

Reengineering the Educational System of Farhangian University: A Grounded Theory Approach

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ABSTRACT

Purpose: This study aimed to develop a comprehensive model for reengineering the educational system of Farhangian University in Tehran based on the grounded theory approach to improve teacher education quality and institutional effectiveness.

Methods and Materials: The research employed a qualitative design using the paradigmatic grounded theory method of Strauss and Corbin (1998). Twenty academic experts and specialists in higher education, educational management, curriculum design, and teacher training were selected through theoretical sampling until theoretical saturation was achieved. Data were collected via semi-structured, in-depth, exploratory interviews complemented by documentary analysis. Data validity and reliability were ensured through prolonged engagement, triangulation, peer debriefing, and member checking. Coding was conducted in three stages—open, axial, and selective—using MAXQDA software to extract key dimensions, causal relationships, and strategies forming the systemic model of educational reengineering.

Findings: The analysis revealed that reengineering the educational system is a multifaceted process shaped by infrastructural–technological, organizational, human, cultural, and social factors. Causal conditions included outdated curricula, limited technological adaptation, and rigid administrative structures. Contextual factors encompassed political and ideological barriers and inadequate infrastructure, while motivational–psychological and economic elements acted as intervening variables. Effective strategies involved communication and collaboration networks, human resource development, instructional redesign, and managerial innovation. The identified outcomes included enhanced teaching quality, a positive and motivational learning environment, alignment with societal and labor market needs, and strengthened institutional credibility.

Conclusion: Reengineering the educational system of Farhangian University requires an integrated, systemic approach addressing structural, cultural, and technological dimensions. By combining collaborative strategies with digital transformation and human capital development, universities can foster innovation, efficiency, and educational excellence aligned with contemporary national and global demands.

Keywords: Educational reengineering; Farhangian University; grounded theory; teacher education; higher education reform; organizational transformation; digital learning.

1. Introduction

In recent decades, the reengineering of educational systems has emerged as a crucial paradigm for transforming higher education to meet the rapidly changing demands of the 21st century. The accelerating pace of technological advancement, the globalization of knowledge, and the post-pandemic transition toward hybrid and digital learning environments have fundamentally altered the expectations placed upon universities and teacher-training institutions (Bozkurt et al., 2022; Whalley et al., 2021). In this context, universities can no longer rely on traditional structures and bureaucratic frameworks that were designed for stable, predictable educational environments. Instead, they must adopt flexible, innovation-oriented approaches to curriculum design, pedagogy, and governance to remain competitive and relevant (Abdullah et al., 2023; Charles & Befii-Nwile, 2023).

The concept of *reengineering* in education—derived from business process reengineering (BPR)—focuses on fundamentally redesigning processes to achieve dramatic improvements in efficiency, quality, and learner satisfaction (Ahanchi, 2018; Kajba et al., 2022). Unlike incremental reforms, reengineering involves a comprehensive reevaluation of institutional missions, pedagogical models, and organizational systems (Bozkurt et al., 2022). Within higher education, this paradigm extends beyond administrative efficiency to encompass the transformation of teaching and learning processes, faculty engagement, and technological infrastructure (Renna & Colonnese, 2025). In the context of teacher education, where the preparation of professional educators directly influences the national quality of education, reengineering is particularly vital (Rostami et al., 2021).

Reengineering educational systems is especially relevant for universities such as Farhangian University in Iran, which holds a unique mandate for training future teachers and advancing pedagogical excellence. Studies show that teacher-training institutions face a combination of structural rigidity, outdated curricula, and limited adaptability to digital transformation (Rostami et al., 2021; Salimi et al., 2019). Such challenges highlight the urgent need for a systematic reengineering approach to realign educational structures with current societal, technological, and market expectations (Saber Moradian, 2023). By redesigning academic programs, improving the quality of instruction, and leveraging technology-based learning solutions, institutions can create more responsive and dynamic systems

capable of producing competent educators (Parsyak et al., 2024).

Globally, higher education institutions are undergoing major shifts toward blended and technology-integrated learning models. The post-pandemic era has intensified the demand for online and hybrid instruction, requiring universities to balance traditional academic values with digital innovation (Abdullah et al., 2023; Whalley et al., 2021). In this regard, reengineering serves as a mechanism for aligning digital capabilities with institutional missions. Through process optimization and technology-driven frameworks, universities can enhance learning accessibility and operational efficiency while maintaining academic rigor (Renna & Colonnese, 2025). Empirical studies suggest that reengineering initiatives not only improve organizational performance but also foster creativity and flexibility among administrators and faculty (Charles & Befii-Nwile, 2023; Hussein et al., 2023).

At the pedagogical level, the reengineering of teaching and learning processes demands rethinking the role of the instructor from a knowledge transmitter to a learning facilitator. The integration of active learning methodologies, learner-centered assessment systems, and competency-based education has become a core dimension of educational reengineering (Nichat, 2023). These transformations require close coordination between academic leadership, curriculum planners, and faculty development programs. As emphasized by (Mohammadi, 2023), curriculum reengineering in higher education must ensure philosophical and structural coherence while responding to the evolving needs of students and the labor market. Furthermore, reengineering in education involves redefining institutional culture and fostering a mindset that values innovation, critical reflection, and interdisciplinary collaboration (Malekpour Lapri, 2025).

From an organizational perspective, reengineering enables universities to overcome bureaucratic inefficiencies by streamlining administrative processes, decentralizing decision-making, and promoting data-driven governance (Bozkurt et al., 2022; Kajba et al., 2022). This structural transformation not only enhances productivity but also creates conditions for sustainable institutional change. For example, simulation-driven models have proven effective in optimizing resource allocation, faculty workload, and teaching assignments, as illustrated by (Renna & Colonnese, 2025). Similarly, process reengineering has been shown to increase the responsiveness of universities to societal and

industrial needs by integrating continuous feedback mechanisms (Charles & Befii-Nwile, 2023).

In the context of developing countries, including Iran, reengineering higher education is not only an institutional necessity but also a socio-economic imperative. Educational systems play a central role in national development, social mobility, and innovation capacity. However, these systems often suffer from centralized control, outdated management practices, and insufficient technological integration (Rostami et al., 2021; Salimi et al., 2019). Reengineering therefore represents a strategic pathway toward revitalizing educational governance and achieving alignment with international standards (Ahanchi, 2018; Saberi Moradian, 2023). As highlighted by (Sodangi et al., 2023), reengineering teacher education enhances pedagogical efficiency, ensures optimal utilization of human resources, and improves institutional accountability.

At the global scale, reengineering has evolved into a multidimensional framework that integrates technology, pedagogy, and human capital development. The movement toward digital universities and smart campuses demonstrates how educational systems are being reshaped through artificial intelligence, automation, and virtual collaboration tools (Abdullah et al., 2023; Whalley et al., 2021). Within this ecosystem, higher education institutions are expected to adopt agile management systems capable of continuous adaptation (Bozkurt et al., 2022). The emphasis on agility and innovation underscores the need for leadership capable of guiding institutions through complex transitions while maintaining academic integrity (Malekpour Lapri, 2025).

Reengineering also involves deep cultural and psychological transformation among faculty and administrators. Resistance to change, attachment to traditional norms, and fear of technological displacement often hinder reform efforts (Hussein et al., 2023). Overcoming these barriers requires strategic human resource policies that promote professional development, motivation, and organizational creativity (Nichat, 2023). According to (Charles & Befii-Nwile, 2023), human-centered reengineering in educational administration enhances staff empowerment and global competitiveness. Such transformation depends on cultivating a culture of continuous learning and innovation supported by institutional leadership and participatory governance structures.

Moreover, reengineering the educational system aligns closely with broader global agendas such as the Fourth Industrial Revolution and sustainable development goals.

Higher education institutions are now viewed as innovation ecosystems that link knowledge production with socio-economic development (Bozkurt et al., 2022; Whalley et al., 2021). In this framework, universities must adopt integrated digital ecosystems that promote collaboration between academia, industry, and society (Parsyak et al., 2024). This integration enhances not only academic outcomes but also the employability of graduates through competency-based curricula and partnerships with labor markets (Renna & Colonnese, 2025).

In Iran, the need for reengineering universities such as Farhangian University is intensified by the dual pressures of globalization and domestic reform. Traditional teacher education structures often fail to align with contemporary educational technologies and pedagogical innovations (Rostami et al., 2021). As (Salimi et al., 2019) demonstrated, systemic constraints such as bureaucratic rigidity and insufficient autonomy impede the implementation of effective reforms. Therefore, adopting a grounded theory-based reengineering framework provides a scientific foundation for identifying causal, contextual, and strategic dimensions of educational transformation (Saberi Moradian, 2023).

Ultimately, reengineering in higher education represents more than a managerial reform—it signifies a paradigm shift toward holistic transformation. It integrates digitalization, human resource optimization, and pedagogical innovation within a unified system designed to improve institutional adaptability and educational quality (Ahanchi, 2018; Malekpour Lapri, 2025). As (Kajba et al., 2022) argues, reengineering must balance structural efficiency with the humanistic mission of education, ensuring that institutions not only respond to technological change but also preserve their social and ethical responsibilities.

In light of these perspectives, the present study aims to develop a grounded, context-specific model for reengineering the educational system of Farhangian University.

2. Methods and Materials

2.1. Study Design and Participants

The present study is a qualitative research that employs the paradigmatic grounded theory approach in order to identify and explain the dimensions, components, and indicators of the reengineering model of the educational system of Farhangian University, and to present a final model derived from the identified dimensions. Accordingly,

this research, in terms of purpose, is classified as a developmental–applied study, meaning that, while generating theoretical and conceptual knowledge, it seeks to provide a practical and implementable model within the context of higher education in Iran, particularly at Farhangian University. In terms of nature, the study is considered a fundamental research.

The participants included professors and experts in the fields of higher education, educational management, and curriculum planning—particularly those specialized in educational system reengineering and structural transformation at Farhangian University. The inclusion criteria for this phase of the research were: having at least five years of work experience in higher education, educational management, or curriculum planning; holding at least a master's degree; possessing specialized familiarity with transformative policies in the education system; and preferably, having work experience at Farhangian University. These participants were purposefully selected, and the interview process continued until theoretical saturation was achieved. Ultimately, 20 experts were selected as the study population. Given the exploratory nature of the study and the use of grounded theory, theoretical sampling was applied. Theoretical sampling is a fundamental method in qualitative studies in which the selection of participants is determined progressively based on analytical needs. In this method, initial analyses guide the selection of subsequent samples, and data collection continues until theoretical saturation is reached—meaning that new interviews no longer add novel information or concepts to the findings.

