DESIGNING A MANAGEMENT MODEL FOR CUSTOMERS' ONLINE SHOPPING EXPERIENCES DIGITAL GOODS IN VUCA CONDITIONS

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Abstract

The purpose of the current research is to design a model of the customer's managed online shopping experience in the field of selling digital goods on the Digikala site. The current research is fundamental-applied research in terms of its purpose, and in terms of the method of analysis, it is qualitative research with the grounded glaze method. The approach of the research has been conducted in an inductive way and in terms of time, in a cross-sectional way. The statistical community includes managers and retailers of companies that cooperate with Digikala site in the field of digital products industry. In this regard, a semi-structured interview was conducted with 15 marketing, sales and experts using judgmental and theoretical sampling methods between January and March 2022. In this research, face validity was used to check the validity of the interview questions, and in the coding process, the method of continuous engagement and participation with the research members was used. To check the reliability of the interviews, the test-retest reliability method was used, which was equal to 72.72%, and thus the reliability of the coding was confirmed. In this research, a total of 136 concepts and 42 categories were formed, which were categorized into 4 categories. Each of the 42 categories also affect the management of the actual customer experience based on their positive and negative experiences. Finally, the management of the customer's online shopping experience was presented separately in each of the Voca dimensions. The results showed that in order to improve the customer experience in Voca conditions and reduce negative experiences, it is better for organizations to become agile, smart and transparent, so that on the one hand, they can analyze the dimensions of Voca correctly and on the other hand, at the right time and in the right way according to the conditions. Voka react.

Keywords: Customer Experience Management, Customer Experience, Turbulence, Uncertainty, Ambiguity and Complexity.

INTRODUCTION

Today, businesses operate in an increasingly competitive world. Undoubtedly, the expectations of customers to obtain a complete and satisfactory experience in such an environment are increasing. It can be said that the competition is not based on product quality, service quality or price, and companies focus more on the overall customer experience; As a result, a better understanding of how to create and manage customer experiences over time is very important (Dieck & Han, 2022).

The most important challenge for today's businesses is to create a balance between the two goals of obtaining the best quality for the customer and obtaining the most profit and reducing costs for businesses (Hipli, 2017). These two approaches appear to be contradictory; But in fact, they are related to each other; Therefore, companies need to pay attention to both of them, and in order to create emotional bonds with their customers and create memorable experiences, they must have complete mastery of the field of customer experience management. (Mokhtari et al., 2021).

The authors of this research in another article titled "Designing a model of the actual online shopping experience of digital goods customers in Voca conditions, the customer experience according to the four main themes of Voca (turbulence, uncertainty, ambiguity and complexity) and also by considering positive and negative experience from the point of view the customers were categorized, which is discussed in the present article on the management of the acquired experiences. (Abdi et al., 2023).

Customer experience management requires using a customer journey perspective to address issues that affect the overall experience. Customer experience management is a strategy to shape the customer experience in order to create value for the customer and the organization. In general, customer experience management can be examined from a customer or organizational perspective. From the customer's point of view, consumers' perception is analyzed in terms of static and dynamic experiences.

In this case, factors such as environmental factors (influence of other customers) or personal factors (work definition, participation, nature of search activity and individual psychology) are beyond the control of the studied company, and in the case of the organizational perspective, the sequence of experience of contact points with companies The survey examines satisfaction, negative moments and time perception in the customer journey (Bonfanti et al., 2023).

The superiority of the experience perceived by the customer is one of the most important elements that affect customer satisfaction. It can be predicted that customer experience management strategies can create values for most organizations (Borishade at al., 2021).

Nowadays, people face new challenges every day with increasing turbulence and fluctuations in the markets. Uncertainty in business has made daily operations more complicated and ambiguous for stakeholders; So that organizations are forced to manage their business efficiently (Persis et al., 2021), one of the challenges that must be faced in the business world is the world of vocast (Tamara et al., 2021).

The modern business world is shaped in the environment or reality of Voca. This fact has made predicting the future challenging for entrepreneurs; because tested routines, proven habits or old used patterns no longer function properly in such an environment (Grzybowska & Tubis, 2022). Whether a person wants it or not, he has to adapt to this very unpleasant situation and this era full of uncertainty (Tamara et al., 2021).

US Army War College instructors coined the term WOKA as a response to ongoing changes and implications during the military commander training process in the 1990s. In this word, the abbreviation of the characteristics of unstable environment is defined.

After the events of September 11, 2001 in New York, the United States military became known as the University of Voca, which, in fact, meant agreeing to long-term changes not only in America, but around the world. This situation determined the acronym, which quickly evolved. In the business world, managers used Voca to define the chaotic and constantly changing business environment (Nowacka & Rzemak, 2022).

