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Determinants of Standardization Development in Regional Economic Enterprises: Evidence from Hormozgan Province Using a Mixed-Methods Design

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Abstract

Standardization is essential for improving product quality, strengthening competitiveness, and facilitating access to domestic and international markets. This study identifies and prioritizes the factors influencing standard development in economic enterprises in Hormozgan Province, Iran. An exploratory mixed-methods design was employed. First, relevant factors were identified through a structured literature review and qualitative content analysis of exploratory interviews with standardization experts. Second, the identified factors were prioritized using the Best-Worst Method (BWM). The results indicate that trade policies and international competition represent the most influential factor, with a weight of 0.264, followed by the effectiveness of the standardization process, with a weight of 0.198. Legal and regulatory factors, governance and leadership of the standardization system, production technology and competitiveness, external environmental conditions, and production and supply resources also emerged as important determinants. By contrast, consumer culture and awareness, along with organizational culture, received the lowest priorities. Overall, the findings suggest that standard development in regional enterprises is shaped more strongly by external trade pressures, regulatory effectiveness, and institutional governance than by internal cultural factors. The study offers practical implications for policymakers, standardization authorities, and enterprise managers seeking to enhance regional standardization capacity and industrial competitiveness.

Keywords standardization, regional enterprises, BWM, mixed methods, competitiveness, Hormozgan Province

1. Introduction

Standardization is widely recognized as a fundamental pillar of sustainable economic development, industrial competitiveness, and market integration. In modern economies, standards function not only as technical tools for ensuring product quality, safety, and compatibility, but also as strategic mechanisms that facilitate trade, reduce uncertainty, and improve institutional coordination [1]. By establishing common rules and procedures, stan-

dardization enables organizations to enhance efficiency, strengthen consumer trust, and gain access to broader domestic and international markets. Consequently, many scholars regard standardization as an essential component of modern production systems and a key factor supporting long-term competitiveness.

The significance of standardization becomes particularly evident in regions that are strongly connected to trade and industrial exchange. Hormozgan Province, due to its



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strategic geographical location, port-based economy, and close linkage with international commercial routes, provides an important context for examining the drivers of standard development. In such environments, enterprises' ability to comply with standards is shaped not only by internal organizational capabilities but also by external forces such as trade policies, regulatory requirements, competitive pressures, and institutional support mechanisms [2]. Therefore, standardization in regional economic enterprises should be understood as a multidimensional process influenced by economic, legal, organizational, and cultural factors.

Previous studies have highlighted the multiple benefits of standardization at both organizational and societal levels. Within organizations, standards improve production consistency, reduce operational errors, and support quality management practices. At the societal level, they contribute to consumer protection, environmental sustainability, and the credibility of markets [3]. In addition, standards play a crucial role in facilitating international trade by reducing technical barriers and increasing product acceptance in global markets [4]. Despite these advantages, the development and effective implementation of standards often face several challenges, including insufficient managerial commitment, weak governance mechanisms, limited technical infrastructure, and low awareness among producers [5].

An important issue in this context is that the factors influencing standard development do not exert equal influence. Some drivers have a stronger impact on the adoption and diffusion of standards, making the identification and prioritization of these factors essential for effective policymaking and managerial decision-making. Prior research has emphasized the importance of trade regulations, competitive pressure, and institutional efficiency in shaping organizational behavior toward standard compliance [6]. Governance and leadership within the standardization system can also significantly affect the speed and effectiveness of standard adoption through policy coordination, monitoring, and support for enterprises [7]. Cultural dimensions, including organizational culture and consumer awareness, may further influence the extent to which standards are internalized within economic activities [8].

Despite the growing body of research on quality management and standardization, limited attention has been given to the prioritization of factors influencing standard development in regional economic enterprises, particularly within trade-oriented regions such as Hormozgan Province. Most existing studies examine standardization either at the national level or from the perspective of individual organizations, leaving a gap in understanding how

these drivers interact in regional economic systems.