For data collection, both documentary and field methods were used. In the documentary phase, the required information was collected through reviewing specialized books, scientific–research articles, theses, official reports, upstream policy documents, credible online resources, and domestic and international scientific databases. In the field phase, exploratory and in-depth interviews were conducted based on the paradigmatic grounded theory approach. Twenty academic experts—including administrators, faculty members, and specialists in higher education, educational management, curriculum planning, and educational system reengineering—were selected purposefully according to professional and experiential criteria. The main data collection instrument consisted of in-depth, exploratory, semi-structured interviews. These interviews aimed to achieve a deep understanding of the perspectives, lived experiences, and interpretive analyses of experts in higher

education, educational management, curriculum planning, and educational system reengineering, particularly within the context of Farhangian University. The interviews were exploratory in nature, with a primary focus on uncovering hidden dimensions, semantic components, and the internal mechanisms of the existing educational system from a reengineering perspective.

To enhance the validity of the interview instrument, several strategies were employed, including prolonged engagement with the data, member checking by participants, triangulation involving data sources, analysts, and theoretical literature, and peer debriefing. Moreover, to ensure transferability of the data, rich, precise, and well-documented descriptions of data collection and analysis processes were provided, enabling readers to judge the applicability of the findings to similar contexts. In terms of dependability, external auditing and detailed documentation of the analytical process were carried out to ensure transparency. For confirmability, analytical review by individuals outside the research team was employed to verify that the findings were not influenced by researcher bias.

To estimate the reliability of the coding process, three interviews were randomly selected and recoded after a 30-day interval. The Holsti reliability coefficient was used to assess the degree of consistency between the codings, yielding a value of 0.86, which indicates an appropriate and acceptable level of reliability for qualitative analysis.

For data analysis, the grounded theory method following the systematic approach of Strauss and Corbin (1998) was used. This approach, based on the paradigmatic analytical model, includes three main stages: open coding, axial coding, and selective coding. Throughout these stages, qualitative data derived from semi-structured interviews with experts were analyzed. To manage, organize, and analyze qualitative data, MAXQDA software was utilized.

3. Findings and Results

In response to the main research question—namely, what model can be proposed for reengineering the educational system of Farhangian University in Tehran based on the grounded theory approach?—interviews were conducted with 20 experts, and the question was addressed using the grounded theory method and the coding process.

Main Category – Subcategory – Professors' Quotations:

Sociocultural Factors – Social expectations of students

– Families expect student-teachers not only to teach

academic subjects, but also to play a role in moral education, the cultivation of social skills, and even emotional support for pupils. These expectations can sometimes exert considerable pressure on novice teachers, especially when the necessary resources and supports to perform these duties are not provided. For example, in some cases, families expect student-teachers to solve students' behavioral or academic problems on their own, without active participation by the families themselves. This can lead to stress and job burnout among teachers.

Sociocultural Factors – Influence of local and regional culture on attitudes toward education – In some regions, education is regarded as a social value, and families make every effort to ensure their children attain high levels of academic achievement. This positive attitude toward education typically increases student participation in the learning process and improves academic progress. However, in other regions, due to cultural or economic constraints, education may be a lower priority. For instance, in some communities, families may prefer their children to enter the labor market instead of continuing their studies in order to support household income. These cultural and regional differences require special attention in designing educational programs so that a positive outlook toward education can be strengthened across all regions.

Sociocultural Factors – Nonalignment with technological and social change – The rapid changes occurring in today's world require technology-based knowledge, and Farhangian University, as a key teacher-training institution aligned with current needs, has had limited success in this regard. Consequently, it cannot significantly influence societal change, because the university's dynamism will be realized only when teachers are trained in line with modern innovations. Compared with many advanced universities, Farhangian University lags behind in adapting to technological and social changes. Although recent efforts have been made to integrate new technologies into the teaching-learning process, these efforts have not been sufficiently comprehensive or effective. Furthermore, specialized courses and practicums related to educational technologies are taught only to a limited extent on many campuses. For Farhangian University to keep pace with social and technological changes, it must act more decisively in employing modern technologies—particularly in virtual education and the use of digital tools.

Sociocultural Factors – Mismatch between human resource training and social conditions – In fact,

Farhangian University should move beyond theoretical and routine instruction and devote greater attention to developing students' practical skills and capabilities. This weakness causes many graduates to face substantial practical challenges upon entering schools for which they are insufficiently prepared. The curricula have not been updated to align with technological changes and societal needs. Students largely feel that the training provided does not address the real needs of the classroom. In my view, the current instructional framework is facing a serious challenge, because human resource training must be aligned with social conditions, learner needs, and educational objectives—an issue that receives too little attention in teacher education.

Sociocultural Factors – Lack of alignment with a competitive world – Changing closed educational policies and failing to align with competitive realities leads to the failure of reengineering the educational system, whereas attention to balanced change and harmony with the surrounding world leads to success. One of the key factors for success or failure in this process is the revision of closed educational policies and the lack of alignment with a competitive environment. If policies are not revised in a coordinated manner and in line with current needs, the reengineering process will fail. Conversely, if policies are carefully and timely reviewed and aligned with global developments and labor-market needs, greater success will be achieved.

Educational Factors – Outdated instructional content – If these syllabi are updated and reflect new societal changes, they can be more effective than ever. Overall, the course-planning process at this university possesses a basic structure that should be maintained and strengthened. In the process of teacher education, the instructional resources are not up to date. The instructional resources introduced by most instructors are distant from the formal curriculum. In many disciplines, textbook content is largely general and pedagogical, and specialized courses are limited in the educational programs.

Educational Factors – Neglect of technological skills – In the field of technology, students in teacher education do not truly learn anything. They may become somewhat familiar with computers only because they are required to present seminars. Of course, in recent years, with technology entering people's lives, there is a prior familiarity with technology. However, there is no curricular or supplementary plan to improve and train students in this area. Farhangian University, as a major educational center,

should train students who are familiar with modern innovations. Unfortunately, the university's dynamism in this area is limited, and it has not fully kept pace with societal and technological changes. Compared with leading universities, Farhangian University's adaptation to technological change is still insufficient. Although some campuses have adopted e-learning systems, these technologies have not yet been fully integrated into the teaching-learning process. Moreover, many students and instructors do not use these technologies properly due to insufficient training.

Educational Factors – Emphasis on theoretical instruction – Current curricula emphasize theoretical instruction that is removed from the actual needs of schools. Assessment processes are also largely based on theoretical understanding and focus less on teaching skills and solving real classroom problems.

Educational Factors – Lack of creativity in teaching methods – The current educational system at Farhangian University is not structurally very different from high schools. It is principally based on predefined programs and prescribed job descriptions, leaving little room for creative agency among students and instructors. This approach leads students to emphasize rote memorization rather than the development of practical and creative skills. The instructional content is stereotypical and not aligned with global educational developments. Teaching methods are used with minimal creativity, and training in teaching methods is far removed from modern approaches worldwide.

Educational Factors – Inappropriate assessment methods – Current curricula emphasize theoretical instruction that is removed from the actual needs of schools. Assessment processes are also largely based on theoretical understanding and focus less on teaching skills and solving real classroom problems. The prevalence of note-taking (dictation) and mismatched evaluations is a serious problem.

Educational Factors – Weakness in cultivating critical thinking and creativity – The current educational system is more focused on rote memorization and answering standardized questions, with insufficient attention to fostering critical thinking and creativity. This weakness prevents students from effectively analyzing problems, offering creative solutions, and confronting complex challenges. For example, in many classes, students are encouraged only to memorize textbooks and are given few opportunities for critical discussions or creative projects. Unfortunately, Farhangian University is structurally not very different from high schools. The main reason is the lack of

attention to students' creative agency. Everything proceeds according to a fixed program, and students are not given opportunities for decision-making or spontaneous activities. As a result, students' creativity and individual capacities are not well developed.

Educational Factors – Mismatch between teaching methods and the needs of the new generation – Many curricula remain grounded in traditional foundations and pay little attention to modern learning methods, educational technologies, and the practical needs of teaching. Instruction is still lecture-based, and active learning approaches are used infrequently. New generations, such as Generation Alpha and Beta, grow up in a world saturated with technology and information, and their educational needs differ greatly from those of previous generations. Nevertheless, teaching methods in many schools and universities remain traditional and are not aligned with these needs. For example, many classes are still held in a lecture format without employing modern educational technologies such as virtual instruction, educational games, or interactive projects. One of the main problems is the significant gap between the curriculum content and the real needs of classrooms. Many students realize upon entering schools that their practical skills have not developed sufficiently. Moreover, traditional teaching methods still predominate in many classes at Farhangian University, despite the need to employ modern learning approaches. Many instructors still use lecture-based methods that limit student interaction.

Educational Factors – Lack of coordination between curricula and the real needs of schools – Due to the mismatch between the provided instructional content and current needs, many students believe that university instruction does not meet their future needs. Unfortunately, the curricula at Farhangian University still do not fully cover the needs of future teachers and the labor market. In particular, instruction in digital skills, managing online classrooms, and using modern teaching technologies is very limited. Some course topics are outdated and require major revision to align with the needs of contemporary teachers. Many students realize after entering schools that what they learned at university has limited practical application. Classroom management skills, creative teaching methods, educational technology use, and student communication require greater attention.

Educational Factors – Instruction that is nonoperational and inefficient – Current curricula and teaching methods at Farhangian University do not align with contemporary needs and the labor market. Instructional

content is often outdated and unrelated to teachers' current needs. Graduates feel that university training does not prepare them for employment. Teaching and research at universities are continually separated, and instruction is far less practical than necessary. The main problem in the current system is that it emphasizes theoretical and level-based aspects and pays little attention to practical applications and current needs. In the most optimistic cases, motivated novice teachers enroll in supplementary online courses to learn modern teaching and assessment methods.

Educational Factors – Neglect of educating multi-skilled students – Future teachers must possess skills such as critical thinking, media and digital literacy, and creative and collaborative teaching methods. These skills enable them to handle contemporary challenges effectively and to teach students creatively and collaboratively. Unfortunately, multi-skilled teachers are lacking. Skills such as choir, music, and sports used to be taught to all teachers, but this is no longer the case.

