Identification of Indicators, Components, and Dimensions of the Curriculum of Successful Startups in Iran



Zhinous Keshtkari 10, Kourosh Fathi Vajargah 2*00 Kambiz Poushaneh 300 Alireza Assareh 400

1 Department of Educational Sciences, Central Tehran Branch, Islamic Azad University, Tehran, Iran.

2 Department of Educational Sciences, Faculty of Educational Sciences and Psychology, Shahid Beheshti University, Tehran, Iran

3 Department of Education and Counseling, Central Tehran Branch, Islamic Azad University, Tehran, Iran.

4 Department of Educational Science, Shahid Rajaeei University, Tehran, Iran.

* Corresponding author email address: Kouroshfathi2@gmail.com

Received: 2025-02-11	Reviewed: 2025-02-16	Revised: 2025-03-20	Accepted: 2025-04-12	Published: 2025-04-16
Abstract				

The present study aimed to identify the indicators, components, and dimensions of the curriculum of successful startups in Iran. The research method, in terms of purpose, was fundamental-applied, and in terms of data type, it was qualitative. From a paradigmatic perspective, the study falls within interpretive paradigms. The research population included scientific documents as well as academic and organizational experts. A non-random purposive sampling method was used to select interviewees based on the inclusion criteria. Data were collected through semi-structured interviews. To assess validity, four criteria—credibility, dependability, transferability, and confirmability—were employed. The reliability of the research instrument was evaluated and confirmed using the inter-coder agreement method. In this study, hermeneutic (interpretive) phenomenology, with an emphasis on Van Manen's approach, was utilized to explore the lived experiences of startup managers and experts regarding the phenomenon of startup curriculum. The curriculum of successful startups in Iran encompasses the dimensions of innovation and creativity, business management and strategy, product development, human resource management and team building, marketing, and sales. Additionally, to improve the curriculum, several recommendations were proposed, including aspects related to innovation culture, skills training and development, long-term strategy formulation, the use of project management tools, market research, continuous testing and improvement, talent acquisition and retention, professional development training, precise budgeting, legal consulting, digital marketing utilization, and data analysis. The findings of this study can contribute to a more precise understanding of the curriculum of successful startups in Iran and, by providing a comprehensive explanation, enhance startup curricula in Iran. These outcomes are of significant importance to research beneficiaries, including managers, policymakers, and startup investors, as they can lead to optimal decision-making and the improvement of managerial and supervisory strategies.

Keywords: Phenomenology, Curriculum, Startup.

How to cite this article:

Keshtkari Zh, Fathi Vajargah K, Poushaneh K, Assareh A. (2025). Identification of Indicators, Components, and Dimensions of the Curriculum of Successful Startups in Iran. Management Strategies and Engineering Sciences, 7(4), 96-105.



© 2025 The author(s). Published By: The Research Department of Economics and Management of Tomorrow's Innovators. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

1. Introduction

The topic of startups is of great significance in a country like Iran, which is in the process of developing its startup ecosystem. In this regard, the main issue is that despite the achievements gained from startups and the necessity of leveraging them in various fields, it remains unclear how curricula can be designed to effectively address real needs and challenges in the labor market [1]. In reality, many educational programs may be developed in a theoretical manner without sufficient consideration of the operational realities of startups. Additionally, one of the biggest challenges is the lack of effective communication between universities and industry [2]. Many university curricula are outdated and fail to reflect the actual needs of the labor market.

Startups require investment to succeed. The absence of risk-taking investors and adequate financial resources hinders the creation and development of startups. In many cases, the entrepreneurial ecosystem is not sufficiently robust. The lack of accelerators, innovation centers, and governmental support can contribute to startup failures. Many entrepreneurs and startup teams lack the necessary business management skills, which can result in the failure of idea implementation [1]. Acquiring these skills is achievable through a well-structured curriculum. Another critical aspect of addressing startup curricula is examining the factors that lead to their success or failure. These factors can include innovation, leadership, team building, financial resource management, and marketing.