As mentioned, VOCA consists of four dimensions of turbulence, uncertainty, complexity and ambiguity. In practice, these four terms are related to each other. The more complex and unstable an industry is, the more difficult it is to predict and, as a result, more uncertain; however, all four titles represent distinct elements that make understanding and controlling the surrounding environment (world, market, industry) more difficult. (Shmen & Ludlun, 2021).

Studies show that the design of the management model of the customer's actual online shopping experience in the conditions of Voca (turbulence, uncertainty, complexity, ambiguity) has created a unique challenge for active businesses in the e-commerce industry. Nowadays, online shopping has become a popular way of purchasing products for consumers. Also, Voca's environment creates a complex and challenging landscape for online businesses to manage and then improve the customer experience.

Considering the prevailing competitive and unstable atmosphere of business environments, if organizations do not move properly in the direction of managing customer experiences in online shopping in Voka conditions, this lack of management will lead to a decrease in customer satisfaction, a decrease in customer loyalty, and ultimately, a decrease in the organization's income. (Mathew et al., 2023).

In the landscape of the rapidly evolving digital world, the online shopping industry is facing many challenges due to the conditions of fluctuation and turbulence, uncertainty, complexity and ambiguity (Voca) that characterize the market. In this context, designing a managed customer online shopping experience model in order to meet the dynamic needs and expectations of customers becomes very important.

It should be noted that the lack of sufficient research and comprehensive understanding about the effective design of such a model in the context of Voca, especially in the field of selling digital products, is noticeable among researches and organizations; As a result, in order to identify effective strategies, there is an urgent need to investigate the problems and issues related to the design of a customer-managed online shopping experience model in Voca conditions that can increase customer satisfaction, interaction and loyalty.

The researchers in the current research try to fill this knowledge gap by examining the specific challenges and opportunities presented by Voca conditions and also by proposing a model that provides online shopping experience management for managers in the field of digital product sales, focusing on the case study of digital goods.

By addressing these problems and issues, the purpose of the current research is to provide valuable insights and practical recommendations that can help online retailers adapt and thrive in Voca while providing exceptional customer experiences; Therefore, in this research, the researchers intend to continue their previous research in which the actual experience in the Voka environment was examined, to design a management model for the actual customer online shopping experience in each of the Voca dimensions separately, and then to examine their management and finally, to answer the first basic question, how is the management of the actual experience of online shopping in the digital goods industry in each of the Voca dimensions?

The next question that will be addressed in the current research is how to manage the positive and negative experience in online shopping?

Research Theoretical Foundations

Voca combines four different types of challenges in one word with four different answers. Voca is an acronym derived from the following words:

Volatility: Occurs in situations where the established practice pattern is changed or violated. Normally, it is not possible to reasonably predict the number of changes that occur in organizations. Often there are new ideas, ideas that employees are unsure about. This is due to untested and non-obvious solutions and the use of old solutions. The determining factors of turbulence in business are: digitization, global competition or any innovation in business models (Nowacka & Rzemieniak, 2022).

Uncertainty: Uncertainty is related to a lack of sense of control and uncertainty about what will happen in the near future. Unstable conditions make it impossible to rely on developed patterns as indicators for predicting future results.

The consequence of such conditions is difficulty in making correct business decisions. Conditions that can be defined as uncertain affect a relatively low level of awareness and, as a result, understanding and accepting situations. Organizational uncertainty directly affects the length of the planning process (Nowacka & Rzemieniak, 2022).

Complexity: Complexity becomes apparent when there are many turbulences and fluctuations in organizations. There are many reasons for the occurrence of an event, as well as causes and effects that are not clear in their specifications.

Difficulty in understanding the relationship between the components of the chain of cause and effect. Chaos surrounds companies. The complexity and multiple nature of causes is infinitely long and means that it is impossible to define them (Nowacka & Rzemieniak, 2022).

Ambiguity: Ambiguity in most cases includes commercial ambiguity. Ambiguity occurs when there are too many options to choose from in a situation. It is very important to be agile in situations of ambiguity. Companies that remain in their conservative state cannot succeed in the uncertain future (Nowacka & Rzemieniak, 2022).

Customer experience management

Customer experience management can be described as the focused efforts that an organization has made to drive the value of transactions between the customer and the organization at various touch points in a reliable and operational manner. By employing customer experience management strategies, an organization can achieve sustainable competitive advantage, create favorable moments of truth for customers, improve customer experience, intensify profits, drive customer retention, and drive favorable customer referrals. Have in other words, customer experience management in any organization is the most important component in creating customer loyalty (Borishade et al., 2021).

