İktisadi İdari ve Siyasal Araştırmalar Dergisi
Journal of Economics Business and Political Researches

https://dergipark.org.tr/tr/pub/iktisad Yıl/Year: 2026, Sayı/No: 29 e-ISSN: 2564-7466

Export Competitiveness, Branding, and Sustainability: A Fuzzy BWM Evaluation of Turquality-Supported Firms*

♦♦♦

İhracat Rekabet Gücü, Markalaşma ve Sürdürülebilirlik: Turquality Destekli Firmaların Bulanık BWM Değerlendirmesi

Merve TATAR[1] • Ömer Faruk DERİNDAĞ[2] • Alptekin ULUTAŞ[3]

https://izlik.org/JA53WK59EM https://doi.org/10.25204/iktisad.1881417

Article Info

Paper Type: Research Paper

Received: 03.02.2026

Accepted: 27.03.2026

© 2026 JEBUPOR All rights reserved.

Abstract

The aim of this study is to examine the key criteria affecting the export competitiveness of firms receiving Turquality® support in Türkiye by employing multi-criteria decision-making approach. Due to the multidimensional nature of export performance, firms face complex strategic decisions regarding which factors should be prioritized to enhance their international competitiveness. In this context, seven evaluation criteria were identified based on a comprehensive literature review, the Global Competitiveness Index, and semi-structured interviews conducted with Turquality experts. These criteria were weighted using the Fuzzy Best–Worst Method (FBWM), which enables decision-making under uncertainty and subjective judgments. The results indicate that brand awareness, with a weight of 0.232, is the most influential determinant of export competitiveness, followed respectively by sustainability, financial markets, and supply chain performance. Moreover, the findings emphasize the critical role of intangible assets and organizational capabilities in sustaining export success. The study systematically identifies and prioritizes core competitiveness factors, providing strategic guidance for Turquality-supported firms; additionally, it is expected to contribute to the literature by integrating fuzzy logic-based decision-making methods with export competitiveness analysis within the framework of branding.

Keywords: *Turquality, export competitiveness, fuzzy Best Worst Method.*

Makale Bilgileri

Makale Türü: Araştırma Makalesi

Geliş Tarihi: 03.02.2026

Kabul Tarihi: 27.03.2026

© 2026 İKTİSAD Tüm hakları saklıdır.

Öz

Bu çalışmanın amacı, çok kriterli karar verme yaklaşımını kullanarak Türkiye'de Turquality® desteği alan firmaların ihracat rekabet gücünü etkileyen temel kriterleri incelemektir. İhracat performansının çok boyutlu doğası nedeniyle, firmalar uluslararası rekabet gücünü artırmak için hangi faktörlere öncelik verilmesi gerektiği konusunda karmaşık stratejik kararlarla karşı karşıya kalmaktadır. Bu bağlamda, kapsamlı bir literatür taraması, Küresel Rekabet Endeksi ve Turquality uzmanlarıyla yapılan yarı yapılandırılmış görüşmeler temel alınarak yedi değerlendirme kriteri belirlenmiştir. Bu kriterler, belirsizlik ve öznel yargı altında karar vermeyi sağlayan Bulanık En İyi-En Kötü Yöntemi (Fuzzy Best Worst Method) kullanılarak ağırlıklandırılmıştır. Sonuçlar, 0,232 ağırlıkla marka bilinirliğinin ihracat rekabet gücünün en etkili belirleyicisi olduğunu, bunu sırasıyla sürdürülebilirlik, finansal piyasalar ve tedarik zinciri performansının izlediğini göstermektedir. Ayrıca, ihracat başarısını sürdürmede maddi olmayan varlıkların ve kurumsal yeteneklerin kritik rolünü vurgulamaktadır. Çalışma, temel rekabet gücü faktörlerini sistematik biçimde belirleyip önceliklendirerek Turquality destekli firmalar için stratejik bir rehberlik sunmakta; aynı zamanda bulanık mantık tabanlı karar verme yöntemlerini markalaşma çerçevesinde ihracat rekabet gücü analiziyle bütünleştirerek literatüre özgün ve kapsamlı bir katkı sağlaması beklenmektedir.

Anahtar Kelimeler: *Turquality, ihracat rekabetçiliği, bulanık Best Worst Metodu.*

Atıf/ Cite (APA): Tatar, M., Derindağ, Ö. F., & Ulutaş, A. (2026). Export competitiveness, branding, and sustainability: A fuzzy BWM evaluation of Turquality-supported firms. *Journal of Economics Business and Political Researches,* (29), 407-419. https://doi.org/10.25204/iktisad.1881417

*This article is derived from the master's thesis entitled "Evaluation of the export competitiveness of companies receiving Turquality support with fuzzy bwm," completed on June 27, 2024, at the Department of International Trade and Business Administration, Institute of Social Sciences, İnönü University, Malatya / Türkiye.

[1] Res. Asst., Gaziantep University, International Trade and Logistics, mervetatar@gantep.edu.tr
[2] Assoc. Prof. Dr., İnönü University, International Trade and Business Administration, omer.derindag@inonu.edu.tr
[3] Prof. Dr., İnönü University, International Trade and Business Administration, alptekin.ulutas@inonu.edu.tr

1. Introduction

Companies operating in international markets develop export-oriented strategies to enhance their competitiveness and performance. A critical step in exporting successfully is achieving brand awareness, which enables recognition domestically and adaptation to target markets' export policies. Businesses are increasingly adopting innovative strategies to integrate branding into exports. A strong brand differentiates products, drives customer trust, and boosts export performance (Navarro-García et al., 2013: 263). The interplay between exports and branding contributes to long-term business sustainability and success. Branding provides key insights into customer profiles and purchasing behaviors. Successful brands, with established market reputations, command dominance and profitability. Due to the lack of resources at the border in order to carry out the export-oriented industrialization strategy, a number of supports and incentives have begun to be implemented, such as reducing taxes applied in cross-border trade, VAT refunds, elimination of quota limits, and implementation of exchange rate, interest, and price regulations that simplify exports (Şeker, 2020: 2320). Many firms now prioritize branding in their export strategies, recognizing its role in ensuring competitive advantage.

