Marketing audit	Organizational branding	0.623	7.259	confirmation
Marketing audit	Branding of human resources	0.439	5.361	confirmation
Marketing audit	Marketing efficiency	0.649	8.293	confirmation

The external model (measurement) has been evaluated based on three indices of convergent validity, composite reliability and Cronbach's alpha. Convergent validity was calculated using the AVE criterion, and if it is more than 0.5, it is favorable. Composite reliability and Cronbach's alpha were also calculated. Combined reliability (CR) in structural models is considered a better and more valid criterion than Cronbach's alpha, because in calculating Cronbach's alpha, all indicators are entered into calculations with the same importance for each structure, but in calculating the combined reliability of indicators with higher factor loadings It is more important and makes the CR values of indices with higher factor load more important and makes the CR values of the constructs a more realistic and accurate measure than Cronbach's alpha (Davari and Rezazadeh, [10]). The summary of the measurement model fit evaluation results was presented in Table 10.

The value of average variance extracted (AVE) is greater than 0.5, so convergent validity is confirmed. Cronbach's alpha of all variables is greater than 0.7, so in terms of reliability, all variables are confirmed. Based on the results of the external model of the research, convergent validity and composite reliability, it is possible to test the research hypotheses and the results of the implementation of the model are reliable.

The fit of the internal (structural) model has been evaluated based on three indices: coefficient of determination (R^2), Stone-Geisser index (Q^2), and goodness of fit index (GOF). The summary of structural model fit evaluation results was presented in Table 11.

The coefficient of determination (R^2) is a measure that expresses the amount of changes in each of the dependent variables of the model, which is explained by the independent variables. The higher the value of R^2 related to the

Table 10: Summary of measurement model fit assessment results

Cronbach's alpha	composite reliability (CR)	AVE	Main structures
0.873	0.913	0.724	Strategic marketing
0.803	0.862	0.528	Corporate branding
0.710	0.813	0.542	Branding of human resources
0.759	0.841	0.527	Marketing efficiency
0.883	0.914	0.681	Marketing structure
0.932	0.952	0.531	Marketing campaign design
0.822	0.881	0.613	Marketing operations
0.942	0.952	0.716	Customer experience management
0.921	0.941	0.562	Marketing audit
0.707	0.822	0.545	Gaining a competitive advantage

Table 11: Summary of structural model fit evaluation results

GoF	F2	Q2	Detection co-efficient	Strategic marketing
0.554	0.335	0.532	0.0	Corporate branding
	0.139	0.184	0.388	Branding of human resources
	0.153	0.88	0.193	Marketing efficiency
	0.138	0.206	0.422	Marketing structure
	0.292	0.502	0.0	Marketing campaign design
	0.142	0.198	0.770	Marketing operations
	0.224	0.435	0.0	Customer experience management
	0.327	0.504	0.756	Marketing audit
	0.173	0.335	0.478	Gaining a competitive advantage
	0.156	0.302	0.597	Gaining a competitive advantage

endogenous constructs of the model, the better the fit of the model. Chin [9] has defined three values of 0.19, 0.33 and 0.67 as the criterion value for weak, medium and strong values of the fit of the structural part of the model by means of the coefficient of determination criterion. The coefficient of determining the marketing audit of fixed internet provider companies is reported to be 0.756, which is an acceptable value.

The Stone-Geisser criterion or the Q^2 index determines the predictive power of the model. Blindfolding is a pattern reuse method. Hensler et al. [14] have determined three values of 0.02, 0.15, and 0.35 as weak, medium, and strong predictive power, respectively, regarding the severity of the predictive power of the model regarding endogenous structures. Positive numbers indicate good model quality. These values are positive and greater than 0.35 for all research constructs. Therefore, the predictive power of the research constructs is strongly estimated.

The most important model fit index in partial least squares method is the GOF index. The GOF criterion was invented by Tenenhaus et al. [28]. Also Wetzles et al. [30] have introduced three values of 0.01, 0.25 and 0.36 as weak, medium and strong values for Gof. This index can be calculated using the geometric mean of the R^2 index and the average of redundancy indices. The GOF index is equal to 0.554, so the model has a good fit.

6 conclusion and discussion

Every research is done with the aim of using its results to improve things or change conditions. The results of this research can also be used by managers and experts in the field of marketing, business and sales and the strategy of Internet provider companies that are in dynamic and complex environments today and seek to use the marketing audit model.