Table 1: Background of the research

Name	Title	Research method and statistical society	Result
Wereda et al., 2023	"Customer service and building secure relationships between the company and suppliers in the time of Voca"	The research method used in this study was qualitative and quantitative. Also, a diagnostic survey method was used to analyze the data by distributing questionnaires among innovative companies.	The observations contained in the article are part of a wider research on the role of customer service and the creation of secure relationships between companies and suppliers in the present era. Incorporating quality suppliers into a business can greatly increase customer service and operational efficiency. Establishing secure and favorable relationships with suppliers can also lead to valuable business partnerships, providing fresh insights and opening new avenues.
Direction, 2023	"Marketing Activities in an Unpredictable Environment: Agility and Voca Approach"	Qualitatively and in a hyper composite way	In industries that are unpredictable, existing marketing strategies can be effective. Leaders need the necessary management skills to adapt the elements of the marketing mix and create an appropriate marketing strategy that is agile and flexible enough to meet evolving customer needs.
Mathew et al., 2023	"Innovation in India's Healthcare Industry to Survive in the Age of Vocabulary"	The research is based on secondary data including extensive analysis of research articles, media articles and background reports along with a survey of recent innovations conducted with top healthcare companies and hospitals in India.	Findings show that moving from a supply-based health care system to a patient-centered system is necessary; Organizations in India are therefore forced to embrace innovation, agility and adaptability in tandem to prevail in the Voca Age.
Rahman et al., 2023	A hybrid propositional theory of Voca and decision-making for logistics companies in Oman due to the uncertainty of concurrent factors.	This study proposes a decision-making model for small and medium-sized logistics companies in Oman to analyze multiple potential business strategies (taking into account the uncertainty of contemporary factors). In this research, a combination of multi-criteria decision-making methods, i.e. hierarchical analysis process, fuzzy link-based approach and evidential reasoning approach were used.	The results showed that the use of the business strategy of "focused business activities" is the priority of the test, and due to the geographic location of the market, it is more necessary to implement these strategies quickly. This new study helps in developing a decision-making model for logistics companies in Oman as a new measurement scale when dealing with uncertainty and external factors of the business environment.

Lestari, 2022	"Digital Marketing Strategy for Small and Medium Enterprises in the Age of Vocabulary (Volatility, Uncertainty, Complexity and Ambiguity)"	This research has been conducted quantitatively and as a case study in Indonesia.	The biggest problems facing organizations in Indonesia today are capital (51.09%) and marketing (34.72%). Today, in the age of Voca, business situations are unstable and lead to uncertainty.
Purcarea et al., 2021	"Voca's Time Test for Retail 0.4 Influenced by 0.4 Industry Technologies, Creating Real-Time Digital Customer Experiences, Recovering Faster from the Pandemic and Adapting to the Next Normal"	This research was conducted qualitatively and through a systematic review study.	The results showed that the retailers should provide innovative solutions according to the unstructured feedback of their customers, to benefit from a better understanding of the obstacles in using their customers' data, to promote customer orientation and sustainable growth, etc.
Mardazadnavi and colleagues (2023)	Identifying organizational factors and components affecting the maturity of customer experience management by applying the meta-combination method	By using meta combination method, organizational factors and components affecting the maturity of customer experience management have been identified. Sandelowski and Barroso's (2006) seven-step approach was used to explain the meta-combination methodology.	After analyzing the used sources, the codes were discovered and labeled based on similarity and frequency of repetition in 10 main categories, 26 concepts and 116 open codes (repeated), and finally, the results of the analysis were presented in the form of a table of factors and components.
Ahmadi Isfahani (2021)	"Using bilateral organizational skills in strategic management under the conditions of a VUCA environment"	This research was conducted through a library study regarding the investigation of nanotechnology companies in Iran.	By conducting a detailed analysis of the two-way organizational skill mechanism, this research sheds light on the background of strategic management that works in a more chaotic environment.

RESEARCH METHODOLOGY

The present research is applied research. The qualitative research method used in this research is the grounded method. The approach of the research is inductive and it is cross-sectional in terms of time. The statistical population includes digital product managers who work in the digital products industry. In this regard, first, a semi-structured interview was conducted to the point of saturation with 10 managers according to the protocol. After reaching the saturation point, interviews were conducted with 5 other people to ensure that they provided new points, and then it was ensured that 10 interviews were sufficient. The initial questions were designed based on the results obtained from the previous research about the actual positive and negative experience of customers in the Voca environment. Then the interviews were transcribed. The characteristics of the interviewees are presented in Table 2 with an overview.

