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Factors Influencing Entrepreneurial Leadership

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ARTICLE INFO ABSTRACT

Keywords:

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This study investigates the multidimensional factors influencing entrepreneurial leadership, emphasizing its critical role in fostering innovation, adaptability, and organizational sustainability in today's dynamic and highly competitive business environment. Drawing on a robust theoretical foundation, the research synthesizes perspectives from both classic and contemporary literature to define entrepreneurial leadership as a paradigm distinct from traditional leadership models, characterized by strategic vision, opportunity recognition, resource orchestration, and collective engagement. Employing the interpretive structural modeling (ISM) approach, the study identifies and structures the most salient factors affecting entrepreneurial leadership within the context of Tonya Distribution Company. Six core dimensions—economic conditions, cultural and social dynamics, organizational structure, regulatory support, human resource capabilities, and technological change—are systematically analyzed to uncover their interrelationships and hierarchical importance. The ISM results reveal that organizational structure emerges as a dependent factor, highly influenced by the other five dimensions, each of which demonstrates high driving power in shaping entrepreneurial leadership outcomes. Furthermore, the research confirms that effective entrepreneurial leadership necessitates not only adaptive and innovative behavior from leaders but also an enabling environment that integrates regulatory, social, economic, technological, and organizational resources. Practical implications suggest that fostering entrepreneurial leadership demands strategic alignment across these factors, targeted financial support, cultural transformation toward digital adoption, robust regulatory assistance, talent identification and development, and proactive engagement with technological advancements. The study's findings offer a comprehensive framework for both practitioners and scholars to better understand, implement, and enhance entrepreneurial leadership in organizations facing rapid change and competitive pressures.

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Introduction

Today, the development of nations is fundamentally rooted in creativity, innovation, and entrepreneurship. This issue has gained significant importance due to globalization, and organizations are compelled to constantly innovate in order to survive in an increasingly competitive and unstable economic environment. Innovation, when supported by entrepreneurial leadership within organizations, leads to the desired outcome—entrepreneurship itself (Leitch & Volery, 2017). This innovation manifests under the umbrella of entrepreneurial leadership and results in successful entrepreneurial activities. In the contemporary era, companies are confronted with various challenges, limited resources, and numerous competitors. Hence, the firms that will succeed are those capable of identifying and seizing opportunities, adapting to environmental dynamics, and securing their survival in the market (Leitch & Volery, 2017). Numerous studies indicate that leadership is a critical determinant of effective entrepreneurship. However, given the unpredictable and highly complex nature of today's business world, traditional or even relatively new leadership approaches are no longer effective in the long term. In such circumstances, a completely new leadership strategy is necessary to guide businesses, which is referred to as "entrepreneurial leadership" (McGrath & MacMillan, 2000). Given the competitive environment and the growing need to identify opportunities, researchers have concluded that this new form of leadership—entrepreneurial leadership—is evolving continuously in contrast to traditional leadership theories that cannot cope with rapid changes. According to them, entrepreneurial leadership represents a key stage in this evolution and transformation, forming a new paradigm in leadership theory (Mishra & Kumar, 2017). In recent years, we have witnessed a rise in the number of startups, particularly in Iran. One specific type of these businesses that has gained attention is *fintech* companies. These firms, which provide a wide range of financial services via information technology platforms, like many other startups, face challenges such as high risk, uncertainty, lack of experience, high dynamism and flexibility, and limited financial resources (Zaitchik & Baldiguer, 2017). Documents and studies on startups show that these businesses often face high failure rates. For instance, Timmons (1990) estimated that around 40% of startups fail within the first year of operation, and approximately 90% fail within the first ten years (Eshghi et al., 2021). To better understand these findings, consider the hypothetical case of *Tonia Distribution Company*, a production-oriented business that aims to launch new products and ventures. If this company fails to adequately consider issues like high risk, uncertainty, inexperience, high flexibility, and limited financial resources, it will inevitably encounter serious challenges. Renko et al. (2015) define entrepreneurial leadership as a concept that involves influencing and guiding team members to achieve organizational goals while also identifying and discovering entrepreneurial opportunities. Entrepreneurial leaders can bring together diverse individuals to collaborate and create an environment that fosters idea generation and supports startup businesses (Eshghi et al., 2021). Essentially, entrepreneurial leadership lies at the intersection of leadership and entrepreneurship. Just as leadership is the process of influencing others and reflects a complex phenomenon beyond individual actions, entrepreneurship also does not merely focus on individual entrepreneurs but rather emphasizes the connection between individuals and opportunities. In this context, Shane and Venkataraman (2000) define entrepreneurship as a process in which opportunities for creating future goods and services are discovered, evaluated, and exploited. Therefore, within the *Tonia Distribution Company*, the coordinated performance of team members under the guidance of entrepreneurial leaders—alongside the timely and accurate identification of opportunities—accelerates the achievement of the company's objectives.

