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Providing a Customer Value Maturity Model based on the Dynamic Capabilities of Educational Institutions

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Purpose: Education is one of the important factors of economic and social development and the education industry is one of the largest and most tangible industries in the world. Therefore, the aim of this study was to providing a customer value maturity model based on the dynamic capabilities of educational institutions.

Methodology: This study in terms of purpose was applied and in terms of implementation method was qualitative. In this study number of 15 people after checking the inclusion criteria such as work experience of at least 10 years and at least bachelor's education with using the purposive sampling method were selected from among the experts of non-governmental educational institutions of the senior school in Tehran city. The tool of the current research was a semi-structured interview with selected experts, which its validity was confirmed by the triangulation method and its reliability was calculated by the method of the coefficient of agreement between two coding 0.88. Data were analyzed by content analysis method.

Findings: The results of the present study indicated that for the customer value maturity model based on the dynamic capabilities of educational institutions were identified number of 268 open codes in 5 core codes or levels, respectively including the analysis the value proposition of customer, definition and design the value proposition of customer, management and expansion the value proposition of customer, implementation and execution the value proposition of customer and evaluation and optimization the value proposition of customer. Therefore, the educational programs in the customer value maturity model based on the dynamic capabilities of educational institutions were drawn at five levels based on the level of maturity and value.

Conclusion: According to the identified codes and levels for the customer value maturity model based on the dynamic capabilities of educational institutions can be taken an effective step in the direction of customer value maturity.

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1. Introduction

In the 20-year vision document, Iran is envisioned as a leading power in science and technology in the region and the Islamic world by 2025. Achieving the goals of this document requires both soft power dynamics and mass production. For this purpose, the educational system and institutions need significant changes and transformations (Mohammadzadeh & Salehi, 2015). Globalization and the development of knowledge-based economies have led to fundamental changes in the structure and functions of education worldwide. The value of nations now depends more on their people, management, and governments than on their material resources. Education improves the scientific foundation of nations and thus plays a crucial role in the future of societies (Doyle-Kent & Watson, 2021). The future of any society and nation largely depends on its educational system, institutions, and the quality of its teachers. The general rule that no educational system can exceed the quality of its teachers' instruction highlights the importance of teachers in national development (Khodayari, Mohammadkhani, Ghourchian & MohammadDavoodi, 2020).

Today's educational institutions are creators and disseminators of knowledge in a society, stimulating it towards knowledge and capability. Each educational institution can offer superior values to its clients by integrating traditional resources with new and distinctive methods (Borduchenko & Zuev, 2023). These institutions view continuous learning of new knowledge as a vital tool for their success, created through the processing of existing knowledge. Therefore, a structure that effectively shares knowledge and improves collaborative learning is a major concern for policy-makers in educational institutions (Jedrzejczyk, 2021). The existence of educational institutions is due to a segment of applicants seeking educational services. Nowadays, many institutions have explored various educational sectors due to additional demand, diverse educational needs, and the high private benefits of education (Patwardhan, Prasad, Aftab, More & Savrikar, 2019). The expansion of educational institutions has provided literacy, welfare, and human progress, but also created problems and challenges like lack of coordination and cooperation between institutions, reducing stakeholder satisfaction (Laptev & Zinchenko, 2022).

System dynamics was introduced by Forrester at the Massachusetts Institute of Technology in 1960, based on three scientific disciplines: traditional management of social systems, feedback theory or cybernetics, and computer simulation. Its main goal is to gain a deep understanding of system functions and can be effective in redesigning systems to improve policies in the system area (Tkachev, Golubev & Krishchenko, 2012). System dynamics is a methodological approach for studying, analyzing, simulating, and improving dynamic socio-economic, educational, and managerial systems using a feedback perspective (Van Vondel, Steenbeek, Van Dijk & Van Geert, 2017). The dynamic capabilities of institutions are divided into three categories: strategic capability (a mechanism that empowers the organization in managing capabilities and highlighting them), management capability (providing the necessary motivation for the emergence of fundamental processes including managerial skills, strategic leadership management, managerial beliefs, and strategic intentions of senior management), and innovation capability (the organization's ability to continuously develop innovations to respond to environmental changes and transformations) (Hung, Yang, Lien, McLean & Kuo, 2010).