The relationship between branding and export competitiveness is explained within the framework of Porter's Competitive Advantage Theory and the Resource-Based Approach, focusing on the strategic role of differentiation and intangible assets. These approaches emphasize that brand value is crucial for firms to achieve sustainable competitive advantage and higher export performance in the market (Aghazadeh et al., 2022). Empirical findings in the literature and indicators from the Global Competitiveness Index reveal that branding elements, along with innovation, infrastructure, and market efficiency, strengthen the export potential of countries and firms (Edeh et al., 2020). The literature shows that there is a positive relationship between branding advantage and export performance; similarly, branding advantage supports firms' superior export initiative performance, and a significant relationship exists between export performance and the level of unique brand production. Furthermore, it has been observed that countries with high export volumes generally have higher brand strength index values (Koçan, 2023).

Turquality, the world's first and only state-supported brand program, is the focus of this research. Within the study, export incentives for international trade, particularly goods exports, were examined. The research determined criteria through interviews with Turquality experts from various companies. Using these criteria, export competitiveness indices were developed to identify the most significant factors influencing export competitiveness. The study analyzed the importance companies place on different criteria to maintain their competitiveness in international markets. Multi-Criteria Decision Making (MCDM) or Multi-Criteria Decision Analysis (MCDA) is one of the most accurate decision-making methods and can be described as a revolution in this field. One of the first scientific studies on multi-criteria decision making was developed by Benjamin Franklin, who published his research on the concept of moral algebra. In order to provide a framework that can help structure decision-making problems and create preferences from their options, many empirical and theoretical scientists have worked on MCDM methods since the 1950s to examine the mathematical modeling ability of these methods (Hajduk, 2021). This study applies Fuzzy BWM (Best Worst Method), a Multi-Criteria Decision-Making technique, to evaluate the factors affecting the export competitiveness of companies receiving Turquality support. By comparing the best and worst criteria, the research provides quantitative insights into the relative importance of these factors.

Export competitiveness, defined as the ability to supply goods internationally at competitive prices and quality, is a core requirement in the global economy (Ruzekova et al., 2020:145). It demands significant investments in R&D, technology, and infrastructure, alongside collaboration with universities and research institutions. For developing economies like Türkiye, branding plays a vital role in addressing structural trade challenges. The Turquality Support Program, the world’s first

state-supported branding initiative, combines branding and export strategies to enhance Türkiye's global competitiveness and foster a strong "Made in Türkiye" identity.

Studies on the Turquality program have mostly focused on export performance or incentive effectiveness; however, studies that systematically weight the criteria determining firms' export competitiveness using multi-criteria decision-making methods are quite limited. The scarcity of empirical research, particularly that using fuzzy logic-based approaches in the context of Turquality-supported firms, allows this study to fill a significant gap in the literature.

There are a limited number of empirical studies in the literature regarding the effects of Turquality and brand support on export performance. In this context, in the doctoral thesis conducted by Yumuş (2023), the export performance of firms benefiting from Brand and Turquality support was analyzed within the framework of an index approach, and it was concluded that the supports positively affected the export performance of firms, especially from the second year onwards. In this study, the export performance index was created based on interviews with company managers, and the determinants were weighted using the Best-Worst Method (BWM).

This study, however, goes beyond measuring the direct impact of export performance and offers a different methodological and conceptual contribution to the literature by analyzing the criteria determining the export competitiveness of Turquality-supported firms using the fuzzy logic-based Fuzzy BWM method. Thus, the study aims to reveal which strategic components shape competitiveness, deviating from the approach that tests the impact of supports on performance. In this respect, the importance of this study lies in its ability to provide a systematic and structured evaluation of export competitiveness determinants for Turquality-supported firms. By integrating fuzzy logic with multi-criteria decision-making, the study offers a robust analytical framework that supports strategic decision-making under uncertainty. Furthermore, it contributes to both academia and practitioners by identifying priority areas that can enhance firms' sustainable competitive advantage in international markets. However, studies that systematically identify and prioritize the determinants of export competitiveness of Turquality-supported firms using fuzzy logic-based multi-criteria decision-making methods remain limited. This study aims to fill this gap by providing a structured and quantitative evaluation of these criteria.

2. Conceptual Framework

This study's conceptual framework addresses the Turquality® program, export competitiveness, and the key components of Türkiye's export competitiveness; furthermore, the relationship between branding and export competitiveness is explained in line with theoretical approaches. In this context, the strategic role of branding in increasing firms' competitiveness in international markets is evaluated within a conceptual framework.

2.1. Turquality

The Turquality Program, launched in 2004, is the world's first state-supported branding initiative. It integrates branding and export strategies to enhance Türkiye's global competitiveness. The program supports companies through financial aid, marketing consultancy, and training to create a positive "Made in Türkiye" image. Covering all stages, from production to after-sales service, it provides holistic support to firms, helping them differentiate products and improve performance globally (Republic of Türkiye Ministry of Trade, 2025). The program aims to: Provide financial resources to companies with global branding potential. Support firms with training, consultancy, and promotional activities. Enhance brand awareness and ensure sustainable export competitiveness. The program strengthens Türkiye's trade position by helping firms adapt to global market demands, improve branding, and establish competitive advantage.