Educational Factors – Surface learning and command-following – Students at Farhangian University primarily engage in surface learning and the execution of directives, largely functioning as one component of an educational system constrained by a set of predetermined rules. This prevents students' creativity and individual capacities from being properly developed.

Infrastructural Factors – Shortage of up-to-date educational facilities – Many Farhangian University campuses still lack adequate facilities such as educational technology laboratories and practical workshops.

Infrastructural Factors – Failure to keep pace with technological advances – If the university cannot align itself with labor-market needs and technological advances, it will fail to graduate individuals who meet society's real needs. They are far behind and have no plans for artificial intelligence at all. If technological advances in reengineering—particularly those occurring in recent years—are ignored, a generation more capable than their teachers will emerge and teachers' scientific authority will be eroded. Attention to societal needs and technological growth trends should be among the most important pillars in drafting the reengineering plan.

Infrastructural Factors – Failure to keep pace with labor-market needs – If the university cannot align itself with labor-market needs and technological advances, it will fail to graduate individuals who meet society's real needs. In this case, objectives should be aligned with societal and

market needs and be free from political and ideological considerations.

Structural and Organizational Factors – Predefined rules – Students at Farhangian University primarily engage in surface learning and the execution of directives, largely functioning as one component of an educational system constrained by a set of predetermined rules. This prevents students' creativity and individual capacities from being properly developed. The rules do not allow creative agency for instructors or students.

Structural and Organizational Factors – Large class sizes – The number of students in classes is high, whereas it should be proportionate to course characteristics to improve instructional quality. Much of this gap results from the lack of readiness in educational infrastructure. For example, using teamwork or brainstorming in class is impossible because class sizes are too large.

Structural and Organizational Factors – Structure similar to high school – Teaching methods are very similar to those in high school, and students merely engage in memorization. Unfortunately, Farhangian University is structurally not very different from high schools. The main reason is the lack of attention to students' creative agency. Everything proceeds according to a fixed program, and students are not given opportunities for decision-making or spontaneous activities. Many teaching methods at Farhangian University, especially at the undergraduate level, resemble high-school methods, causing students to focus on memorization and limiting exposure to critical thinking and problem-solving skills. Farhangian University has no structural difference from high school; its rules do not allow creative agency for instructors and students.

Structural and Organizational Factors – Insufficient links with reputable universities – One of Farhangian University's greatest weaknesses is its inadequate connections with reputable domestic and foreign universities. Foreign universities, particularly in teacher training, employ modern approaches, while Farhangian University remains largely dependent on traditional methods.

Structural and Organizational Factors – Inadequate compensation and benefits relative to livelihood needs – Teachers play a vital role in educating the next generation, yet many face serious financial difficulties. Low salaries and inadequate benefits reduce motivation and job satisfaction, especially in underprivileged and rural areas where teachers face high living costs and resource shortages.

Structural and Organizational Factors – Unprofessional practicums – Many students do not gain sufficient experience in practical teaching environments, resulting in weak classroom-management skills. The practicum is very unprofessional, and most people find ways to evade or circumvent it. It is not taken seriously by instructors and schools. It is merely a written report that the individual often does not complete personally; evaluations should be observational and scientific. Students do not properly complete reports, and instructors inattentively assign grades, bringing the process to an end.

Human-Resource-Related Factors – Shortage of full-time, specialized faculty – A shortage of full-time, specialized faculty in many disciplines is a major challenge. When instructors are not fully proficient in their fields or lack up-to-date training, instructional quality will naturally suffer.

Human-Resource-Related Factors – Low academic quality among some instructors – Another main issue is that many courses are not taught according to the specified syllabus. For example, a course such as “Educational Measurement and Evaluation” should be taught by specialists, but it is often assigned to instructors without sufficient expertise, which demotivates students and reduces teaching quality.

Infrastructural and Technological Factors – Impact of the physical environment (e.g., classroom space and equipment) on learning – An appropriate physical environment—including sufficient space, proper lighting, ventilation, and up-to-date educational equipment—can help create a positive and effective learning atmosphere. For example, classrooms with adequate natural light and proper ventilation can increase students’ concentration and energy. Conversely, unsuitable environments—such as crowded, poorly lit classrooms lacking essential equipment—can reduce concentration, cause fatigue, and even lead to academic decline. In some schools, students must study in small, crowded classrooms, which can reduce learning quality and increase stress. Therefore, attention to classroom environments and educational equipment is a key factor in improving learning quality.

Infrastructural and Technological Factors – Lack of appropriate technological infrastructure – The university should have library facilities, modern laboratories, and new educational technologies. In today’s world, educational technologies are of special importance, yet Farhangian University has not been able to incorporate these tools effectively into its instructional process. This gap can lead to

teachers’ inability to use digital and online tools, which is a major weakness today. Unfortunately, the curricula still do not fully address the needs of future teachers and the labor market. Specifically, instruction in digital skills, online classroom management, and the use of modern teaching technologies is very limited. Teacher education today requires up-to-date knowledge about teaching in a digital world, using online platforms, and confronting modern challenges. Therefore, curricula must be revised to prioritize digital skills and the use of new technologies. In today’s world, using technology in education is a necessity. Farhangian University should familiarize future teachers with educational technologies through learning-management systems, virtual instruction, and smart tools. However, many campuses still lack appropriate technological infrastructure.

Infrastructural and Technological Factors – Shortage of digital educational content production – In recent years, Farhangian University has taken steps toward using new technologies and has attempted to deliver instructional content in digital and online formats. Currently, rapid societal and technological changes demand greater preparedness from the university. It has not been able to keep pace with these changes and remains behind in many respects, including digital education and online platforms. Global changes—especially in technology—require training teachers who are technologically literate and capable of using new educational tools. Overall, the university has not been successful in this area and faces difficulties due to budget and resource shortages in implementing these transformations. Compared with leading universities, Farhangian University’s adaptation to technological change is still insufficient. Although some campuses have adopted e-learning systems, these technologies have not yet been fully integrated into the teaching–learning process. Moreover, many students and instructors do not use these technologies properly due to insufficient training.

Infrastructural and Technological Factors – Lack of skill in using technologies – Global changes, especially in technology, require training teachers who are technologically literate and able to use new educational tools. Overall, the university has not been successful in this regard and faces difficulties due to budget and resource constraints. Educational technologies are of special importance today, yet Farhangian University has not effectively incorporated these tools. This gap can lead to teachers’ inability to use digital and online tools, a major weakness today. Compared with leading universities,

adaptation is still insufficient. Although some campuses have adopted e-learning systems, these have not been fully integrated into the teaching–learning process. Many students and instructors do not use these technologies properly due to insufficient training. In technology, students in teacher education do not genuinely learn; they may become somewhat familiar with computers only because they must present seminars. Although recent years have brought a baseline familiarity with technology, there is no curricular or auxiliary plan to improve and train students in this area.

Structural and Organizational Factors – Need for flexible and creative learning environments – At present, learning environments at Farhangian University are often managed in traditional and inflexible ways. Classes are typically lecture-based and conducted using uniform, predetermined teaching methods. This approach gives students fewer opportunities to participate actively in learning and to develop creative skills and critical thinking. Moreover, educational equipment and facilities are often old and outdated, which can negatively affect instructional quality. For example, in many classes, students are required to study in low-light, poorly ventilated environments with limited equipment, which can reduce their concentration and motivation.

Structural and Organizational Factors – Administrative complexity and bureaucracy – Administrative complexity and bureaucracy at Farhangian University are major challenges that adversely affect performance. Decision-making is slow, and administrative processes are lengthy and time-consuming. This not only reduces efficiency and productivity but can also negatively affect staff and instructor morale. For example, when an instructor wishes to propose a new project or curricular change, they may have to pass through multiple administrative layers, a process that can take months. Such bureaucracy hinders necessary innovation and change and can impede progress and improvements in instructional quality.

Structural and Organizational Factors – Centralization in decision-making – Centralization in decision-making is a fundamental challenge. Important decisions are often made at upper managerial levels, and instructors, staff, and even students play a minor role in decision processes. As a result, decisions are less aligned with real needs and local conditions. For example, centrally designed policies and programs may not match the specific conditions and needs of each campus or faculty, reducing program efficiency and effectiveness.

Structural and Organizational Factors – Weaknesses in student admissions – The target should be structural and content improvement aimed at efficiency and the utilization of talented individuals, whereas the university currently lacks elite students. Some consider the selection process very strict, but with a bit of inquiry and knowledge of the questions, it is possible to circumvent the selectors and their questions without genuine interest or conviction in many subjects. Historically, the educational system has been successful and has played an important role in supplying human resources for education. However, faced with rapid societal changes and scientific and technological advances, it now faces multiple challenges. Many curricula remain grounded in tradition and pay little attention to modern learning methods, educational technologies, and the practical needs of teaching. The student-admissions system and instructor selection require fundamental review.

Structural and Organizational Factors – Weaknesses in instructor selection – Historically successful in supplying human resources, the system now faces multiple challenges amid rapid change. Many curricula remain traditional, with limited attention to modern learning, educational technologies, and practical teaching needs. Student admissions and instructor selection require fundamental revision. Recruitment of instructors must be conducted with greater rigor to improve instructional quality.

Structural and Organizational Factors – Upstream regulations – Upstream laws and guidelines are often designed without considering implementation barriers and constraints, which reduces their effectiveness.

Structural and Organizational Factors – Prevalence of adjunct faculty – One fundamental issue is the excessive number of adjunct instructors at Farhangian University.

Political and Ideological Barriers – Political influence in faculty recruitment – The influence of political and powerful individuals on faculty recruitment has reduced instructors' academic quality. Unfortunately, in many cases, faculty selection is affected by politics and relationships, resulting in the appointment of individuals lacking sufficient expertise in their instructional fields. One of the most important factors affecting the success or failure of reengineering the educational system is interference by political and security forces and institutions. If reengineering is influenced by ideological perspectives, the university may stray from its main objectives and fail to meet the real needs of students and society. For example, if attention is given only to political and factional issues, faculty selection and

educational programs may deviate from professional and scientific criteria. Political influence in faculty recruitment leads to a lack of meritocracy. A fundamental problem at Farhangian University is the penetration of political and non-academic factors into educational decision-making.

