

# Designing a multi-dimensional model of customer experience management in private educational institutions through overlapping coding (Foundation Data Strategy)

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## Abstract

Although there is a general agreement about the value of customer experience management in businesses, but so far there is no model that has analyzed all the functions of this valuable concept in an integrated and comprehensive manner in the private educational institutions of the country, and a clear theoretical explanation in this regard has not been found. According to this topic, the current research aims to present a comprehensive model of customer experience management in private educational institutions. This fundamental research has been carried out in the framework of a qualitative approach and an inductive path that uses the strategy of ground theory. For this purpose, 13 in-depth semi-structured interviews that followed a judgment path were taken from experts in various educational fields until the theoretical saturation stage. Then, the qualitative data obtained from the three stages of open, central and selective coding were analyzed in the MAX QDA 2020 software, based on which the research model was designed. The results of the research indicated the extraction of more than 129 codes unique to Fardwalyah, which led to the creation of a model with 2 subcategories, 24 main categories and 8 core codes, which are presented in a new model that uses overlapping coding. The core codes obtained from this research include: mental modulating factors, dignity marketing, customer experience management, macro-environmental factors, two-way empowerment, satisfaction with educational services, multiple student perceptions and loyalty.

Keywords: Customer Experience Management, Education Industry, Grounded Theory, MAXQDA, Overlapping Coding  
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## 1 Introduction

Entering the new century, when organizations and companies, especially educational institutions and institutions, are facing a highly competitive environment both internally and externally, the need is felt that fundamental and planned changes and even work creativity can solve the confusing tangle of today's competitive environment. One of the valuable concepts that can show the way in this cloudy sky for sustainability in this competition is the term customer experience and its management. Because not only a business organization and institution but also an entire

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economy depends on customers who can keep businesses stable if they are satisfied. But the important thing is how this process should be done. Today, the valuable word of customer experience management is seen more or less in all production and service organizations. In fact, organizations try to direct their strategies in the field of the customer and its various factors to maximize their goals in the correct marketing direction, but building a great and targeted experience is far more difficult than building a product or service [9]. It seems that this discussion can be very effective for Iranian companies and educational institutions. In fact, all commercial enterprises, including those active in the consumer and service markets and industrial goods, need this discussion, so customer experience management is not limited to a specific industry. It is one of the topics in the field of consumer behaviour that has attracted the attention of scientists in this field for more than 20 years. It is the topic of customer experience management, which is used as one of the tools in the hands of organizations and manufacturing and service companies to develop brand names, increase productivity and profitability and stay in the competition course [12, 22].

The theoretical topics of marketing management science have seen many ups and downs in its evolution. It seems that after passing from consumption-oriented to service-oriented and reaching the concept of experience, we are witnessing a new frequency in the theoretical foundations of marketing science, this frequency is nothing but entering a new era of economy called the experience economy, which was proposed by Payne and Gilmore in It was proposed in 1998 [35]. But if we want to trace the roots of customer experience, we must trace this concept back to the 1960s, when the initial teachings about marketing and consumer behaviour were communicated by the great teacher Philip Kotler in 1967 [29]. Of course, the concept of customer experience was first introduced to marketing literature through Holbrook and Hirschman in 1982, and in the years since then, the term customer experience has evolved from a thoughtful and logical path to a more comprehensive function including hedonistic and emotional aspects [19]. This means that other organizations and production and service centers can't have anything to say just by relying on their products or services, something else is needed and that is creating a pleasant and unique experience in the mind of the customer and managing it in different dimensions. It is business [15].

## 2 The importance of research

Research shows that the concept of customer experience and its management has been viewed from a lens that cannot be used for all industries, and this may be the reason for research that has been conducted only in certain areas such as tourism, handicrafts, hotel management, banking, etc. Some industries are especially seen in the field of education. Therefore, according to the purpose of the research, which seeks to solve this research gap, the researcher bases his research on the question, what is the model of customer experience management in private educational institutions? Also, what are the drivers that are the most effective factors in the customer experience management process? And what are the consequences or reflections that this valuable concept can have on the researcher's target society? The results of past research show that 81 percent of organizations and institutions that can create an excellent and enjoyable experience for customers, are more successful in obtaining their market share of products and services than other companies and institutions, and this victory is only by spending 10 A percentage of their capital is created [40]. Of course, in another research, it is stated that 86% of customers are willing to pay more to get a better experience, but only 1% of customers feel that companies and institutions fulfil this importance [2].

In this regard, new statistics showed that 93% of business managers and operators think that an empathetic, soothing and need-based experience is necessary to improve the overall efficiency of a business [24]. Creating experiences for customers is as important as satisfying needs, which is why more companies and institutions today recognize the importance of customer experience as part of their marketing strategy [36]. It is for this reason that in the modern era, marketing concepts for value creation and staying up-to-date can no longer function as before, and this means that the marketing mix adaptation is no longer effective and does not fit with today's realities. In fact, today trust is the basis and cornerstone of mental image. It is customers at a time when marketing suffers from a lack of trust, which is fatal for them because trust is the key to a lasting business. The question that appears here is how to gain the trust of customers. This is where we say that the dominant goal of marketing should be the positive experience of customers, and this means uniform access to products, services, content and solutions provided by the organization. In fact, today, pioneering institutions are focused on creating shared value with their customers and establishing correct communication [28]. This shows that customers don't just want to buy products, but they have a great interest in experiencing amazing and unique experiences [31]. Also, in the last few decades, the existing patterns in marketing science have been transformed, from the concepts of brand name and attention to it to the marketing of unique services, and recently to the creation of a pleasurable experience and the management of customer experience as an element that can cause Increasing profit and productivity, as well as retaining previous customers and attracting new customers, has been a guide [35].