Table 2: Sample characteristics

gender		education			Age			field of study			Interview duration
Man	Woman	Bachelor's degree	Senior	Ph.D. and Ph.D. student و دانشجوی دکتری	20 to 30 years	30 to 40 years	More than 40 years	Management	Accounting and finance	Other	14 years
8	2	3	5	2	2	5	3	5	2	3	

In the current research, face validity was used to determine the validity of the interview and its questions, continuous engagement and participation with the research members and triangulation were used to check the validity in the coding process, and retest reliability was used to check the reliability of the interviews. In this regard, two experts who had full knowledge of the subject of the research were requested to participate in the research as coders. In each of the interviews, the codes that were similar to each other from the point of view of two people were marked as agreement, and the codes that were not similar were marked as non-agreement.

$$\text{Reliability percentage} = \frac{2 * \text{Agreements Number}}{\text{Total number of codes}} \; 100\%$$

Table 3: Retest reliability table

interview title	Codes number	Agreements number	Disagreements number	Test-retest reliability (percentage)
N1	101	39	16	77.2
N2	97	38	8	78.35
Total	198	72	24	72.72

The total retest reliability is equal to 72/72, which means it is more than 60%; therefore, it can be concluded that the reliability of coding in the present study has been confirmed.

RESEARCH FINDINGS

The process of theorizing the data base in Glazer's approach with the process of continuous data analysis to identify the management indicators of the customer's actual online shopping experience is as follows.

Entering the research field

Theoretical sampling

Open (true) coding: The first level in Glaser's approach is abstraction, which is for data analysis and conceptualization to extract a set of categories and their properties. This is done by coding as many categories as possible. In open coding, it is better to fundamentally discuss the researcher's attention. At this stage, the extracted data are compared when more data is coded and gradually integrated into new concepts.

Note-taking: At this stage, the researcher takes note of the important points according to his theoretical sensitivity in qualitative data. This happens simultaneously with data encoding. In this stage, the back-and-forth between theoretical concepts and codes is formed and thus the process of abduction takes place.

Theoretical Coding: Once codes and notes are accumulated, the discovery of relationships between them begins. This process, called theoretical coding, conceptualizes the relationships of the open codes by generating hypotheses so that the codes and notes can be integrated into a theory. In other words, theoretical codes integrate the theory by weaving broken concepts into hypotheses. Theoretical coding means that the researcher discovers a theoretical model about the data.

Selective coding: data is coded selectively after selecting the central variable. In a way that directs the coding variable. Selective coding can be done by reviewing field notes. In this regard, the categories classified in the theoretical coding stage are categorized into more general concepts.

Examining the existing specialized background: In this stage, the theoretical foundations and specialized background related to the concept of managing the customer's online shopping experience, critical review and presentation of the conceptual framework are reviewed.

Achieving theoretical adequacy: In this step, using the qualitative matrix of categories, the theoretical saturation of the data is presented for the management design of the customer's actual online shopping experience.

Writing (theoretical condensation): in line with the cases mentioned in the present research, to enter the subject, first the background and the protocol of formation were examined. Then the protocol was formed based on the dimensions of Voca. Based on this, first 10 managers were interviewed in a semi-structured manner and then open coding was done. The full text of all the important phrases extracted and the compiled meanings for each of them separately for each interview and in the format of open coding and also in the format of two tables as an example are presented in Table 4.

Table 4: Coding of interview number 1

Row	Important phrases	Markers	Editorial meaning
1	Depending on the nature of the organization, we try to minimize uncertainty with different methods. The	A1B1	Minimize uncertainty
2	Sometimes, due to various external factors, the prediction of the subject becomes complicated and variable.	A1B2	unpredictability in complex situations
3	Sometimes, due to various factors, the control and management of the issue becomes complicated.	A1B3	Control and management of inappropriateness in complex situations
4	The general approach of the site in order to manage and control the conditions of uncertainty is to use statistical surveys and analyses.	A1B4	Using statistical surveys and analyzes in conditions of uncertainty
5	In website design, management and control of uncertainty conditions have not been paid much attention.	A1B5	Neglecting to manage and control uncertainty conditions in website design
6	The issue of distribution channels is managed with a variety of distribution methods and the use of a wide distribution network and agencies in the country in order to pay attention to the management and control of uncertainty conditions.	A1B6	Using distribution methods and distribution networks in controlling uncertainty conditions
7	Guidance and information are provided through the creation of different channels and procedures in relation to the service that can be provided to the customer in order to reduce uncertainty.	A1B7	Guiding and informing and creating channels in order to reduce uncertainty
8	The company has no role in controlling sales and price uncertainties. The	A1B8	Not controlling uncertainty in sales and pricing, complexity in determining the price in certain conditions, ambiguity in pricing.
9	Provision of services to internal users with the deployment of different systems such as ERP and CRM face less uncertainty.	A1B9	Using management systems to meet customer needs and reduce uncertainty
10	Providing services to external customers	A1B10	Not providing services to external

	whose issues are not well managed and mostly face negative reactions.			customers and creating complexity
11	The pricing mechanism is out of the control of the organization.		A1B11	Uncertainty in pricing. Complexity in pricing Ambiguity in pricing.
12	In determining the suppliers, based on the marketing done, the best supplier is selected.		A1B12	Reduction of complexity in the selection of suppliers based on marketing, Reducing ambiguity in supplier selection

Table 5 is a table compiled from the open coding of the interviews in order to form categories based on the research findings.