Branding is considered a fundamental strategic investment area that enables businesses to differentiate their service and product portfolios from competitors, strengthen their market position, and build reliability and reputation in consumer perception. Regardless of scale, for businesses operating in both local and global markets, developing customer-focused value propositions and building a consistent brand identity have become prerequisites for achieving sustainable competitive advantage in the long term. Today, the transformation in the structure of global competition and the structural changes in consumer preferences necessitate the adoption of brand-based strategic approaches for countries and businesses aiming to gain effectiveness in international markets (Davis, 2011). In this context, it is stated that Türkiye's export performance in highly competitive sectors such as textiles and apparel, automotive, electronics, and food has a strong interaction with its level of branding. Strong brand structures developed in these sectors not only increase export efficiency but also contribute to creating perceptual value in international markets and shaping the country's image positively (Özbaysal et al., 2018).

TURQUALITY®, implemented under the leadership of the Republic of Türkiye Ministry of Economy and distinguished as the first and only state-supported branding program on a global scale, was launched on November 23, 2004. Under the Communiqué No: 2006/4 on "Branding of Turkish Products Abroad, Establishing the Image of Turkish Goods, and Supporting Turquality," TURQUALITY is defined as a holistic program that aims to support the development of businesses operating in product groups with branding potential and competitive advantage, covering all marketing processes from production to after-sales services. The program's primary objective is to enable firms to compete globally under their own brands in international markets and to contribute to establishing a positive perception of "Turkish-made goods" in this process (Presidency of the Republic of Türkiye: Official Gazette, 2006).

TURQUALITY® is a comprehensive and systematic support mechanism that aims to enhance the brand-based competitive strength of firms in global markets, particularly those that have adopted branding as a strategic priority and can integrate their competitive potential with corporate capacity. The program addresses production, marketing, sales, service, and after-sales processes from an integrated perspective, offering multidimensional support to firms in areas such as developing managerial competencies, strengthening design and innovation capacity, deepening corporate structuring, and optimizing operational processes. In this framework, while TURQUALITY® enables firms to position themselves with unique and sustainable brand identities in international markets, it also contributes to the reconstruction of the "Turkish-made goods" image around the axes of quality, trust, and cultural values. With its structure based on public-private sector collaboration, the program is regarded as an institutionalized branding model that supports Türkiye's vision of creating global brands and is pioneering in its field (Kadat et al., 2019).

2.2. Export Competitiveness in Türkiye

Export competitiveness reflects a country's ability to sell goods in foreign markets at competitive prices and quality (Snieška, 2008: 32). It is shaped by export volume, diversity, technological advancement, and the capacity to balance trade. Structural factors, such as macroeconomic policies, global market integration, and supply chain management, influence competitiveness. For developing economies, foreign direct investment (FDI) offers critical support by introducing technology and expanding market access (Lall & Narula, 2004: 450).

Türkiye has emerged as a competitive exporter, particularly in the automotive, textile, and electronics sectors. Strategic factors, including its geographical location, government policies, and integration into global trade networks, have strengthened its industrial base (Altay, 2024: 3387). However, challenges such as external debt and economic instability persist. Sustaining competitiveness will require prioritizing R&D investment, innovation, and technological

development (Karhan, 2019: 155). The 1980s were marked as a period of economic and political instability for both Türkiye and the global economy, with significant declines observed in global trade and Türkiye's exports during the 1982-1983 period, reflecting the repercussions of global debt crises and recessions; however, Türkiye adopted an export-oriented growth strategy following the 1980 economic decisions, leading to a notable improvement in export growth rates after 1984 (Ertekin & Kutlu, 2000). The 1990s were characterized by the impact of regional conflicts and economic crises on global trade, as the 1991 Gulf War disrupted trade flows and increased oil prices, causing substantial fluctuations in Türkiye's export performance. Additionally, the 1994 economic crisis in Türkiye severely impacted export growth, yet structural reform measures implemented in the aftermath facilitated a recovery, accelerating export performance after 1995 (Gaytancıoğlu, 2010). During the 2000s, Türkiye strengthened its integration into global markets through its alignment with the Customs Union, though the 2001 economic crisis caused a temporary decline in exports (Eroğlu & Eroğlu, 2009). Nevertheless, economic reforms in the post-crisis period led to stable export growth until the 2008 global financial crisis, which severely contracted both global trade and Türkiye's export performance. Recovery efforts following the crisis initiated a period of renewed growth starting in 2010. The 2010s saw continued recovery in global trade; however, factors such as the tightening of global capital flows in 2013, domestic political and security challenges in 2016, and the economic turbulence of 2018-2019 resulted in fluctuations in Türkiye's export growth. Concurrently, global trade slowed down due to events such as the US-China trade war and Brexit. By 2020, the COVID-19 pandemic had a pronounced negative impact on both global trade and Türkiye's exports. Nonetheless, during the post-pandemic recovery in 2021 and 2022, Türkiye demonstrated stronger export growth compared to global trade, driven by factors such as logistical advantages, the strengthening of its role in supply chains, and government incentives (Türkiye Exporters Assembly, 2024).

2.3. Export Competitiveness and Branding: An Integrated Approach

The relationship between export competitiveness and branding has been extensively studied in the context of global trade. According to Filatotchev et al. (2009), export activities enhance organizational capabilities, leading to resource accumulation that boosts competitiveness. Export competitiveness is defined as a firm's ability to sell products in foreign markets at quality and price levels comparable to competitors (United States International Trade Commission, 2010). Strong brands enhance export performance by establishing trust and differentiation in international markets (Ketels, 2013).