The dynamism of educational institutions is a complex, fundamental, and value-creating activity in the organization. If educational institutions want to maintain their current position in the competitive space of society or seek to improve and elevate their status, they need to add more value to their assets (Rosas & Fernandez, 2022). In Iran, the partnership between the government and the private sector in education emerged due to population growth and the intensified need for educational facilities for the educationally needy and the government's inability to cover the related costs. In this context, non-governmental schools are considered as the most prominent form of private sector participation in education and an efficient strategy for ensuring the quality and flexibility of educational systems in a global economy (Soleymani & Safari, 2019). In recent decades and under current conditions, the view of companies towards customers has changed. The role of the customer has evolved from being merely a consumer to a collaborator, producer, value creator, and developer of knowledge and capabilities of an institution (Seifollahi & Eskandari, 2021). In the past, customer behavior focused more on the decision-making and purchasing process, but today customers are

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not merely passive; they are considered active value creators (Hassanzadeh, DelAfrooz, Gholipour Soleimani & Shahroudi, 2021). Customer value is the difference between the total benefits and costs of a product or service, where the overall perceived benefits of a product are the sum of the product benefits, accompanying services, personal benefits of buying and using the product, and the brand benefits (Yrjola, Rintamaki, Saarijarvi, Joensuu & Kulkarni, 2019). Customer value is a focal point that facilitates the maintenance of competitive pressure for organizations and distinguishes them from other competitors. It is the comprehensive assessment of customers about the effectiveness and desirability of a product, perceived based on their acquired perception (Sobocinska & Mazurek-Lopacinska, 2021). Customer value has five dimensions: functional value (perceived utility obtained from a substitute's ability for physical performance or utility), social value (perceived utility obtained from a substitute's association with one or more specific social groups), emotional value (perceived desirability obtained from a substitute's ability to arouse emotions and affective states), cognitive value (perceived utility obtained from a substitute's ability to stimulate curiosity, create novelty, and satisfy the desire for knowledge), and situational value (perceived desirability obtained from a substitute as a result of a specific situation or set of conditions faced by the chooser) (Akbari, Mehrali, Seyyedamiri, Danesh & Ramezanpour Nargesi, 2019).

No research was found on the maturity of customer value based on the dynamic capabilities of educational institutions, and the most relevant researches are described below. Esmaeili, Bohlooli, Ramazani & Sangi Noorpour (2022) concluded in a study titled "Development and Design of a Model for Measuring Customer Knowledge Management Maturity in the Railway Transport Industry" that there are three organizational dimensions with categories of strategy, human resources, culture, and other factors, an instrumental dimension with categories of tools for transferring knowledge to the customer, tools for acquiring knowledge about the customer, and tools for acquiring knowledge from the customer, and a process dimension with categories of processes for transferring knowledge to the customer, processes for acquiring knowledge about the customer, and processes for acquiring knowledge from the customer. North and Coetzee (2022) reported in a study titled "Development of a Capability Maturity Model for Establishing Nursing Education Programs for Children in Njoub and East Africa" that the development and expansion of the model require a six-step process including identifying the necessary supportive conditions, specifying process maturity levels, developing domains, specifying capability levels, consulting with stakeholders, and finalizing the model. This model describes five process maturity levels in relation to education, clinical and supervisory systems, human resources for health systems, and stakeholder collaboration requirements. The model makes visible the regulatory and related processes involved in developing a new education program for specialist nurses, including educational standards, quality assurance, scope of practice, and licensing and registration systems for specialist child nurses. Ghazinoori, Olfat, Bamdad Soofi & Ahadi (2020) concluded in a study titled "A Process Maturity Model of Customer Relationship Management with an Emphasis on Capabilities" that this model includes five levels of differentiating customers, creating customer/ account management teams, preparing product and service contracts, implementing product/service contracts, and measuring performance and preparing profitability reports. Soleymani & Safari (2019) reported in a study titled "Designing a Strategy Map and Performance Measurement Indicators for Non-profit Educational Institutions, Balanced Scorecard Approach and Group Decision Making" that the strategy map provides a path to help management better invest in resources that need more improvement and according to the results of the research, designing a strategy map using the DEMATEL method compared to the traditional method of mental judgment for determining relationships and cause and effect is a more logical method and provides a clearer roadmap to help managers focus on influential factors in line with strategic goals. Also, the most impactful objectives in educational institutions in order of impact include improving educational and training processes, improving scientific and research achievements, improving services, developing human capital, developing information capital, developing organizational capital, and other objectives such as student satisfaction and community satisfaction, budget provision, increasing facilities, and productivity growth, which indicate that intangible assets provide the ground for creating value for these educational institutions.