### 3 Theoretical

#### 3.1 What is marketing?

Today, marketing has become one of the main tools of strategic business management. In fact, marketing no longer returns to the era of industrialization because modern business has entered a philosophy whose main tool is marketing based on the interaction between the organization and the customer. For this reason, marketers pay more attention to active research and modelling of consumer behaviour [38]. Today, businesses need marketing and marketers more than ever to overcome the complexities of the business market so that they can bring the promise of profit in competitive markets as a creative tool for businesses [30]. Of course, it should be acknowledged that compared to other commercial activities, marketing deals more with the customer and creating value for the customer is at the center of modern marketing thought and practice [37]. Today, marketing should not be considered in its old concept, i.e. sales, but in its new concept, i.e. estimating customer needs [10]. In fact, marketing is the activity of a set of processes that can create a presentation, an exchange, or even an offer for customers, which generally creates value for the organization, for the customer, and for society [16]. Next, different periods of marketing along with the approaches of each period are shown in Table 1.

Table 1: The main marketing courses [21]

COMMON APPROACH	ESTIMATED TIME	THE PERIOD
A GOOD PRODUCT SELLS ITSELF	Before the 1920s	Production
CREATIVE ADVERTISING AND SALES OVERCOME CONSUMER RESISTANCE AND ENCOURAGE THEM TO BUY.	Before the 1950s	Sale
THE CONSUMER IS THE RULER OR THE KING. FIND THE NEED AND SOLVE IT	Since the 1950s	Marketing
LONG-TERM RELATIONSHIPS WITH CONSUMERS AND OTHER PARTNERS LEAD TO SUCCESS	Since the 1990s	Communications

In fact, marketing was able to develop in parallel with the development of society. That is, at first this science was used in the production of food and cosmetics, and then it was used in larger industries such as automobiles, household appliances, furniture, and other durable goods. In the field of services, it was expanded to include banking, tourism, cultural industries and department stores. Of course, it is worth mentioning that marketing entered the field of politics, political parties and social organizations and was able to display its power [5].

#### 3.2 Customer experience management

Customer experience is known as the perception that customers have in their minds after contacting the organization's products and services in terms of senses [44]. In this regard, customer experience is considered a subjective response that is understood by the customer in a holistic way, which is both direct and indirect from his interactions with the organization [23]. Also, customer experience is defined as spontaneous and unintentional responses and reactions to stimuli related to the customer during his journey [3]. In fact, since the mid-80s, a lot of attention has been focused on this valuable word. It was the first time in marketing literature and in 1987 that this term was mentioned. The people who mentioned this term were Holbrook and Hirschman [17]. In fact, customer experience is the result of actions and reactions that customers have with the organization, which can lead to good or bad experiences. Of course, it should also be taken into account that the levels with which the customer is involved in this field include intellectual, emotional, spiritual and physical levels, and this is why it is acknowledged that the customer experience is a completely personal state [20]. Therefore, it can be said that in recent years, the role of consumers as mere influencers has changed to customers who have taken on different roles, including being active and creative. They can not only influence businesses, but they also can create a line of thought for the production of products and services.

#### 3.3 The challenge in defining customer experience management

While numerous researches are being conducted in academic circles about customer experience management, which is a very new and attractive field, but until now the conceptualization of this term has been difficult and each research

has addressed this term from its own point of view [33]. Of course, all these researchers unanimously agree that understanding the term customer experience management can help managers to be able to perform well in attracting and retaining customers [32]. Therefore, understanding all dimensions of customer experience management in different areas, especially the service area, can be quite valuable for marketing science [4]. Of course, it is worth mentioning that the importance of customer experience management in the service industry is growing with greater strength and speed [33].

### 3.4 An in-depth look at customer experience management

In today's era, we have come to understand that in different market segments, managers use solutions to create and manage customer experience. And this is exactly what we call customer experience management. In fact, many organizations are looking for effectiveness, but they are unaware that effectiveness only seeks to increase the profitability and success of the organization [7]. Marketing effectiveness refers to activities such as sales, profit, market share, creating special brand value and customer loyalty that can be effective in achieving the organization's marketing goals [41]. But in fact, if an organization is looking for long-term profitability, it should not neglect what the customer thinks about the organization and what kind of mentality they have about their shopping experience. This means that many organizations treat their customers not as human beings. Rather, they look at a machine and feel that all customers show the same response and reaction to environmental stimuli, while humans have their own unique human dimension, which is emotions, and this makes them react to different situations. have unpredictable and different reactions [7].