Branding contributes to export competitiveness by creating value for customers and fostering loyalty. A well-established brand reduces information asymmetry, enabling firms to command premium prices and build sustainable market positions (Azizi et al., 2026: 201). Halilbašić et al. (2015) emphasize that branding strategies should align with export goals, as they facilitate product recognition and acceptance in diverse markets. By integrating branding into their export strategies, firms can achieve higher market penetration and sustained growth.

Brands play a vital role in influencing consumer behavior and purchase decisions. A strong brand serves as a symbol of quality, reliability, and innovation, factors that are crucial for export success (Tali et al., 2021: 5370). According to Zhang (2015), foreign direct investment (FDI) complements branding by providing access to advanced technologies and market insights, further enhancing export competitiveness. The synergy between branding and FDI fosters innovation, enabling firms to meet global standards and maintain competitive advantages.

Türkiye's manufacturing sector provides valuable insights into the relationship between branding and export competitiveness. Industries such as automotive, textiles, electronics, and machinery have leveraged branding to establish a strong foothold in international markets (Altuntas

et al., 2018). For example, companies like Vestel and Beko have achieved global recognition by aligning their branding strategies with export objectives.

The textile and apparel sector exemplifies the integration of branding and exports. By focusing on quality, design, and sustainability, Turkish firms have positioned themselves as preferred suppliers for global fashion brands. Similarly, the automotive sector has benefited from branding initiatives that emphasize innovation, reliability, and cost efficiency.

3. Methodology

In this section, selected firms within the scope of Turquality were evaluated using the Fuzzy Best-Worst Method (Fuzzy BWM) within the framework of a multi-criteria decision-making approach. Thanks to this method, the relative importance levels of the criteria determining the firms' performance were analyzed, taking into account the uncertainty environment.

The Fuzzy Best Worst Method (BWM) evaluates the contributions of Turquality to export competitiveness. By comparing and ranking decision-making criteria such as branding, sustainability, and market differentiation using fuzzy linguistic scales, the method identifies key improvement areas. Fuzzy Best Worst Method is one of the multi-criteria decision making models (Guo and Zhao, 2017: 26). This quantitative approach highlights the program's impact on export capabilities and competitiveness. In this study, multi-criteria decision-making (MCDM) methods were preferred because the decision problem requires the simultaneous evaluation of numerous and potentially conflicting criteria. In analyzing the performance or export competitiveness of Turquality-supported companies, considering different dimensions such as branding, sustainability, financial structure, and supply chain together makes it difficult to obtain reliable results with a single criterion. In this context, MCDM methods allow both the determination of relative importance between criteria and the conduct of the decision-making process within a systematic and analytical framework. The main reason for choosing the Fuzzy Best-Worst Method (Fuzzy BWM) among MCDM methods is its capacity to incorporate ambiguities and linguistic expressions frequently encountered in decision-makers' evaluations. Compared to classical BWM, Fuzzy BWM offers significant advantages in that it requires fewer comparisons, provides high consistency, and minimizes ambiguity in expert judgments through triangular fuzzy numbers. Thanks to these features, the method both reduces the burden on decision-makers and contributes to obtaining more reliable and realistic criterion weights.

BWM (Best Worst method) developed by Rezaei (2016), is analyzed by comparing the most important criterion with the least important criterion. Comparisons are made by ranking among the decision-making criteria and then comparing these two determined criteria with each other.

The steps of this method are described below (Guo et al., 2017).

Step 1-1: In the first step, selection criteria are determined.

Step 1-2: The worst " C_W" and best "C_B" criteria are determined.

Steps 1-3: After determining the worst and best criteria, the best and worst criteria are compared pairwise with other criteria. Fuzzy Best to Others (BOT) vector ($\widetilde{D}_B = (\tilde{d}_{B1}, \tilde{d}_{B2}, \dots, \tilde{d}_{Bn})$) It is obtained by comparing the best criterion with other criteria. $C_B$of According to the jth criterion, the fuzzy preference is in this vector " $\tilde{d}_{Bj}$"is denoted by and $\widetilde{D}_W = (\tilde{d}_{1W}, \tilde{d}_{2W}, \dots, \tilde{d}_{nW})$) is . Fuzzy Others to Worst (OW) vector, other criteria with worst criteria $\widetilde{D}_W = (\tilde{d}_{1W}, \tilde{d}_{2W}, \dots, \tilde{d}_{nW})$) created by comparison. The fuzzy preference of the jth criterion $C_W$according to is denoted by in this vector $\tilde{d}_{jW}$and $\tilde{d}_{WW}$It is (1, 1, 1). Decision makers will carry out the specified binary evaluations using the linguistic expressions listed in Table 1.

Table 1. Fuzzy Linguistic Expressions and Fuzzy Numbers According to BWM

Linguistic Terms	Fuzzy Numbers
Equal Important	(1, 1, 1)
Less important	(2/3, 1, 3/2)
Medium Important	(3/2, 2, 5/2)
A lot Important	(5/2, 3, 7/2)
Absolute Important	(7/2, 4, 9/2)

Steps 1-4: The fuzzy weight of each criterion is obtained.

$$min\ \tau^*$$

$$\begin{cases} \left|\dfrac{(w_B^l, w_B^m, w_B^u)}{(w_j^l, w_j^m, w_j^u)} - (B_j^l, B_j^m, B_j^u)\right| \leq (k^*, k^*, k^*) \\ \left|\dfrac{(w_j^l, w_j^m, w_j^u)}{(w_W^l, w_W^m, w_W^u)} - (W_j^l, W_j^m, W_j^u)\right| \leq (k^*, k^*, k^*) \\ \sum_{j=1}^{n} \dfrac{w_j^l + 4w_j^m + w_j^u}{6} = 1 \\ w_j^l \leq w_j^m \leq w_j^u \\ w_j^l \geq 0 \end{cases}$$

Worst criterion, best criterion, jth criterion and τ^* The fuzzy weights of the fuzzy coefficient are denoted by , $\widetilde{w}_B = (w_B^l, w_B^m, w_B^u)$, $\widetilde{w}_j = (w_j^l, w_j^m, w_j^u)$and $\tau^* = (k^*, k^*, k^*)$respectively in Equation 1 $\widetilde{w}_W = (w_W^l, w_W^m, w_W^u)$.