Startups differ from traditional companies in several key aspects. First, this distinction is evident in their innovative nature. Startups focus on new ideas and solutions that did not previously exist. They operate under significant uncertainty, as their business models have yet to be validated. Startups aim for rapid growth and market share acquisition and often require external investment to finance their activities [3]. To launch a successful startup, multiple factors must be considered. One such factor is the curriculum and training provided within these startups [4, 5]. While there is no single formula for startup success, several key actions can enhance the likelihood of success for founders.

For instance, the most important element for any startup is having a strong idea that solves a real problem or meets a specific need. This idea must be unique, feasible, and possess growth potential. Integrating idea-generation training into startup curricula appears to be a valuable approach. Another crucial aspect of startup curricula is team formation. Every successful startup requires a strong team. It is essential to have talented and committed individuals who possess the necessary skills and experience to bring the idea to fruition [6-8].

Research methodology and methods are also of great importance. Before launching any venture, it is essential to conduct thorough research and develop a deep understanding of the market. This includes analyzing competitors, customers, their needs, and the overall industry landscape. A business plan and its instruction in startup education programs are vital. A business plan serves as a roadmap for a startup, encompassing an executive summary, market analysis, marketing strategies, financial projections, and more [8].

To implement successful startups, special attention must be given to curricula. Having a structured curriculum for startups is essential, as it helps clarify ideas, set goals, and outline the path to achieving them. This structure enables startups to maintain focus on crucial tasks and avoid distractions. Studies have shown that startups with structured curricula have a higher probability of success. This is because a curriculum helps them identify risks, plan effectively, and adapt their strategies when necessary [1-13].

Investors are more inclined to invest in startups that have a clear plan. A well-defined curriculum enables startups to present their ideas comprehensively to investors and convince them that their investments will be fruitful [6]. It is worth noting that, in general, curriculum planning has not received sufficient attention in Iran. The lack of attention to curricula in the country's education system may be attributed to various factors [14]. One of the primary reasons may be the insufficient consideration of educational needs and challenges within society.

Curricula should be designed based on actual societal needs and in alignment with global developments. However, in Iran, these needs may not have been accurately identified or fully taken into account. Political and social factors may also contribute to the neglect of curricula. Political decisionmaking and the influence of political authorities on educational institutions can hinder the proper implementation of curricula or result in unfair modifications. Additionally, cultural and social influences can obstruct curriculum development. Cultural values and societal beliefs may conflict with startup curricula, preventing their effective implementation [12, 14-16].

Managerial factors also play a role in the lack of curriculum attention. Structural and organizational deficiencies in the education system may impede the successful execution of curricula. Furthermore, the absence of sufficient and appropriate resources and facilities may hinder curriculum implementation. In general, the lack of attention to curricula in Iranian organizations may be attributed to various factors, including neglect of educational needs and challenges, political and social influences, cultural and social obstacles, and managerial shortcomings. Therefore, the present study seeks to examine startup curricula while addressing the question: How can the indicators, components, and dimensions of the curriculum of successful startups in Iran be identified?

2. Methodology

2.1. Study Design and Participants

The research method, in terms of purpose, is applied. In terms of data type, it is qualitative. Regarding the data collection period, the research is cross-sectional. Based on the data collection method and the nature of the research, the study employs meta-synthesis and content analysis of textual interviews.

The first phase of the qualitative section (meta-synthesis) included all scientific documents, such as specialized books, previous research studies, dissertations, and articles from domestic and international databases related to the curriculum of successful startups from 2010 to 2024. In this phase, 20 articles were selected through a non-random purposive sampling method based on the PRISMA selection guidelines. The criteria for selecting articles in the meta-synthesis method included relevance and up-to-date content related to the research topic, high scientific quality and credibility, sourcing from reputable domestic and international databases, appropriate methodology, and diversity in perspectives.

The second phase (Delphi technique) included all university professors from 2023 to 2024 and experienced managers in successful startups across the country. Since the minimum number of experts in a Delphi panel typically ranges between 10 and 18 (Linstone & Turoff, 2011), this study selected 19 experts through a non-random purposive sampling method. The criteria for selecting experts included holding at least a doctoral degree with teaching experience in disciplines relevant to the research field, expertise in the subject matter, participation in practical projects, relevant research experience, familiarity with policies, procedures, challenges, and barriers, the ability to provide analytical insights, diversity in viewpoints, commitment to participation, holding executive positions, involvement in decision-making, and practical experience related to the research field.