Political and Ideological Barriers – Dogmatism and rigidity in policymaking – One of the key factors for success or failure in this process is the revision of closed educational policies and the lack of alignment with a competitive world. If policies are not revised in a coordinated manner and in line with current needs, reengineering will fail. Conversely, careful and timely review aligned with global developments and labor-market needs will yield greater success.

Political and Ideological Barriers – Excessive emphasis on ideological and political aspects – Unfortunately, most of the university's time and energy is spent on ideological and political matters, leaving less room for specialized and scientific courses. This approach prevents students from acquiring the expertise needed for work in schools. Excessive attention to ideological matters reduces the share of specialized courses. Overemphasis on ideological and political aspects has left insufficient space for specialized and applied instruction in educational programs.

Political and Ideological Barriers – Intervention by political and security forces – One of the most important factors affecting the success or failure of reengineering is the intervention of political and security forces and institutions. If reengineering is influenced by ideological perspectives, the university may deviate from its main goals and fail to address real needs. For example, if attention is focused only on political and factional matters, faculty selection and instructional programs may depart from professional and scientific criteria. The executive body treats any directive from above as an administrative order to be ticked off, and upon encountering an unforeseen obstacle, immediately halts implementation.

Political and Ideological Barriers – Closed and ideological system – The university's structure is very closed, one-dimensional, and single-sex. Changes should be based on global developments. Today, all students are active on various social networks and compare Farhangian University with other universities and institutions; they observe that a closed, ideological system cannot train demanding, questioning students. Changing closed educational policies and failing to align with a competitive

world leads to failure, whereas balanced change and harmony with the surrounding world leads to success.

Political and Ideological Barriers – Dominance and hegemony of ideology – The most significant obstacles to reengineering at Farhangian University are political and ideological barriers. When political and ideological views govern the university's educational and managerial processes, there can be a failure to properly understand new educational and social requirements. A tendency to base decisions on political and ideological leanings rather than scientific evaluation becomes a major barrier to transformation. Resistance to change by some stakeholders, particularly those in leadership and managerial positions, can also complicate reengineering. A key challenge is that many decisions are traditionally made without considering real needs. The lofty goals of teacher education lose feasibility when linked to politics and ideological approaches.

Economic Factors – Budgetary and resource shortages – Global changes, especially in technology, require training teachers who are technologically literate and able to use modern educational tools. Overall, the university has not been successful in this regard and faces difficulties due to budget and resource shortages. Unfortunately, Farhangian University, due to inadequate budgets and resources, is far from technological developments, particularly in virtual education and modern educational technologies.

Economic Factors – Lack of financial resources – Financial constraints for developing infrastructure, purchasing equipment and modern educational technologies, creating workshops, and updating textbooks and resources are major obstacles to reengineering. Financial resources affect this process. To implement fundamental changes, Farhangian University needs sufficient funds to equip infrastructure, train instructors, and provide educational technologies. Without resources, many changes may not be feasible. Cultural factors, such as society's attitudes toward teachers and their social status, as well as organizational structures within the university, also affect reengineering.

Economic Factors – Economic volatility and its impact on educational budgets – When the economy fluctuates, education is often one of the first sectors to face budget cuts. This prevents universities and schools from properly updating equipment, hiring new personnel, or implementing innovative programs, thereby reducing instructional quality and depriving learners of necessary resources. To address this challenge, long-term planning and

stable budget allocations for education are needed to maintain quality during economic instability.

Motivational–Psychological Factors – Perceived injustice in evaluation and promotion – When evaluation criteria are nontransparent or based on personal relationships, the perception arises that individuals' efforts and performance are not recognized fairly. This can reduce motivation and job satisfaction and even drive talented individuals away from the educational system. Objective, transparent, performance-based evaluation criteria are needed so everyone feels they have equal opportunities for advancement.

Motivational–Psychological Factors – Student demotivation – Many students lack motivation to study and feel that the courses they pass have little impact on their future careers.

Motivational–Psychological Factors – Staff demotivation – Staff lose motivation to work, errors increase, and sick leaves rapidly rise.

Motivational–Psychological Factors – Influence of intrinsic and extrinsic motivation on professional development – Intrinsic motivations, such as personal interest in teaching and self-development, play a significant role in teachers' professional growth. Extrinsic motivations, such as salary, benefits, recognition, and rewards, also matter. When both exist, teachers pursue skill development more enthusiastically, improving instructional quality.

Motivational–Psychological Factors – Declining organizational commitment among staff – When staff—teachers and others—feel the organization does not value them or recognize their efforts, they lose motivation, perform their tasks apathetically, or consider changing jobs. In education, this is crucial because if teachers lack loyalty, instructional quality declines and learners are the first to suffer. Implicit or indirect resistance becomes more subtle, and individuals' loyalty to the organization diminishes.

Organizational and Managerial Factors – Conflict of interest in program change – Certainly, lawmaking at the macro level can help, yet supervision of implementation and proper evaluation of processes at different levels, along with feedback on change processes, can be effective. Unfortunately, what prevents these changes from taking shape is, in my view, conflicts of interest or differences in the extent to which stakeholders benefit from program changes.

Organizational and Managerial Factors – Traditional, inflexible organizational structures – Organizational structures operating in traditional, inflexible ways may not

align effectively with modern needs. Financial constraints on infrastructure development, acquisition of modern educational technologies, creation of workshops, and updating textbooks and resources are major obstacles to reengineering.

Organizational and Managerial Factors – Weak evaluation and promotion systems – Weak evaluation and promotion systems are a major problem. When evaluation is inadequate, teachers and students cannot properly assess their progress. For example, evaluations may be based solely on grades and exams, while other skills—such as teamwork, creativity, or critical thinking—are ignored. Consequently, students study merely to obtain grades rather than for genuine learning. Likewise, weak promotion systems demotivate teachers. If promotion criteria are not transparent and fair, teachers feel their efforts go unrecognized, lowering instructional quality.

Organizational and Managerial Factors – Inaccurate understanding of programs – Unfortunately, a frequent problem is that educational programs are not properly understood. Students, families, and even some teachers often lack a clear understanding of program objectives and expected learning. This leads to poor implementation and failure to achieve intended outcomes. For example, a program designed to foster creativity may devolve into rote memorization due to misunderstanding.

Organizational and Managerial Factors – Organizational resistance to change – Resistance to change can be direct or indirect. Direct resistance can usually be managed by system leadership, but indirect, hidden resistance can reduce loyalty and commitment to organizational goals. To address resistance, the Ministry of Education's programs must change, and staff and stakeholders should be involved in change processes. Resistance is natural in any organization, but at Farhangian University it can be both direct—by those who confront change and wish to preserve the status quo—and indirect. Resistance to change and some individuals' unwillingness to accept innovations constitute major obstacles. Many accustomed to the existing structure are reluctant to change it, complicating transformation. Governance structure and system are the most important factors; resistance to change always exists in systems.

Cultural and Social Factors – Society's neglect of the academic and professional status of student-teachers – Cultural, structural, and financial-resource constraints play key roles in the success or failure of reengineering. Culture is foundational in every society and determines whether

internal controls in the university's key human element will be implemented. Cultural factors—such as society's attitudes toward teachers and their social status—and organizational structures within the university also affect reengineering. Changes in cultural and social attitudes, especially regarding teachers, can accelerate transformation. The participatory role of teachers in designing, developing, and implementing curricula—a pivotal role—has been overlooked. The teacher should plan, drawing on multiple sources, for students' social education and adaptation based on acquired understanding. One such source is the social studies textbook and other books addressing social issues. Textbooks are compiled according to needs and necessities, and their content is one of the effective tools in social education.

Cultural and Social Factors – Insufficient attention to required skills and knowledge – Curricula are often outdated and misaligned with contemporary societal and labor-market needs. Students may learn content with little real-world application, while essential skills such as teamwork, critical thinking, or digital literacy are overlooked. This leaves graduates feeling unprepared for the labor market. The solution is to update curricula and incorporate essential skills. Internships, practical projects, and skills-based training can be very helpful, improving readiness and motivation.

Cultural and Social Factors – Culture not keeping pace with societal needs – The lack of cultural alignment with societal needs is a major challenge. Traditional culture and old beliefs often do not match contemporary needs. Some families, due to their beliefs, resist new forms of education and currently necessary skills. This deprives students of learning what is truly useful, creating a gap between what is taught and what society needs.

Cultural and Social Factors – Lack of public trust – Most educational actions in the country have been formalistic, and public trust in educational institutions has drastically declined, making the task harder than ever.

Establishing International Relations and Collaboration Networks – Ongoing university–industry links – A successful educational system must be dynamic and adapt to societal and technological changes. Continuous ties between university and industry can identify these needs and incorporate them into curricula.

Establishing International Relations and Collaboration Networks – Using the experience of successful countries – Many countries worldwide are successful in education, and by integrating and adapting

their experiences to local objectives, an appropriate model can be designed. For example, the School Management Excellence Program has excellent logic, but in Iran it has been implemented poorly as a performative, onerous program due to inadequate infrastructure and resources.

Establishing International Relations and Collaboration Networks – Using international online courses – These courses enable students to access quality instruction from reputable global universities and institutions. This not only updates their knowledge and skills but also familiarizes them with the latest scientific and technological advances. International online courses can also build broader academic and professional networks, increasing opportunities for collaboration and knowledge exchange.

Establishing International Relations and Collaboration Networks – Two-way interaction between university and society – Reengineering will be effective when there is two-way interaction between university and society. If the university cannot align with labor-market needs and technological progress, it will fail to graduate individuals who meet society's real needs. Effective communication with the private sector and industries is essential to identify real needs and enhance students' skills, particularly in technical and vocational fields. In this way, Farhangian University can design its educational programs in line with current needs and future developments.

Establishing International Relations and Collaboration Networks – Strengthening ties with reputable universities – Connections with reputable domestic and international universities should be strengthened to benefit from global experience in education. To manage barriers and reinforce facilitators, collaborations among universities and educational institutions should increase, including joint visits, faculty and student exchanges, and training workshops. Such collaborations enable visits to successful institutions and learning from their experiences. Creating a space for dialogue and constructive cooperation among all stakeholders can facilitate change. Building relationships with successful universities and pursuing faculty exchange and shared experiences should be a primary goal, enabling Farhangian University to update teacher-training programs more effectively.