To address this gap, the present study aims to identify and prioritize the factors affecting standard development in the economic enterprises of Hormozgan Province using a mixed-methods exploratory design. First, relevant factors are identified through a structured literature review and qualitative content analysis of expert interviews. Subsequently, the Best-Worst Method (BWM) is employed to determine the relative importance of the identified factors. By providing an evidence-based prioritization of these drivers, this study seeks to support policymakers, standardization institutions, and enterprise managers in designing more effective strategies for strengthening the regional standardization system and improving industrial competitiveness.

2. Materials and Methods

2.1 Research Design

This study employed an exploratory mixed-methods design to identify and prioritize the factors affecting standard development in economic enterprises in Hormozgan Province. A mixed-methods approach was considered appropriate because standard development is a multidimensional phenomenon that requires both qualitative exploration and quantitative prioritization. Accordingly, the research was conducted in two sequential phases. In the first phase, relevant factors were identified and classified through a structured literature review and qualitative expert interviews. In the second phase, the extracted factors were prioritized using the Best–Worst Method (BWM).

2.2 Literature Review and Factor Identification

In the first stage, a structured review of previous studies was conducted to establish the theoretical foundation of the research and identify key dimensions related to standard development. The review focused on studies addressing quality management, standardization systems, institutional governance, trade regulations, production competitiveness, and organizational readiness for implementing standards. Previous research indicates that standardization contributes to improving product quality, reducing technical barriers to trade, and enhancing competitiveness in both domestic and international markets. The literature also highlights that the development of standards is influenced by a combination of legal, institutional, technological, economic, and cultural conditions. These findings provided the initial conceptual framework for identifying the factors influencing standard development.

2.3 Expert Interviews and Data Collection

To contextualize the findings of the literature review

within the regional conditions of Hormozgan Province, qualitative data were collected through semi-structured interviews with experts. A total of seven experts participated in the interview stage. The interviews continued until theoretical saturation was achieved, meaning that no new concepts or themes emerged from additional interviews. The selected participants possessed expertise in areas such as standardization, quality management, regulatory systems, industrial development, and regional economic enterprises. The aim of these interviews was to capture practical and context-specific insights into the factors shaping the development of standards in the province.

In the qualitative phase, participants were selected using purposeful expert sampling to ensure that only individuals with relevant professional knowledge and practical experience contributed to the identification of factors affecting standard development. The selection criteria included expertise in at least one of the following areas: standardization, quality management, regulatory and supervisory systems, industrial development, or management of regional economic enterprises in Hormozgan Province. The participants were chosen because of their direct familiarity with the operational and institutional conditions influencing standardization in the province. Interviews were conducted sequentially, and data collection continued until theoretical saturation was achieved. After seven interviews, no substantially new codes or themes emerged, indicating that the main conceptual categories had been adequately captured.

2.4 Qualitative Content Analysis

The qualitative data were analyzed using content analysis. This method allowed the researchers to systematically code, categorize, and group meaningful statements derived from the interviews and documentary sources. Through this process, recurring concepts were identified and organized into broader thematic categories representing the main drivers of standard development. The resulting categories included trade policies and international competition, effectiveness of the standardization process, legal factors, governance and leadership of the standardization system, production technology and competitiveness, external environmental factors, production and supply resources, consumer culture and awareness, and organizational culture. These categories reflect both external institutional pressures and internal organizational conditions influencing standard development.

2.5 Best–Worst Method (BWM)

In the second phase of the research, the identified factors were prioritized using the Best–Worst Method (BWM), a

multi-criteria decision-making technique designed to determine the relative importance of evaluation criteria [9, 10]. Compared with traditional pairwise comparison approaches, BWM requires fewer comparisons and generally produces more consistent results. In this study, eight experts participated in the quantitative stage and completed the BWM comparison process. The experts were selected using a snowball sampling technique from among individuals familiar with standardization, economic policy, and regulatory issues in Hormozgan Province.

Within the BWM procedure, experts first identified the most important factor (the best criterion) and the least important factor (the worst criterion). They then assessed the preference of the best criterion over the remaining criteria, as well as the preference of all criteria over the worst criterion. Based on these comparisons, the optimal weights of the factors were calculated by minimizing the inconsistency in expert judgments. The resulting weights represent the relative importance of each factor in influencing the development of standards within regional economic enterprises.