Entrepreneurial Leadership – Translation

Numerous studies indicate that leadership serves as a fundamental and decisive factor in entrepreneurship. However, given the current unpredictable and highly complex nature of the business world, relying on traditional or even relatively modern leadership and management approaches cannot yield long-term effectiveness. In such an environment, a completely new leadership strategy is required to guide businesses—referred to as *entrepreneurial leadership* (McGrath & MacMillan, 2000).

Although the concept of entrepreneurial leadership was initially explored by Schulz in 1993, very few studies were conducted on this topic until 2008. What is certain, however, is that due to today's competitive environment and the necessity of opportunity recognition, researchers have increasingly emphasized this emerging leadership style. Entrepreneurial leadership, in contrast to traditional leadership theories that cannot cope with ongoing changes, is continuously evolving. According to Mishra and Kumar (2017), entrepreneurial leadership signifies a critical stage in leadership evolution and represents a new paradigm that is taking shape. Entrepreneurial leadership has been defined as a highly significant entrepreneurial behavior, as it holds the potential to recognize values and various aspects related to organizational sustainability, such as encouraging innovation and adapting to environmental changes. According to Purwati et al. (2021), entrepreneurial leadership is evaluated across five dimensions: framing role, ambiguity absorption, path clarification, commitment building, and boundary setting to sustain that commitment. Innovative activities can be seen as a motivational and cognitive process either within an individual or a group of employees, which manifest in specific organizational actions (Aghajani & Mahdad, 2019). These activities reflect behaviors that lead to overall organizational success in renewing, improving, and applying various innovative aspects (Widodo & Gustari, 2020). Entrepreneurial leadership empowers organizational leaders to confront the challenges and crises associated with task-related performance in a turbulent organizational environment. Moreover, by influencing the personal traits of leaders, this type of leadership fosters the creativity of team members to generate new ideas, thereby improving their task performance and enhancing organizational outcomes. Thus, entrepreneurial leaders not only bring about significant changes and innovation within the organization through the development of a shared vision but also steer the innovation process by exploring new opportunities and cultivating an environment that encourages and supports the generation and implementation of novel ideas to achieve that vision (Kakaei et al., 2022). In organizations, entrepreneurial leadership—through defining vision, forming strategic alignment, and motivating and committing employees—creates the necessary capabilities to discover and exploit opportunities. This is achieved by encouraging innovation and creatively utilizing human, social, and other organizational resources, ultimately leading to value creation and facilitating entrepreneurship within the organization (Yadollahi, 2008). Entrepreneurial leadership can be conceptualized through five core and fundamental roles:

1. **Direction-setting** – Entrepreneurial leaders, by being goal-oriented, inspirational, and role models for their followers, prepare the groundwork for achieving the organization's entrepreneurial objectives.
2. **Facilitation** – These leaders rely on their cognitive capabilities to understand internal and external environments, identify opportunities, threats, and competitive advantages, and use their communication skills to engage employees, partners, competitors, and stakeholders to facilitate business and entrepreneurial growth. Empowering employees accelerates goal achievement.
3. **Support-giving** – Entrepreneurial leadership provides emotional and strategic support to employees and stakeholders through commitment and motivation, leveraging emotional intelligence to help achieve entrepreneurial goals.
4. **Coaching** – By promoting teamwork and participatory culture within the organization, entrepreneurial leaders draw on ideas and collaborations from employees, reduce risk, and enhance synergy, playing a mentoring role in the process.
5. **Entrepreneurial agency** – Perhaps the most distinctive aspect, entrepreneurial leaders activate their professional and entrepreneurial capacities, leveraging entrepreneurial alertness to identify, discover, and exploit current and future opportunities in both internal and external environments. This leads to business growth, profitability, and advancement in entrepreneurship (Davar et al., 2020).