Based on the obtained results, marketing operations, strategic marketing and marketing structure are the basic elements of the model. This is in line with the results of Maleki and Shabani [20] and Zyma et al. [32] studies. It was also found that the mentioned components have a direct impact on the marketing campaign and customer experience

management component. This result is consistent with the results of the studies of Chegini [8] and Kupek and Pisari [17].

The results showed that the mentioned components affect the acquisition of competitive advantage and in this way a marketing audit can be achieved. In the results of the studies of Surya et al. [27] and Golyash et al. [12], the components of gaining competitive advantage and marketing audit are also mentioned, and from this point of view, it is consistent with the results of the current research.

In addition to the mentioned cases, it was found that the result of establishing a marketing audit is to achieve things such as organizational branding, branding of human resources and marketing efficiency. The importance of the aforementioned components is also mentioned in the results of the studies of Derev and Benivska [11] and Kotler et al. [16].

Today, the competition between virtual communities is very close and tight, that's why they try to win in this competition by making maximum use of all abilities and opportunities. In such conditions, knowing the consumer's needs and providing the desired conditions for him can be considered a very important advantage. Especially in the case of intense competition between internal and external virtual communities to attract users, attention to individual and social backgrounds as well as the services provided by internal virtual communities can create a competitive advantage. It is also suggested to pay more attention to individual backgrounds in the field of marketing, which is very important. Because attention to individual factors, including attention to the feeling of being important, social promotion and providing an environment where the consumer can introduce himself to others as well as possible and influence them, should be taken into consideration. In the case of social background, it is also suggested to pay attention to the people who are considered important from the point of view of the consumer and oblige him to participate in virtual communities. Regarding the provided services, according to the results of the research, it is suggested that more users can be attracted by providing more convenience and security and the right guidance of the target customers. In addition to the mentioned cases, paying attention to the desires and wishes of users and collective intentions are factors that influence their participation behavior to a considerable extent and should be given special attention in marketing audit.

Based on the results, it is suggested to the managers and experts in the field of marketing, business and sales and the strategy of the Internet provider companies regarding the marketing structure, to provide innovation and brainstorming sessions with the foundation of human resources development oriented thinking and the development and training of marketing forces. It will also help to implement marketing audit, identify internal and inter-unit marketing processes and outsourcing of marketing activities.

Regarding marketing operations, it is suggested that relevant managers analyze the existing AS-IS situation and adopt discount policies to create a suitable position for implementing a marketing audit. Because one of the most important concepts of any company of any size and any sector is the marketing operations of that company. The success of the company in the market is the result of its marketing operations, and in fact, it can be said that marketing operations are one of the important characteristics of the company's results, and how to achieve this is vital for companies. Therefore, the relevant managers can use direct, indirect and offline marketing and provide various types of fixed, banner, Google, PPC and CPC advertisements to Be successful in establishing a marketing audit model with a suitable digital marketing team.

Regarding the design of marketing campaigns and implementation and control, it is suggested that the aforementioned managers achieve their written goals regarding the marketing audit by formulating a marketing plan and written action plans and event-based marketing. Therefore, they must first identify the current position of the company and determine their goals. If goals are considered that are far from reach, the implementation of that campaign will not only not reach the goal, but will also waste the company's financial resources. Next, it should be checked that all the actions that have already been done (such as advertising and marketing activities) in terms of sales volume, market share, profitability, budget deficit, losses, customer satisfaction, customer evaluation and analysis of previous products and services. What are the results? Also, the things that have caused the weakness of the company should be corrected and everything that has led to positive results should be strengthened. In this regard, it is suggested to present creative and innovative ideas. All the mentioned items can be achieved by developing a plan for the campaign (goal, budget, implementation method, evaluation, etc.) in a precise and transparent manner.

Regarding the marketing audit, it is suggested to the managers and experts of the company to help establish the marketing audit in the company by conducting a comprehensive, independent, systematic and periodic evaluation. What is important among these is the adoption of competitive and marketing strategies: differentiation strategy, cost leadership strategy, concentration strategy, etc. along with the implementation of marketing plans. Because marketing audit is a comprehensive, systematic, critical, independent and impartial review and evaluation of the environment,