The Best–Worst Method (BWM) was selected for the quantitative phase because it offers several methodological advantages for expert-based prioritization problems. First, compared with traditional multi-criteria decision-making methods such as the Analytic Hierarchy Process (AHP), BWM requires fewer pairwise comparisons, which reduces the cognitive burden on respondents and is particularly useful when experts have limited time availability. In addition, some alternative MCDM methods such as TOPSIS or VIKOR are more commonly applied when the objective is to rank alternatives based on their performance across predefined criteria. In the present study, however, the main purpose was to derive the relative importance of interrelated factors from expert judgment rather than to evaluate competing alternatives; therefore, BWM was considered more appropriate as an efficient and theoretically consistent weighting method. Second, BWM generally produces more consistent comparison results, thereby improving the reliability of derived weights. Third, the method is well suited to studies such as the present one, where a set of qualitatively identified and conceptually related factors must be prioritized based on expert judgment. Given the limited but specialized expert sample and the need for a rigorous yet efficient weighting procedure, BWM was considered more appropriate than alternative MCDM techniques.

2.6 Data Reliability and Methodological Justification

The use of BWM was particularly suitable for this study because standard development involves multiple inter-

Table 1. Prioritization of factors affecting standard development based on BWM

Rank	Factor	Weight
1	Trade policies and international competition	0.264
2	Effectiveness of the standardization process	0.198
3	Legal factors	0.094
4	Governance and leadership of the standardization system	0.091
5	Production technology and competitiveness	0.084
6	External environmental factors	0.083
7	Production and supply resources	0.074
8	Consumer culture and awareness	0.057
9	Organizational culture	0.056

Note: Weights are rounded to three decimal places.

related factors, and policymakers require a reliable basis for determining which drivers should receive greater attention in strategic planning and resource allocation. While cultural and organizational variables may influence the adoption of standards, economic, regulatory, and trade-related forces often exert stronger influence in regions characterized by intensive commercial activity and international trade. By combining qualitative content analysis with BWM, the study not only identified the relevant factors but also provided a systematic prioritization framework to support policy formulation and managerial decision-making.

Overall, the methodological framework integrating structured literature review, semi-structured expert interviews, qualitative content analysis, and BWM enabled the study to draw on both theoretical knowledge and expert judgment. This methodological integration enhanced the robustness of the findings and increased their practical relevance for policymakers, standardization authorities, and managers seeking to strengthen the regional standardization system and improve industrial competitiveness.

3. Results and Discussion

The results of the Best–Worst Method (BWM) provided a structured prioritization of the factors affecting standard development in economic enterprises in Hormozgan Province. The findings indicate that the development of standards is not determined by a single organizational or technical variable, but rather by a combination of economic, institutional, legal, technological, and cultural drivers. Among these factors, trade policies and international competition obtained the highest priority, followed by the effectiveness of the standardization process. This pattern suggests that the expansion of standardization in regional enterprises is strongly influenced by external market pressures as well as the institutional capacity of the standardization system to respond effectively to these pressures.

As presented in Table 1, trade policies and international competition ranked first with a weight of 0.264. This result indicates that enterprises in Hormozgan Province are strongly influenced by trade requirements, export conditions, and international market competition. This finding can also be understood in relation to the broader regional context of Hormozgan Province, where the economic structure is strongly shaped by port-related activities, trade-oriented enterprises, and interactions with external markets. In such a setting, compliance with standards is not merely a technical requirement, but also an institutional and competitive necessity for firms seeking market credibility, continuity of exchange, and stronger participation in regional and international business networks. Considering the strategic position of Hormozgan as one of Iran's major port and commercial regions, enterprises operating in this province frequently interact with international markets and must comply with recognized standards to remain competitive. Consequently, standardization becomes a strategic necessity for market access and participation in global value chains. This finding is consistent with previous research emphasizing that standards play an important role in reducing technical barriers to trade, facilitating international transactions, and improving the global acceptability of products and services [3, 11]. It also supports the argument that standardization should not only be considered a technical or regulatory requirement but also a strategic tool for enhancing international competitiveness [4].