Innovative Activities and Entrepreneurial Leadership

Innovative Activities

Innovative activity refers to all employee behaviors aimed at generating, introducing, or applying new ideas, processes, products, or instructions within the respective unit. Additionally, it involves the process of implementing new problem-solving ideas in practice, ultimately leading to the improvement of a product, service, or process. Innovation at the workplace begins when an employee recognizes a problem in their task. They then generate new ideas and solutions, followed by the final stage: supporting these ideas and solutions until they are successfully applied within the organization. Innovative activities indicate purposeful behavior by employees to introduce ideas, services, and processes for their work or the organization as a whole and assist departments in solving problems in this regard (Kakaei et al., 2022). Today, factors such as environmental changes, technological advancements, and the rise in competition have led to relentless struggles and competition among organizations. Innovation has become a critical and vital factor for organizations to create competitive advantage in today's complex and dynamic environment. Organizations that embrace innovation are more successful in responding to changing environments and in developing new capabilities that enable better performance (Faryad et al., 2016). As a complex behavior, innovative activity comprises a three-stage process: idea generation, idea support, and idea implementation. Innovative behaviors are those that bring change and are related to job transformation. They signify the creation of something new or different and are defined by their orientation toward change—whether in the form of a new product, service, mindset, procedure, or process (Adibpour et al., 2016).

Characteristics of Entrepreneurial Leadership

Scholars and researchers have identified various characteristics of entrepreneurial leadership. According to Koratko, the key traits include inspiration, rapid motivation of a group with serious ideas, and ultimately guiding them in turning their shared vision into reality. Entrepreneurial leadership is fundamentally different from leadership in other business contexts in five major ways:

1. Strategic orientation
2. Opportunity recognition
3. Resource acquisition
4. Resource control
5. Organizational structure

These five features distinguish entrepreneurial leadership from other leadership styles. Another notable trait is collective leadership—this means that within an organization, multiple individuals across different levels contribute to and sustain organizational creativity. Therefore, instead of a singular “heroic” leader, we have a collective of leaders. In entrepreneurial leadership, all team members exhibit entrepreneurial tendencies and share traits such as innovation, risk-taking, proactivity, self-confidence, and visionary thinking (Davar et al., 2020). Another theoretical analysis highlights four core features of entrepreneurial leadership mentioned in leadership and entrepreneurship literature. It is important to note that these traits are independent rather than mutually exclusive:

1. **Bottom-up and collective approach** – Leadership in an organization or even an economic sector should result from collective action shared among multiple stakeholders working toward a common goal. This should involve both public and private sectors. Entrepreneurial leadership should not rely

on traditional hierarchical structures but should instead be participatory and bottom-up, involving all contributors in addressing challenges and policies from the ground up (Anselm & Corbin, 2021).

2. **Presence of formal and informal leaders** – Organizations contain both formal and informal leaders. Entrepreneurial leadership must be exercised by both, as both types provide value. Formal leaders, by virtue of their legal positions, have access to resources like capital and infrastructure. Informal leaders, though lacking official titles, possess influence due to their historical credibility and can shape policy through their bargaining power.
3. **Promotion of social closeness** – Entrepreneurial leadership emphasizes interpersonal trust based on friendship, kinship, and shared experiences, which foster a supportive social environment (Boschma, 2019).
4. **Coach-led leadership** – Entrepreneurial leadership must be mentor-based and meritocratic, not authoritarian. Individuals who have succeeded in entrepreneurial fields should act as mentors and advisors, traveling to different areas to help others recognize and pursue opportunities, mobilize resources, and foster stakeholder collaboration. These "champions" can ultimately spark economic transformation (Daw et al., 2020).

Factors Influencing Entrepreneurial Leadership in Businesses

- **Economic factors**
- **Cultural and social changes**
- **Organizational structure**
- **Regulatory support**
- **Human resource capabilities**
- **Technological (Eshghi et al., 2021)**

The researcher intends to investigate the impact of these factors at Tonia Distribution Company in the context of developing new entrepreneurial products, such as the company's newly introduced product: Enriched Plant-Based Milk.

