

Patterns of Interaction Between Bargaining, Global Value Chain, and Export Success in the Carpet Industry

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Abstract: This study examines the patterns of interaction between bargaining, the global value chain, and export success in the carpet industry. In a competitive global environment, manufacturers' ability to achieve a favorable position within the global value chain and leverage bargaining skills can directly impact their export success. The research method is designed as a mixed-methods approach (qualitative and quantitative), with data collected through interviews with experts and document analysis. The results indicate that the reciprocal relationships between bargaining factors and position within the global value chain are among the most significant predictors of success in carpet exports. Furthermore, effective management of the global value chain and the ability to capitalize on market opportunities can enhance the competitive position of manufacturers. The findings can assist policymakers and manufacturers in formulating optimal strategies to increase market share in exports. In this study, bargaining is explored as a tool for managing business relationships in the global value chain, with its impact on securing better contracts, reducing costs, and improving product quality analyzed. Additionally, positioning within the global value chain is presented as a key indicator for determining producers' share in value-added and creating a sustainable competitive advantage. In the qualitative section, the role of cultural, economic, and technological factors in bargaining interactions was explored through semi-structured interviews with carpet industry experts. In the quantitative section, data were analyzed using structural equation modeling, and the impact of independent variables such as bargaining skills and position within the global value chain on export success was tested. The analysis results show that the use of innovative bargaining strategies, such as flexibility in negotiations and utilizing market data, has a positive and significant impact on increasing export market share. This study suggests that carpet industry producers and policymakers focus on developing bargaining skills, enhancing international collaborations, and leveraging new technologies to improve their position within the global value chain and strengthen export capabilities.

Keywords: bargaining, global value chain, exports, carpet industry, export success.

1. Introduction

The background and prerequisite for gaining value is "bargaining power." Bargaining power is defined as the ability of an individual or company, as one of the parties in a negotiation with a buyer or seller, to influence the conditions and terms of the contract between them and to alter or improve those terms in their favor [1-4].

This study, focusing on bargaining power and the negotiation process as performance-enhancing initiatives for the supplier-buyer relationship in the global value chain (GVC), complements numerous studies on performance enhancement [1-3, 5-9]. This research differs by focusing on bargaining power from a more common and general approach, where researchers examine whether performance-enhancing activities of suppliers correlate with improved performance. In this study, it is assumed that focusing on bargaining power is related to improving value acquisition in global chain management in the context of export performance. This is because there may be situations where suppliers engage in high-value-added activities, but exclusive global buyers capture the value created by those suppliers.

Analysis of empirical evidence obtained from previous studies shows that some researchers, through their studies, have examined the impact of information sharing [10-12], green supply chain management (GSCM) [13, 14], and fair trade practices in supply chain management [15-17] on the export performance of various companies. Furthermore, reviewing the literature based on recent research content analysis shows that some studies have focused on the impact of supply chain logistics [18, 19], Foreign Direct Investment (FDI) [20, 21], supply chain agility [22, 23], and company experience levels [24-26] on improving export performance and enhancing export competitiveness. Finally, some previous studies have attempted to develop an empirical model to predict export performance based on supply chain processes and practices [14, 15, 24-31], and supply chain management export performance indicators (SCPIs), validating them [31-33]. These studies, whether focused on specific company or customer criteria, have provided significant insights into supply chain performance and companies' export capabilities. However, despite addressing broader aspects of supply chain management and the export competitiveness of companies, such studies lack empirical evidence related to the value acquisition capabilities of companies under study in terms of bargaining power and the negotiation process of companies active in the global value chain (GVC) and, in particular, the impact of these factors on the export performance of manufacturing companies, especially in the carpet industry [10-12, 34-37].

Based on this, it is hypothesized that "performance-enhancing initiatives" and "negotiation or bargaining process initiatives" have positive effects on value acquisition and value creation in the global value chain (GVC) of Kashan carpet companies and can lead to improvements in the export performance of these companies. The motivation for conducting this research stems from decades of managerial activity in the Kashan carpet industry cluster on the one hand, and the lack of empirical studies addressing this topic on the other hand. In order to fill this research gap in the global value chain (GVC) literature, the main research question is:

How do negotiation process initiatives (bargaining) or performance-enhancing initiatives in improving company management at the global value chain (GVC) level affect the bargaining power of Kashan carpet companies and, in turn, improve their export performance?

