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## Identifying the Components Affecting the Optimization of the Financial Supply Chain in Order to Improve Production Performance in the Home Appliance Industry

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### Abstract

Today, many companies are trying to reduce operating costs and improve performance to cope with severe demand fluctuations. For this purpose, optimizing the supply chain process is crucial and necessary to enhance performance in various parameters, including financial components. Therefore, today, companies have realized that optimizing operations within their own four walls is not enough to achieve business excellence. To improve performance, they need the participation of suppliers in improving quality, on the one hand, and meeting customer demands, on the other. This partnership and alliance often takes the form of a supply chain, which shows the importance of the supply chain. Considering the sanctions and their consequences on the country's economy, which include difficulties in importing raw materials, increased exchange rates, higher prices, inflation, economic recession, and higher production costs, it is essential to identify effective factors in optimizing the financial supply chain. This article aims to improve the financial efficiency of the supply chain and, in fact, reduce the volume of working capital of buyers and suppliers in the home appliance industry. For this purpose, the factors were identified using a descriptive method and by reviewing books and articles in the field of supply chain management. Then, using the opinions of experts, the primary and effective factors were selected using the Delphi Method. The results of this study showed that the factors effective in optimizing the financial performance of the financial supply chain include Operational risk, the threat of price fluctuations, exchange rate risk, futures contract risk, planning risk, the need to increase working capital, severe environmental changes, uncertainty about the future, exchange rate fluctuations, increased production costs, stagflation, reduction in bank facilities, interest rate risk, cost transfer to other members of the chain, risk of losing customers, cost inflation, risk of non-continuity of the firm's activity, and risk of losing suppliers.

**Keywords:** Supply chain finance, Optimization, Improved performance, Home appliance assembly industry.

## 1 | Introduction

Today, companies have recognized that optimizing operations within their own four walls is no longer sufficient to achieve business excellence. To improve performance, they need the participation of suppliers in improving quality, on the one hand, and meeting customer demands, on the other. This participation and alliance is often crystallized in the form of a supply chain. The breadth and importance of this concept are

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such that its capabilities and benefits can also be used to integrate and increase the efficiency of service processes. The use of supply chain management leads to cost reduction, an active response to customer needs, better resource utilization, and improved process efficiency. These financial resources and capital needed by enterprises can be provided in various ways. Obviously, if this capability is formed within the framework of communication and interactions between different businesses along a chain, it can create much more value for the chain [1]. Accordingly, the financial supply chain includes all processes and transactions that directly affect the financial flow and capital structure. The financial supply chain begins with the selection of the supplier or buyer of financial resources and extends to the payment process, information analysis, and financial forecasting. While the product supply chain focuses on purchasing, logistics, production, and marketing issues [2]. In fact, the financial supply chain refers to the set of available solutions required to provide goods and services from the initial production to the final delivery, encompassing the entire supply chain. The purpose of supply chain financing is to improve the financial efficiency of the chain and, in fact, reduce the volume of working capital of buyers and suppliers. Supply chain financing helps to extend the repayment period for buyers and enables suppliers to obtain better financing rates [3].

The home appliance industry is one of the active industries in the global economy, and its growth and decline are largely dependent on the economic conditions of the countries in which it operates. This industry is important because it is related to many industries. The life of this industry and its expansion, considering its extensive economic aspects such as employment and value-added creation, can be an important goal for any country, but the life of this industry is largely related to the situation of the domestic market, or rather, the existence of effective demand in the country. Currently, in our country, Iran, there are 1,564 production units in this industry, which creates direct and indirect employment in their field of activity. Additionally, these units will expand the scope of job creation through other related industries, such as steel and petrochemicals, within the country's economic system. However, after the recent return of sanctions and severe fluctuations in the foreign exchange market, given the assembly nature of this industry, especially in the field of electrical and gas household appliances, manufacturers have faced difficulties in obtaining raw materials for production.