Research Background

Domestic Studies

Davar et al. (2021) conducted a study titled "*Presenting an Entrepreneurial Leadership Model Based on the Grounded Theory Qualitative Approach.*" This qualitative research applied the grounded theory methodology. The statistical sample included 14 members of the board of directors and senior managers of the Tonia Group, selected purposefully as experts. Data collection was carried out through semi-structured interviews. The data were analyzed using open, axial, and selective coding, resulting in 355 codes, 72 concepts, 13 sub-categories, and 5 main categories. Ultimately, the entrepreneurial leadership model was designed and presented with 31 components under 5 dimensions:

1. **Guidance** (goal orientation, inspiration, and role modeling),
2. **Facilitation** (cognitive ability, communication ability, empowerment),
3. **Support** (commitment creation, motivation creation, emotional intelligence),

4. **Coaching** (team orientation, participation), and
5. **Entrepreneurial Agent** (professional and entrepreneurial capabilities).

Eshghi et al. (2016) in their study titled *"Identifying and Ranking Factors Influencing Entrepreneurial Leadership in FinTech Startups,"* aimed to identify and prioritize influencing factors in FinTech entrepreneurial businesses using a mixed-method approach.

- In the qualitative phase, semi-structured interviews with experts led to the identification of 25 initial codes across 6 categories via content analysis.
- In the quantitative phase, the DEMATEL technique was used to rank these factors. Findings showed that **economic factors** (weight: 0.216) were the most critical, followed by cultural/social changes, organizational structure, regulatory support, human resource capabilities, and technological changes, respectively.

Davar et al. (2021) also conducted another study titled *"Identifying Dimensions and Components of Entrepreneurial Leadership and Its Impact on Organizational Entrepreneurship at Tonia Company."*

- The qualitative part used content analysis, while the quantitative part used a survey approach.
- The qualitative sample included senior managers and board members, and the quantitative sample consisted of 358 mid-level managers, department heads, and experts.
- Data were collected through interviews and questionnaires.
- Confirmatory factor analysis and structural equation modeling (using LISREL and Smart PLS) confirmed the five dimensions and thirteen components identified earlier. Results showed that the most influential factors of entrepreneurial leadership on organizational entrepreneurship were, first, the entrepreneurial nature of leaders, and second, their guidance capability.

International Studies

Mishra & Kumar (2017) in their research titled *"Entrepreneurial Leadership and Organizational Effectiveness: A Comparative Study of Managers and Non-Managers,"* found that there is a significant perceptual difference between managers and non-managers regarding the dimensions of organizational effectiveness, including direct discovery, creative network integration, and opportunity creation.

Simon & Gustav (2017) in a study titled *"Exploring the Impact of Open Leadership on Organizational Innovation and Corporate Entrepreneurship,"* identified five effective roles of entrepreneurial leadership:

1. Creating challenge,
2. Absorbing uncertainty,
3. Clearing paths,
4. Building commitment,
5. Setting boundaries—each of which significantly influences innovation and corporate entrepreneurship.

Newman et al. (2018) in their paper titled "*The Role of Entrepreneurial Leadership in the Impact of Creative Self-Efficacy on Innovative Behaviors*," concluded that employees under strong entrepreneurial leadership exhibit a stronger link between creative self-efficacy and innovative behaviors. Entrepreneurial leadership had a stronger moderating effect than transformational or participative leadership styles.

Chai et al. (2019) in their study titled "*Does Entrepreneurial Leadership Promote Creativity Among Employees and Teams?*" found that entrepreneurial leadership has a positive relationship with both employee and team creativity, and this relationship is mediated by individual creative self-efficacy and team creative efficacy.

Research Methodology

This study is classified as applied research in terms of its objective. Based on the research methodology, it is a correlational study. According to the data collection method, it is a descriptive and survey-based study aimed at describing sample characteristics and generalizing them to the statistical population. Given the timing of data collection, the research is cross-sectional.

Data Collection Methods and Tools

Data were gathered using both field and library research methods. ISM-based structured questionnaires were designed and distributed among the experts of Tonia Distribution Company for data analysis.