The objective of this study is to assist senior managers, policymakers, and regulatory bodies in Kashan's carpet industry cluster in improving the export performance of the companies under study. It is expected that the aforementioned objective will be achieved by examining the effects of negotiation process initiatives (i.e., market intelligence and negotiation skills) as well as performance-enhancing initiatives (e.g., after-sales service, distribution, and advertising) on bargaining power and export performance of the companies under study.

2. Methodology

The research methodology is one of the key factors influencing the quality and outcomes of a study. In general, the research methodology refers to a set of purposeful and organized actions that are applied to answer the research questions. Some studies, due to their multi-dimensional and complex nature, are categorized into several groups. The best approach for classifying research is one where the number of categories is minimized, and the distinctions are maximized.

This study is semi-experimental and applied, with a qualitative or judgmental approach throughout its stages.

The qualitative part of the study involves conducting interviews with experts. The target population consists of experts familiar with the subject, including university professors in the fields of management and business.

- Step 1: Use of a semi-structured or unstructured questionnaire to collect the opinions of experts regarding the measurement of certain variables in the research. (It should be noted that most of the research variables are assessed using standard questionnaires, and therefore, the same standard tools will be referenced for measuring these variables.)

- Step 2: Selection of experts, explaining the issue to them, and conducting interviews.

- Step 3: Analyzing the results obtained from the questionnaires and, if necessary, repeating this step until consensus is reached among the experts, extracting final results.

- Step 4: Analyzing the relationships among variables and determining the pathways of interaction.

These steps form the methodological framework of the research and provide the foundation for obtaining valid results.

In this study, to identify the export performance of machine-made carpets and the factors affecting them, as well as the measurement indicators for each variable, domain analysis and content analysis models were used, and primary indicators were identified. Then, the Delphi persuasive survey method was used to assess the importance of each indicator. Based on the multi-criteria fuzzy network analysis model, the determining indicators in evaluating variables were filtered.

The target population of this research consists of experts, including scholars, university professors, and specialists in the field of export performance of machine-made carpets. Following previous research on filtering effective factors and determining the final model, 17 experts were selected from university professors, experienced researchers, and authors, or generally from experts in the field. The selection of these individuals was non-random or through convenient sampling, so inductive methods were not used for statistical inference. These individuals, all holding at least a master's degree in accounting or finance and willing to cooperate with the researcher and participate in the survey, were studied as experts on the export performance of machine-made carpets and the factors influencing it. Their opinions were used to determine the priority of each factor and filter each category of influential factors, as well as to assess the importance of each of them.

3. Findings

To identify bargaining power, export performance, and the factors affecting these behaviors, the components forming each dependent and explanatory variable were identified, filtered, and evaluated.

In this study, to assess the importance or effect of bargaining power, export performance, and influencing factors, the identified indicators based on domain analysis and content analysis, filtered through the Delphi survey method, and analyzed using the fuzzy network analysis model, were surveyed with 392 managers, financial experts, and auditors related to machine-made carpet companies. According to the research literature, the level of each dimension of export performance was scored on a scale of 0 to 100, and the sub-indicators of the factors influencing export performance were rated on a scale from 1 to 9. The results were averaged. Based on this measurement, the findings are as follows:

As shown in Table 1, the dependent variable in this research is export performance, which is measured by six scenarios (indicators):

1. The percentage growth in export volume compared to before.
2. The percentage growth in export sales income compared to before.
3. The percentage growth in profit from exports compared to before.
4. The percentage growth in the number of export markets.
5. The percentage growth in new export markets compared to before.
6. The percentage growth in sales to previous foreign customers.

These six indicators and the rating range of 0 to 100 are defined. The importance level of export performance for each company was evaluated based on the average opinions of managers, and the average across the sample was summarized in Table 1:

Table 1. Importance Level of Export Performance

No.	Code	Indicator	Mean	Standard Deviation
1	EP1	Percentage growth in export volume compared to before	82.67	14.52
2	EP2	Percentage growth in export sales income compared to before	69.77	14.43
3	EP3	Percentage growth in profit from exports compared to before	77.78	10.44
4	EP4	Percentage growth in the number of export markets	80.94	10.01
5	EP5	Percentage growth in new export markets compared to before	76.93	16.69
6	EP6	Percentage growth in sales to previous foreign customers	72.74	16.24
Total			76.80	14.63

Based on Table 1, the average importance or impact of bargaining power and export performance, according to the survey of managers, financial experts, or auditors of machine-made carpet companies, was 76.80, with a standard deviation of 14.63.