On the other hand, we are now in a situation where, according to government policies, the import of household appliances into the country is prohibited, and allocating working capital to increase current production capacities is one of the most important demands of manufacturers. In addition to the above, economic recession, sanctions, and transportation problems have also created numerous problems in the supply chain of these companies, especially in the field of financing. It is evident that the current economic conditions, limited financial resources, and complex financing methods have led to trade flows and widespread financial pressures on industries active in this field, as well as other supply chain organizations, such as distribution networks, suppliers, and customers. Therefore, given the special importance of financial services, designing a holistic system to examine all aspects of the financing issue is essential. This system, which has complex details and numerous stakeholders, is subject to the participation of various role players in its development.

## 2 | Research Literature

In any business, financial resources and capital are considered one of the most important factors of production. Entrepreneurs and investors need to provide the necessary capital and appropriate financing to produce their products or provide their services. Kristofik et al. [1] argued that the need for financing arises from the fact that, first, the value of the company's capital changes due to external factors such as exchange rates, inflation, and bank interest rates. Second, the operational mechanisms of companies create a need for funds to purchase new assets, expand factory capacity, hire new workers, and acquire raw materials, all of which are presented in the form of financial resources [4]. Therefore, the financing strategy in companies is a crucial topic for financial and accounting scientists, and one of the primary goals of financing is to invest in companies to achieve greater profitability. Accordingly, among industrialists, efficient cash flow management has been accepted as a mechanism for improving performance [5]. Cash flow management is a vital strategy employed by many companies [6]. Therefore, supply chain cash flow management enables companies to gain

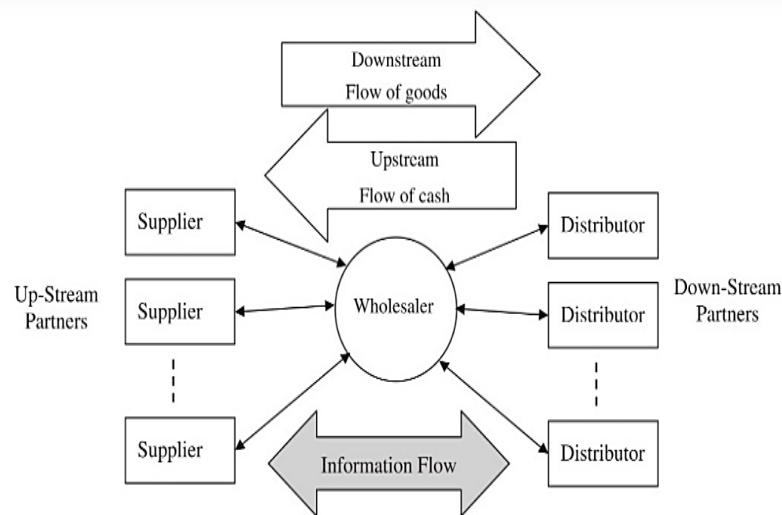
a holistic view of the chain and optimize their financial processes. In other words, supply chain financial management deals with how to optimize the company's "Working capital" by managing "Accounts payable, accounts receivable, cash and risk." [1] Therefore, improving cash flow while reducing the need for firms to work capital will decrease the demand for bank facilities to provide liquidity and working capital. This approach leads to cost savings and creates more investment opportunities for all members of the supply chain [7]. In fact, today, organizations, due to the increasing size of their supply chains and the complexity of their operations, have new and specific needs for financial transactions and working capital management within their enterprises. They are seeking new solutions that enhance accountability and responsiveness, transparency, efficiency, cost optimization, and liquidity in their supply chains [8]. The first formal definition of supply chain finance was presented, according to which the main feature of supply chain finance is the integration of financial flows into the supply chain of physical goods. Thus, supply chain finance can be described as one of the essential components. The following are the most important definitions of supply chain finance, as outlined in *Table 1*.