Establishing International Relations and Collaboration Networks – Strengthening university–school cooperation – Farhangian University should maintain continuous contact with a variety of schools so that

students benefit from real teaching experiences during practicum. Closer cooperation with schools will ensure that teachers' real needs are considered in curriculum design. Close ties between the university and schools help better identify and address classroom needs.

Establishing International Relations and Collaboration Networks – Strengthening international collaborations – Ties with leading global universities can transfer experience and modern teaching methods. Farhangian University can benefit from successful international experiences in teacher education.

Establishing International Relations and Collaboration Networks – Developing virtual knowledge-exchange networks – By creating online platforms and virtual networks, pupils, students, and instructors can easily share knowledge and experiences. These networks increase access to educational resources and create opportunities for academic and research cooperation. They can also build dynamic, interactive learning communities where individuals worldwide connect and benefit from one another's experiences.

Establishing International Relations and Collaboration Networks – Developing cross-sector collaboration – Collaboration among different university units and related institutions can improve instructional quality. Cross-sector collaboration among Farhangian University, the Ministry of Education, and various industries can better identify real societal needs and align them with curricula. Supporting researchers and educational research is also crucial to translate scientific and research achievements into practice. Creating supportive environments and constructive interaction among different groups—such as instructors, students, university management, and even schools—can facilitate processes. For example, specialized working groups and partnerships with other successful universities and educational institutions can ease experience and knowledge exchange. A key factor in reengineering is establishing relations with entrepreneurs and the private sector to identify real labor-market needs and incorporate them into university programs.

Establishing International Relations and Collaboration Networks – Stakeholder participation in design and implementation – Comprehensive training and engagement of staff, faculty, and students in programs can facilitate reengineering. Student involvement in program design and implementation can reduce resistance to change. Transparent communication and regular, principled feedback processes are required. Stakeholder participation in

designing and implementing changes can increase commitment. Students should be regarded as active participants in change processes and be given space to participate and opportunities to critique programs. If all stakeholders (faculty, students, and managers) participate in decision-making and designing changes, commitment and involvement will increase. Cultural and managerial barriers should be continually identified and removed to facilitate sustained transformation. Encouraging change advocates is a principal facilitator. People should understand that change is essential for improving the educational system and can secure a better future for students and society. Support and cooperation from all stakeholders are fundamental to success. The university can perform effectively when tied to various sectors of society, including the private sector and government institutions.

Human Resource Development – Creating specialized working groups – Creating supportive environments and constructive interaction among different sectors—such as faculty, students, university management, and even schools—can facilitate processes. For example, establishing specialized working groups and partnering with other successful universities and educational institutions can ease experience and knowledge exchange.

Human Resource Development – Establishing reward systems for outstanding faculty and students – A reward system for outstanding faculty and students can include financial awards, scholarships, research opportunities, and public recognition. Rewarding superior performance not only increases motivation to excel but also fosters healthy competition and improves the quality of teaching and research. It also helps identify and nurture top talent and encourages continued academic and professional engagement.

Human Resource Development – Designing training programs to enhance interpersonal skills – Interpersonal skills—such as effective communication, teamwork, conflict resolution, and empathy—are essential to teachers' success in educational environments and in interactions with students, colleagues, and families. These skills help create positive, dynamic learning environments. The university can, in cooperation with schools and educational centers, provide internship opportunities and joint projects so students can strengthen interpersonal skills in real settings.

Human Resource Development – Training specialized, committed, and innovative personnel – Teachers, as the most important element of the educational system, play a key role in shaping society's future.

Therefore, it is essential to train teachers who are not only academically specialized but also professionally committed and interested in innovation. Offering professional-ethics courses and encouraging teachers to participate in social and cultural activities can strengthen commitment. Supporting innovative proposals and creating space to pilot and implement them can cultivate innovative teachers.

Human Resource Development – Empowering students and faculty – Farhangian University can design diverse educational and support programs. For students, these may include skills-based courses, practical workshops, internships, and research projects. Such programs help students acquire the skills necessary for employment and become efficient, multi-skilled teachers. For faculty, the university can offer advanced training, research opportunities, and experience exchange with instructors at other universities. Establishing incentive and reward systems for outstanding faculty can increase motivation to improve teaching and research quality. Creating a supportive, participatory environment where everyone feels their ideas are valued and can participate in decision-making also empowers students and faculty.

Human Resource Development – Students' professional growth – We had a short four-year experience during Dr. Mehrmohammadi's presidency that aimed to train reflective teachers. During this period, which partly overlapped with my term as deputy, student participation in scientific associations and various scientific and ideological clubs was significantly strengthened, developing future teachers' capabilities in various domains. After his removal, however, this goal faded and became largely performative.

Human Resource Development – Improving practicum quality – Changes should include increasing emphasis on practicum and improving the quality of practicum host schools. Teachers' professional competencies at national and global levels should be aligned with the curriculum model's requirements. Policies for recruiting, training, and retaining teachers should be fundamentally reviewed, emphasizing improved recruitment and retention methods in education. More facilities and opportunities should be provided so students can strengthen their teaching skills.

Instructional Strategies – Enhancing students' practical skills – Unfortunately, due to a shortage of full-time faculty, instruction faces deficiencies. If Farhangian University is to meet current and future labor-market needs, it must focus more on practical skills and applied training. Students should acquire necessary skills in real teaching

environments rather than only learning theory. The government and university administrators should support practicum programs; their duration and quality must be enhanced so students face real teaching challenges.

Instructional Strategies – Aligning content and curricula with real needs – Especially in specialized fields, programs should be designed based on the real needs of schools and contemporary societies. Curricula should be updated to include practical skills, modern technologies, and contemporary teaching methods. Unfortunately, current curricula do not fully address the needs of future teachers and the labor market—particularly in digital skills, online classroom management, and the use of modern teaching technologies. Teacher education now requires up-to-date knowledge of teaching in a digital world, using online platforms, and confronting modern challenges. Curricula should therefore be revised to prioritize digital skills and the use of modern technologies. As the main teacher-training institution, Farhangian University should pay special attention to revising teaching methods, strengthening practicums, and updating curricular content. Broader use of educational technologies, especially in online and digital instruction, should become a top priority. With these reforms, Farhangian University can introduce capable teachers who can address contemporary challenges.

Instructional Strategies – Employing modern teaching and instructional methods – Practicum programs should be designed more seriously and effectively. In addition to increasing practicum hours, real teaching environments in schools should be consistently available so students can strengthen practical skills. Instructors should complete training related to educational technologies, virtual platforms, and modern teaching methods to teach more effectively and with higher quality. Wider use of educational technologies, particularly in online and digital instruction, should be a priority. With these reforms, the university can introduce capable teachers able to confront contemporary challenges. Interactive, game-based, and blended learning methods should be integrated more broadly. Many instructors need to learn interactive teaching methods and how to use modern educational technologies. Combining in-person and virtual instruction can increase learning effectiveness and familiarize students with new learning environments. If technological advances in reengineering are ignored—as has occurred in recent years—a generation far more capable than their teachers will emerge, eroding teachers' scientific authority.

Instructional Strategies – Cultivating critical thinking and problem-solving – Teachers must be able to analyze and solve complex educational and social problems to make better classroom decisions. Students should be able to analyze educational issues and propose innovative solutions. Teachers should analyze problems and provide creative solutions. Critical thinking, digital literacy, and creative teaching methods are all very important.

Instructional Strategies – Strengthening classroom-management ability – Teachers must be able to control and manage classroom environments, student behavior, and create a positive, active learning atmosphere. Interaction with students and colleagues is an important part of the teaching profession and should be emphasized.

Instructional Strategies – Developing internships in related industries – Developing internships in related industries is a key strategy in reengineering the educational system. These programs enable learners to apply theoretical knowledge in real work environments and acquire practical skills. This not only increases their readiness for employment but also helps industries recruit skilled, job-ready workers. Internships also strengthen university–industry ties and expand opportunities for collaboration and innovation.

Instructional Strategies – Creative and cooperative teaching methods – The ability to teach innovatively and collaboratively is needed to improve learning quality, shifting from traditional to interactive, modern methods. Teachers should be able to teach creatively and innovatively to capture learners' attention and move beyond traditional methods. Group-based and interactive approaches can make learning more engaging.

Instructional Strategies – Including digital learning and media-literacy courses – Teachers must be fully familiar with new educational technologies. Supportive policies play a crucial role in reengineering and should focus on human-resource development, supporting innovation, and technological advancement. For example, using technology in teaching and learning can improve instructional quality and access to resources. The use of artificial intelligence and modern technologies can play an important role in reengineering; AI can personalize learning and assessment and thereby improve student learning. Unfortunately, curricula still do not fully address future teachers' needs—particularly in digital skills, online classroom management, and modern teaching technologies. Teacher education now requires up-to-date knowledge of teaching in a digital world, using online platforms, and

confronting modern challenges. Curricula must therefore be revised to prioritize digital skills and modern technologies. Compared with many advanced universities, the university lags in adapting to technological and social changes. Although efforts have been made to integrate new technologies into teaching–learning, they have not been sufficiently comprehensive or effective. Specialized courses and practicums related to educational technologies are taught only to a limited extent. To keep pace with social and technological changes, the university should act more decisively in virtual education and the use of digital tools. Instructors should complete training related to educational technologies, virtual platforms, and modern teaching methods. Digital-learning infrastructure must be provided so students properly learn virtual-instruction methods and technological tools. Equipping classrooms with digital tools and promoting technology-based instruction is essential.

Managerial and Organizational Strategies – Balancing stakeholder interests – Balancing stakeholder groups' interests and increasing university financial resources can enable changes in managerial policies. As a facilitator, neutrality is crucial because it allows you to guide the team without an agenda; regardless of the group's choices, the team's success is the primary goal.

Managerial and Organizational Strategies – Creating motivational mechanisms – Because personal and managerial motivations are important to the effectiveness of any proposed model, a lack of motivation among university presidents and managers can seriously affect successful implementation. Those responsible for change must have genuine motivation and willingness to transform. Financial support and structural backing are also decisive in the success or failure of reengineering processes. Supportive policies in funding, motivating faculty and students, and improving infrastructure are highly influential. Effective management can facilitate reengineering. With cultural work and orientation courses, barriers can be overcome, and motivational mechanisms can be beneficial. Incentives to encourage stakeholders can be effective through awareness-raising and individual and social development, fostering positive resistance. The most important element is creating motivation. Securing senior managers' approval and support is the first strategy at this stage, which will garner leaders' backing of influential groups.