## 4 Research background

Because the topic of customer experience management is relatively young in the country, therefore, the research conducted in the field is very limited. Therefore, considering the importance of the topic, the researcher focuses on similar research. [35] conducted research titled Customer Experience Management, Training Areas and Trends. The purpose of this research was to analyze the articles on customer experience management, review the important articles and understand the subcategories and the research process of this concept. This research used the bibliometric method, in which a total of 124 articles published from a reliable database were examined between 2009 and 2020. The results of this research showed that customer experience management can be categorized into 9 clusters. Words such as: brand loyalty, customer participation, trust, service design and marketing strategy can be seen in the 9 clusters obtained. They also introduced service quality, online sales and customer journey as current topics in the field of customer experience management. [11] researched to understand the governing structure of customer experience management through the bibliographic method and use of the software (Wesviewer). To achieve this goal, they reviewed 1414 scientific research articles from reliable scientific databases until mine category. They categorized customer experience management into 6 clusters based on the reviewed articles. The keywords of these 6 clusters are: service quality, experiential marketing, online space, brand experience, Vofada satisfaction and co-creation of value. They also acknowledged that today's customer experience is examined with concepts such as value co-creation. Finally, this research showed that the customer experience has moved from an organizational perspective to a customer-oriented perspective and from a dual relationship between the consumer and the organization to the creation of common values among all stakeholders. [18] research titled Customer Experience Dimensions in Retail, which was a review of past literature on customer experience management. The goal of this research was to combine dimensions and scales of customer experience. Their questions in this research were as follows: 1- Which dimensions and scales are used to evaluate customer experience? 2- Specifically, what results can be imagined for the dimensions of customer experience? Finally, they concluded that different researchers have investigated customer experience with different scales. Among the scales: purchase intention, satisfaction, word-of-mouth marketing, commitment or loyalty. Knowing these research streams can reveal existing gaps. Of course, they also pointed out that the cognitive and emotional dimensions have been heavily investigated. [14] conducted research on customer experience in online and offline channels and its management, which was an integrated research. Their research questions were as follows:

1-Which streams of customer experience have been the focus of academic research?

2- What is the current literature on customer experience? To answer the research questions, they examined 50 articles based on research gaps, which were analyzed from among 2234 researchers that were in the period from 2008 to 2020. These 50 articles were published by 159 authors in 36 magazines. They finally reached 7 research streams from the most general to the purest, which led to 4 proposals, including: 1- Customer behaviour as the most important stream. 2- Segmentation of customers based on values and benefits. 3- Consumer interaction with technological flows. 4- Quality of service in all channels. [1] in research investigated the mediating effect of customer experience in

online innovation and repeat purchase intentions in hotels. The purpose of this research was how customer experience explains the relationship between online innovation and repurchase intention in the hotel industry. They collected the data for this research from 167 customers, whose questionnaire used a 7-point Likert scale. To analyze the relationship between the research variables, which were summarized in 3 hypotheses, structural equation modelling and partial least squares software was used. The results obtained from this research indicate that online innovation positively leads to repeat purchases, intention and better experience, and confirms the trend that customer experience leads to repeat purchase intention. Therefore, they reasoned that while online innovation leads to repurchase intention, the strength of this repurchase intention depends on the customer experience. In this way, customer experience is the relationship between online innovation and repeat purchase intention in the hotel industry.

## 5 research methodology

### - Philosophical premise of research

Like in the past, science is not the product of sudden sparks of thought of one or more scientists, but it is a conscious, regular and at the same time organized effort, and in fact, it is such a feature that makes science a strong link with other institutions and social values [25]. All researches, whether quantitative or qualitative, are based on solid foundations, which are called presuppositions. Understanding and recognizing these presuppositions is like a light in the darkness, without which the researcher may go wrong on the path of research [8]. Therefore, the study of these presuppositions, which are known as paradigms, and understanding the paradigm that governs study and research can be considered the first step in defining a problem. Paradigm has been defined in the Persian language in many ways, including pattern and intellectual framework. However, due to the breadth of its meaning, it seems that none of these words can do justice to the meaning of the word paradigm itself [42]. But considering the subjectivity of the phenomenon of the concept of customer experience and the fact that this concept is subject to the lived experience of its actors, which depends on the social, economic, cultural and religious conditions of our country, the researcher made the constructivist-interpretive paradigm the basis of his thought system regarding this considers the phenomenon.

### - Research strategy

In a comprehensive definition, strategy is considered a step-by-step sequence of events that can lead to a pre-determined goal [43]. Because the upcoming research is in the atmosphere of Iran and this model is born not in a vacuum environment but in correlation with the political, cultural, social and economic standards of the country, therefore the researcher after passing the ontological, epistemological and methodological view, The philosophical premise selects an interpretation in the qualitative part that leads to the use of the strategy of ground theory or foundation data theorizing. Therefore, the method that the researcher takes in this research among the qualitative methods is the foundational data theory, which is an inductive and systematic method for reviewing and summarizing qualitative data obtained from interviews, images, and audio. The basis of this method was established by two American sociologists named Barney Glaser and Anselm Strauss in 1976 [6]. Therefore, the researcher uses the hidden content analysis tactic, which is also known as theme analysis, as a strategy. It is worth noting that this research is also an exploratory path because the required data was collected using in-depth semi-structured interviews.

### - Statistical Society

In the current research, despite the value of the topic in the field of business, as well as the culture of the society and the existing limitations for the interview, which according to the experts of the research method, should have been done in-depth and in person, the researcher was able to conduct detailed and extensive interviews with questions that are methodological and It was designed epistemologically and research literature had a great role in its formation. It was conducted by experts who were active in various educational fields for at least 5 years and reached more than 60 pages of interviews, which, of course, reached the saturation point from 11 persons. But for more certainty, 2 more interviews were also conducted to reach this point. Table 3-3 shows the number of interviewees along with additional information.