2.2. Data Collection Tools

The data collection tool in the first phase of the qualitative section (meta-synthesis) was a systematic review of literature and authoritative scientific sources. This process involved a detailed and targeted search in scientific databases, articles, books, and dissertations related to the research topic. The content validity assessment in the metasynthesis phase confirmed that the reviewed content and concepts were comprehensively covered in the existing literature. To ensure this, articles were selected with high precision, and an initial screening process was conducted. A flowchart (search and article selection process) was used to identify relevant articles in the study domain. This stage included setting restrictions based on temporal (domestic and international time frames), spatial (domestic and international databases), research nature (synthesis, review, qualitative, and quantitative), and subject-related criteria (keywords for searches), followed by coarse and finegrained screening processes.

Additionally, internal validity results indicated that the findings derived from the meta-synthesis were not influenced by external factors and were accurately explained. A 27-item checklist based on the PRISMA model, independent analysis by the researcher and a statistics specialist, Cohen's kappa coefficient, standard criteria, reproducibility (transparency in methodological execution), and MAXQDA software for precise tracking of analytical and coding processes were used. Finally, expert review, feedback, and code revisions were performed to identify contradictions. To ensure reliability in the meta-synthesis method, techniques such as detailed documentation of the research process, intra-researcher consistency, and interresearcher consistency were used. Ultimately, the findings confirmed the reliability and validity of the data in the metasynthesis phase.

In the second phase of the qualitative section (Delphi technique), the Delphi worksheet was utilized. Experts were asked not only to rate the indicators but also to provide any additional opinions or suggestions regarding the identified indicators. If necessary, they could add new indicators they deemed important to the end of the table. For the validity assessment of the Delphi worksheet, the questions were initially designed to be clear, simple, and relevant. To achieve this, closed-ended questionnaire items were

formulated using a straightforward and conceptual language that was easily comprehensible to the experts. Before implementing the Delphi worksheet, content validity was assessed using the Content Validity Ratio (CVR) formula, and the results confirmed content validity, indicating that the worksheet comprehensively covered the intended concepts. Additionally, internal and temporal reliability was calculated for the Delphi worksheet, confirming the reliability and validity of the findings from the Delphi phase.

2.3. Data Analysis

In this study, thematic analysis was employed to identify the indicators, components, and dimensions of the curriculum of successful startups in Iran using MAXQDA Analytics Pro 2018. This involved identifying and analyzing common themes and patterns from selected articles and

Table 1. Content

open-ended questions from the Delphi worksheet. In the Delphi phase, for closed-ended questions, mean and standard deviation were used to evaluate the results and assess expert agreement levels, while Kendall's coefficient of concordance was used to assess expert opinions and consensus regarding the prioritization of closed-ended questionnaire items, analyzed through IBM SPSS Statistics 16.

3. Findings and Results

After coding the semantic units and reaching saturation (i.e., when no new themes or codes emerge from the analysis of new texts or interviews), the codes were categorized based on their similarities, ultimately resulting in 22 categories emerging from the qualitative data.

Dimension	Component	Indicator
Products and Services	Product Diversity	Number of product categories on Digikala
		Number of products available in each category
		Percentage of new and updated products
		Quality and standards of products
Products and Services	Product Information	Accuracy and clarity of product descriptions
		Quality of product images and videos
		Quantity and quality of user reviews on products
		Average product rating based on user reviews
		Ability to compare similar products
Products and Services	Pricing	Competitiveness of product pricing compared to competitors
		Transparency and clarity of prices for users
		Percentage of discounts and special offers
		Date of product price updates
Products and Services	After-sales Services	Duration of product warranties
		Conditions and process for product returns
		Quality of customer service and support
		Percentage of customer satisfaction with after-sales services