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2. Methodology

This study was applied in objective and qualitative in method. In this study, 15 experts from private high schools in Tehran were selected through purposive sampling after reviewing criteria for study entry such as a minimum of 10 years of work experience and at least a bachelor's degree. The demographic characteristics of the participants are presented in Table 1.

Table 1. Demographic Characteristics of Participants

Variable	Frequency
Work experience (Year)	
11-15	4
16-20	6
Above 20	5
Education level	
Bachelor's	2
Master's	13

The research instrument was semi-structured interviews with selected experts, conducted individually at predetermined times and places, with an average duration of 45 minutes. In addition to taking notes, the researcher recorded the interviews for re-examination and verified their accuracy. Before such activity, the participants' consent was obtained, and the researcher committed to ethical standards. It's worth noting that the interview questions were designed with the help of professors and based on theoretical foundations presented in Table 2.

Table 2. Interview Questions for Participants

Question
What is the relationship between the maturity of dynamic organizational capabilities and customer value maturity in secondary educational institutions?
What are the stages of maturity for dynamic organizational capabilities in secondary educational institutions?
What are the components of the dynamic organizational maturity stages in secondary educational institutions?
What are the stages of maturity for customer value propositions in secondary educational institutions?
What are the components of the maturity stages for customer value propositions in secondary educational institutions?
What are the strategies for progressing from each maturity stage to higher stages for secondary educational institutions?

The validity of the interviews was confirmed through triangulation, and their reliability was calculated using the agreement coefficient method at 0.88. Additionally, to legitimize and validate the findings and analyses, coding was performed under the supervision of two professors proficient in qualitative research methods, and its credibility was checked and approved by another researcher. The credibility criterion in the qualitative phase was employed through member checking, where all chosen themes were reviewed in a two-way process between the researcher and some participants. Moreover, efforts were made to ensure transferability by detailing the concepts and themes and actions taken to reach the experts.

For this study, interview questions were first designed with the help of professors, and then experts from private high schools were identified based on study entry criteria. The sampling process and interviewing continued until the research reached theoretical saturation. The experts were informed about the importance and necessity of the research before participation, and the researcher committed to ethical standards. Interviews were conducted individually at times and places previously determined with the participants, and in addition to taking notes, the interviews were recorded. At the end, the participants were thanked for their cooperation in the interviews.

The data were analyzed using content analysis, a method based on the assumption that analyzing linguistic messages can uncover meanings, priorities, attitudes, perceptions, and organization. Content analysis is a

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method of data interpretation that seeks to reveal hidden patterns in observations, interviews, and written documents by examining concepts, terms, and their interrelationships.

3. Findings

In this study, among 15 participants, most had 16-20 years of work experience (6 people, 40%) and held a master's degree (13 people, 86.67%). An example of the interview analysis of the participants is presented in Table 3.

Table 3. Sample Analysis of Participants' Interviews

Level	Quotation
First Level	We strive to improve individual skills and personality traits and create motivation in students to realize their desires.
Second Level	The school amends its systems and procedures to improve performance and reduce the likelihood of financial misuse.
Third Level	Through creating a sense of belonging and interest in students and staff, we try to connect them to the institution.
Fourth Level	Designing digital behavior patterns and reforming foundational management are among the school's priorities.
Fifth Level	The institution focuses on addressing the needs and problems of students and families, optimally utilizing available resources and spaces, and enhancing the quality of education and learning in the school environment. The school's equality in physical facilities and environment is noted due to its strong financial support and high maneuverability in expenditure.

In the above table, an example of the interview analysis of the participants is observable at five levels. The analysis of the participants' interviews on the customer value maturity model based on the dynamic capabilities of educational institutions is presented in Table 4.