**Table 1. Definitions of the financial supply chain.**

Definitions of Financial Supply Chain	Opinionated
The supply chain financing approach relies on collaboration between stakeholders in the supply chain and typically results in reduced debt costs, reduced working capital in the supply chain, and new opportunities to obtain loans for all chain members, especially weak supply chain players.	Gelsomino [9]
Supply chain finance combines capital provided by financial institutions, third-party vendors, or the company itself with a technology platform that electronically connects trading partners and financial institutions and prepares financing solutions based on supply chain contingencies.	Popa et al. [10]
Supply chain financing refers to a set of financial instruments used to provide working capital required for end-to-end supply chain processes, which can be provided through banks, buying organizations, suppliers, and other financial institutions.	Jing [11]
Supply chain finance is defined as an effort aimed at optimizing financial flows through solutions implemented by financial institutions or technology providers.	Lamoreaux [12]
Supply chain financing is defined as a decision between companies to finance and integrate financing processes with users, suppliers, and service providers to increase the value of all participating companies.	Pfohl and Gomm [13]
It places supply chain finance at the intersection of logistics, supply chain management, and finance and defines it as an approach for two or more organizations in a supply chain, including external service providers, to jointly create value by planning, directing, and controlling the flow of financial resources at an inter-organizational level.	Hoffman [14]

Based on the above definitions, it is emphasized that supply chain finance consists of a set of techniques, approaches, and financial tools that are used to optimize transactions, working capital, and costs throughout the supply chain, from product design to after-sales service management and all stages of planning, procurement, logistics, production, warehouse management, and distribution [15]. Therefore, supply chain finance aims to drive supply chain development, mitigate risk, and create value by optimizing operational performance related to the organization of financial resources. Thus, supply chain finance aims to develop opportunities and facilities for all elements of the supply chain, providing conditions in which all parties to the transaction benefit from its benefits, thereby increasing the working capital of the entire chain [16]. Because the primary task of SCF is to reduce the cost of capital through integrated partner relationships and advanced financing activities within the supply chain [18], reducing financing costs and optimizing cash flow in the supply chain can be considered a key function of SCF [17]. Therefore, it can be said that supply chain finance, as a combination of models, strategies, and services focusing on collaboration, inventory optimization, and reduction of working capital needs, helps optimize financial performance and control working capital [9].

Gobetta and Datta [18] also believe that each supply chain is composed of two or more separate organizations that are interconnected through the flow of materials, information, and money. Thus, organizations can be suppliers of raw materials, manufacturers, wholesalers, distributors, transportation companies, retailers, banks, financial institutions, and trading partners. *Fig. 1* shows an example of supply chain flows.



**Fig 1. Supply chain flows [18].**

### 3 | Key components of Optimization in the Financial Supply Chain

Financing methods for the continuation of activities and the implementation of profitable projects are highly effective in the process of company growth, ensuring the survival of companies in today's competitive world [15]. Financing affects companies in various aspects of their activity and growth and is considered an essential factor influencing the company's profit and performance. Financing methods should economically prevent the uncompetitive increase in product costs and provide the expected return on investment. Financially, it is better to mitigate financial and liquidity risks by increasing liquidity and working capital, thereby ensuring the continuation of activities in line with the company's desired return [19]. Accordingly, the most important features and capabilities of the financial supply chain, which, from the perspective of experts, can be effective in improving performance, are briefly stated in *Table 2*.

**Table 2. Effective components in the financial supply chain.**

Key Components of the Financial Supply Chain	Researchers
Suppliers, delivery, customer service, inventory costs and logistics	Gunaskaran [20]
Risk management, cost control	Huo et al. [21]
Operational system responsiveness, logistics process, supply network responsiveness	Li et al. [22]
Cash flow risk, cash conversion cycle	Tassi et al. [23]
Purchase-payment cycle, order and payment cycle of business processes	Guta [24]
Internal information sharing, supplier information sharing, customer information sharing, and competitive capability	Kim [25]
Information sharing, competitiveness, and customer service	Oghazi [26]
The need for inter-organizational and inter-sectoral cooperation in credit guarantees, eliminating paperwork, implementing automated systems, and making changes to trade finance tools	Gamidullaeva [27]
Supply stability, risk management, and cost control	Oghazi [28]
Risk management, working capital management, cost control	Sridharan [29]
The win-win approach in the supply chain, accounts receivable, accounts payable	Popa [10]
Higher level of supply chain management practices and supply chain accountability	Grim [30]
Information system flexibility, information system efficiency, supply chain performance	Solà et al. [31]
Information management (close relationships and internal information sharing) and relationship management (customer and supplier information sharing)	Shojaei [32]

The characteristics of supply chain finance indicate that the success of providing supply chain finance and the production and distribution operations of this chain complement and involve each other. A robust supply chain finance provides the necessary platforms for investing in new production processes, equipment, and innovative products, as well as expanding into new markets [33].