Managerial and Organizational Strategies – Raising stakeholder awareness of change effectiveness – Resistance to change is natural in any organization and can be reduced through continuous training and clear

explanations of the necessity for change. To reduce indirect resistance, transparent communication and regular, principled feedback processes are needed. Stakeholder participation in designing and implementing changes increases commitment. To reduce resistance, the necessity of change must be explained clearly to employees and stakeholders. One method is to make the benefits explicit so they understand how changes can improve their working and educational conditions. Institutionalizing new processes and clarifying how changes affect instructional quality and faculty and student welfare can reduce resistance. Parents' and parent-teacher associations' views regarding the recruitment and development of student-teachers should receive more attention because they are primary stakeholders who significantly influence instruction and learner attitudes.

Managerial and Organizational Strategies – Reviewing and redesigning administrative and recruitment processes – Organizational structures must be flexible and responsive to implement changes effectively. Non-specialists should be removed from education, and genuine expertise should be employed. This requires initially changing administrative and recruitment structures to prevent political and factional influences in selecting faculty and managers. Human dignity should be respected in selecting and recruiting faculty and officials, adopting a human-centered approach to teacher education.

Managerial and Organizational Strategies – Resetting governing curricular principles – Reengineering policies and resetting governing curricular principles, emphasizing practicum and the quality of practicum host schools, and aligning teachers' professional competencies nationally and globally with the curriculum model's requirements are essential. Appropriate policies should be designed to improve teacher recruitment, training, and retention. Flexibility—the ability to adapt to change—is crucial. First, educational policies and governing curricular principles must be reviewed. Changes should include increased emphasis on practicum and improving the quality of practicum host schools. Teachers' competencies at national and global levels should align with curriculum-model requirements.

Managerial and Organizational Strategies – Continuous monitoring of model progress – Supervision of implementation, appropriate evaluation of processes, and feedback at different levels, along with oversight of change processes, can be effective. What hinders these changes, in my view, is conflict of interest or differences in benefits

derived from program changes. Any program requires support, reinforcement, and oversight to succeed. Supporting reengineering implementation, continuously strengthening human resources, providing needed infrastructure, and ongoing monitoring and evaluation will be among the most important policies.

Managerial and Organizational Strategies – Avoiding politicization – The lofty aims of teacher education lose feasibility when linked to politics and ideological approaches. If supportive policies are to exist, the teacher-education environment should be enlightening rather than politicized.

Managerial and Organizational Strategies – Shifting from an ideological to a scientific approach – Assign tasks to specialists across society, avoid politicization, move away from purely ideological perspectives, and adhere to the goal of national growth and development. Reengineering that proceeds against societal currents will fail.

Managerial and Organizational Strategies – Senior-management support – Managerial backing and resource provision are essential. Any program requires support, reinforcement, and oversight to succeed. Supporting reengineering implementation, continuously strengthening human resources, providing needed infrastructure, and ongoing monitoring and evaluation will be among the most important policies. Securing senior managers' approval and support is the first strategy, bringing leaders' backing of influential groups.

Managerial and Organizational Strategies – Designing modern policies for recruiting specialized faculty – Teachers' competencies at national and global levels should align with curriculum-model requirements. Policies for recruiting, training, and retaining teachers should be fundamentally reviewed, emphasizing improved recruitment and retention in education. Generally, the first necessary change is to employ experienced teachers with relevant specializations. The university should utilize individuals with extensive practical teaching experience as well as academic expertise; such individuals can play a significant role in improving instructional quality.

Managerial and Organizational Strategies – Keeping pace with a competitive world – Behaviors and cultures must change; through work, effort, and innovation, we must align with a competitive world to avoid failure. How can we move in step with advanced, developed contexts and ensure our survival?

Supportive Policies – Increasing educational and research facilities for students – Expanding educational

and research facilities is vital. When students have access to well-equipped libraries, advanced laboratories, and online educational platforms, they can study better and strengthen their skills. This not only improves instructional quality but also prepares students for real-world challenges. The university should invest in equipping libraries and laboratories and developing online platforms. Supporting student research projects and creating skills-based workshops can be helpful, enabling students to acquire practical skills and become efficient, creative teachers.

Supportive Policies – Standard facilities for students – Access to standard dormitories (e.g., study halls), up-to-date library and laboratory facilities, and educational technological infrastructure is needed; all parts of the system should be coordinated in using educational technology and innovation. Conditions should be created so Farhangian University benefits from appropriate educational, welfare, and sports facilities, allowing student-teachers to study and train in a worthy environment. As the cornerstone of the national education system, Farhangian University bears the critical responsibility of training specialized, committed human resources who will educate the nation's future.

Supportive Policies – Creating research opportunities – Another key element is supporting researchers and educational research so the university can translate its scientific and research achievements into practice. Encouraging students and faculty to conduct applied research in education can improve teaching-learning processes.

Supportive Policies – Reconstructing operational infrastructure – Any program needs support, reinforcement, and oversight. Supporting reengineering implementation, continuously strengthening human resources, providing needed infrastructure, and ongoing monitoring and evaluation will be among the most important policies. Effective management can facilitate reengineering by guiding resources, holding training workshops for faculty, and creating supportive structures.

Supportive Policies – Supporting educational transformations – Supportive policies should continually focus on educational transformations and investment in educational resources. Effective management can facilitate reengineering by guiding resources, holding faculty workshops, and creating supportive structures.

Supportive Policies – Providing financial resources – Policies should include allocating sufficient budgets, creating supportive rules and regulations, and ensuring program implementation. University management should

facilitate reengineering by creating flexible, responsive structures. Financial and structural support can be decisive in success or failure. Supportive policies influence funding, motivate faculty and students, and improve educational infrastructure. If the university's financial resources increase, changes in managerial policies become more feasible.

Supportive Policies – Developing educational technology platforms – Using technology in teaching and learning can improve instructional quality and access to resources. Employing modern technologies and digital tools is highly important. Instructors should complete training related to educational technologies, virtual platforms, and modern teaching methods to teach more effectively and with higher quality.

Improving Instructional Quality and Student Skills – Enhancing the quality of training new teachers – Improving the quality of training new teachers is a key outcome of reengineering. When new teachers receive up-to-date and effective training, they can teach students better and improve overall instructional quality. This positively affects students and increases teachers' job satisfaction. Supporting teachers and creating a positive, encouraging work environment is crucial; when teachers feel valued and can grow, they work with greater motivation, directly improving instructional quality.

Improving Instructional Quality and Student Skills – Enhancing students' professional skills – Enhancing teachers' professional skills should be central to reengineering. Teachers should acquire competencies such as critical thinking, digital literacy, and creative teaching skills. These enable teachers to communicate more effectively with students and employ modern teaching methods in class.

Improving Instructional Quality and Student Skills – Increasing the efficiency of the educational system – When Farhangian University trains teachers who are not only strong in their subjects but also in classroom management, educational technology use, and creative thinking, school-level instructional quality will improve markedly. Multi-skilled teachers can better connect with students and meet their diverse needs. For instance, a teacher who can use digital tools or creative teaching methods engages students more and leads to better outcomes.

Improving Instructional Quality and Student Skills – Improving instructional quality – In the short term, greater empathy among university members and improved cooperative spirit can be expected. In the long term, this

process can improve instructional quality and better align graduates with societal needs.

Improving Instructional Quality and Student Skills – Educating capable students – As the main teacher-training institution, the university should focus on revising teaching methods, strengthening practicums, and updating curricula. Broader use of educational technologies, particularly in online and digital instruction, should be a priority. With these reforms, Farhangian University can introduce capable teachers who can address contemporary challenges.

Improving Instructional Quality and Student Skills – Training multi-skilled students – Training multi-skilled teachers is an important outcome of reengineering. Such teachers are strong in their subjects and also possess classroom management, educational technology use, creative thinking, and strong communication skills. This helps them connect better with students and meet diverse needs. When teachers are multi-skilled, school-level instructional quality improves markedly. For example, a teacher who uses digital tools or creative methods engages students more and improves outcomes.

Improving Instructional Quality and Student Skills – Training specialized and committed students – One outcome is a positive impact on the university's reputation, transforming it into a leading institution for training specialized and committed teachers.

Improving Instructional Quality and Student Skills – Improving academic quality and increasing student satisfaction – Improving academic quality and student satisfaction is a major outcome of reengineering. When instructional quality and resources improve, students gain the knowledge and skills needed for the labor market. This not only enhances their future success but also increases satisfaction with their course of study, improving the university's academic quality and students' sense of fulfillment.

Improving Instructional Quality and Student Skills – Increasing sense of belonging to the university – When students and instructors feel their opinions and needs are considered in decision-making and planning, their sense of belonging and responsibility increases. This can lead to greater participation in university activities, improved instructional quality, and a dynamic, empathetic learning environment. A stronger sense of belonging can also reduce dropout rates and increase overall satisfaction.

Improving Instructional Quality and Student Skills – Increasing job satisfaction and student commitment – When teachers receive appropriate compensation and

benefits, supportive work environments, and professional development opportunities, their job satisfaction increases. This not only encourages greater commitment but also improves instructional quality. Satisfied, committed teachers can inspire students and help create a positive, dynamic learning environment.

Improving Instructional Quality and Student Skills – Creating a positive and active learning environment – Teachers must be able to manage classroom environments, student behavior, and build positive, active learning spaces.

Improving Instructional Quality and Student Skills – Empathy and enhanced cooperative spirit – In the short term, greater empathy among university members and improved cooperative spirit can be expected. In the long term, this process can improve instructional quality and better align graduates with societal needs. It will also positively impact the university's reputation, transforming it into a leading institution for training specialized and committed teachers.

Alignment with Societal Needs and Foresight – Promoting innovation and creativity in society – When pupils and students are educated in flexible, creative environments, their problem-solving abilities and out-of-the-box thinking are strengthened. In the future, they can contribute innovative ideas to societal advancement. Teachers and instructors working in such environments are also encouraged to inspire and cultivate creativity, steering society toward progress and sustainable development.

Alignment with Societal Needs and Foresight – Confronting contemporary challenges – As the primary teacher-training institution, Farhangian University must focus on revising teaching methods, strengthening practicums, and updating curricular content. Broader use of educational technologies—especially online and digital instruction—should be a priority. With these reforms, the university can introduce capable teachers who can confront contemporary challenges.