long-term goals, strategies and activities of the company to determine opportunities and problems, policies, methods, corporate structure, procedures and It is the employees who are employed to implement the policies and achieve the goals that this definition emphasizes more on the internal operations of the company and new definitions have been developed and all the elements of the environment including markets, customers, competitors, market intermediaries or companies or Agencies that facilitate marketing operations. such as financial providers, communications, information, transportation services, advertising market research, etc., and the success of products or services depends on the quality, ability and potential of the activities performed, and considering that every company The production of products or the provision of services is created, so it must operate in accordance with the satisfaction of the relevant customer, and if it deviates from this path, it actually deviates from its main goals, and it is possible that it will only be able to continue in this situation for a while, which will not be permanent. It was, because it has gradually become stagnant and stopped from the trend of global activities, and there comes a time when it has lost customers and also time. Also, managers should pay enough attention to the systematic evaluation of internal and external factors of the company by using marketing information systems and business intelligence.

Regarding strategic marketing, in order to establish the marketing audit model in the company, it is suggested to design the ideal state of To-Be by drawing the vision of the company, formulating goals, missions and current strategies. Also, creating a road map will be helpful in this direction. Because the extensive and comprehensive political, economic, and technological changes and the resulting crises have caused companies to face many challenges in managing their activities and maintaining their position in the competitive environment. The marketing strategy, with a clear understanding of the company's mission, evaluates the environmental factors and examines the company's situation, examines the market opportunities, determines and plans the marketing strategy, and uses its implementation and control. Evaluating the environmental factors and investigating the company's situation helps in understanding the opportunities and threats of the market and the strengths and weaknesses of the company and provides guidelines for planning the marketing strategy.

Also, regarding customer experience management, it is suggested that the aforementioned managers increase customer satisfaction by applying relevant ISO standards and using various distribution and sales channels. Then, by establishing the customer satisfaction model, measure it. One of the other important ways to improve customer experience management is to use customer relationship management software and various portals to reflect customer satisfaction. This has led to interaction between the company and the customers, and of course, correct and quick response to customers and needs assessment and extraction of customer needs (market research projects) are also important in this regard.

Regarding gaining a competitive advantage, it is suggested that due to the change in the language of management behavior in the world due to technology, relevant managers should allocate more time to identify the goals, strategies and weaknesses and strengths of competitors and continuously monitor the market and its fluctuations. The effectiveness of the company from the legal, political, social, cultural and economic environments is not hidden to anyone, and the adoption of pricing strategies and tactics by managers can be effective in overcoming interfering conditions (obstacles and obstacles).

Finally, by implementing the presentation model in this research, results such as marketing efficiency, organizational branding, and human resource branding can be achieved.

References

- [1] H. Abbasi, *Marketing Audit*, Creative Deep Thought, Tehran, 2019, In Persian.
- [2] J.K. Achua and T.T. Alabarb, *Imperatives of marketing internal auditing in Nigerian universities*, *Procedia-Soc. Behav. Sci.* **164** (2014), 32–40.
- [3] M. Ashkazari, S. Naib and F. Hosseini, *Marketing audit of home businesses in South Khorasan province*, *Manag. Entrepreneur. Stud.* **5** (2018), no. 30, 23–37.
- [4] A. Azar and R. Gholamzadeh, *Partial Least Squares*, Negah Danesh, Tehran, 2018, In Persian.
- [5] A. Azar, F. Khosravani and R. Jalali, *Soft operational research: Problem structuring approaches*, Industrial Management Organization, Tehran, 2019, In Persian.
- [6] M.A. Camilleri, *Strategic planning and the marketing effectiveness audit*, *Travel Marketing, Tourism Economics and the Airline Product*, Springer Cham **10** (2018), no. 6, 117-135.