Based on this, Supply chain finance is a management process that integrates business operations with financial management solutions to closely connect buyers, sellers, logistics service providers, and financial institutions with the ultimate goal of achieving cash flow and integrated supply chain operations. Believes that the idea of supply chain finance focuses on the set of tools available to management to create value by reducing financial costs and creating a supply chain with less supply risk. This idea is well expressed in *Fig. 2*



**Fig 2. The idea of a financial supply chain.**

In general, supply chain finance aims to drive supply chain development by mitigating risk and creating value through optimized operational performance related to the organization of financial resources. Therefore, the ultimate goal of supply chain finance is to optimize the company's investment, encompassing both profit and liquidity, across the entire supply chain for various periods [34].

## 4 | Empirical Background of the Research

The following is a summary of foreign and domestic research conducted in the field of financial supply chain, briefly presented in *Table 3*.

**Table 3. External and internal empirical background of the financial supply chain.**

Researcher	The Title of the Research	Research Achievements
Jia et al. [35]	Providing an integrated conceptual framework of supply chain finance: An information processing perspective	Financial supply chain providers can improve information processing capacity by establishing some mechanisms (Such as organizational structure design, coordination and control, and information technology). Meanwhile, the fit between the information processing needs of financial supply chain providers and their capacity can improve the ability of the financial supply chain.
De Boer [36]	Evaluating theoretical concepts for supply chain and merger finance: A Scottish focus group	The findings show that there is supporting evidence for using agency theory, network theory, transaction cost economics, and social exchange theory as theoretical frameworks to study supply chain financing phenomena. The results also suggest that the agency theory-based conceptualization should be expanded with the "Reverse principal factor theory" to adapt to the possible conditions of supply chain financing.



Table 3. Continued.

Researcher	The Title of the Research	Research Achievements
Tseng et al. [37]	Improving the benefits and costs of sustainable supply chain investments under uncertainty	Sustainable supply chain financing improves the competitive advantages of companies through several features, which show that collaborative value innovation, strategic competitive advantage, and financial features are the most used. Also, to create a successful sustainable supply chain investment, companies should promote the coordination of financial decisions, obtain price and cost information, focus on product and service quality, and ensure the dispersion of inter- and inter-sectoral interactions.
Briot et al. [38]	The impact of financing mechanisms on supply chain sustainability and efficiency	They examined two financing mechanisms based on the transaction, namely the retailer's Advanced Payment (AP) model, in which the downstream retailer pays the upstream supplier within a certain period of time, and the Reverse Factoring (RF) model, in which the downstream retailer cooperates with and encourages the bank to provide a loan to the upstream supplier.
Wahdan and Emam [39]	The impact of supply chain management on financial performance and financial accountability	Supply chain management has a significant impact on financial performance because it increases productivity, reduces costs, and consequently improves profitability.
Cullen et al. [40]	Information technology is a key strategy for efficient supply chain management	Information and communication technology affects supply chain performance; the use of information and communication technology facilitates the use of information resources and avoids delays. Thus, in addition to reducing costs, it also increases customer satisfaction and the overall competitiveness of the organization.
Fokerdi and Thalaverdi [41]	Cash flow optimization in the pharmaceutical supply chain: A supply risk approach	These researchers contributed to the development of the research literature by introducing systematic reputation risk into the issue of determining the sequence of payment of invoices. Their proposed approach, which models one of the common risks in supply chains, helps strengthen the position of financial managers in improving the competitiveness of companies within the supply chain.
Nasseri et al. [42]	Dynamic modeling of sustainable supply chains from a financial perspective: a system dynamics approach	With the increase in company size, which indirectly leads to increased demand, and also with increased government support, the volume of production has increased, which ultimately leads to an increase in sustainable design and sustainable procurement. These two variables, along with increased technology and increased sustainable distribution, increase the sustainable development of the supply chain, which leads to increased profitability.
Farhadi [43]	Identifying and prioritizing factors affecting the evaluation of supply chain management with a mixed approach in industries	Factors affecting the evaluation of financial supply chain management are eight general themes: speed of delivery, compliance with regulations, supply chain efficiency, senior management support, accountability, information technology, supply chain costs, and reliability.
Bavarsad et al. [44]	Investigating the impact of supply chain management practices on financial performance	Supply chain management practices have a positive and significant impact on supply chain responsiveness, competitive advantage, and financial performance, and supply chain responsiveness has a positive and significant impact on competitive advantage, and competitive advantage has a positive and significant impact on financial performance.