### - Reliability of research

In fact, determining the validity and reliability of research data is an important step in the interview process. Reliability refers to the similarity of the results of the interview and the validity of the interviewer's ability to measure the desired goals. In fact, validity is the value by which the goal of a study is measured [27]. In this research, the retest reliability method (stability index) has been used for the reliability of the findings. To

Table 2: Table of participants in the field of customer experience management

Interview duration	Experience	education	Side	C. Gender	The field of activity of the institution	No
55 minutes	12	P.H.D	CEO	Man	Scientific research	1
at 1 o'clock	6	Master	the manager factor	Female	foreign language	2
50 minutes	5	Masters	Educational Assistant	Man	Music	3
40 minutes	8	P.H.D.	CEO	Female	The field of beauty	4
45 minutes	10	Masters	CEO	Man	Music	5
at 1 o'clock	9	Masters	CEO	Man	foreign language	6
55 minutes	5	Masters	Assistance	Female	Visual Arts	7
50 minutes	7	P.H.D.	CEO	Man	Music	8
45 minutes	6	Masters	CEO	Man	free science	9
55 minutes	8	Masters	Educational Assistant	Female	foreign languages	10
45 minutes	11	P.H.D.	CEO	Man	free science	11
at 1 o'clock	9	Masters	CEO	Man	foreign language	12
55 minutes	5	Masters	Assistance	Female	Visual Arts	13

perform this reliability, the researcher selects several interviews as samples and conducts each of the interviews in two specific and short time intervals and compares them. In this method, in each of the interviews, identifiers that are similar in two-time intervals are identified as "agreement" and identifiers that are not similar as "lack of agreement", and in this way, in the second stage of coding, the stability index for that research is calculated. It is found that this amount should be greater than 60% [26]. The path that the researcher conducts for the reliability of the test between his codings in two-time intervals is as follows:

$$100 \times \text{reliability percentage} = \frac{2 \times \text{number of agreements}}{\text{total number of tens}}$$

In this formula, if all codes are denoted by  $n(s)$ , and if the number of agreements between two stages of coding is denoted by  $n(A)$ , and the number of non-agreements between two stages of coding is denoted by  $n(B)$ , determine the probability of A (stability index), that is,  $p(A)$ , will be like this:

$$\begin{aligned} P(A) &= \frac{n(A')}{n(A') + n(B)} \\ &= \frac{2n(A)}{2n(A) + n(B)} \\ &= \frac{2n(A)}{n(s)}. \end{aligned}$$

In fact,  $n(A')$ , indicates the number of order codes with agreements. Of course, considering that agreements are determined by referring to two codes and non-agreements are determined by referring to one code, in order to

consider this effect, the number of agreements must be multiplied by two.

$$n(A') = 2n(A)$$

Table 3: Calculation of retest reliability (stability index)

Reliability of the test	No number of agreements	Number of agreements	Total number of data	Row
85percent	8	18	42	First interview
75percent	5	15	40	The sixth interview
63percent	6	12	38	10th interview
78percent	19	45	120	Total

As can be seen in Table No. 3, the total number of codes in two 18-day time intervals is equal to 120, and the total number of agreements between codes in these two times is equal to 45, and the total number of non-agreements is equal to 19. As it can be seen, the re-test reliability of the interviews of this research is equal to 78%, which, considering that this number is higher than 60%, it can be acknowledged that the reliability or reliability of the codings is confirmed.

## 6 Analysis of research data and findings

As mentioned, in this research, three stages of open, central and selective coding were used to analyze the collected data so that the researcher can present an objective and understandable picture of the created theory. Elite, it is worth mentioning that in the stage of theory creation, the researcher used overlapping coding, which is a new method in theorizing.

### - Open coding

At this stage, the researcher subjected all the documents to the thematic analysis or hidden content analysis by continuous and thorough analysis of the data, which led to the creation of embryonic codes, and further by comparing these codes and examining them, he categorized them. In fact, the categorization of the embryonic codes under the umbrella of an abstract code includes a more general concept of primary codes, which was done through the creation of a new code or a centralized abstract code. Finally, this part led to the counting of 534 initial codes, after removing duplicate codes, 129 unique initial codes were obtained from it, and these initial codes led to the creation of 24 main categories and 2 subcategories.

### - Axial coding

In fact, axial coding is the process of linking categories with subcategories so that the researcher can finally reach a conceptual frame with the highest degree of abstraction. The said process is called axial because coding takes place around a central category and the categories communicate with each other at the level of dimensions and spectrums [39]. Therefore, the researcher has classified the core codes that come from the categories that are conceptually related to each other to process the selective coding process in a new way with the connection of these core codes. At this stage, the researcher discovered 8 core categories from the primary codes and the main and secondary categories, which are presented in table number 5 to 12. But before that and to connect the audience with the primary coding type, one of the scientific charts of the codes obtained from one of the documents is presented.

Diagram 1: The diagram of extracted codes from the document of the scientific institution

Now the researcher has been able to complete the conceptualization process according to the tables shown and create 8 semantic units with the highest degree of abstraction, which are actually called constructs in code-oriented qualitative research and quantitative research. Next, to provide additional research information to the audience, the researcher presents an example of the hierarchical codes of the documents, the Shannon entropy matrix, and the cloud diagram of the obtained codes. After that, in the selective coding stage that goes through the overlapping coding path, the final theory and model are provided.