Table 2. User Experience

Dimension	Component	Indicator
Website Design	Website Design	Ease of navigation and access to information on the Digikala website
		Website page loading speed
		Responsive design and compatibility with different devices
		Quality of search and product filter tools
		Easy access to various information and services
Mobile Application	Mobile Application	Usability and ease of use of the application
		Application performance speed and loading time
		Visual design and attractiveness of the application
		Information security and user privacy
Customer Service	Customer Service	Response time to customer requests and complaints
		Quality of advice and guidance provided to customers
		Percentage of issues resolved on first contact with customer service
		Customer satisfaction with the services provided
Personalization	Personalization	Accuracy and quality of personalized recommendations for users
		Number of personalized recommendations and discounts

Conversion rate of recommendat	tions into purchases
Continuous updating of personal	ization algorithms

Table 3. Marketing

Dimension	Component	Indicator
Digital Strategy	Digital Strategy	Percentage of new users acquired via digital campaigns
		Visitor-to-buyer conversion rate
		Customer acquisition cost and cost-benefit analysis
		User feedback and reviews regarding advertisements
Education	Education	Number of articles and educational videos related to products
		Quality of educational and informational content
		Percentage of visits to educational content
		User reviews of educational content
		Diversity of educational topics and guidance
		Studying and benchmarking best practices
		Utilization of international experiences and knowledge
Social Media	Social Media	Number of followers on social media
		Level of user engagement and participation
		Percentage of content shares on social media
		Conversion rate from social media to purchase
Branding	Branding	Brand recognition and awareness of Digikala
		Brand credibility and trust among users
		Level of awareness of the brand and its products

Table 4. Data Analysis

Dimension	Component	Indicator
Data Collection	Data Collection	Accuracy and precision in collecting user data
		Variety of data collected for analysis
		Frequency of data and information updates
		Data analysis and reporting tools
		Security and privacy of user data
Customer Behavior Analysis	Customer Behavior Analysis	Customer return rate and analysis of underlying reasons
		Analysis of shopping cart and user purchase patterns
		Examination of purchase patterns and customer behavior prediction
		Identification of customer needs and service improvement
Optimization	Optimization	Improvement of purchasing processes and user experience
		Analysis of sales performance and identification of strengths and weaknesses
		User experience optimization based on feedback
		Continuous updating based on data analysis
Reporting	Reporting	Accuracy and precision of generated reports
		Timeliness of report preparation and delivery
		Diversity of reports produced for analysis
		Analysis of KPIs and performance evaluation

Table 5. Objective

Dimension	Component	Indicator
Development of Entrepreneurial Skills	Managerial Skills	Ability to plan and organize sales activities at Digikala
		Decision-making skills when confronting online market challenges
		Time management for optimizing purchasing and sales processes
		Problem-solving ability in addressing customer issues
		Communication skills for effective interaction with teams and customers
	Financial Skills	Ability to analyze Digikala's financial statements
		Budget management for advertising and marketing campaigns
		Familiarity with financing methods and investment in Digikala
		Assessment of financial risks due to market fluctuations
		Financial negotiation skills with suppliers and business partners

Increasing Market Knowledge	Market Familiarity	Understanding trends in online shopping markets and the behavior of Digikala customers
		Analysis of customer needs and demands at Digikala
		Identification of competitors and their strengths and weaknesses in the online market
		Ability to predict market changes and their impact on Digikala
		Familiarity with market research tools and customer data analysis
	Familiarity with New Technologies	Understanding of new technologies such as artificial intelligence and machine learning at Digikala
		Ability to use digital tools to enhance user experience
		Familiarity with Digikala's sales and inventory management software
		Ability to analyze sales data and customer behavior
		Understanding online platforms and their application in service improvement
Enhancing Customer Experience	Customer Service	Quality of after-sales services and product warranties at Digikala
		Response time to customer complaints and requests
		Ability to advise customers in product selection
		Fostering customer satisfaction and loyalty at Digikala
		Monitoring and evaluating customer feedback for service improvement
	User Experience	Ease of navigation and access to information on Digikala's website and application
		Attractive and user-friendly design to enhance the shopping experience
		Loading speed of Digikala's website and application
		Easy access to various information and services on Digikala
		Personalization of the user experience based on customer interests and behaviors