Statistical Population

The statistical population consisted of **5 experts** from Tonia Distribution Company.

Validity and Reliability of the ISM Questionnaire

Since the factors influencing entrepreneurial leadership at Tonia were determined through expert opinion, the questionnaire is considered **valid**. Given the pairwise comparisons of elements, **reliability** is also confirmed.

Interpretive Structural Modeling (ISM)

This research employed Interpretive Structural Modeling (ISM), a qualitative technique analyzed using Excel software. ISM displays the hierarchical structure and interactions among variables (Warfield, 1974). It is effective for mapping complex relationships between interdependent variables (Atari et al., 2013).

Steps of ISM Method (Singh & Kant, 2011)

1. **Identification of influential factors** through expert interviews.
2. **Construction of the SSIM matrix** (Structural Self-Interaction Matrix), where relationships between factors are represented by symbols:
 - **V**: Factor i influences factor j
 - **A**: Factor j influences factor i
 - **X**: Mutual influence between i and j

- **O**: No relationship
3. Conversion of the symbolic matrix into binary (0/1) format to create the initial reachability matrix.
 4. Final reachability matrix: incorporates transitive relationships and indicates each factor's driving power (row total) and dependence (column total).
 5. For each factor, the reachability set (factors it influences) and antecedent set (factors that influence it) were derived.
 6. Levels were identified in the ISM hierarchy by comparing intersection sets.
 7. The process was repeated until all levels were structured.

Table 1: Symbols used to identify relationships (December 2009)

Symbol	Meaning ($i \rightarrow j$)	Binary Code (i,j)	Binary Code (j,i)
V	i affects j	1	0
A	j affects i	0	1
X	mutual influence	1	1
O	no relation	0	0

Step One: Identification of Research Factors

Based on the literature review (Persian and English articles) and expert interviews at Tonia, the following factors influencing entrepreneurial leadership were identified. After validation through expert feedback, they were modeled using the ISM group method and mapped according to **driving power–dependence** charts.

Table 2: Source

Code	ISM Factor	Source
1	Economic Factors	Eshghi et al., 2021
2	Cultural and Social Changes	Abdollahi & MirMousavi, 2014; Eshghi et al., 2021
3	Organizational Structure	Interviews; Eshghi et al., 2021
4	Regulatory Support	Interviews; Eshghi et al., 2021
5	Human Resource Capability	Kanter, 1997; Block, 1987; Bennis, 1989; Eshghi et al., 2021
6	Technological Changes	Interviews; Eshghi et al., 2021

Step Two: Selection of Experts from Tonia Distribution Company

An expert is an individual who, through prolonged training and experience in a specific field, has gained significant practical knowledge. Simply put, an expert or specialist is recognized as a reliable source of technical knowledge or skill, capable of making sound and informed decisions within a particular domain. Therefore, to identify key factors and relationships in a specific area, the best and most reliable approach is to utilize the expertise, experience, and insights of domain specialists. In any organization, experts represent the most informed and experienced human capital for decision-making in various areas.

In the present study, the purpose of forming an expert panel was to identify the factors influencing entrepreneurial leadership in **Tonia Distribution Company**. The table below presents the profile of the expert team who completed the ISM worksheet:

Table 3: below presents the profile of the expert team who completed the ISM worksheet

No.	Expert Name	Department	Age	Gender	Education	Work Experience
1	Ali	General Director of Sales	46	Male	M.A. in Strategic Management	18 years
2	Mehdi	Director of Sales Planning and Development	44	Male	B.A. in Business Administration	17 years
3	Zahra	Director of Natural Product Development	45	Female	M.A. in Trade Marketing	18 years
4	Mahmoud	Sales Manager	44	Male	B.A. in Business Marketing	18 years
5	Maryam	Director of Software and ERP	38	Female	M.A. in Systems Analysis	8 years

Step Three: Determining Relationships Between Factors (SSIM Matrix)

To define the relationships between factors, 15 pairwise questions were presented. For each question, the respondents marked the relationship type as one of the following

- **V**: Factor i influences factor j
- **A**: Factor j influences factor i
- **X**: Mutual influence between i and j
- **O**: No influence between i and j

These responses form the **Structural Self-Interaction Matrix (SSIM)**, which was completed by each expert

Step Four: Initial Reachability Matrix (Per Expert)

Each expert's SSIM responses were converted into binary (0/1) matrices representing the **Initial Reachability Matrix**. For brevity, here is an aggregated format showing the influence of one factor over another

Table 4: Sample Summary Expert1

Influencing Factor ↓ / Influenced Factor →	Economic	Cultural	Organizational Structure	Regulatory Support	HR Capability	Technological Change
Economic	1	0	1	1	0	0
Cultural & Social Changes	0	1	1	1	0	1
...