Type of category (type of experience)	مقوله	The number of codes corresponding to each concept کدهای متناظر هر مفهوم	Corresponding codes of each concept	Concept
Positive experience	Reducing uncertainties	2	A1B1 A4B12	Minimize uncertainty Minimizing uncertainty in processes
Negative experience	Unpredictability of actions in complex situations	2	A1B2 A3B14	Unpredictability in complex situations Unpredictability of actions in complex situations
Negative experience	Unpredictability in changing conditions	2	A1B2 A3B14	Unpredictability in changing conditions Unpredictability in changing conditions
Negative experience	Having proper control and management in complex situations	2	A1B3 A4B13	Having proper control and management in complex situations Controlling and managing inappropriateness in complex situations
Positive experience	The use of statistical analysis in conditions of uncertainty	2	A1B4 A5B12	The use of statistical surveys and analyzes in conditions of uncertainty, The use of statistical analysis in conditions of uncertainty.
Negative experience	Neglecting to control uncertainty conditions in website design	2	A1B5 A3B15	Inattention to managing and controlling conditions, uncertainty in website design, Neglecting to control uncertainty conditions in website design.
Positive experience	Using distribution methods and distribution networks in controlling uncertainty conditions	5	A1B6 A9B9 A8B1 A6B5 A3B4	The use of distribution methods and distribution networks in controlling the conditions of uncertainty. The use of distribution methods and distribution networks in controlling the conditions of uncertainty. The use of distribution methods and distribution networks in controlling the

				conditions of uncertainty. The use of distribution networks in controlling conditions of uncertainty. Using distribution networks in controlling uncertainty conditions.
Positive experience	Guidance, informing and creating channels in order to reduce uncertainty	5	A1B7 A9B10 A7B8 A2B3 A5B9	Guidance and information and creation of channels in order to reduce uncertainty guidance, informing and creating channels in order to reduce uncertainty, Guidance, informing and creating channels in order to reduce uncertainty Guidance and information and creation of channels in order to reduce uncertainty Guidance and information and creation of channels in order to reduce uncertainty
Negative experience	Not controlling the company in pricing due to the role of governing institutions	3	A1B8 A1B11 A2B8	Not controlling the uncertainty in sales and pricing, Uncertainty in pricing The role of governing institutions in pricing in conditions of uncertainty and company incapacity.
Negative experience	Complexity in pricing	3	A1B8 A2B8 A1B11	Complexity in determining the price in certain conditions, Complexity in determining the price in certain conditions, Complexity in pricing.
Negative experience	Ambiguity in pricing	4	A1B8 A2B8 A1B11 A2B2	Ambiguity in pricing, Ambiguity in pricing, Ambiguity in pricing, Price uncertainties.
Positive experience	Using management systems to meet customer needs and reduce uncertainty	2	A1B9 A6B11	Using management systems to meet customer needs and reduce uncertainty. Using management systems to meet customer needs and reduce uncertainty
Positive experience	Creating a distinction between original and fake products in order to reduce ambiguity	2	A6B1 A5B4	Creating a distinction between original and fake products in order to reduce ambiguity Creating a distinction between original and fake products in order to reduce ambiguity
Negative experience	Lack of information about the return of some goods and creating complications	1	A4B4	Lack of information about the return of some goods and creating complications
Positive experience	Existence of information about the product in order to reduce complexity	1	A4B10	Existence of information about the product in order to reduce complexity

Table 7: Table of categories and classes based on Voca dimensions and research findings

Type of category (type of experience)	Categories	The floors are based on the dimensions of Waka	general category (paradigm)
Negative experience	Unpredictability in changing conditions	turbulence	Managing the customer's actual online shopping experience in each of Voca's dimensions
Positive experience	Eliminate turbulence by evaluating and managing the technology cycle		
Positive experience	Managing turbulence about some volatile products		
Negative experience	Not managing price fluctuations		
Negative experience	Not managing the volatility of the dollar		
Positive experience	Reducing turbulence about the site's showcase		
Positive experience	Reducing uncertainties	uncertainty	
Positive experience	The use of statistical analysis in conditions of uncertainty		
Negative experience	Neglecting to control uncertainty conditions in website design		
Positive experience	Using distribution methods and distribution networks in controlling uncertainty conditions		
Positive experience	Guiding and informing and creating channels in order to reduce uncertainty		
Negative experience	Lack of company control in pricing due to the role of governing institutions		
Positive experience	Using management systems to meet customer needs and reduce uncertainty		
Positive experience	Providing accurate information in uncertainty management		
Positive experience	Uncertainty control and reassurance with guarantee and warranty and service provision		
Positive experience	Creating certainty in product pricing		
Positive experience	The availability of goods in order to increase certainty		
Negative experience	Ambiguity in pricing	Ambiguity	
Positive experience	Reducing ambiguity in supplier selection		
Positive experience	Creating a mechanism to reduce the ambiguity of customers in payment		
Positive experience	Reducing uncertainty in choosing goods by comparison		
Positive experience	Reducing ambiguity by receiving user comments about the product		
Positive	The possibility of price comparison in order to		