Table 4: Conceptualization of the core code of macro environmental factors

Code oriented	Main category	Primary codes
Macro environmental factors	Economic factors support	Exchange rate fluctuation Privatization Lack of government support Wealthy family
	cultural factors	The student's haste No hijab The luxury of educational services

Table 5: Conceptualization of the core code of loyalty

code core	main category	Primary codes
Loyalty	Loyalty to educational services	Reuse of services Institution priority feeling happy The ineffectiveness of the price increase Ensuring service
	Loyalty to the educational institution	Maintaining the relationship Advice to others Ignoring criticism Collaborate with the institution Interest in the institution

Table 6: Conceptualization of the central code of mental modulating factors

code core	main category	Primary codes
Mental modulating factors	item like to be seen	catch Satisfaction attitude Ratio To Services Skill increase Standardization of services
	perception of services	responsibility Student comfort Being a future builder Reasonable price Experienced trainers Being a brand
	Belief in services	matching words and deeds Providing customer service Honesty in speech

Table 7: Conceptualization of the core code of dignity marketing

code core	main category	Primary codes
Dignity Marketing	Feeling of human dignity	Respect feelings Understanding problems empathy Not having a tool look
	Making the student special	feeling famous Feeling special feeling valuable A sense of identity



Table 8: Conceptualization of the core code of satisfaction with educational services

code core	main category	Primary codes
satisfaction of educational services	design and layout	The decoration of the place Proper ventilation
		suitable light Appropriate decoration
	The outside space of the institution	Suitability of the board Benefit
	Characteristics of employees	welfare amenities Responsive body
		to be humble Same treatment
Educational services were up to date	Appearance beauty have a smile	
		Up-to-date knowledge Up-to-date educational facilities

Table 9: Conceptualization of customer experience management in educational institutions

Code core	Main category	Subcategory	Primary codes
Management	identity of the educational institution	----	Differentiating from competitors Being the best in education inbreeding
			Appropriate educational content being comfortable to expectations
Experience	quality of educational services fulfill	----	Easy access to the place Easy access to management accessibility iteEasy access to the s
			Customer
	Customer culture	----	Attention to requests
			Attention to concerns Emotional convergence
	Digital experience		Using Instagram Using WhatsApp social media Using Telegram
			The usefulness of the site's content orm siteFollow the content of the web platf Satisfaction with the content of the site

Table 10: Conceptualization of the core code of satisfaction with educational services

Code core	Mine category	Primary codes
	design and layout	The decoration of the place Proper ventilation suitable light Appropriate decoration
<b>Satisfaction with educational services</b>	the external environment of the institution	Suitability of the board Appropriateness welfare amenities
	characteristic of employees	Responsive body to be humble Equal treatment Appearance beauty
	Educational services were up to date	have a smile Up-to-date knowledge Up-to-date educational facilities

Table 11: Conceptualization of the central code of bilateral empowerment

Code core	Mine category	Primary codes
<b>Bilateral empowerment</b>	empowering employees	Respect for personnel Freedom at work Dealing creatively with issues Welcoming consensus
	empowering students	Attract offers Asking for advice Collaborative service production Freedom in choosing a teacher

Table 12: Conceptualization of the core code of multiple ideas

Code core	Mine category	Primary codes
<b>Multiple thoughts</b>	- attitude towards personnel	Multiple thoughts Staff skills Speed in providing services to be polite Honesty of employees
	a management perspective	Management knowledge Diligent management in meeting needs Being value-oriented – Commitment
	the idea of the institution's brand	The reputation of the institution Prefer institution The creativity of having an institution Social benefits

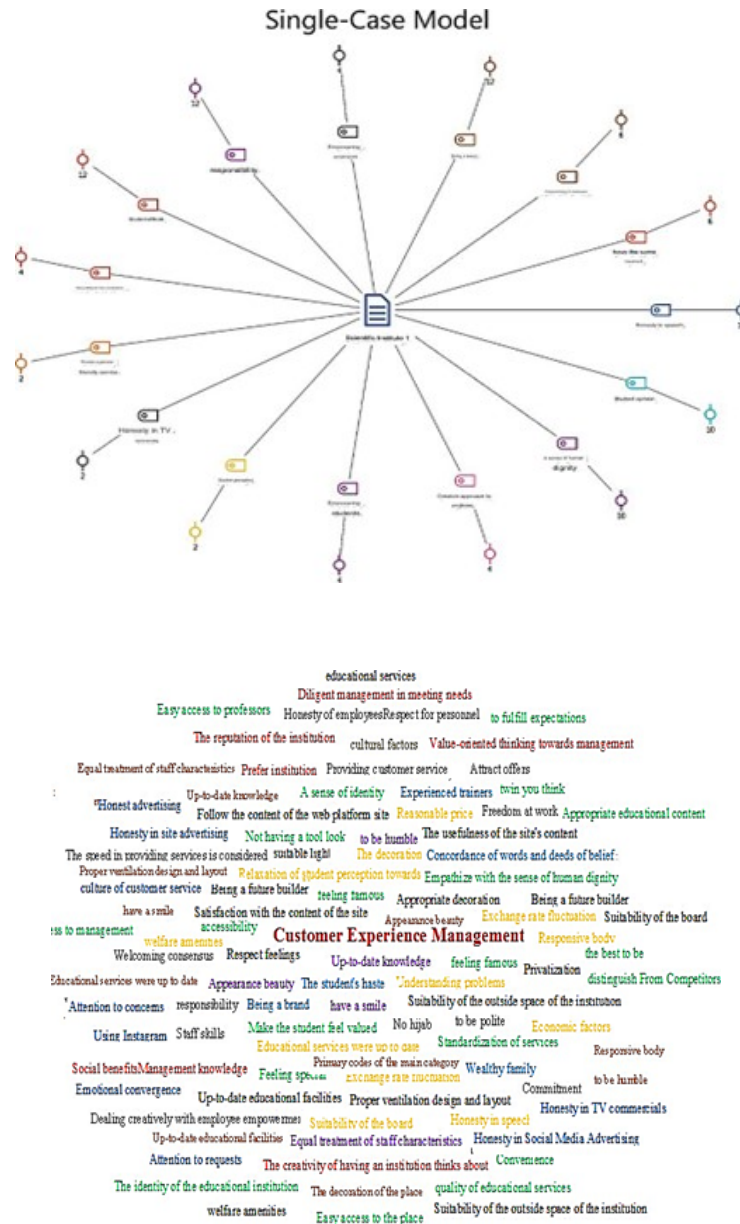


Figure 2: Cloud diagram of graphic representation of primary codes based on frequency