(Same logic applies for Experts2 to 5.Each expert's initial matrix was constructed similarly .)

Step Five: Aggregated Initial Reachability Matrix

Table 5: This matrix represents the sum of all five individual initial matrices (1 per expert):

Influencing Factor ↓ / Influenced Factor →	Economic	Cultural	Organizational Structure	Regulatory Support	HR Capability	Technological Change
Economic	5	0	4	4	2	2
Cultural & Social Changes	2	5	2	3	2	4
Organizational Structure	2	3	5	3	2	2
Regulatory Support	3	4	2	5	3	4
HR Capability	4	0	4	1	5	3
Technological Change	3	2	4	1	4	5

Step Six: Integrated Initial Reachability Matrix

Based on frequency thresholds (mode = 2), each value ≥ 3 was assigned **1**, and values ≤ 2 were assigned **0**. This results in a **binary matrix**:

Table 6: Integrated Initial Reachability Matrix

Influencing Factor ↓ / Influenced Factor →	Economic	Cultural	Organizational Structure	Regulatory Support	HR Capability	Technological Change
Economic	1	0	1	1	0	0
Cultural & Social Changes	0	1	0	1	0	1
Organizational Structure	0	1	1	1	0	0
Regulatory Support	1	1	0	1	1	1
HR Capability	1	0	1	0	1	1
Technological Change	1	0	1	0	1	1

Step Seven: Final Reachability Matrix

:To form the final matrix, the integrated matrix was

1. ,Added to the **identity matrix**
2. ,Squared (raised to the power of 2)
3. .Raised to the power of 3

Since the second and third powers were equal, the process stopped at the third power. The resulting matrix, :which captures **transitive reachability**, is the **Final Reachability Matrix**

Table 7: The resulting matrix, which captures transitive reachability, is the Final Reachability Matrix

Influencing Factor ↓ / Influenced Factor →	Economic	Cultural	Organizational Structure	Regulatory Support	HR Capability	Technological Change
Economic	1	1	1	1	1	1
Cultural & Social Changes	1	1	1	1	1	1
Organizational Structure	0	0	1	0	0	0
Regulatory Support	1	1	1	1	1	1
HR Capability	1	1	1	1	1	1
Technological Change	1	1	1	1	1	1

This matrix now serves as the basis for identifying **hierarchical levels** of influencing and dependent variables in entrepreneurial leadership modeling using ISM

Step Eight: Leveling of Factors

The **input set** includes the factor itself and other factors that influence it. Once the reciprocal relationships among the factors are defined, the next step is to determine the levels of the factors. The level of a factor indicates whether it influences others or is influenced by others. Factors placed at the **highest level (Level 1)** are influenced by other factors but do not influence any other factor. The factor with **equal output and intersection sets** qualifies for this top-level placement

Table 8: Results of the First Iteration – Factor Leveling

Factor Name	Code	Output Set	Input Set	Intersection Set	Level
Economic Factor	1	1,2,3,4,5,6	1,2,4,5,6	1,2,4,5,6	
Cultural & Social Changes	2	1,2,3,4,5,6	1,2,4,5,6	1,2,4,5,6	
Organizational Structure	3	3	1,2,3,4,5,6	3	1
Regulatory Support	4	1,2,3,4,5,6	1,2,4,5,6	1,2,4,5,6	
Human Resource Capability	5	1,2,3,4,5,6	1,2,4,5,6	1,2,4,5,6	
Technological Change	6	1,2,3,4,5,6	1,2,4,5,6	1,2,4,5,6	