experience	reduce ambiguity		
Positive experience	Reduce uncertainty about product performance and installation conditions with support unit		
Positive experience	Reducing uncertainty in delivery by creating an artificial intelligence mechanism		
Negative experience	Creating ambiguity in determining responsibility for product installation		
Positive experience	Creating a distinction between original and fake products in order to reduce ambiguity		
Negative experience	Unpredictability of actions in complex situations		
Negative experience	Not having proper control and management in complex situations		
Negative experience	Complexity in pricing		
Negative experience	Not providing customer service and creating complexity		
Positive experience	Reduction of complexity in selection due to the presence of selected suppliers		
Positive experience	Examining customers' tastes in order to reduce complexity		
Positive experience	Reducing complexity by making it possible to compare goods		
Positive experience	Comparing goods in terms of price in order to reduce complexity	**Complexity**	
Negative experience	Complexity in choosing due to the presence of several suppliers		
Positive experience	Reducing the complexity in determining the price by providing an accurate invoice		
Positive experience	Reducing the complexity of the site by familiarizing the user with it		
Positive experience	Creating filter facilities on the site in order to reduce complexity		
Positive experience	Using high-quality images to reduce complexity		
Negative experience	Lack of information about the return of some goods and creating complications		
Positive experience	Existence of information about the product in order to reduce complexity		

Based on the default paradigm of the research, the categories were categorized in categories based on the dimensions of Voca. A total of 136 concepts and 42 categories were formed, which were categorized into 4 categories. There were 6 categories in the turbulence category, 11 categories in the uncertainty category, 10 categories in the ambiguity category and 15 categories in the complexity category.

The current research can be used as a model for designing models of managed customer online shopping experience that has taken place in Voca conditions in the field of digital goods sales. The management of the customer's online shopping experience is at the center of the model

and each of the Voca dimensions affects it as classes. In fact, the direction of the arrow from these dimensions is to the center of the pattern. Each of the 42 categories also affect the management of the customer's actual online shopping experience based on the negative and positive experiences they have in their nature. In this model, there will be two-way and one-way communication, where classes may affect each other or the categories of each class may affect the categories of other classes; Of course, the management of the customer's actual online shopping experience can be positive or negative in each of these four categories. The positive experience is the actions that the company has been able to take in order to overcome each of these four dimensions and then manage the customer's actual online shopping experience; but the negative experience is the result of the fact that the company has not been able to properly manage the customer's online shopping experience.

CONCLUSION

The current research is a continuation of the research that was conducted about the actual experience of customers in the Voca environment. Based on the findings of this research, it is suggested that a strategic program be implemented in order to effectively manage positive experiences for the online retail company in the volatile, uncertain, complex and ambiguous environment (Voca). Based on the results obtained by prioritizing customer satisfaction and using the opportunities presented by the digital landscape, things like creating exceptional positive experiences for customers, strengthening loyalty and business growth are created. By implementing this comprehensive strategy, the organization can effectively manage the positive experiences of its online retail company in the Voca environment. Also, the organization will create a competitive advantage with personalized interactions, seamless experiences across channels, efficient customer service, continuous improvement and a customer-centric approach, thereby strengthening brand loyalty, which itself leads to sustainable growth in the market.

The following steps are important for positive customer experience management.

- Understanding customer expectations

Understanding customer expectations is very important to provide positive experiences. To implement a positive experience, comprehensive customer research should be done using surveys, data analysis, and social media monitoring to learn about their needs, preferences, and evolving trends.

- Personalized customer interactions

Customer data and advanced analytics are used to personalize customer interactions. This information can be used to provide customized product recommendations, targeted advertising and personalized communications. This level of personalization enhances the customer experience and then creates a deeper connection with the brand.

- Omni-channel integrated experience

In order to ensure a positive experience, it is better to offer a positive experience to the customers in an integrated manner at the entire level of the channel. This means integrating the online platform with physical stores, mobile apps and social media channels. By providing a consistent and comfortable experience at all contact points, the organization can respond to the preferences of its customers and end the shopping journey with a positive experience.

- Efficient customer service

Providing exceptional customer service is the foundation of positive experiences. Trained representatives and advanced technologies should be used in the customer service infrastructure. The customer service team should be very diligent in answering customer questions and resolving their issues quickly.