Table 4. Analysis of Participants' Interviews Regarding the Customer Value Maturity Model Based on Dynamic Capabilities of Educational Institutions

Level	Axial code	Open code
First level	Analysis of Customer Value Proposition	Processes are random and repetitive. There is no stable environment to support the processes. Success depends on the competence and capability of the organization's people, not on the use of established processes. The organization provides services that often somewhat meet needs. The organization's performance usually deviates negatively from planning. Abandonment of processes in crisis situations. Inability to replicate successes.
Second level	Definition and Design of Customer Value Proposition	Stabilizing services and processes. Defining service strategies and operational plans. Monitoring and controlling tasks according to the plan. Institutionalizing management structure and process structure and ensuring product quality. Managing workgroups, work activities, work products, services, and creating sufficient resources. Assigning responsibilities for process implementation and training employees about processes. Ensuring the maintenance of current actions under pressure and stress. Process description standards can vary depending on the situation and be different in each specific case.
Third level	Management and Expansion of Customer Value Proposition	Using defined processes to manage tasks is considered. Institutionalizing management principles in processes to provide the best way of service delivery and to prevent and solve problems in the collection of standard processes.

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		Provided services meet the requirements of stakeholders and are considered credible. Processes are well defined and understood, and described in standards, procedures, tools, and methods. The collection of standard processes at this level was developed and improved over time. Standards, process descriptions, and work products are defined in the organization's process standards for specific workgroups or organizational units, creating concepts of consistency. A defined process clearly specifies objectives, inputs, input criteria, activities, roles, measures, steps for confirming outputs, and output criteria.
Fourth level	Implementation and Execution of Customer Value Proposition	Management creates quantitative objectives to measure the quality and execution of processes. Quantitative objectives are formulated based on the needs of customers, end-users, the organization, and process implementers. The quality and execution of the process are understood in terms of statistical concepts. The relationships between different subprocesses and their impact on achieving quality and performance objectives of the process are understood. Focus is on processes that have the greatest overall value-add for the business. Establishing quality objectives for process performance is considered. The organization and workgroups focus on understanding and controlling at the subprocess level and use the results for process management. Process performance is controlled using statistical methods and other quantitative techniques, and predictions are based on statistical data analysis. The organization continually improves processes based on a quantitative understanding of business objectives and performance needs.
Fifth level	Evaluation and Optimization of Customer Value Proposition	The organization uses quantitative methods to understand the inherent variation of processes and the reasons for process outputs. Quality and performance objectives for the process are created and continuously revised to reflect changes in business objectives. There is a collection of standards and defined processes to support the organization's objectives. The organization deals with the overall performance of the organization by collecting data from various workgroups.

In the above table, the analysis of the participants' interviews on the customer value maturity model based on the dynamic capabilities of educational institutions at five levels is observable. Based on this, 268 open codes were identified for the model in 5 axial codes or levels, including analyzing the customer's value proposition, defining and designing the customer's value proposition, managing and expanding the customer's value proposition, implementing and executing the customer's value proposition, and evaluating and optimizing the customer's value proposition. Therefore, educational programs in the customer value maturity model based on the dynamic capabilities of educational institutions are presented in Figure 1.

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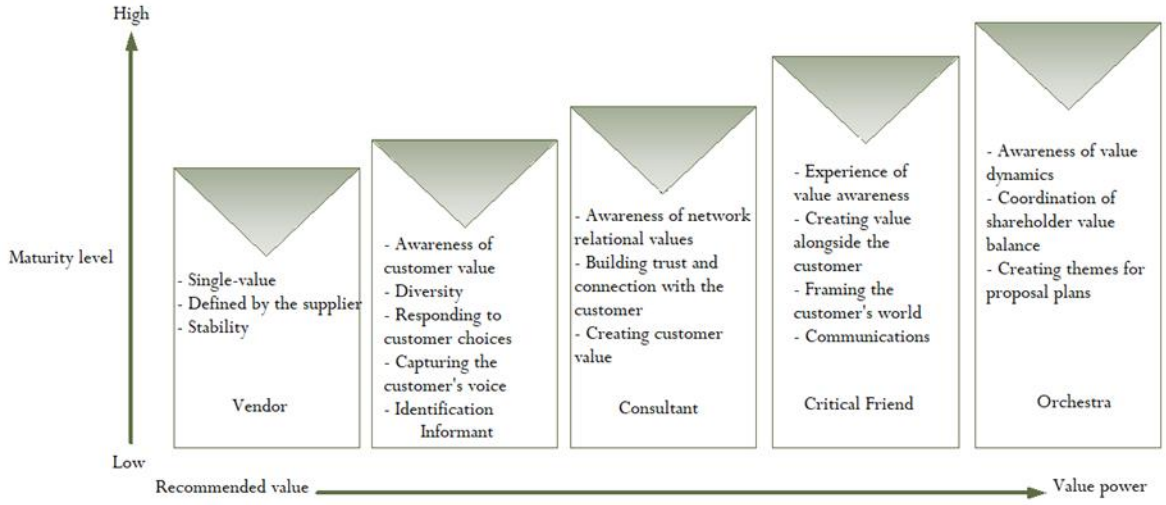

Figure 1. Educational Programs in the Customer Value Maturity Model Based on Dynamic Capabilities of Educational Institutions

In the figure above, educational programs in the customer value maturity model based on the dynamic capabilities of educational institutions are depicted at five levels based on maturity level and value.