Every decision transmitter for blurry weights get after being later This weights arithmetic average with is combined. Arithmetic mean With Equation 2 is calculated.

$$\widetilde{w}_j^* = \frac{\sum_{p=1}^{P} \widetilde{w}_j^p}{P} = \left(\frac{(w_j^{l1} + w_j^{l2} + \cdots w_j^{lP})}{P}, \frac{(w_j^{m1} + w_j^{m2} + \cdots w_j^{mP})}{P}, \frac{(w_j^{u1} + w_j^{u2} + \cdots w_j^{uP})}{P}\right)$$

Steps 1-5: To obtain the $\widetilde{w}_j^* = (w_j^l, w_j^m, w_j^u)$net weights of the criteria (the fuzzy weights of the criteria w_j^*) using Equation 3 is converted .

$$w_j^* = \frac{w_j^l + 4w_j^m + w_j^u}{6}$$

The sample group for this study consists of 315 brands receiving Brand and Turquality support from the Ministry of Trade of the Republic of Türkiye. However, to obtain more in-depth and qualitative information, the data collection process was limited to six firms representing different sectors. Interviews conducted with these firms, selected from the food, investment, furniture, textile, automotive, and iron and steel sectors, allowed for a more comprehensive and comparable analysis of the processes of businesses benefiting from the Turquality program's support for goods exports. The main reason for limiting the sample to six firms is that the method used in the study is based on expert opinions, and consistent and reliable data must be obtained from each participant. Indeed, in multi-criteria decision-making approaches, especially in fuzzy-based methods, the depth and consistency of decision-makers' evaluations are more important than sample size, and data quality takes precedence. Therefore, selecting a limited number of firms representing different sectors and actively benefiting from the Turquality program aims to increase the internal validity of the study.

However, caution should be exercised in generalizing the findings to all Turquality-supported companies, and this is considered one of the main limitations of the study. As part of the data collection process, based on findings from interviews with officials from companies benefiting from the Turquality program, participants identified seven critical factors affecting export competitiveness. These factors were synthesized with existing international trade, marketing, and competition literature, as well as the criteria of the Global Competitiveness Index.

In this context, based on expert evaluations obtained during the data collection process, criterion weights were calculated using the formula in Equation 1, and the findings were systematically analyzed and presented in Table 2.

Table 2. Weighting of Each Criterion According to Fuzzy BWM

Criteria Decision Makers	Branding	Differentiation	Sustainability	Financial Markets	Local Market Dynamics	Competitor Analysis	Supply Chain
DM – 1	0.300 – 0.300 – 0.300	0.093 – 0.111 – 0.136	0.071- 0.081 – 0.107	0,071 – 0.081 – 0.107	0.058 – 0.175 – 0.107	0.136 – 0.175 – 0.218	0.136 – 0.175 – 0.218
DM – 2	0.060 – 0,065 – 0.065	0.088 – 0.164 – 0.196	0.327 – 0.327 – 0.655	0.131 – 0.164 – 0.177	0.073 – 0.082 – 0.084	0.094 – 0.109 – 0.118	0.094 – 0.109 – 0.118
DM – 3	0.305 – 0.330 – 0.330	0.071 – 0.072 – 0.072	0.077 – 0.088 – 0.093	0.120 – 0.148 – 0.176	0.119 – 0.120 – 0.160	0.119 – 0.120 – 0.135	0.101 – 0.120 – 0.135
DM – 4	0.264 – 0.264 – 0.264	0.113 – 0.113 – 0.132	0.132 – 0.176 – 0.176	0.113 – 0.113 – 0.132	0.113 – 0.113 – 0.132	0.113 – 0.113 – 0.132	0.066 – 0.088 – 0.132
DM – 5	0.057 – 0.106 – 0.146	0.087 – 0.100 – 0.118	0.118 – 0.145 – 0.169	0.327 – 0.327 – 0.327	0.087 – 0.087 – 0.100	0.069 – 0.077 – 0.087	0.118 – 0.145 – 0.169
DM – 6	0.330 – 0.330 – 0.330	0.083 – 0.094 – 0.110	0.110 – 0.132 – 0.165	0.083 – 0.094 – 0.110	0.110 – 0.132 – 0.165	0.110 – 0.132 – 0.165	0.110 – 0.132 – 0.165

In this context, the arithmetic means of the criteria calculated using Equation 2, based on expert evaluations, are analyzed and systematically presented in Table 3.

Table 3. Arithmetic Averages of Criteria

Branding	Differentiation	Sustainability	Financial Markets
(0.219 – 0.233 – 0.239)	(0.089 – 0.109 – 0.127)	(0.158 – 0.173 – 0.194)	(0.140 – 0.157 – 0.172)

Local Market Dynamics	Competitor Analysis	Supply Chain
(0.093 – 0.120 – 0.123)	(0.107 – 0.121 – 0.143)	(0.104 – 0.128 – 0.156)

In this context, based on expert assessments, net weights derived from fuzzy values were calculated using Equation 3, the results are presented in detail, and the final ranking of the criteria is shown below.