- Active communication

In a Voca environment, it is very important to actively communicate with customers. Actively engage with communication channels such as chatbots, live chat support, and social media response teams to improve the overall experience.

Continuous improvement

It is suggested to strengthen the continuous improvement system by regularly analyzing customer feedback and monitoring key performance indicators. Also, it is possible to identify areas for improvement and implement necessary changes by actively seeking customer opinions. This commitment helps to continuously improve and meet customer expectations.

- Empowering employees

Employees play an important role in providing positive experiences; therefore, organizations should invest in their training and development so that they are equipped with the necessary skills and knowledge to provide exceptional customer service. Empowered employees who understand company values and care about customer satisfaction will significantly contribute to positive experiences.

- Build brand loyalty

Organizations should focus on building brand loyalty by creating memorable customer experiences. This includes exciting and exciting initiatives, loyalty programs and personalized rewards. By cultivating a sense of loyalty and gratitude, long-term relationships between customers and the organization can be strengthened.

- Monitoring and Evaluation

To measure the effectiveness of positive experience management strategy, key performance indicators (KPI) such as customer satisfaction score, customer retention rate and net advertiser score (NPS) should be designed. Regular monitoring and evaluation of these metrics enables organizations to track their progress and make data-driven decisions. By implementing this preventive plan about managing negative experiences, the organization must show its

commitment to customer satisfaction so that customers can reduce the impact of negative events and protect the reputation of their brand. By creating a capable customer service infrastructure, responding and solving problems quickly, effective communication, continuous improvement and customer retention strategies, the organization can examine the challenges of Voca's environment and create strong relationships with customers based on trust and loyalty.

The following steps are important for managing a negative experience.

- Strong customer service infrastructure

Having a capable infrastructure, the organization can effectively manage negative experiences. This includes training the customer service team to empathetically handle customer complaints, providing the necessary resources and authority to resolve issues quickly, and implementing efficient communication channels to ensure a seamless problem resolution process.

- Fast response and resolution

Speed is critical in a Voca environment. It is suggested that they establish clear response time standards for handling customer complaints to ensure that customer responses are provided in a timely manner.

- Empathy and active listening

Empathy is essential when managing negative experiences. Organizations should train their customer service representatives to actively listen to customer concerns and be empathetic and patient throughout the process. Organizations with continuous empathy will be able to turn negative experiences into positive ones.

Effective communication

Clear communication is the key to managing negative experiences. The organization should communicate with customers in a concise and understandable manner, informing them of the progress of their concerns and then providing a realistic timeline for resolution. In the meantime, regular and active updates will help manage trust expectations.

Continuous improvement

It is better for organizations to look at negative experiences as learning opportunities for continuous improvement. By analyzing the root causes of customer complaints, identifying patterns and implementing corrective measures, organizations can prevent the recurrence of similar problems. This commitment helps the organization learn and improve to provide better experiences in the future.

Feedback mechanism

Implementing a feedback mechanism to manage negative experiences is critical. It's best to actively encourage customers to provide feedback with surveys, online reviews, and feedback forms. By gaining customer insights, the organization can gain valuable information to address recurring problems and improve its products and services.

- Social media monitoring and reputation management

In the digital age, social media plays an important role in shaping brand perception. Social media platforms should always be monitored for brand mentions and any negative comments or reviews should be responded to promptly. By addressing these concerns publicly and professionally, organizations can demonstrate their commitment to customer satisfaction and then reduce reputational damage.

- Customer retention strategies

Regarding retention of customers who have had negative experiences, targeted retention strategies should be implemented. This may include personal offers, discounts or additional benefits to demonstrate the organization's commitment to customer satisfaction.

- Continuous monitoring and evaluation

It is recommended to continuously review and evaluate key performance indicators (KPI) related to customer satisfaction, time to resolve complaints and customer retention. By analyzing these criteria, the organization can always track its progress, identify areas for improvement, adjust its strategies accordingly, and then effectively manage negative experiences in the Voca environment.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

In general, research limitations in any research can be different according to the research topic, necessary data, time limits, budget and other factors. In conducting the present research, some research limitations can be stated as follows.

Limitations	Suggestions for future research
The current research is only for one industry and cannot be generalized to other industries.	It is suggested that the present research be carried out in other industries as well.
The mental preparation for the answer has been low. The interviewees sometimes did not understand the exact difference between the dimensions of Voca, and as a result, the concepts were mixed.	Before conducting interviews and research, graphic designs and podcasts should be presented to the interviewees in order to understand the exact difference of Voca dimensions; For example, use other methods such as focus group.

Practical suggestions

Considering the conditions of ambiguity, uncertainty, turbulence and complexity (VOC) in the sale of digital goods, customer experience management has become one of the most important success factors of e-commerce. In the following, some practical suggestions for managing the customer experience in online shopping in terms of Voca will be presented to Digikala.