Alignment with Societal Needs and Foresight – Reducing the gap between education and the labor market – Reducing the gap between education and the labor market is a positive outcome of reengineering. When curricula and teaching methods align with real labor-market needs, learners acquire the skills required for employment. This facilitates graduates' entry into the labor market and effective professional activity. Close cooperation between universities and industries can create internships and joint projects, further reducing the education-labor-market gap.

Alignment with Societal Needs and Foresight – Better alignment of graduates with societal needs – In the short term, greater empathy among university members and improved cooperative spirit can be expected. In the long term, this process can improve instructional quality and better align graduates with societal needs. It will also positively affect the university's image, transforming it into a leading institution for training specialized and committed teachers. Better alignment of graduates with societal needs is a key outcome of reengineering. When graduates learn skills and knowledge that genuinely serve society and the labor market, they can enter employment more easily and succeed professionally, benefiting both themselves and society at large.

Alignment with Societal Needs and Foresight – Matching societal needs and foresight – An important outcome of reengineering is alignment with current societal needs and foresight. By revising curricula and teaching methods, the university can train graduates who are not only aligned with present needs but also prepared for future challenges. This facilitates labor-market entry and professional success. Ultimately, this outcome moves the national educational system toward progress and sustainable development, effectively addressing societal needs.

Strengthening the Status and Credibility of Farhangian University – Enhancing the university's status – Farhangian University will gain a stronger position, train better teachers, and be recognized as a reputable educational and research center nationally and even internationally. This will attract more talented students and encourage leading faculty to collaborate. With an enhanced status, the university can play a more significant role in improving the education system and in training efficient, multi-skilled teachers.

Strengthening the Status and Credibility of Farhangian University – Increasing international interactions and improving university ranking – Greater opportunities for knowledge and experience exchange will arise, including international conferences, participation in joint research projects, and attracting international students and faculty. Improved rankings will follow enhanced interactions and higher instructional and research quality, attracting top talent and increasing credibility.

Strengthening the Status and Credibility of Farhangian University – Positive impact on the university's image – In the short term, greater empathy among university members and improved cooperative spirit can be expected. In the long term, this process can improve

instructional quality and better align graduates with societal needs. It will also positively affect the university's image, transforming it into a leading institution for training specialized and committed teachers.

Strengthening the Status and Credibility of Farhangian University – Bolstering the university's role – Academic quality and student satisfaction—as outputs of Farhangian University—are the most important short-term outcomes of reengineering; in the long term, the university's status and role will be stronger and more influential.

Strengthening the Status and Credibility of Farhangian University – Attracting top talent as students and faculty – When universities create dynamic, flexible, and supportive environments, top talent is more inclined to join. This not only enhances instructional and research quality but also transforms the university into a leading center in scientific and technological fields. Attracting top talent can also build strong scientific networks and increase international collaborations.

Based on the findings derived from theoretical coding, it can be stated that the core phenomenon of this study is the reengineering of the educational system of Farhangian University. This phenomenon lies at the center of the systemic model, around which the other components are organized. Reengineering the educational system entails implementing fundamental changes in curricula, teaching methods, educational policies, and technological infrastructures to improve the quality of teacher education. Causal conditions refer to the factors that have created the need for reengineering the educational system. These include sociocultural factors, educational factors, infrastructural factors, and structural–organizational factors. For example, nonalignment with technological and social change, outdated instructional content, and a shortage of up-to-date educational facilities are among the causal conditions. Contextual factors refer to the conditions that influence the core phenomenon. These include infrastructural and technological factors, structural and organizational factors, political and ideological barriers, and international factors. For instance, the lack of appropriate technological infrastructure and administrative complexity and bureaucracy are among the contextual factors. Intervening conditions refer to the circumstances that can act as facilitators or obstacles in the reengineering process. These include motivational–psychological factors, organizational and managerial factors, cultural and social factors, and economic factors. For example, student and staff demotivation and budgetary and resource shortages are

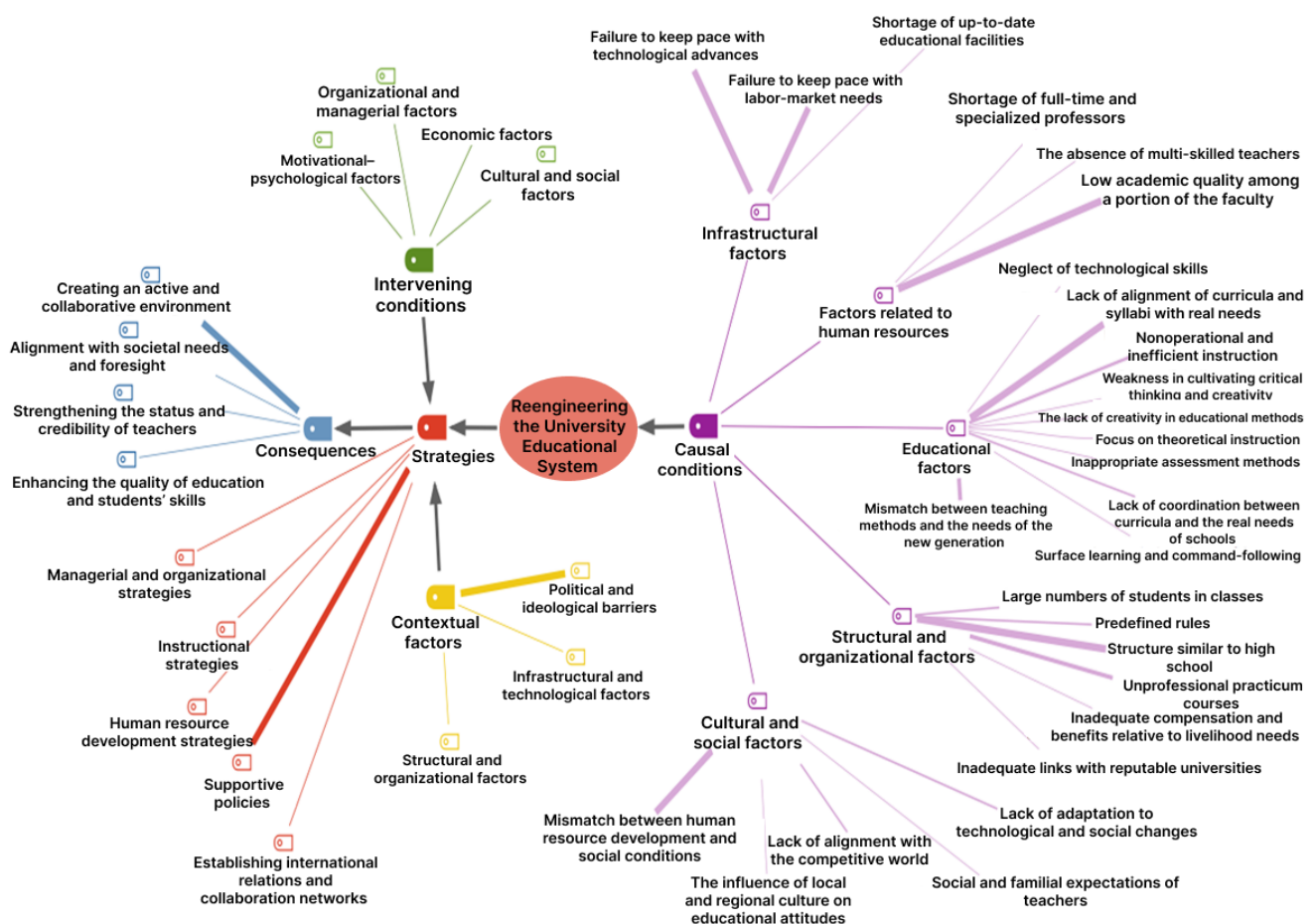
among the intervening conditions. Strategies refer to the actions and programs designed and implemented for reengineering the educational system. These strategies include communication and collaboration strategies, human resource development strategies, instructional strategies, and managerial and organizational strategies. For example, establishing continuous university–industry linkages and improving teaching methods are among the effective strategies. Consequences refer to the positive outcomes of reengineering the educational system. These include improving the quality of education and training, creating a positive and motivational learning environment, aligning with societal needs and foresight, and strengthening the status and credibility of Farhangian University. For example,

increased teacher job satisfaction and improved university ranking are among the positive consequences.

In the tree diagram of the systemic model, the core phenomenon is placed at the center, and the other components (causal conditions, contextual factors, intervening conditions, strategies, and consequences) branch out from it. Each branch separately depicts the relationships between the core phenomenon and the other components. The diagram visually illustrates how different factors influence the core phenomenon and how strategies can help improve the status quo. The positive consequences of these changes are also depicted as enhanced instructional quality, a positive and motivational learning environment, alignment with societal needs, and a strengthened status and credibility for Farhangian University.

Figure 1

Systemic model of reengineering the educational system of Farhangian University



In this study, the validity of the qualitative data and the conceptual model extracted through the paradigmatic grounded theory method was examined and ensured using diverse techniques and scientific approaches. Validation of

the findings and the study's theoretical structure was conducted along the following five main axes: Trustworthiness: To enhance the trustworthiness of the qualitative analyses, all stages of data collection and

analysis—including interview design, transcription, coding, and categorization—were rigorously and coherently documented. Coding was performed in three stages (open, axial, and selective), and to examine analytic stability, three interviews were randomly recoded. The Holsti coefficient calculated in this re-coding comparison was above 0.8, indicating a high level of analytic stability. Peer and participant review: The analyses conducted throughout the research were continuously examined with supervising professors, advisors, and specialists in educational system reengineering. This process enhanced theoretical coherence and strengthened the credibility of the analyses. Member checking: Portions of the interview analyses and extracted concepts were shared with a number of participants, and their feedback was used to revise or confirm the findings. This increased the confirmability of the results from the participants' standpoint. Thick description of the research context: The social, cultural, managerial, and structural contexts of Farhangian University in Tehran, as well as participants' demographic characteristics (including gender, age, academic rank, and professional experience), were reported with high accuracy. This rich contextual description increased the conditionally generalizable and transferable nature of the proposed model to similar educational settings. Audit trail: All stages of data collection, coding, analysis, and interpretation were retained in traceable documentation. This included coding tables, conceptual categorizations, analytic memos, and research decision logs, enabling complete review of the study by other researchers. This action substantially enhanced the transparency and dependability of the research. Confirmability and neutrality of analyses: To reduce researcher bias and increase analytic neutrality, techniques such as critical reflection, cross-sectional code review, and comparative evaluation of findings were used. In addition, data analysis was conducted using MAXQDA software, which provides powerful visual and structural tools for classification, examination of conceptual relationships, and comparison across interviews. Utilizing this software increased the coherence, precision, and transparency of the analyses.