Table 4. Net Weights of Criteria

Branding	Differentiation	Sustainability	Financial Markets	Local Market Dynamics	Competitor Analysis	Supply Chain
0.232	0.109	0.167	0.157	0.116	0.122	0.128

4. Interpretation of Findings and Discussion

The study measured the export competitiveness of Turquality-supported companies using Fuzzy BWM. Experts identified branding, differentiation, sustainability, financial markets, local market dynamics, competitor analysis, and supply chain as the most critical factors.

The decision-makers interviewed hold advanced qualifications and extensive professional experience:

Decision Maker 1: Turquality manager at a well-known Turkish clothing brand for 5 years.

Decision Maker 2: Turquality and accounting senior expert at a prominent food and logistics company in Europe for 4 years.

Decision Maker 3: Managing director at an international investment firm with 12 years of experience.

Decision Maker 4: Expert in government affairs, R&D, and investment at a global automotive company for 7 years.

Decision Maker 5: Incentive manager at a leading iron and steel company for 5 years.

Decision Maker 6: Process management manager at an aluminum factory for 6 years.

The criteria, calculated through Equation 1, were ranked based on their importance. The findings show that branding emerged as the most influential factor, reflecting its centrality in maintaining export competitiveness.

5. Results and Discussion

The integration of branding and export competitiveness offers significant opportunities for firms to achieve sustainable growth in international markets. By leveraging their brand equity, firms can differentiate their products, build customer loyalty, and enhance their export performance. Government programs like Turquality underscore the strategic importance of branding in today's globalized economy. Future research should explore innovative branding strategies and their impact on export competitiveness, providing actionable insights for policymakers and business leaders. The evaluation of companies benefiting from the Turquality program, one of the government incentives within the scope of the Ministry of Commerce, in terms of export competitiveness was examined.

Export is the sale of goods produced in one country to another country in exchange for foreign currency. With the rapid growth of international trade, exports play an important role in the sustainability and growth of many companies. Export includes many components. Therefore, with the increase in the diversity of exports, there has been competitiveness in global markets. Competitiveness is a central concern of all countries in an increasingly open and integrated, i.e. globalizing, world economy characterized by a trend towards freer trade, and even more so today (Vdovichena et al., 2022). Considering that individual economic sectors are more open to trade than the entire national economy, export ability should also be taken into account in measuring competitiveness, and even more importance should be given to exports.

The concept of competitiveness is of great importance worldwide. The Global Competitiveness Index is published every year by Word Economic Forum. The Global Competitiveness Index (GCI) analyzes countries from all aspects, macroeconomic and microeconomic, but especially from institutional and political perspectives (Olczyk et al., 2022). In this context, a calculation was made using the Fuzzy BWM method with the export competitiveness criteria created by using the Global Competitiveness Index.

These criteria; It consists of branding, differentiation, sustainability, financial markets, local market dynamics, competitor analysis and supply chain. These criteria were prepared by the author as a result of both literature review, global competitiveness index and interviews with experts and competent people working within the companies receiving Turquality support.

Turquality Businesses in which Türkiye has a competitive advantage and which have product groups with branding potential can become global players with their own brands in international markets by ensuring their development, covering all marketing activities starting with production and continuing with after-sales services, and create a positive 'Made in Türkiye' image with these brands. It is a branding program created for the purpose of placing This program is of great importance for Türkiye to maintain its competitiveness advantage.

There are some problems when deciding what companies receiving Turquality support should pay attention to in export competitiveness. The reason for this is that exports are multidimensional and contain many criteria. In order to make it easier for decision makers to make decisions at this point, an attempt has been made to find a solution to this problem through Fuzzy BWM, one of the Multi-Criteria Decision Making Methods.

The ranking of the 7 criteria determined as a result of the analysis; branding (0.232), sustainability (0.167), financial markets (0.157), supply chain (0.128), competitor analysis (0.122), local market dynamics (0.116), differentiation (0.109). The worst criterion $C_W$was determined as "differentiation " and the best criterion was "branding"."C_B.

In line with our study, the literature reports a growing number of studies employing similar fuzzy decision-making approaches to address comparable research questions. Rostami et al. (2023) developed a goal programming based fuzzy best–worst method (GP-FBWM) to evaluate viable supplier selection in the post-COVID-19 medical devices supply chain, and demonstrated that the approach effectively integrates leagility, resilience, sustainability, and digitalization dimensions to prioritize suppliers under uncertainty. Wan et al., (2024) proposed a novel fuzzy best–worst method based on triangular fuzzy numbers for multi-criteria decision-making, and demonstrated that the method effectively derives consistent and unique fuzzy criterion weights under different decision-maker attitudes (optimistic, pessimistic, and neutral). Mostafaeipour et al. (2021) applied the fuzzy best–worst method to identify and rank barriers to solar energy development in Iran, and found that economic factors particularly low fossil fuel prices and economic uncertainty due to sanctions constitute the most critical obstacles, highlighting the importance of financial support for private sector participation. Khanmohammadi et al. (2024) proposed a hybrid decision-making framework integrating Fuzzy Analytic Network Process and Fuzzy Best–Worst Method, showed that the approach significantly reduces pairwise comparisons (by about 50%) while producing consistent and reliable criterion weights, as validated through production line and sustainable supplier selection problems.

This study aims to contribute to the fields of international trade and international marketing by bringing together the perspectives of company employees, academics, and researchers, and offering practical recommendations. Export incentives provided by the Ministry of Trade of the Republic of Turkey play a significant role in increasing the competitiveness and ensuring the sustainability of exports. In this context, examining the importance that companies benefiting from these incentives give to different criteria and their performance in export markets is critical for improving their competitiveness. Turquality support ordinary under made scientific in studies, export competitiveness better provision in terms of to what attention to be And How One effect created by regarding your criteria determination and rivalry to your advantage owner to be for what over being investigated to be done should It is recommended.