Categories	suggestions
Unpredictability in changing conditions	Implement a real-time monitoring and forecasting system that uses data analytics to predict changes in market conditions. By continuously analyzing market trends, customer behavior and external factors, strategies and offers can be actively adapted. Minimize the impact of unpredictable changes. This enables the organization to stay ahead of the competition and thus ensure a seamless customer purchase.
Eliminate turbulence by evaluating and managing the technology cycle	Develop a technology life cycle assessment and management process to assess the life cycle of digital goods. This includes monitoring technological developments, assessing product obsolescence, and planning for timely upgrades or replacements.
Managing turbulence about some volatile products	Using a demand forecasting model that uses historical sales data, market trends, and customer preferences to accurately predict demand for highly variable products. By understanding demand patterns, inventory management can be optimized and product availability can be ensured to minimize the turbulence caused by demand fluctuation.
Reducing turbulence about the site's showcase	The website showcase should be optimized by implementing personalization algorithms (analysis of customer behavior, preferences and browsing history). By adapting the displayed products to each customer, information overload can be reduced and then provide a more relevant and engaging shopping experience. The site's showcase should be updated based on real-time data to adapt to changing customer needs and preferences.
Reducing uncertainties	Implement a comprehensive FAQ section on the website to address common customer concerns and provide clear and accurate information on product details, shipping, returns, and customer support. The organization should regularly update and expand the Q&A section based on customer feedback and emerging uncertainties.
The use of statistical analysis in conditions of uncertainty	Use statistical analysis techniques to analyze customer data, market trends, and sales patterns to gain insights and make data-driven decisions. By applying modeling and forecasting methods, it is possible to better predict customer needs and then optimize inventory management and reduce the impact of uncertainties.
Neglecting to control uncertainty conditions in website design	During the website design process, pay attention to uncertainty control. To ensure ease of use and minimize confusion, Optimize user interfaces. Share important information like pricing, shipping, and return policies clearly on product pages, then provide intuitive search and filter options to help customers find what they need. To continuously improve website design and reduce ambiguities, conduct user testing and collect feedback.
Using distribution methods and distribution networks in controlling uncertainty conditions	Establish a strategic partnership with reliable distribution networks. In this regard, it is suggested to use effective distribution methods to increase control over uncertainties. Working closely with reliable logistics and transportation providers to ensure timely and accurate delivery of products while maintaining strong relationships with distribution partners can reduce uncertainties related to transportation and inventory management.
Uncontrollability of the company in pricing due to the role of governing institutions	A transparent pricing strategy should be adopted to clearly state the product price, discounts and any applicable fees. Also, provide a detailed breakdown of costs so that the organization can make sure that customers have a clear understanding of the total price they are paying.

Creating certainty in product pricing	Create a transparent pricing strategy that removes ambiguity and provides clarity to customers. Displaying accurate and consistent price information for each product (including any discounts or promotional offers) leads to greater customer trust.
Availability of goods in order to increase certainty	Implement effective inventory management systems and processes to ensure product availability. In this regard, inventory levels should be updated regularly and mechanisms for customers to receive notifications (when the required items are in stock) should be implemented.
Ambiguity in pricing	Developing a pricing policy that focuses on clarification and transparency. In this regard, provide clear and concise pricing information for each product (including fees or additional charges). Also, complex pricing structures and hidden costs that may create ambiguity should be avoided.
Reducing ambiguity in supplier selection	The organization must establish a robust supplier evaluation process based on predefined criteria (reliability, product quality, and responsiveness). Conducting thorough research and vetting potential suppliers will increase the customer's level of confidence. For this, the qualifications and records of the selected suppliers must be displayed.
Complexity in pricing	Simplify the pricing structure by removing unnecessary complications (hidden fees or complex discount schemes). In this regard, the organization must clearly state pricing information (including any applicable taxes or surcharges). Also, provide clear and understandable invoices that reduce costs.
Not providing customer service and creating complexity	In order to provide timely and effective help to customers, the organization should invest in customer service systems and channels. It is recommended that a multi-channel support strategy (including options for live chat, email and phone support) be implemented. Also, customer service officials should be trained to be responsive and sympathetic.
Reduction of complexity in selection due to the presence of selected suppliers	A select group of reliable suppliers is selected based on quality, reliability and alignment with customer preferences and selection criteria are clearly stated and then the benefits of these selected suppliers are highlighted. The organization can simplify the selection process by reducing the number of suppliers and emphasizing on the chosen ones, and then increase the trust of customers.
Existence of information about the product in order to reduce complexity	Ensure that accurate information about each product is available on the website. This includes comprehensive descriptions, specifications, customer reviews, and FAQs.

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