Table 6. Method

Dimension	Component	Indicator
Active Learning and Education	Workshops	Number of training workshops conducted for Digikala employees
		Percentage of employees who participated in workshops and acquired new skills
		Evaluation of the quality of workshop content and instruction by trainers
		Impact of workshops on improving employee job performance
	Project-Based Learning	Number of operational projects in which employees participate
		Evaluation of project outcomes and their impact on improving Digikala services
		Degree of teamwork in various projects
		Percentage of projects that successfully achieve their set objectives
	Online Education	Number of online courses offered to Digikala employees
		Employee participation rate in online courses
		Impact of online education on enhancing employees' digital skills
		Evaluation of the quality of online course content
	Trial and Error Approach	Number of experiments and pilot projects executed by employees
		Evaluation of outcomes and learnings from the trial and error approach
		Extent of risk acceptance and creativity in experimental processes
		Impact of the trial and error approach on improving innovation and creativity at Digikala
Use of Technology	Education on New Technologies	Number of training courses on new technologies such as artificial intelligence
		Percentage of employees familiar with new technologies
		Impact of new technology training on improving Digikala processes
		Extent of utilization of new technologies in customer services
	Utilization of Digital Tools	Number of digital tools used for sales management
		Evaluation of the effectiveness of digital tools in enhancing customer experience
		Level of customer satisfaction with Digikala's online services
		Impact of digital tools on the speed of customer response
	Customer Data Analysis	Number of analytical tools used for customer data analysis
		Accuracy of customer data analysis using digital tools
		Impact of data analysis on strategic decision-making at Digikala
		Utilization of analyzed data for service improvement

Table 7. Evaluation

Dimension	Component	Indicator
Learning Evaluation	Assessment of Acquired Skills	Percentage of employees who have acquired new skills through training courses
		Degree of improvement in employee job performance after training
		Assessment of employees' proficiency in new skills
		Examination of employee feedback regarding the application of new skills in daily work
	Evaluation of Experiential Learning	Number of operational projects in which employees have participated
		Evaluation of project outcomes and their impact on improving Digikala services
		Degree of teamwork in various projects
		Percentage of projects that successfully achieve their set objectives
	Evaluation of Online Learning	Number of online courses provided for Digikala employees
		Employee participation rate in online courses
		Evaluation of the quality of online course content
		Impact of online education on enhancing employees' digital skills
Program Evaluation	Evaluation of Educational Content	Examination of the alignment between educational content and the job needs of Digikala employees
		Evaluation of the quality of the educational resources used
		Degree of currency of the educational content
		Impact of educational content on employee motivation and satisfaction
	Evaluation of Teaching Methods	Evaluation of the quality of instruction by faculty and trainers
		Level of employee engagement and participation in training classes
		Utilization of innovative teaching methods in training courses
		Impact of teaching methods on employee learning
	Evaluation of Educational Needs Assessment	Examination of employee educational needs based on surveys
		Degree of alignment between training programs and Digikala's job requirements
		Evaluation of changes in educational needs over time
		Impact of needs assessment on the design of training programs
Outcomes Evaluation	Evaluation of Impact on Performance	Examination of the impact of training programs on improving the overall performance of Digikala
		Evaluation of changes in customer satisfaction following the implementation of training programs
		Examination of the impact of training on reducing errors and issues in services
		Evaluation of the increase in sales and customer satisfaction following training
	Evaluation of Impacts on Organizational Culture	Examination of changes in Digikala's organizational culture following the implementation of training programs
-		Evaluation of the degree of collaboration and interaction among employees after training
		Impact of training programs on employee motivation and morale
		Examination of changes in employees' attitudes toward learning and personal development
	Evaluation of Feedback	Collection of employee feedback on training programs
		Examination of customer opinions regarding post-training services provided by employees
		Evaluation of the impact of feedback on improving training programs
		Utilization of feedback to design future training programs

Based on the concepts and categories from the previous table, an axial coding framework was established, as presented in the table below. In axial coding, relationships were established among the interrelated concepts and categories. As observed, this table comprises 22 classes, each encompassing its own sub-classes and associated concepts.