In this study, the export competitiveness criteria that companies care about are; It has been determined that there are branding, sustainability, financial markets, supply chain, competitor analysis, local market dynamics and differentiation. Therefore, it is thought that it is important for policy makers to provide support that will meet these expectations. In the literature review, only one study on BWM (Yumuş, 2023) was found, and no study conducted with Fuzzy BWM was found. In this sense, it is thought to contribute to literature.

Turquality companies in the automotive, iron-steel, aluminum and textile sectors, which have a significant share in Türkiye's goods exports. In addition to goods exports, a company from the service sector was included in the research and an attempt was made to cover the goods and service dimensions of the products and brands. As is known, each sector has its own export dynamics, marketing channels, market structures and competitiveness dimensions. New studies that can more clearly reflect the export competitiveness experienced in sectors other than this study with the realities of the sector itself may be more enlightening for both exporting companies and public authorities. In

addition to the main criteria determined, including sub-criteria that may arise specific to sectors and product groups in the analysis will increase the potential of future studies to reveal more detailed insights and stronger findings.

This study is limited to exports of goods supported under the Turquality program and does not incorporate other government export incentive schemes or service-exporting firms. This deliberate focus stems from the distinctive structure of the Turquality program and its stringent eligibility and evaluation criteria. Data collection was conducted through interviews held during the Turkish Exporters Assembly seminar (April 16–19, 2024), as access to senior executives was constrained. Although a broader set of interviews was undertaken, the analysis was confined to six firms to ensure analytical consistency and depth. These firms, all internationally recognized, play a substantial role in strengthening the global perception of the "Made in Türkiye" brand. Consequently, the findings should be interpreted within this defined scope and may not be generalizable to service-oriented firms or sectors beyond the parameters of the study.

To further enhance export competitiveness, firms must adopt a holistic approach to branding. This involves:

Investing in Innovation: Continuous innovation is essential for maintaining brand relevance and competitiveness.

Leveraging Digital Platforms: Digital marketing and e-commerce platforms provide cost-effective channels for building brand awareness and expanding market reach.

Enhancing Collaboration: Partnerships with research institutions, government agencies, and industry associations can facilitate knowledge sharing and resource optimization.

Focusing on Sustainability: Integrating sustainability into branding strategies can enhance reputation and attract environmentally conscious consumers.

Adapting to Market Dynamics: Firms must remain agile, adapting their branding strategies to evolving market conditions and consumer preferences.

References

Aghazadeh, H., Beheshti Jazan Abadi, E., & Zandi, F. (2022). Branding advantage of agri-food companies in competitive export markets: A resource-based theory. British Food Journal,*124*(7), 2039–2060. https://doi.org/10.1108/BFJ-08-2021-095

Altay, S. (2024). Trade policy review of Turkey. The World Economy, *47*(9), 3861–3892. https://doi.org/10.1111/twec.13609

Altuntas, S., Cinar, O., & Kaynak, S. (2018). Relationships among advanced manufacturing technology, innovation, export, and firm performance: Empirical evidence from Turkish manufacturing companies. *Kybernetes, 47*(9), 1836–1856. https://doi.org/10.1108/K-10-2017-0380

Azizi, S., Khanjanzadeh, N., & Nemati, H. (2026). Branding challenges for sustainable entrepreneurship. In S. Azizi (Ed.), *Sustainable entrepreneurship* (pp. 197–208). Springer. https://doi.org/10.1007/978-3-032-04909-4_11

Davis, J. A. (2011). *Rekabetçi başarı: Markalaşma nasıl değer katar?* (T. Karagüzel and O. Basat, Çev.). Brandage Yayınları.

Edeh, J. N., Obodoechi, D. N., & Ramos-Hidalgo, E. (2020). Effects of innovation strategies on export performance: New empirical evidence from developing market firms. *Technological Forecasting and Social Change, 158*, 120167. https://doi.org/10.1016/j.techfore.2020.120167

Eroğlu, N., & Eroğlu, İ. (2009). IMF–Türkiye ilişkileri ve 20. Stand-by müzakereleri üzerine bir değerlendirme. *Karamanoğlu Mehmetbey Üniversitesi Sosyal ve Ekonomik Araştırmaları Dergisi, 2009*(2), 124–146. https://izlik.org/JA35TS45SA

Ertekin, M. S., & Kutlu, E. (2000). 1980 sonrası dönemde Türkiye dış ticaretinin genel bir analizi. Anadolu Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, *16*(1), 223–254. https://izlik.org/JA33XX36PR

Filatotchev, I., Liu, X., Buck, T., & Wright, M. (2009). The export orientation and export performance of high-technology SMEs in emerging markets: The effects of knowledge transfer by returnee entrepreneurs. *Journal of International Business Studies, 40*(6), 1005–1021. https://doi.org/10.1057/jibs.2008.105

Gaytancıoğlu, S. (2010). Rasyonel beklentiler teorisi çerçevesinde Türkiye'de 1994 krizi. *Ekonomi Bilimleri Dergisi, 2*(1), 139–146. https://izlik.org/JA69MP87CY

Guo, S., & Zhao, H. (2017). Fuzzy best–worst multi-criteria decision-making method and its applications. *Knowledge-Based Systems, 121*, 23-31. https://doi.org/10.1016/j.knosys.2017.01.010

Hajduk, S. (2021). Multi-criteria analysis in the decision-making approach for the linear ordering of urban transport based on TOPSIS technique. *Energies, 15*, 274. https://doi.org/10.3390/en15010274

Halilbašić, M., Brkić, S., & Bosić, V. (2015). The comparative analysis of export competitiveness of ex-Yu countries. *Economic Analysis Journal, 48*(1–2), 108–129. https://www.library.ien.bg.ac.rs/index.php/ea/article/view/313