- [7] H.C. Chen and C.H. Yang, *Applying a multiple criteria decision-making approach to establishing green marketing audit criteria*, J. Cleaner Prod. **210** (2019), 256–265.
- [8] N. Chegini, *The role of relationship marketing audit and communication skills in predicting customer satisfaction*, New Res. Approach. Manag. Account. **5** (2021), no. 17, 43–52.
- [9] W.W. Chin, *The partial least squares approach to structural equation modeling*, Mod. Meth. Bus. Res. **295** (1998), no.2, 295–333.
- [10] A. Davari and A. Rezazadeh, *Structural Equation Modeling with PLS Software*, Jahad University, Tehran, 2013.
- [11] T. Derev and I. Benivska, *Marketing audit in the prospects system of innovative product in the conditions of economy instability*, Sci. J. Polonia Univer. **33** (2019), no. 2, 68–74.
- [12] I. Golyash, V. Panasiuk and S. Sachenko, *The performance audit of a corporate website as a tool for its internet marketing strategy*, EUREKA: Soc. Human. **5** (2017), 57–66.
- [13] P. Hadrian, *The Possibilities of Using Audit as a Tool of Strategic Marketing Control the Research Results*, Post-Communist Econ. **32** (2021), no. 1, 125–146.
- [14] J. Henseler, C.M. Ringle and M. Sarstedt, *A new criterion for assessing discriminant validity in variance-based structural equation modeling*, J. Acad. Market. Sci. **43** (2015), no. 1, 115–135.
- [15] A. Jafaranejad and N. Mokhtarzadeh, *Presenting an audit model of compliance of production and marketing strategies*, Iran. Manag. Sci. Quart. **2** (2016), no. 6, 121–195.
- [16] P. Kotler, W.T. Gregor and W.H. Rodgers, *The marketing audit comes of age*, Sloan Manag. Rev. **30** (1989), no. 2, 49–62.
- [17] V. Kupec and P. Pisari, *Auditing and Controlling as a Tool for SME Marketing Risk Management*, Italy Occasion. Rev. **5** (2021), no. 2, 577–592.
- [18] B. Laban, T. Djurkovic-Maric and J. Eremic Djodjic, *Internal audit of marketing in tourist organizations*, Poslovna Ekonom. **11** (2017), no. 1, 139–164.
- [19] D. Lipnicka and J. Dado, *Marketing Audit and Factors Influencing Its Use in Practice of Companies (From an Expert Point of View)*, J. Competit. **5** (2013), 26–42.
- [20] M. Maleki and A. Shabani, *Investigating the impact of business strategy, generosity and environmental dynamics on marketing performance; Explain the role of marketing audit*, Bus. Strateg. **7** (2016), no. 23, 45–56.
- [21] A. Masoomzadeh Zavareh, and V. Nashi Far, *Industrial marketing audit - a case study of Bahman Group component companies*, Bus. Manag. J. **2** (2018), no. 4, 145–164.
- [22] M.R. Palav and S. Jagtap, *A study of application of marketing audit by pharmaceutical companies from Maharashtra India: A literature review*, Vidya Bharati Int. Interdisciplin. Res. J. **10** (2020), no. 1, 102–109.
- [23] V. Radulescu and I. Cetina, *Customer analysis, defining component of marketing audit*, Soc. Behav. Sci. J. **62** (2012), 308–312.
- [24] S. Rahjo, H. Shams and A. Gohri, *Examining the relationship between neuromarketing audit and the successful presentation of new banking products from the perspective of customers*, Quart. J. Manag. Account. Stud. **4** (2017), no. 2, 131–140.
- [25] M. Rajabi and E. Zarin, *Implementation of marketing audit in garment industries*, 2nd Nat. Conf. Fund. Res. Manag. Account., Tehran, 2018.
- [26] M. Rashidi, *Marketing audit in holding companies*, 5th Int. Account. Manag. Conf. Approach Modern Res. Sci., Tehran, 2015.
- [27] M. Surya, M. Machfud and M. Simanjuntak, *Marketing audit of educational service company*, J. Appl. Manaj. **17** (2019), no. 4, 677–687.
- [28] M. Tenenhaus, V.E. Vinzi, Y. M. Chatelin and C. Lauro, *PLS path modeling*, Comput. Statist. Data Anal. **48** (2005), no. 1, 159–205.
- [29] W.K. Wu, H. C. Chen and Y.X. Huang, *Antecedents and consequences of marketing audits: Empirical evidence*

- from Taiwanese firms*, Asia Pacific Manag. Rev.: Tainan **20** (2015), no. 3, 156–164.
- [30] M. Wetzels, G. Odekerken and C. Van Oppen, *Using PLS path modeling for assessing hierarchical construct models: Guidelines and empirical illustration*, MIS Quart. **33** (2009), no.1, 177–195.
- [31] N. Zamkova, V. Bondarenko, G. Pchelianska, O. Artyukh and T. Murenko, *Implementation of marketing audit into the sphere of electronic entrepreneurship*, Int. J. Manag.t **11** (2020), no. 6, 771–780.
- [32] O. Zyma, O.V. Ptashchenko, I. Shevchenko and O.M. Afanasieva, *International marketing and marketing audit in the context of European integration and globalization*, Eur. Market. Rev. **7** (2019), no. 10, 39–51.