**- Cloud chart of codes**

Cloud diagram is one of the most beautiful graphic tools to show the abundance of codes in the world. In this matrix, the codes that have more frequency are larger, and conversely, the codes that have less frequency are smaller. Of course, as the researcher admitted before, these charts are only for providing additional research information to the audience.

**- Shannon entropy matrix**

Of course, if the researcher intends to evaluate the research subject more reliably and thoroughly, the best tool is Shannon's entropy matrix, which first standardizes the codes based on their frequency, and in the next step, the degree of importance of each one based on frequency Calculate and present as a number or an area of a shape (square-circle). According to the abundance of codes in the Shannon matrix, which could also be seen in the cloud diagram, the primary code of customer experience management with 26 repetitions is known as the most important code, and the code of satisfaction with educational services is also the second place in the Shannon entropy matrix with 10 repetitions. which only judges based on frequency. In addition, it is worth mentioning that the total values of the codes for each document show that the difference between the codes of

the documents is not more than 20 repetitions, which according to Saldana’s opinion, is a sign of the correct choice of the researcher. It gives about the participants in the interview as a qualitative sample of the research. This means that the researcher has had the right judgment in choosing these people and that the documents have provided information almost close to each other [34].

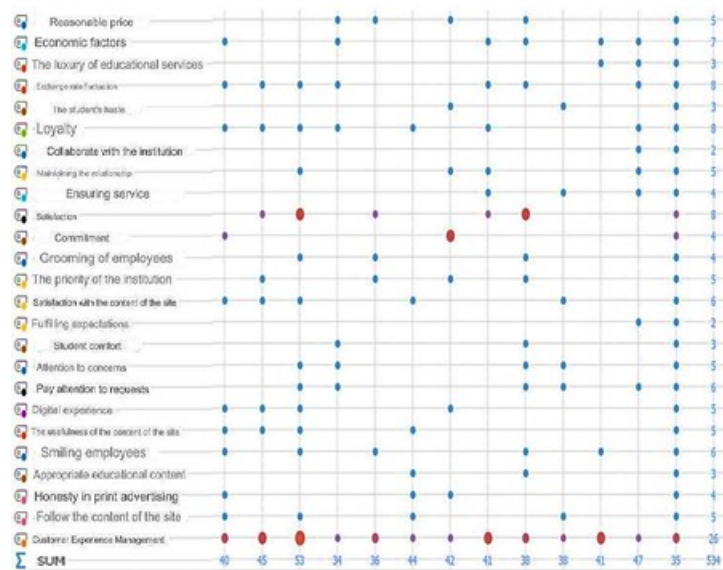


Figure 3: Diagram of Matrix showing the importance of codes in terms of frequency (Shannon’s entropy matrix)

- **Hierarchical chart of codes for documents**

In fact, this diagram as an example of extractive diagrams shows information from all primary codes and main categories and core codes that each document has stated separately in their interviews and the researcher was able to through the visual tools section of the Max Kyuda 2020 software. get The diagram of Scientific Institute 2 shows that it has 8 core codes and 18 main categories, which shows the richness of information of this participant in conducting the interview.

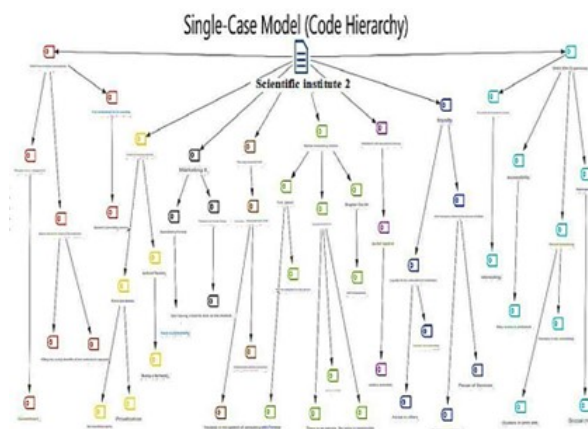


Figure 4: Diagram of Hierarchical diagram of extracted codes of Scientific Institute 2

- **Selective encoding**

In this section, the researcher seeks to provide more modern qualitative methods to present his hypotheses, considering the criticism that was made to the paradigmatic model of Strauss and Corbin in 1998. Although it is still on the path of three-step coding, open, central and selective, and adheres to it. However he tries to use overlapping coding methods by software and long-term engagement with qualitative and quantitative literature to present his hypotheses and according to the results obtained from these two steps, he makes the final decision.

Max Kyuda software analyzes this simultaneity or overlapping of codes and categories through a matrix called Code Relation Browser and shows it to the researcher in the form of a matrix. At this time, the researcher can refer to strong or even moderate overlaps based on this matrix as a very reliable tool for creating hypotheses and models.