The second most important factor was the effectiveness of the standardization process, which received a weight of 0.198. This finding highlights the importance of institutional efficiency in facilitating standard adoption. Even when enterprises recognize the value of standards, complex, time-consuming, or costly procedures may discourage them from pursuing certification or implementing standard-based practices. Therefore, the accessibility, transparency, and coordination of the standardization

system play a critical role in encouraging enterprises to comply with standard requirements. This result aligns with previous studies emphasizing the significance of institutional capacity, administrative efficiency, and regulatory coordination in improving the outcomes of national standardization systems [5, 12].

Legal factors ranked third with a weight of 0.094, indicating that laws, regulatory frameworks, and enforcement mechanisms play an important role in encouraging enterprises to adopt standards. Legal requirements can create formal obligations for compliance and reduce uncertainty in production and market activities. However, the position of legal factors after trade pressures and institutional effectiveness suggests that regulatory enforcement alone may not be sufficient to stimulate standard development. Instead, legal frameworks must be complemented by efficient administrative processes and market-based incentives. This interpretation supports earlier research suggesting that standardization is most effective when regulatory mechanisms are aligned with economic motivations and organizational capabilities [10].

Governance and leadership of the standardization system ranked fourth with a weight of 0.091. This factor reflects the role of responsible institutions in guiding, coordinating, supervising, and supporting the standardization process. The relatively high ranking of this factor demonstrates that enterprises rely heavily on institutional governance to understand and implement standards. Effective governance can strengthen communication among enterprises, regulatory bodies, certification agencies, and policymakers, thereby improving trust and coordination within the national quality infrastructure. Previous studies have also highlighted that strong institutional governance is essential for ensuring the coherence and effectiveness of standardization systems [5, 12].

Production technology and competitiveness obtained the fifth rank with a weight of 0.084, closely followed by external environmental factors with a weight of 0.083. The very small difference between these two weights suggests that technological capability and environmental conditions exert a relatively similar level of influence on standard development. Technological capability enables enterprises to meet technical requirements, control production quality, and respond to evolving market expectations. At the same time, external environmental factors such as economic conditions, sanctions, supply chain disruptions, and market volatility can influence firms' willingness and ability to invest in standardization initiatives. In environments characterized by economic uncertainty and global competition, standards may serve as mechanisms for enhancing resilience, credibility, and operational stability. These findings support the perspective that

standardization and technological development are mutually reinforcing processes [6].

Production and supply resources ranked seventh with a weight of 0.074. This factor includes access to quality raw materials, reliable suppliers, financial resources, modern equipment, and skilled human capital. The results suggest that although resource availability contributes to the implementation of standards, it is not the primary driver of standard development. Enterprises may possess sufficient production resources but still face difficulties adopting standards if institutional procedures are inefficient or if market incentives are weak. Therefore, resources should be considered enabling conditions rather than fundamental strategic drivers. This interpretation is consistent with quality management literature, which emphasizes that resources must be complemented by institutional support and managerial commitment to achieve sustainable quality improvement [10, 12].

Consumer culture and awareness ranked eighth with a weight of 0.057. This relatively low ranking indicates that consumer demand for standard-compliant products may not yet be a strong driver of standardization in Hormozgan Province. Although informed consumers can encourage enterprises to improve quality and comply with standards, the results show that enterprises currently respond more strongly to trade pressures, legal requirements, and institutional procedures. Nevertheless, consumer awareness remains important in the long term. Increasing public knowledge about product quality, safety standards, and certification systems can gradually strengthen consumer-driven demand for standardized products and services, thereby promoting market-oriented standard development [11, 13].

Finally, organizational culture received the lowest rank with a weight of 0.056. This finding suggests that internal cultural factors such as managerial commitment, employee participation, quality-oriented values, and organizational learning currently exert the weakest influence among the identified factors. Many enterprises appear to adopt standards primarily in response to external regulatory and market pressures rather than through internally motivated quality improvement initiatives. However, this does not imply that organizational culture is unimportant. On the contrary, long-term sustainability of standard implementation depends on whether standards become embedded within organizational routines and internal management practices. Previous studies similarly emphasize that a strong quality culture is essential for maintaining and continuously improving standards after formal certification has been achieved [8].