As shown in Table 1, the first independent variable in this study is bargaining power, which is measured by five indicators: 1) decision-making power regarding contract price, 2) decision-making power regarding product features, 3) decision-making power regarding payment terms, 4) decision-making power regarding delivery terms, and 5) decision-making power regarding transaction volume. According to Table 3, these five indicators are defined within a score range of 1 to 9. For each company, the average of managers' opinions in this area is evaluated, followed by averaging for this dimension, and finally averaging across the sample under study, as summarized in Table 2:

Table 2. Bargaining Power Importance Level

No.	Code	Indicator	Mean	Standard Deviation
1	ETP01	Decision-making power regarding contract price	7.675	1.314
2	ETP02	Decision-making power regarding product features	7.174	1.363
3	ETP03	Decision-making power regarding payment terms	6.804	1.583
4	ETP04	Decision-making power regarding delivery terms	6.896	1.566
5	ETP05	Decision-making power regarding transaction volume	7.248	1.354
Total			7.159	1.436

Based on Table 2, the average importance or influence of each bargaining power factor, as rated by managers and financial or auditing experts of machine-made carpet companies, is 7.159 with a standard deviation of 1.436.

As presented in Table 2, the second independent variable in this study is negotiation skills, measured by six indicators: 1) ability to present effective negotiation strategies, 2) effective verbal communication skills, 3) ability to persuade business partners, 4) problem-solving skills, 5) ability to maintain good relationships with business partners, and 6) ability to take decisive actions during negotiations. According to Table 4, these six indicators are defined within a score range of 1 to 9.

The importance or impact of each dimension of negotiation skills is evaluated by averaging the managers' opinions for each company, then averaging across this dimension, and finally averaging across the sample under study, as summarized in Table 3:

Table 3. Negotiation Skills Importance Level

No.	Code	Indicator	Mean	Standard Deviation
1	PVC01	Ability to present effective negotiation strategies	7.112	1.327
2	PVC02	Effective verbal communication skills	7.489	1.415
3	PVC03	Ability to persuade business partners	7.414	1.325

4	PVC04	Problem-solving skills	7.643	1.238
5	PVC05	Ability to maintain good relationships with business partners	7.141	1.335
Total			7.176	1.433

Based on Table 3, the average importance or impact of each negotiation skill factor, as rated by managers, financial experts, or auditors of selected machine-made carpet companies, is 7.176 with a standard deviation of 1.433.

As shown in Table 4, the third independent variable in this study is market intelligence, measured by five indicators: 1) awareness of changes in export markets, 2) awareness of customer preferences in export markets, 3) awareness of prices and cost structure of similar products, 4) awareness of changes in export marketing channels, and 5) awareness of demand and changes in customer preferences in export markets. These indicators are defined within a score range of 1 to 9, as shown in Table 5.

The importance or influence of each dimension of market intelligence is evaluated by averaging the managers' opinions for each company, then averaging across this dimension, and finally averaging across the sample under study, as summarized in Table 4:

Table 4. Market Intelligence Importance Level

No.	Code	Indicator	Mean	Standard Deviation
1	MI1	Awareness of changes in export markets	7.997	0.806
2	MI2	Awareness of customer preferences in export markets	6.928	1.570
3	MI3	Awareness of prices and cost structure of similar products	7.243	1.426
4	MI4	Awareness of changes in export marketing channels	7.404	1.378
5	MI5	Awareness of demand and changes in customer preferences in export markets	7.684	1.094
Total			7.388	1.261

Based on Table 4, the average importance or influence of each market intelligence factor, as rated by managers, financial experts, or auditors of selected machine-made carpet companies, is 7.388 with a standard deviation of 1.261.

As presented in Table 4, the fourth independent variable in this study is product development, measured by four indicators: 1) modifying products to meet customer preferences in export markets, 2) producing and offering new products in export markets, 3) offering new services in export markets, and 4) creating a product development system related to exports. These four indicators are defined within a score range of 1 to 9, as shown in Table 6.