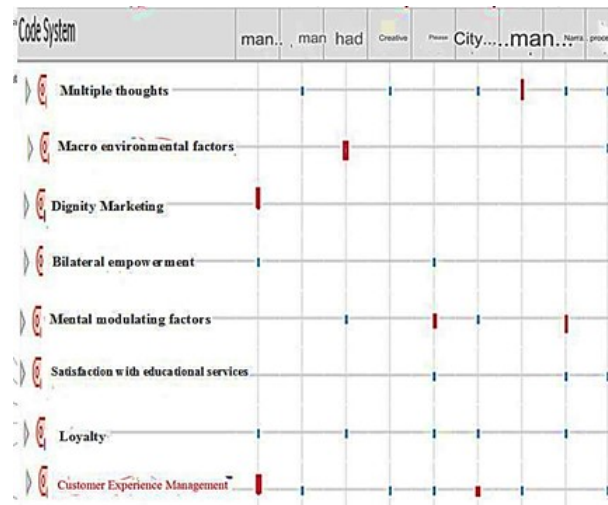


Figure 5: Overlapping coding matrix to examine the semantic relationship of the codes

In fact, the overlapping matrix in the form of areas of geometric shapes shows the degree of semantic connection of the codes, similar to a correlation table in quantitative research, but qualitatively, and it specifies which two categories or even core codes of one concept are related to another concept on a spectrum. They have

#### - Providing hypotheses and designing the final model

At this stage, the researcher can create hypotheses and present the model through overlapping coding obtained from the software outputs and long-term engagement with the research literature. Of course, it is worth mentioning that the software puts many assumptions in front of the researcher and this is in the case that the researcher is free to extract suitable assumptions according to the nature of the research and the goals he pursues. In the newly born model, the researcher succeeded in creating 13 It became a new hypothesis and model in the literature of customer experience management. In fact, some of these hypotheses have been obtained from the first method (overlapping matrix) and some others have been obtained through data analysis (researcher's engagement with the research literature), and this is even though some hypotheses have been ignored by the researcher due to their inconsistency with the research. In the following, one of the obtained hypotheses and the general research model are presented.

This diagram shows the overlap and the relationship and influence between the two core codes of customer experience management and satisfaction with educational services. In the next diagram, a general outline of the overlap of the codes and assumptions created is visible.

#### - The theory generated from the strategy of ground theory

Finally, after examining the outputs of the software and considering the literature, the researcher presents the general model of the research, which is the theory produced through the grand theory strategy. This model includes 8 core codes or structures that are related to each other through 13 scientific hypotheses and proven by the software.

## 7 Discussion

Indeed, one of the most powerful factors that can make customers return to a business and recommend that business to others is an experience that has been able to remain in the customer's mind positively. In fact, managing these experiences is quite difficult. because these experiences can have positive or negative effects from before the customer enters to after the customer leaves the relationship with that business. For this reason, implementing a customer experience management system can be an Achilles' heel that organizations use to satisfy their customers, which can lead to valuable consequences such as loyalty. This research has been conducted to design a comprehensive customer

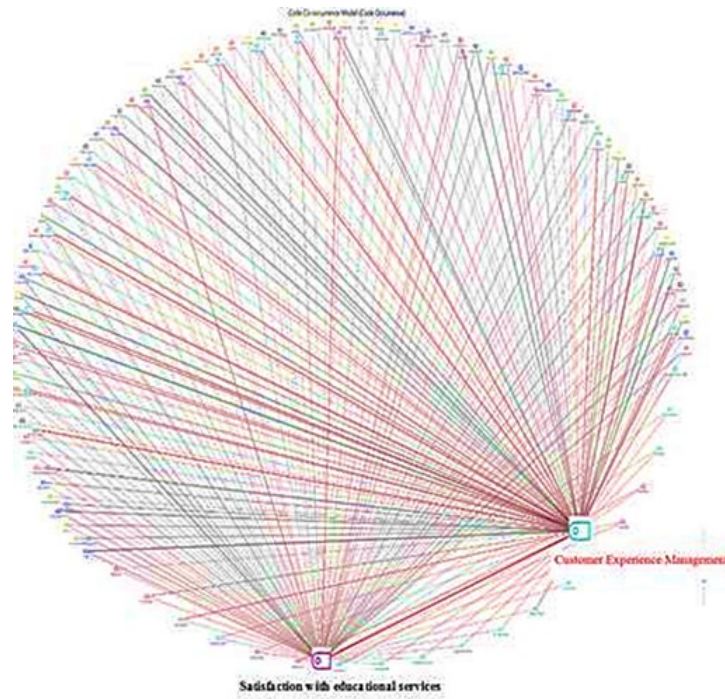


Figure 6: Hypothesis obtained from customer experience management and satisfaction with educational services