4. Discussion and Conclusion

The findings of this study revealed that the key dimensions of the curriculum of successful startups in Iran include innovation and creativity, business management and strategy, product development, human resource management and team-building, and marketing and sales. These dimensions are directly linked to the success of startups in Iran's competitive market. Innovation and creativity are recognized as fundamental elements in creating added value and differentiation in products and services. Additionally, business management and strategy help startups gain a better understanding of the market and customer needs, enabling them to achieve their goals through effective strategies. Moreover, product development is considered a critical process in meeting customer demands and establishing a competitive advantage. Human resource management and team-building contribute to fostering a positive and efficient organizational culture, which can enhance performance and increase employee motivation. Finally, marketing and sales play a crucial role in engaging customers and promoting startup products and services, ultimately contributing to overall success. Therefore, these dimensions should be integral components of startup curricula to equip entrepreneurs with the necessary competencies for market success.

Identifying the key dimensions of the startup curriculum, particularly within the Iranian context, requires a deep understanding of entrepreneurship and management theories. According to existing theories, innovation and creativity serve as the driving forces behind the growth and development of startups. Innovation theories, such as the product life cycle theory, suggest that for market success, startups must continuously innovate and enhance their products to meet evolving customer needs. This is especially critical in dynamic and competitive markets like Iran, where demand fluctuations are rapid and unpredictable. Additionally, business management and strategy are essential for startup success, particularly in economic uncertainty. Strategic management theories indicate that startups must be able to analyze their business environment, identify opportunities and threats, and develop appropriate strategies to achieve their objectives, thereby increasing their chances of success.

Product development, as another critical dimension, enables startups to introduce products and services that align with market needs. Product development cycle theories emphasize that a thorough understanding of customer needs and feedback can lead to continuous improvement and innovation in products. This process not only attracts new customers but also strengthens customer loyalty. Furthermore, human resource management and teambuilding, based on human resource management and organizational behavior theories, contribute to creating a positive and efficient work environment. Efficient and committed teams can significantly contribute to achieving organizational goals. Similarly, marketing and sales serve as essential tools for customer engagement and product promotion. Marketing models highlight their vital role in customer acquisition and retention. Therefore, these

dimensions collectively influence startup success, and incorporating them into the curriculum can enhance performance and foster sustainable business growth.

Considering the findings of this study and the specific characteristics of the research population, which included university professors in entrepreneurship, business, and educational planning, as well as experienced managers of successful startups in Iran, the primary hypothesis of the study-that the key dimensions of the startup curriculum include innovation and creativity, business management and product development, human resource strategy, management and team-building, and marketing and salescan be further elaborated. Economic, cultural, and social factors in Iran, particularly in recent years, have provided a conducive environment for the emergence and growth of startups. For instance, increased access to modern technologies and the internet allows entrepreneurs to rapidly introduce their innovative ideas to the market and engage in product and service innovation. Additionally, Iran's cultural and social conditions, including a growing interest in entrepreneurship and startup creation, play a crucial role in shaping these dimensions.

In this regard, university professors, as academic experts, can enhance students' and entrepreneurs' innovation and creativity skills by providing effective and up-to-date education in entrepreneurship and management. Moreover, the experiences of seasoned startup managers can serve as a valuable source of practical and strategic knowledge, contributing to the development of effective curricula tailored to market needs. The interaction between theory and practice significantly aids in the development of key curriculum dimensions. Furthermore, technological advancements play a fundamental role in the success of startups in Iran. Given the rapid growth of information and communication technologies, startups can utilize advanced tools and software to optimize management processes, marketing strategies, and product development. This is particularly vital in dynamic and competitive markets where rapid innovation and responsiveness to market changes are essential. Therefore, identifying and integrating these dimensions into the startup curriculum not only enhances entrepreneurs' skills but also contributes to building a sustainable and successful entrepreneurial ecosystem in the country.