Overall, the findings reveal that standard development in the economic enterprises of Hormozgan Province is

predominantly driven by external and institutional forces rather than internal organizational culture. The dominance of trade policies and international competition demonstrates that enterprises face strong pressures to comply with standards in order to access international markets and maintain competitiveness. At the same time, the high ranking of process effectiveness highlights the importance of an efficient and responsive standardization system capable of translating external pressures into practical implementation.

From a policy perspective, these results suggest that policymakers and standardization authorities should prioritize trade-oriented standardization strategies, administrative process improvements, legal clarity, and stronger institutional governance. Measures such as linking standard compliance to export incentives, simplifying certification procedures, expanding technical advisory services, and strengthening coordination among standardization institutions could significantly enhance the development of standards in regional enterprises. Furthermore, although cultural factors received lower weights in the present study, long-term policy should not neglect them. Sustainable standardization ultimately requires enterprises to move beyond externally imposed compliance toward internally embedded quality-oriented practices. Therefore, the development of standards should be viewed as both an institutional reform process and a gradual cultural transformation within organizations.

The prominence of trade policies and international competition can be better understood in light of the specific socio-economic structure of Hormozgan Province. As one of Iran's main coastal and port-based regions, Hormozgan plays a strategic role in national and international trade. Many enterprises in the province operate in environments directly influenced by export requirements, customs procedures, import regulations, maritime logistics, and cross-border competition. In such a setting, compliance with standards becomes more than a technical requirement; it becomes a strategic condition for market access, commercial credibility, and participation in wider supply chains. This regional context helps explain why external and trade-related drivers were prioritized more highly than internal cultural factors.

4. Conclusion and Recommendations

This study aimed to identify and prioritize the key drivers influencing standard development in economic enterprises in Hormozgan Province, Iran. Using an exploratory mixed-methods approach, the research first identified relevant factors through a structured literature review and qualitative analysis of expert interviews, and then prioritized these factors using the Best–Worst Method

(BWM). The results demonstrate that the development of standards in regional economic enterprises is a multidimensional process shaped by trade-related, institutional, legal, technological, resource-based, and cultural determinants.

The findings indicate that trade policies and international competition represent the most influential driver of standard development. This result reflects the economic structure of Hormozgan Province, where international trade activities, port infrastructure, and export-oriented industries create strong incentives for enterprises to comply with recognized standards. In such an environment, standards function not only as technical tools for quality assurance but also as strategic instruments that facilitate market access, enhance competitiveness, and support participation in regional and global value chains.

The second most influential factor is the effectiveness of the standardization process, highlighting the importance of institutional efficiency in promoting standard adoption. Even when enterprises acknowledge the benefits of standards, complex administrative procedures, unclear regulatory requirements, high certification costs, or institutional delays may discourage them from implementing standard-based practices. Therefore, improving the transparency, accessibility, and coordination of the standardization system is essential for translating external market pressures into effective compliance.

Other factors, including legal frameworks, governance and leadership of the standardization system, production technology and competitiveness, external environmental conditions, and production resources, were also identified as important supporting elements in the development of standards. These findings suggest that standardization requires not only regulatory enforcement but also effective institutional governance, technological readiness, and adequate production capabilities. By contrast, consumer culture and awareness and organizational culture received relatively lower priorities. This result does not indicate that cultural factors are irrelevant; rather, it suggests that in the current regional context, standard development is driven more strongly by trade dynamics and institutional mechanisms than by consumer demand or internally embedded quality culture.

Based on these findings, several practical recommendations can be proposed. First, policymakers should integrate standard compliance into export-support policies and trade promotion programs. Enterprises that adopt recognized standards could benefit from incentives such as financial support, tax advantages, export facilitation services, or priority access to governmental development programs. In addition, simplifying certification procedures, reducing bureaucratic complexity, and expanding

digital administrative systems could significantly improve the efficiency of the standardization process.

Second, standardization authorities and regulatory institutions should strengthen institutional coordination and enhance the responsiveness of the national standardization system. Providing technical guidance to enterprises, accelerating certification processes, developing sector-specific standards, and implementing transparent monitoring mechanisms can increase trust in the standardization system and facilitate broader adoption of standards.