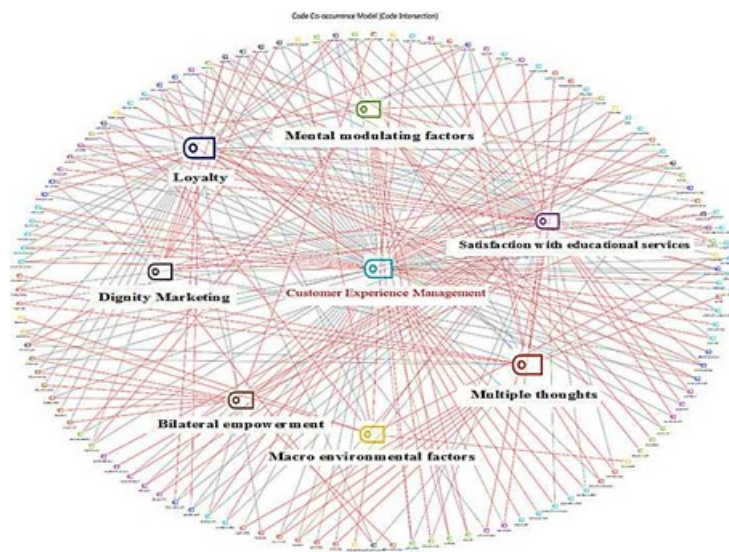


Figure 7: Analytical diagram of the co-occurrence model of extracted codes

experience management model in the context of private educational institutions. In fact, due to the abandonment of the field of education from a multiple model in the field of customer experience management, the need for a more detailed explanation of this valuable issue from a qualitative approach and using the foundation's data strategy was felt. The research conducted in service areas such as tourism, banking and hotel management has been completed and this is while customer experience management in the education industry is in a completely different context and requires its own optimal solutions. For this reason, it should be analyzed separately. The results of the research indicate that all educational institutions participating in the current research were aware of the value of customer experience management in their business, but each of them had considered a different path for this. For this purpose, this research has presented these opinions in a comprehensive model in the form of content analysis and a new framework. The current research was able to reach 8 core codes or scientific structures from the three paths of open, central and selective coding and using the new overlapping coding path that was done through the Max Kyuda software, which led to the creation of a new and newly born model in the field of management. Customer experience in the

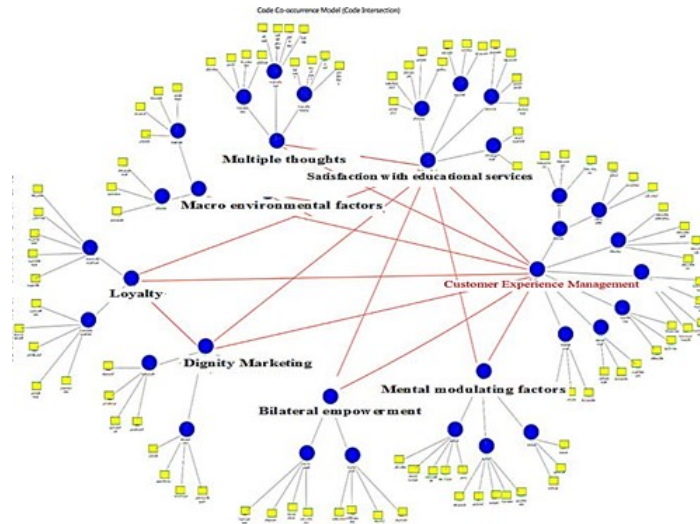


Figure 8: Theory generated through grounded theory strategy

thematic context of educational institutions. The final model obtained from this research, which was obtained from the method of fundamental data theorizing, indicates that to successfully perform customer experience management in the field of education, one must have a multi-dimensional and multi-faceted vision, which in a forward-looking context can advance the goals of educational institutions in the field of education. And the improvement of their business in today's competitive world is what managers of educational institutions should pay attention to. It seems that being different from competitors can be a part of the identity of the educational institution. Also, the quality of educational services can act as a subset of customer experience management and pave the way for customer experience management for the management of educational institutions by meeting the expectations of students and providing appropriate educational content. However, paying attention to the demands and concerns of the students is like a pulsating pulse that can bring the culture of customer service and create a different experience that can play an effective role in the perceptive process of the students for the benefit of the institution. But what is obvious is that nowadays digital experience cannot be removed from everyday life. Educational institutions are not exempt from this issue and must provide useful and appropriate content to their students through social media and web platforms. This should also be the rule regarding the advertisements of institutions. But for this purpose, honesty in the advertising of educational institutions can have a tremendous impact on the customers of this field from an attitude point of view. Also, educational institutions can use dignity marketing as a powerful strategy to attract and retain students, which is achieved through the two ways of making students VIP and respecting the sense of human dignity. In fact, students' attitudes, perceptions and beliefs towards educational services can play a significant role as mental modulating factors in the continuation of the student's work with educational institutions, for this reason, the management of educational institutions should be concerned about honesty in their speech and responsibility and skill enhancement and Having experienced trainers and also being the governor of the service should pay special attention. Of course, it can be acknowledged that the knowledge of management as well as the honesty of the employees and the preservation of social interests as the student's thoughts also play a fundamental role in the perception of the institution and can help maintain the relationship with the educational institution. Of course, it should be considered that despite the importance of education in advancing the long-term goals of a society, the government must take a special look at this important issue and extend its umbrella of support to improve this important subject. From another point of view, since the current research followed a qualitative and inductive path in its path and considering that the generalizability of the results in qualitative work has its desired limits, it is not easy to generalize the results of this research to other areas, however, the multidimensionality of this The research has made the areas that have a direct or even indirect relationship with customers for any reason to be able to take advantage of the dimensions, strategy and consequences of this research. Finally, the output of research should open a path for future quantitative and qualitative research, but according to some important and new results of the current research, future researchers are suggested to study case studies on educational institutions in specific spectrums and the state of customer experience management according to the model. Evaluate and analyze the proposed research. It is also suggested that the managers of educational institutions use the multi-dimensional model of this research to retain students and pay attention to the things mentioned in the research.

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