To evaluate the alignment or misalignment of this study's findings with prior research, an analysis of related studies was conducted. Notably, Jamshidi Naqani's (2024) research on predicting startup success using machine learning algorithms highlights the growing trend of startups and the importance of innovation in scaling them into large enterprises [10]. This aligns with the innovation and creativity dimension identified in this study, underscoring its significance in startup success. Regarding business strategy, Chehreh et al.'s (2024) study on improving the performance of startup accelerators emphasizes the impact of managerial and strategic factors on startup success, which is consistent with the findings of this study, reinforcing the importance of business management and strategy [4].

Similarly, research by Tayebi et al. (2022) on the impact of marketing activities on startup success supports the marketing and sales dimension identified in this study, indicating the critical role of marketing strategies in startup growth [17]. However, Kohan Ghaziani's (2022) study on entrepreneurial education and its effect on entrepreneurial intent does not explicitly address human resource management and team-building. While the present study identifies this as a key dimension, Kohan Ghaziani's research seems to place less emphasis on this aspect [11].

Tiberius and Wesseland (2024) highlight the importance of entrepreneurship curricula and the necessity of fostering startups, which aligns with this study's findings on key curriculum dimensions [16]. However, while this study emphasizes specific dimensions, their research focuses broadly on advancing entrepreneurial education, potentially lacking detailed curriculum components. Similarly, Karthiga et al. (2024) emphasize the role of curriculum in cultivating a startup culture, which corresponds with this study's findings on business management and innovation [5]. However, their study primarily focuses on startup culture rather than specific curriculum dimensions, whereas the present research clearly identifies key curriculum components.

Queen et al. (2024) emphasize continuous learning and educational programs as key factors in startup success, which aligns with this study's findings on business management and product development. However, their research predominantly focuses on digital businesses and may not extensively cover human resource management aspects [13]. Similarly, Beke et al. (2023) highlight the importance of structured and updated curricula for startup managers, particularly in human resource management and capability development, aligning with this study's findings in this area. However, their research primarily focuses on managerial roles and may not comprehensively address other dimensions such as marketing and sales [9]. Popov (2022) argues that investment in formal curricula is more effective than extracurricular activities, aligning with this study's emphasis on the necessity of addressing key curriculum dimensions [12]. Chen et al. (2021) focus on curriculum objectives and content in workplace education, which corresponds with this study's emphasis on human resource management and team-building [15]. However, their study primarily examines workplace learning and may overlook specific startup-related dimensions.

One of the key limitations of this study is the reliance on hermeneutic phenomenology, which inherently depends on the interpretation of individuals' lived experiences. Additionally, the limitations related to the research population and data collection tools present methodological constraints. The study's population primarily consisted of academic and organizational experts engaged with successful startups, making the generalizability of findings more applicable to this demographic. Regarding data collection, this study solely relied on interviews, which may introduce limitations. Each interviewee may interpret their experiences and opinions based on personal biases and values, potentially influencing the final analysis.

Based on these findings, several practical recommendations are proposed. Monthly educational workshops focused on innovation and creativity methods should be conducted for students and young entrepreneurs. These workshops should be organized by universities and startup accelerators and structured over a one-year period, with evaluations conducted after each session to assess participants' innovation skills. The anticipated outcome of these workshops is an increase in creativity and innovation in entrepreneurial projects.

Authors' Contributions

Authors equally contributed to this article.

Acknowledgments

Authors thank all participants who participate in this study.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