Third, enterprise managers and industry leaders should invest in production technologies, quality management systems, and workforce skills. Strengthening technological capacity and improving internal quality management practices can help enterprises move beyond formal certification and integrate standards into daily operational processes and continuous improvement strategies.

Fourth, educational institutions, media organizations, and consumer protection agencies should contribute to increasing public awareness of standards and product quality. Although consumer culture received a lower priority in this study, raising awareness among consumers can gradually create market-driven demand for standardized products. Educational campaigns, training programs, and university–industry collaborations may help strengthen this long-term demand.

Overall, the development of standards in Hormozgan Province should be considered both an institutional reform priority and a long-term cultural transformation process. In the short term, policies should focus on improving trade-oriented standardization strategies, regulatory efficiency, and institutional governance. In the long term, however, sustainable standardization will require the gradual development of quality-oriented organizational cultures and greater consumer awareness of product standards. Addressing both dimensions simultaneously can strengthen the regional standardization ecosystem and improve the competitiveness of economic enterprises in national and international markets.

5. Limitations and Future Research

Despite its contributions, this study has several limitations. First, the empirical scope was limited to economic enterprises operating in Hormozgan Province; therefore, the findings may not be fully generalizable to regions with different industrial, institutional, or trade conditions. Second, the prioritization of factors relied on expert judgments using the BWM method. Although expert-based decision-making methods are appropriate for complex and context-dependent problems, the results may be influenced by the professional experience and perceptions of the selected experts. Future research could expand

the geographical scope of the study and include a larger and more diverse group of stakeholders, including policymakers, enterprise managers, certification bodies, and consumers. Comparative studies across provinces or industrial sectors could provide a broader understanding of the determinants of standard development in Iran. In addition, combining multi-criteria decision-making methods with large-scale quantitative surveys may improve the robustness and generalizability of future findings.

Acknowledgements

The authors would like to thank the experts who participated in the interviews and BWM evaluation process.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Conflict of interest statement

The authors declare no conflict of interest.

Declarations

Ethics approval and consent to participate

Not applicable.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Received: Jun. 2026 Accepted: Aug. 2026

Published online: Aug. 2026

DOI: 10.22034/ASAS.2026.587511.1111

References

- [1] B. Agard, A. Kusiak, Standardization of components, products and processes with data mining, in: Proceedings of the International Conference on Production Research Americas, 2004, pp. 1–9.
- [2] T. Ciumara, Standardization versus innovation in management consultancy, *Studii Financiare (Financial Studies)* 15(4) (2011) 145–156.
- [3] G.M.P. Swann, The economics of standardization: An update, Report for UK Department for Business, Innovation and Skills, 2010.
- [4] K. Blind, The economics of standards: Theory, evidence, policy, Edward Elgar Publishing, 2004.
- [5] UNIDO, Quality Infrastructure for Sustainable Development, United Nations Industrial Development Organization, Vienna, 2018.
- [6] H. Jiang, S. Zhao, S. Zhang, X. Xu, The adaptive mechanism between technology standardization and technolo-

gy development: An empirical study, *Technological Forecasting and Social Change* 135 (2018) 241–248.

[7] S. Kerstan, T. Kretschmer, K. Muehlfeld, The dynamics of pre-market standardization, *Information Economics and Policy* 24(2) (2012) 105–119.

[8] D.I. Prajogo, C.M. McDermott, The relationship between total quality management practices and organizational culture, *International Journal of Operations & Production Management* 25(11) (2005) 1101–1122.

[9] J. Rezaei, Best-worst multi-criteria decision-making method, *Omega* 53 (2015) 49–57.

[10] J. Rezaei, Best-worst multi-criteria decision-making method: Some properties and a linear model, *Omega* 64 (2016) 126–130.

[11] ISO, International standards and trade, International Organization for Standardization, Geneva.

[12] UNIDO, Quality Infrastructure: Building Trust for Trade, United Nations Industrial Development Organization, Vienna, 2015.

[13] ISO, Economic benefits of standards, International Organization for Standardization, Geneva.

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