The importance or impact of each dimension or component of product development is evaluated by averaging the managers' opinions for each company, then averaging across this dimension, and finally averaging across the sample under study, as summarized in Table 5:

Table 5. Product Development Component Importance Level

No.	Code	Indicator	Mean	Standard Deviation
1	MC1	Modifying products to meet customer preferences in export markets	7.689	1.485
2	MC2	Producing and offering new products in export markets	7.996	1.369
3	MC3	Offering new services in export markets	6.698	1.229
4	MC4	Creating a product development system related to exports	6.776	1.089
Total			7.292	1.293

Based on Table 5, the average importance or influence of each product development factor, as rated by managers, financial experts, or auditors of selected machine-made carpet companies, is 7.292 with a standard deviation of 1.293.

Based on the measurement of the importance or influence of sales promotion and the factors affecting it, according to the survey of managers, financial experts, and auditors of machine-made carpet companies, as detailed in sections (a) to (e) and Tables 1 to 6, the overall importance level of these variables, based on the survey conducted, is summarized in Table 6:

Table 6. Importance of Factors Affecting Bargaining Power and Export Performance

No.	Code	Number of Indicators	Variable Description	Mean	Standard Deviation
1	NS	6	Negotiation Skills	7.176	1.433
2	MI	5	Market Intelligence	7.388	1.261
3	MC	4	Product Development	7.292	1.293
4	SP	4	Sales Promotion	6.886	1.332
5	DP	8	Distribution Process Improvement	6.005	1.480

4. Discussion and Conclusion

Considering these challenges, the review of the literature based on the analysis of theoretical foundations and empirical evidence from previous research has pointed to various ways to improve the bargaining power of companies in global value chains (GVCs). It is assumed that producers, through such strategies, may escape their weak and unattractive position in the global value chain. Firstly, producers may avoid commodity markets sensitive to price by changing their position or, in other words, "moving within the value chain" [12]. In this context, these producers can shift their position in the global value chain (GVC) by improving or adding new features to existing products (product updates), offering new products, or by adding auxiliary services to a physical product such as advertising or improving after-sales service levels (performance enhancement of the offered product) [36, 37].

Secondly, producers can create independent distribution channels (performing functional updates) and bypass exclusive and global buyers through them. Although using such a "dual strategy" carries the risk that the aforementioned buyers may retaliate [11, 36, 37]. Thirdly, producers engaged in global supply chain management may increase the level of informational transparency regarding the true market value of their products by performing intelligent market activities for their companies [10-12, 34-37]. Finally, producers may improve their negotiation and bargaining skills to obtain more favorable contract terms [10, 12, 34-36]. In this study, for ease of explanation of the proposed model, the first two initiatives are referred to as "performance enhancement initiatives," and the last two as "negotiation or bargaining process initiatives."

Based on the results obtained from the research on: 1) identifying the factors influencing bargaining power and export performance through knowledge domain analysis and content analysis, 2) categorizing, measuring importance, classifying, and filtering the factors using the Delphi persuasive survey method from experts, and employing the analytical model of fuzzy TOPSIS and estimating the relationships between variables using structural equation modeling, this section of the research report provides recommendations in two parts: practical recommendations based on the results and suggestions for other researchers in conducting similar and related research.

Based on the results obtained from the research regarding each of hypotheses one through six, it is recommended to direct users of the research results, including policymakers, legal entities, investment companies, and supervisory bodies in the machine-made carpet industry, as follows:

1. The results obtained from the research on hypothesis one indicated that the bargaining power of active machine-made carpet producers in Kashan, involved in the global value chain (GVC), positively impacts their value creation and, in turn, export performance. Based on this, it is recommended to senior managers

and policymakers of active companies in the machine-made carpet industry in Kashan to increase their company's bargaining power in terms of: a) decision-making power regarding export contract prices, b) decision-making power regarding product features, c) decision-making power regarding payment terms, d) decision-making power regarding delivery terms, and e) decision-making power regarding transaction volume. They can leverage the latest technologies, artificial intelligence, and improved methods to produce higher-quality, yet cost-effective products for offering in the global value chain compared to their competitors.