References

- M. Mohammadi and M. Khobreh, "A model for mutual decision-making between startups and venture capitalists," *Industrial Management*, vol. 14, no. 3, pp. 359-390, 2022.
- [2] H. Aghazadeh, M. Haghighi, M. S. Torkestani, and M. S. Zarei, "Investigating the process and factors affecting brand building of startups in Iran: A multiple case study," *Business Management*, vol. 15, no. 1, pp. 27-53, 2023.
- [3] O. S. Joel, A. T. Oyewole, O. G. Odunaiya, and O. T. Soyombo, "Navigating the digital transformation journey: Strategies for startup growth and innovation in the digital era," *International Journal of Management & Entrepreneurship Research*, vol. 6, no. 3, pp. 697-706, 2024, doi: https://doi.org/10.51594/ijmer.v6i3.881.
- [4] S. Chahreh, M. A. Sarlak, and A. Rahimian, "Developing a model for improving the performance of startup accelerators," *Quarterly Journal of Public Organization Management*, vol. 12, no. 46, 2024.
- [5] S. Karthiga and R. Subhashni, "Cultivating entrepreneurship and startup culture: A case study of Thiagarajar College of Engineering," *Journal of Engineering Education Transformations*, vol. 37, no. Special Issue 2, 2024, doi: https://doi.org/10.16920/jeet/2024/v37is2/24075.
- [6] K. Al Omoush, C. Lassala, and S. Ribeiro-Navarrete, "The role of digital business transformation in frugal innovation and SMEs' resilience in emerging markets," *International Journal* of Emerging Markets, vol. 20, no. 1, pp. 366-386, 2025, doi: https://doi.org/10.1108/IJOEM-12-2022-1937.
- [7] M. H. Moradi, M. R. Abdoli, N. Salehi, H. Valiyan, and M. Safarigrayeli, "Foresight of the driving forces of startup financing based on libertarian philosophical strategies (metaphysics) of capital market companies," *Financial Research*, vol. 26, no. 4, pp. 758-790, 2024.
- [8] S. H. Sudaryana, B. Wirjodirdjo, and A. Windrarto, "A systematic literature review of digital startup business dynamics and policy interventions," *Cogent Business & Management*, vol. 12, no. 1, p. 2440636, 2025, doi: https://doi.org/10.1080/23311975.2024.2440636.
- [9] D. D. Beke, A. Sólyom, and A. Juhászné Klér, "What managers can learn from knowledge-intensive technology startups: Exploring the skillset for developing adaptive organizational learning capabilities of a successful startup enterprise in management education," *Society and Economy*, vol. 45, no. 1, pp. 68-90, 2023.
- [10] B. Jamshidi Naqani, "An empirical study of machine learning algorithms for predicting startup success," *Technology Management*, vol. 2, no. 3, pp. 12-25, 2024.
- [11] S. Kohan Ghaziani, "Startups: Explaining entrepreneurship education on entrepreneurial intention," *Management and Accounting in the Third Millennium*, vol. 20, pp. 233-240, 2022.
- [12] V. Popov, "Shift in paradigm: Startup business-incubation at universities during the educational discipline inside of curriculum rather than extracurricular activities of students," *Scientific Journal of Astana IT University*, pp. 48-60, 2022, doi: https://doi.org/10.37943/WDNE3944.
- [13] Z. Queen, A. Anjani, and A. G. Prawiyog, "Designing a digital business study program using lean startup methodology,"

Startupreneur Business Digital (SABDA Journal), vol. 3, no. 1, pp. 1-9, 2024, doi: https://doi.org/10.33050/sabda.v3i1.434.

- [14] S. Taheri Zadeh and R. Shabani, "Localized curriculum: An undeniable necessity for multi-grade classrooms," *Research in Curriculum Planning*, vol. 63, pp. 66-77, 2019.
- [15] P. Chen, M. Clark, M. Sharma, Y. Troya, I. Cenzer, and J. Rivera, "A longitudinal workplace-based interprofessional curriculum for graduate learners in a geriatrics patientcentered medical home," *Journal of Interprofessional Education & Practice*, vol. 24, p. 100459, 2021, doi: https://doi.org/10.1016/j.xjep.2021.100459.
- [16] V. Tiberius and M. Weyland, "Enhancing higher entrepreneurship education: Insights from practitioners for curriculum improvement," *The International Journal of Management Education*, vol. 22, no. 2, p. 100981, 2024, doi: https://doi.org/10.1016/j.ijme.2024.100981.
- [17] A. Tayebi, M. Karimi Zand, and S. A. Heydari, "The impact of internal marketing on entrepreneurial orientation based on knowledge-based production and job creation in the political community of Iran (Case study: Startup businesses in Tehran)," *Political Sociology of Iran*, vol. 20, pp. 1613-1633, 2022.