Kadat, N., & Teker, S. (2019). Turquality devlet destekleri ve markalaşmadaki önemi. *Pressacademia Procedia, 9*(1), 220–225. http://doi.org/10.17261/Pressacademia.2019.1095

Karhan, G. (2019). Investing in research and development for technological innovation: A strategy for Turkey's economic growth. *Journal of Business and Economic Options, 2*(4), 152–158. https://resdojournals.com/index.php/jbeo/article/view/108

Ketels, C. (2013). Recent research on competitiveness and clusters: what are the implications for regional policy?. *Cambridge Journal of Regions, Economy and Society*, *6*(2), 269-284. https://doi.org/10.1093/cjres/rst008

Khanmohammadi, E., Azizi, M., Talaie, H., Ecer, F., & Tirkolaee, E. B. (2024). A novel hybrid decision-making framework based on modified fuzzy analytic network process and fuzzy best–worst method. *Operational Research, 24*(4), 54. https://doi.org/10.1007/s12351-024-00863-4

Koçan, M. (2023). Uluslararası ticarette ihracat ve marka değeri. *Journal of Economics, Finance and Sustainability*, *1*(1), 22-32. https://doi.org/10.5281/zenodo.10372055

Lall, S., & Narula, R. (2004). Foreign direct investment and its role in economic development: Do we need a new agenda? *European Journal of Development Research, 16*(3), 447–464. https://doi.org/10.1080/0957881042000266589

Mostafaeipour, A., Alvandimanesh, M., Najafi, F., & Issakhov, A. (2021). Identifying challenges and barriers for development of solar energy by using fuzzy best–worst method: A case study. *Energy, 226*, 120355. https://doi.org/10.1016/j.energy.2021.120355

Navarro-García, A., Rondán-Cataluña, F. J., & Acedo-González, F. J. (2013). The importance of an export-oriented culture for export performance. *European Journal of International Management, 7*(3), 254–272. https://doi.org/10.1504/EJIM.2013.054325

Olczyk, M., Kuc-Czarnecka, M., & Saltelli, A. (2022). Changes in the global competitiveness index 4.0 methodology: The improved approach of competitiveness benchmarking. *Journal of Competitiveness, 14*, 118–135. https://doi.org/10.7441/joc.2022.01.07

Özbaysal, T., & Onay, M. (2018). Markalaşmanın uluslararasılaşmaya etkisi: Turquality örneği. *Uluslararası İktisadi ve İdari İncelemeler Dergisi, 20*, 181–198. https://doi.org/10.18092/ulikidince.323645

Presidency of the Republic of Türkiye: Official Gazette. (2006, 24 May). Türk ürünlerinin yurtdışında markalaşması, Türk malı imajının yerleştirilmesi ve TURQUALITY®'nin desteklenmesi hakkında tebliğ (No: 26177). https://www.resmigazete.gov.tr/eskiler/2006/05/20060524.htm

Republic of Türkiye Ministry of Trade. (2025). *TURQUALITY® nedir?*. https://turquality.com.tr/tr/turquality-nedir

Rezaei, J. (2016). Best–worst multi-criteria decision-making method: Some properties and a linear model. *Omega, 64*, 126–130. https://doi.org/10.1016/j.omega.2014.11.009

Rostami, O., Tavakoli, M., Tajally, A., & Ghanavati Nejad, M. (2023). A goal programming-based fuzzy best–worst method for the viable supplier selection problem: A case study. *Soft Computing, 27*(6), 2827–2852. https://doi.org/10.1007/s00500-022-07572-0

Ruzekova, V., Kittova, Z., & Steinhauser, D. (2020). Export performance as a measurement of competitiveness. *Journal of Competitiveness, 12*(1), 145–160. https://doi.org/10.7441/joc.2020.01.09

Snieška, V. (2008). Research into international competitiveness in 2000–2008. *Engineering Economics, 59*(4), 29–41. https://doi.org/10.5755/j01.ee.59.4.11560

Şeker, A. (2020). Türkiye'de ihracat ve yatırım teşvikleri arasındaki ilişki: ARDL sınır testi. *MANAS Sosyal Araştırmalar Dergisi, 9*(4), 2311–2326. https://doi.org/10.33206/mjss.710639

Tali, M. A., Wani, N. F., & Ibrahim, A. (2021). The power of branding influencing consumer purchase decision: A comprehensive literature review. *Elementary Education Online, 20*(6), 5362–5387. https://ilkogretim-online.org/index.php/pub/article/view/3985

United States International Trade Commission. (2010). *ASEAN: Regional trends in economic integration, export competitiveness, and inbound investment for selected sectors*. Investigation No. 332-511, USITC Publication 4176. https://www.usitc.gov/publications/332/pub4176.pdf

Vdovichena, O., Tkachuk, S., Zhuzhukina, N., & Lukianykhina, O. (2022). The use of information in the world economy: Globalization trends. *Futurity Economics & Law, 2*(4), 4–18. https://doi.org/10.57125/FEL.2022.12.25.01

Wan, S. P., Dong, J. Y., & Chen, S. M. (2024). A novel intuitionistic fuzzy best–worst method for group decision making with intuitionistic fuzzy preference relations. *Information Sciences, 666*, 120404. https://doi.org/10.1016/j.ins.2024.120404

Yumuş, F. (2023). *The effect of TURQUALITY® support on export performance* (Unpublished Doctoral Thesis). Gazi University, Institute of Social Sciences. Ankara/Türkiye.

Zhang, K. H. (2015). What drives export competitiveness? The role of FDI in Chinese manufacturing. *Contemporary Economic Policy, 33*(3), 499–512. https://doi.org/10.1111/coep.12084