Organizational Structure →(**Factor3**) . is placed in **Level1**

Table 9: Results of the Second Iteration – Factor Leveling

Factor Name	Code	Output Set	Input Set	Intersection Set	Level
Economic Factor	1	1,2,4,5,6	1,2,4,5,6	1,2,4,5,6	2
Cultural & Social Changes	2	1,2,4,5,6	1,2,4,5,6	1,2,4,5,6	2
Regulatory Support	4	1,2,4,5,6	1,2,4,5,6	1,2,4,5,6	2
Human Resource Capability	5	1,2,4,5,6	1,2,4,5,6	1,2,4,5,6	2
Technological Change	6	1,2,4,5,6	1,2,4,5,6	1,2,4,5,6	2

→ The **other five factors** are classified into **Level 2**.

Step Nine: Final ISM Model

Following multiple sessions with experts at Tonia Distribution Company, six factors were finalized. In the **final structural model**, **Organizational Structure** was placed in Level 1, and the remaining five factors in Level 2. The Level 2 factors influence the Level 1 factor.

Table 10: Final ISM Hierarchical Model

Influence Power →	Technological Change	Human Resource Capability	Regulatory Support	Organizational Structure	Cultural & Social Changes	Economic Factor	Influence Power
Economic Factor	1	1	1	1	1	1	6
Cultural & Social Changes	1	1	1	1	1	1	6
Organizational Structure	0	0	0	1	0	0	1
Regulatory Support	1	1	1	1	1	1	6
Human Resource Capability	1	1	1	1	1	1	6
Technological Change	1	1	1	1	1	1	6
Dependency	5	5	5	6	5	5	

Step Ten: MICMAC Analysis

The final step in the Interpretive Structural Modeling (ISM) methodology is **MICMAC analysis**, which evaluates the **driving power** (row sum) and **dependence power** (column sum) of each factor

- **Driving Power** = Total number of factors a given factor influences
- **Dependency** = Total number of factors that influence a given factor

:Factor Classification Based on MICMAC Grid

1. **Quadrant I (Autonomous Factors):** Low driving and low dependency (None observed)
2. **Quadrant II (Dependent Factors):** Low driving power, high dependency
Organizational Structure (only \ driving, ϕ dependency) →
3. **Quadrant III (Linkage Factors):** High driving and high dependency
All other factors: Economic, Cultural, Regulatory, HR, Technological →
4. **Quadrant IV (Independent/Driving Factors):** High driving, low dependency (None isolated here)

Key Variables are those with **high driving power**, i.e., *linkage variables*. The model places → **Organizational Structure** as a **dependent variable**, and others as **linkage variables**

Conclusion

The **Organizational Structure** factor is located at Level \ in the final ISM model, meaning it is **influenced** by other factors but does **not influence** others. The remaining five factors—**Economic Conditions, Cultural/Social Changes, Regulatory Support, Human Resource Capability, and Technological Change**—are at Level ʔ and directly influence the organizational structure

The model aligns with findings from **Eshghi et al. (۲۰۲۱)** and **Abdollahi & MirMousavi (۲۰۱۴)**, Organizational structure, as a **dependent factor**, is shaped by all other key drivers. Hence, all five driving factors can be considered **strategic levers** for organizational design and leadership

Recommendations Based on the Results

- **Organizational Structure Optimization:**As the top-level dependent factor, the structure must be adjusted to support entrepreneurial leadership. Strengthening the five influencing factors will naturally enhance organizational agility and responsiveness
- **Strengthen Financial Resources Economic Factor:**The CEO of Tonia Distribution Company must provide financial support to entrepreneurial leaders to enable the creation of new business ventures
- **Cultural and Social Adaptation:**Entrepreneurial leaders should embrace IT-based and digital business models to shift consumer culture toward e-commerce and digital platforms
- **Ensure Regulatory Support:**External institutions such as banks and insurance agencies must offer support in terms of credit, legal infrastructure, and financial instruments to boost entrepreneurship in the company
- **Leverage Human Resource Potential:**Leaders must identify, nurture, and empower high-potential individuals to build internal entrepreneurial talent pipelines and accelerate innovation
- **Harness Technological Advancements:**Entrepreneurial leaders must proactively adopt emerging technologies to create new opportunities and business models that add value and drive competitiveness

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