4. Discussion and Conclusion

The findings of this study, based on the grounded theory approach, revealed that *reengineering the educational system of Farhangian University* centers around the integration of structural, technological, human, and cultural factors in a systemic framework aimed at transforming

teacher education in Iran. The results indicated that the core phenomenon of the study—*educational system reengineering*—is influenced by multiple causal, contextual, and intervening conditions. These include infrastructural and technological inadequacies, outdated curricula, lack of alignment with societal needs, and bureaucratic rigidity. The model developed from the analysis demonstrated that communication and collaboration strategies, human resource development, and managerial innovation play pivotal roles in achieving the intended outcomes of enhanced instructional quality, motivational learning environments, and institutional credibility. These findings are consistent with the argument that educational reengineering must be comprehensive, targeting the interconnections between pedagogy, structure, and culture rather than focusing solely on administrative reform (Bozkurt et al., 2022; Charles & Befii-Nwile, 2023).

The identification of infrastructural and technological deficiencies as major causal factors aligns with the broader literature emphasizing the role of digital transformation in educational improvement. The results of this study support (Abdullah et al., 2023), who argued that the post-pandemic educational landscape necessitates hybrid and blended learning systems that merge online and traditional methods. Similarly, (Whalley et al., 2021) emphasized that flexible and personalized digital learning environments are essential for sustaining educational continuity and relevance in the Fourth Industrial Revolution. Within the context of Farhangian University, the lack of modern technological infrastructure limits the institution's ability to adopt innovative teaching methods and deliver competency-based education. The grounded theory model in this study underscores that reengineering must begin with digital restructuring and infrastructure enhancement as foundational prerequisites for higher-level pedagogical reform.

Furthermore, the findings regarding structural and organizational rigidity as barriers to reengineering correspond with global evidence suggesting that bureaucratic inefficiencies hinder institutional agility in higher education (Kajba et al., 2022; Renna & Colonnese, 2025). The study revealed that hierarchical decision-making structures and outdated governance systems reduce innovation potential, mirroring the observations of (Charles & Befii-Nwile, 2023), who highlighted the need to decentralize management and empower educational administrators through participatory leadership. Reengineering efforts, therefore, must prioritize

organizational flattening, delegation of authority, and the adoption of data-driven management systems. This is particularly crucial in Farhangian University, where centralized control has traditionally constrained adaptive educational decision-making (Rostami et al., 2021).

The results also identified cultural and social factors as significant intervening conditions influencing the success of reengineering. Resistance to change, lack of motivation among faculty, and limited social capital were found to impede implementation. This observation supports (Hussein et al., 2023), who found that reengineering human resource processes can foster creativity and motivation when combined with transparent communication and reward systems. Similarly, (Nichat, 2023) argued that effective human resource strategies in higher education must integrate psychological and motivational dimensions to build organizational readiness for change. The present study extends these findings by demonstrating that reengineering at Farhangian University requires cultural transformation alongside structural reform—a process that demands the cultivation of shared institutional values around innovation, learning, and collective responsibility.

In alignment with (Saber Moradian, 2023), this research confirms that educational reengineering is not limited to modifying processes but involves the redefinition of institutional identity and purpose. The grounded model illustrated that the core phenomenon—reengineering the educational system—requires rethinking the philosophical foundations of teacher education to align with future societal needs. Farhangian University's mission to train competent and innovative teachers must therefore evolve to encompass digital literacy, social intelligence, and adaptability. (Mohammadi, 2023) emphasized a similar point in his study on curriculum reengineering in Iranian higher education, where aligning the content of academic programs with the realities of the digital era was identified as a central objective. The results of this research echo those findings by illustrating the necessity of continuous curriculum evaluation and dynamic pedagogical design.

Another notable finding was the identification of *communication and collaboration strategies* as critical mechanisms for successful reengineering. These strategies involve establishing networks between universities, industries, and international partners to promote knowledge sharing and innovation diffusion. This resonates with the conclusions of (Parsyak et al., 2024), who demonstrated that dual-based reengineering models integrating academic and professional learning environments increase the

applicability of university programs and enhance student employability. Likewise, (Renna & Colonnese, 2025) emphasized that simulation-driven reengineering can optimize teaching assignments and resource distribution in universities, improving both efficiency and quality. The results of the present study confirm that institutional collaboration—both internal (among faculties and administrative units) and external (with industry and global partners)—is indispensable for sustainable educational transformation.

Moreover, the research findings revealed that *human resource development* serves as both a strategy and a mediating mechanism in the reengineering process. Investing in professional development, teacher training, and leadership capacity is crucial for achieving long-term institutional renewal. This corresponds with the view of (Hussein et al., 2023), who asserted that reengineering human capital not only enhances creativity but also supports adaptive organizational culture. (Malekpour Lapri, 2025) also argued that the emergence of the “multifarious university” model—characterized by diversity, adaptability, and innovation—depends largely on the ability of institutions to reengineer their human resource systems in response to dynamic environments. The present study validates this claim within the Iranian context, showing that professional empowerment and participatory management are key to overcoming faculty resistance and improving engagement in reengineering initiatives.

The positive consequences identified in this study—improved quality of education, creation of motivational learning environments, and enhancement of institutional credibility—demonstrate the transformative potential of reengineering when implemented holistically. These outcomes are consistent with (Bozkurt et al., 2022), who described reengineering as a catalyst for critical change that reshapes educational institutions toward inclusivity, innovation, and excellence. Similarly, (Ahanchi, 2018) conceptualized reengineering as a strategic framework for achieving structural balance between efficiency and human development in educational organizations. The empirical evidence from Farhangian University illustrates how the interplay between structural reform and cultural transformation can yield sustainable institutional improvements.

The findings further suggest that successful reengineering depends on contextual adaptation. The grounded theory model indicated that political and ideological barriers, as well as economic constraints, act as contextual challenges

that must be managed rather than ignored. This observation aligns with (Salimi et al., 2019), who noted that Iranian higher education reforms often fail when they disregard contextual realities such as centralized governance and financial limitations. Therefore, the reengineering model proposed in this study emphasizes flexibility, contextual sensitivity, and gradual implementation rather than radical disruption. This approach ensures that reengineering aligns with national educational policies while maintaining local feasibility.

From a theoretical standpoint, the present study contributes to the expanding discourse on reengineering in education by providing an integrated model that captures the interplay among causal, contextual, and strategic factors. While prior research has tended to focus on specific aspects—such as administrative reengineering (Charles & Befii-Nwile, 2023), technological transformation (Abdullah et al., 2023), or curriculum redesign (Mohammadi, 2023)—this study demonstrates the interdependence of these dimensions within a unified system. The results provide empirical support for the argument advanced by (Bozkurt et al., 2022) and (Whalley et al., 2021) that educational transformation in the digital era requires systemic thinking and cross-functional integration.

The findings also underscore the role of leadership and governance in facilitating reengineering processes. As (Kajba et al., 2022) observed in organizational contexts, process optimization requires leadership commitment, clarity of vision, and continuous monitoring. The evidence from Farhangian University supports this perspective: successful reengineering initiatives emerged only when institutional leaders demonstrated alignment between strategic vision and operational practices. This finding complements (Renna & Colonnese, 2025), who argued that simulation-driven frameworks can guide decision-makers in optimizing academic processes through data analytics. Therefore, the integration of scientific management tools and participatory leadership styles constitutes an essential enabler of reengineering success in educational institutions.

Finally, the outcomes of this study contribute to bridging the gap between global educational transformations and localized institutional realities. While the principles of reengineering are universal, their implementation must be culturally and contextually grounded. The grounded theory model developed here demonstrates that reengineering is not a one-size-fits-all process but a dynamic system that evolves through iterative feedback between institutional needs, societal expectations, and technological capacities. This

conclusion is in line with (Parsyak et al., 2024) and (Malekpour Lapri, 2025), who both emphasized the necessity of contextual adaptation in educational transformation frameworks.

Overall, the discussion of results highlights that reengineering the educational system of Farhangian University represents both a theoretical advancement and a practical necessity. By identifying key mechanisms—technological innovation, human capital development, collaborative strategies, and governance reform—this study offers a blueprint for transforming teacher education institutions in Iran and similar contexts. The findings reinforce the idea that educational reengineering is not merely a structural exercise but a multidimensional reform that integrates human, cultural, and technological systems into a coherent framework for sustainable excellence.

Despite its comprehensive methodological design, this study is subject to several limitations. The qualitative nature of the research limits its generalizability beyond the context of Farhangian University. The grounded theory approach, while effective for exploring complex phenomena, relies on the subjective interpretation of interview data, which may introduce researcher bias. Additionally, the relatively small sample size—though theoretically justified by saturation—may not capture the full diversity of perspectives among faculty and policymakers in Iranian higher education. Moreover, the contextual sensitivity of reengineering implies that findings from this study may not fully apply to institutions operating under different governance systems or cultural environments.

Future studies should expand the scope of investigation by employing mixed-methods designs that combine qualitative insights with quantitative validation of the proposed model. Comparative studies across multiple teacher-training institutions in different provinces or countries could provide valuable insights into how contextual variables shape reengineering processes. Moreover, future research could focus on longitudinal evaluations of reengineering outcomes, assessing the sustainability of reforms over time. It would also be beneficial to explore the psychological and cultural dimensions of resistance to change in greater depth, as these factors significantly influence the success of educational transformation.

Practically, educational policymakers should adopt reengineering as a continuous, iterative process rather than a one-time reform initiative. Universities must prioritize the modernization of digital infrastructure, promote

participatory management structures, and invest in ongoing faculty development. Collaboration between universities, industries, and international partners should be institutionalized to facilitate innovation and knowledge exchange. Finally, leadership training programs should be designed to cultivate visionary administrators capable of guiding universities through transformative change while maintaining their pedagogical and cultural integrity.

Authors' Contributions

Authors equally contributed to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

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Ethical Considerations

All procedures performed in studies involving human participants were under the ethical standards of the institutional and, or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards.

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