2. The results obtained from the research on hypothesis two indicated that the level of negotiation skills of producers in the machine-made carpet industry in Kashan, active in the global value chain (GVC), positively impacts their bargaining power. Accordingly, it is recommended that senior managers and policymakers of active companies in Kashan's machine-made carpet industry focus on enhancing their commercial or export managers' negotiation skills in: a) effective negotiation planning, b) effective verbal communication skills, c) the ability to persuade business partners, d) problem-solving skills, e) maintaining good relationships with business partners, and f) the ability to take decisive actions during negotiations. They can employ skilled and experienced professionals in commercial negotiations, especially those experienced in foreign trade and proficient in required foreign languages, familiar with target market cultures (culturally intelligent), and can provide continuous professional development training, appropriate incentives based on skill improvement, and advanced human resource management techniques (e.g., Career Planning) for enhancing negotiation skills.
3. The results obtained from the research on hypothesis three showed that market intelligence initiatives of active machine-made carpet producers in Kashan, involved in the global value chain (GVC), positively impact their bargaining power. Therefore, it is recommended that senior managers and policymakers of active companies in Kashan's machine-made carpet industry take the necessary measures to enhance the company's market intelligence initiatives in terms of: a) awareness of customer preferences in export markets, b) awareness of prices and cost structures of similar products, c) awareness of changes in export marketing channels, and d) awareness of demand and changing customer tastes in export markets. They should continuously monitor target market directions and changes and strengthen the company's knowledge management system in this regard.
4. The results obtained from the research on hypothesis four indicated that performance enhancement initiatives of active machine-made carpet producers in Kashan, involved in the global value chain (GVC), in product development, positively impact their bargaining power. Accordingly, it is recommended that senior managers and policymakers of active companies in Kashan's machine-made carpet industry focus on performance enhancement initiatives in product development, including: a) product modification to match customer preferences in export markets, b) producing and offering new products in export markets, c) offering new services in export markets, and d) creating a product development system related to exports. In this context, emphasis should be placed on forming the company's research and development department and continuously monitoring market trends.
5. The results obtained from the research on hypothesis five indicated that performance enhancement initiatives of active machine-made carpet producers in Kashan, involved in the global value chain (GVC), in export development, positively impact their bargaining power. Therefore, it is recommended that senior managers and policymakers of active companies in Kashan's machine-made carpet industry focus on performance enhancement initiatives in export development, including: a) advertising expenditures in export markets, b) participation in foreign trade exhibitions, c) planning export-specific marketing communications, and d) implementing sales promotion programs in export markets. In this context, emphasis should be placed on creating a knowledge management system and focusing on the learning organization in export development, continuously monitoring target market directions, and similar efforts.

6. The results obtained from the research on hypothesis six showed that performance enhancement initiatives of active machine-made carpet producers in Kashan, involved in the global value chain (GVC), in distribution, positively impact their bargaining power. Accordingly, it is recommended that senior managers and policymakers of active companies in Kashan's machine-made carpet industry focus on performance enhancement initiatives in distribution, including: a) direct product supply in export markets, b) streamlining export processes, c) establishing close relationships with wholesalers in export markets, d) establishing close relationships with retailers in export markets, e) offering technical services in export markets, f) ensuring product guarantees in export markets, g) providing post-sale support services in export markets, and h) ensuring the return of unwanted or defective products. They should design and implement a dynamic and capable customer relationship management (CRM) system, especially in relation to target markets.

Based on the results obtained from the research, it is recommended that other researchers conduct studies in the following areas:

1. In this research, to refine the bargaining power and export performance metrics and the factors affecting them, the Delphi persuasive survey method and fuzzy TOPSIS were used. It is recommended that other researchers use simulation models such as genetic algorithms, decision trees, or neural networks and other data-driven models to identify metrics that better predict bargaining power and export performance. It is expected that, in this case, the results will not depend on the personal judgment of experts in selecting and refining related factors.
2. In this research, the relationship between bargaining power and export performance and the factors affecting them was explained using path analysis and structural equation modeling based on regression estimates. Some statistical theorists believe that such methods depend on assumptions like normal distribution for even independent and explanatory variables. Some researchers suggest that non-parametric statistical methods should be used to explain the relationships between variables.
3. In this research, the impact of value-based beliefs, such as those derived from religious convictions and the level of commitment to them, on ethical justification, moral beliefs, and the moral perception of bargaining power and export performance was overlooked. It is recommended that other researchers incorporate this moderating variable into the model explaining the relationship between export performance and the factors influencing it.

Authors' Contributions

Authors equally contributed to this article.

Ethical Considerations

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

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Conflict of Interest

The authors report no conflict of interest.

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