4. Conclusion

This study was conducted to examine the relationship between organizational capabilities and the value proposition considering the maturity stages of educational institutions. Therefore, the aim of this study was to present a customer value maturity model based on the dynamic capabilities of educational institutions.

The results of the current study indicated that 268 open codes were identified for the customer value maturity model based on the dynamic capabilities of educational institutions in 5 axial codes or levels, including analyzing, defining, managing, implementing, and evaluating the customer's value proposition. Therefore, educational programs in the customer value maturity model based on the dynamic capabilities of educational institutions were depicted at five levels based on maturity level and value. The findings were in some ways consistent with the results of research by Esmaeili et al. (2022), North and Coetzee (2022), Ghazinoori et al. (2020), and Soleymani and Safari (2019).

In interpreting the results and findings of this study, it can be inferred that level one is the same as a vendor, where processes are unpredictable and reactive, often completed later than scheduled and over budget. At this level, the organizational environment is unpredictable, increasing risks and inefficiencies. Level two, the informant, sees initial project management actions. Projects are planned, executed, evaluated, and controlled, but there are still many problems and challenges. At this level, some awareness of customer value is achieved, and responses to customer choices are made. Level three, the consultant, sees organizations moving more towards prediction and planning rather than reactive behavior, with a set of organizational standards guiding project execution. In the defined level, businesses are incomplete, the method of addressing them and the goals in line with improvement are recognized, networking is done, and trust and connection with the customer lead to the creation of customer value. Level four, the critical friend, has more control and evaluation. Organizations use quantitative data to predict stakeholders' processes, businesses are ahead of risks, and customer world framing and communications are shaped towards goals. Level five, the orchestra, has flexible and sustainable organizational processes. At this level, the organization will be in a state of regular improvement and opportunity utilization, making the environment more stable and predictable, opening space for agility and creativity, increasing coordination, and team building for themes in proposed plans.

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Given the findings and results of this study, the following suggestions are offered:
Education should pay attention to various aspects of student maturity, including physical, intellectual, social, spiritual, and ethical, and design educational programs accordingly. Also, coordination and collaboration among teachers, principals, students, parents, and expert consultants are very important for achieving educational goals. Therefore, based on the results, it is suggested that services be offered in response to students' and families' requests and desires, and the establishment of educational councils and the use of specialized experts to improve performance and solve problems.
Schools, to move from level one, the vendor, to level two, the informant, should develop strategies for achieving various scientific, cultural, etc., goals, pay attention to different educational indicators alongside the main academic subjects, improve the mental and psychological conditions of staff, families, and students, and benefit from a happy life experience.
In transitioning from level two, the informant, to level three, the consultant, attention should be paid to various characteristics in creating peace of mind and trust for parents, platforms for student communication with teachers and school staff should be created, and a strong connection between school and family and parental involvement in the educational process should be encouraged.
To advance from level three, the consultant, to level four, the critical friend, efforts should be made in practical technology education for students by exploring new horizons and using specialized experts in different fields to evaluate and identify and solve problems of students, staff, principals, and families, and using favorable urban spaces to create satisfaction in students.
Finally, to reach level five, the orchestra, through level four, the critical friend, actions should be taken to create a dynamic environment and provide services based on goals with increased creativity and self-awareness in students, building self-confidence, and addressing weaknesses and problems throughout the academic year, and facilitating the ability of students and the community to connect and coordinate.

Ethical Considerations

In this study, participants' consent was obtained for participating in the interview and recording it, and they were committed to ethical standards.

Acknowledgments

In this study, all participants were thanked for their cooperation.

Authors' Contributions

In this study, the first author was responsible for conducting interviews and collecting data, and the other authors were responsible for analysis and writing the article.

Conflict of Interest

There was no conflict of interest among the researchers in this study.

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