Table 3. Continued.

Researcher	The Title of the Research	Research Achievements
Seddiqi and Riahi [45]	Evaluating the impact of supply chain cash flow management on the performance of listed companies	The receivables collection period, the goods turnover period, and the operations turnover period have a significant and negative effect on the performance of companies, and company managers can improve the company's performance by adopting measures and policies in the field of supply chain financial flow. However, the creditors' deposit period and the cash conversion period did not have a significant effect on performance.
Motiee [46]	Presenting a model for financing the buyer and supplier in the supply chain of Mehrvarzan Health Products Distribution Company	There is a positive and significant relationship between all dimensions of financing strategy, buyer-supplier financing, and buyer-supplier information sharing with financing performance, which indicates the direct and indirect impact of the company's financing strategy, buyer-supplier information sharing on buyer-supplier financing performance.
Fathollah and Najafi [47]	Developing a supply chain financial management model and chain financing	The main goal of using supply chain finance is to save capital costs by integrating relationships between supply chain partners and using the latest financing tools for them. Also, currently, banks are the most important financial service providers who can design and provide tailored services to customers with a proper understanding of supply chains.
Tseng et al. [37]	The impact of supply chain management processes on competitive advantage and organizational performance	The effect of supply chain management processes on competitive advantage and organizational performance from the perspective of members of the supply chain of Iran Khodro Parts Design and Supply Company (SAPCO) was investigated using structural equations. The results of the study showed that supply chain management processes have a positive and significant effect on competitive advantage.

## 5 | Findings

The findings were made by studying texts and articles, identifying the factors affecting the financial supply chain, and then using experts through the Delphi method; the most important factors in the financial supply chain were selected, which are stated in *Table 4*:

Table 4. Factors affecting financial supply chain risk management.

	Texts Studied	Effective Factors	Sources Used
1	The logistics activities of supply chain companies are exposed to commodity price risk and exchange rate risk. Companies can use futures contracts to offset these risks. Therefore, each company must optimize its operations and financial hedging decisions.	Price volatility threat Exchange rate risk Futures risk Operational risk	Liu and Wan [48]
2	Changing environmental factors have increased uncertainty and risk in planning and operations and, consequently, the efficiency of these companies.	Severe environmental changes Uncertainty about the future Planning risk	Azizi Youssefvand et al. [49]
3	Stagflation with the characteristics of an increase in the exchange rate, on the one hand, increases the need for working capital by production units due to increased production costs, and on the other hand, as the probability of a firm's default increases in stagflation conditions, the willingness of banks to provide working capital facilities will also decrease.	Exchange rate fluctuations Increasing production costs Stagflation Reduced bank facilities Interest rate risk Need to increase working capital	Purwanto [50]

## 6 | Discussion and Results

Sanctions and their consequences on the country's economy, with the difficulty of importing raw materials, increasing exchange rates, increasing prices, inflation, economic recession, and rising production costs, have caused manufacturers to face numerous problems in developing the quantity and quality of their products, especially in the field of financing the supply chain of their products. For this purpose, in order to optimize the financial performance of the supply chain in the home appliance industry, effective and important factors were identified using the Delphi Method. These factors include operational risk, threat of price fluctuations, exchange rate risk, futures contract risk, planning risk, need for increased working capital, severe environmental changes, uncertainty about the future, exchange rate fluctuations, increased production costs, stagflation, reduction in bank facilities, interest rate risk, cost transfer to other members of the chain, risk of losing customers, cost inflation, risk of discontinuity of the firm's activity, and risk of losing suppliers. Therefore, paying serious attention to these factors can make the industry under study less vulnerable and, in addition to its durability, perform better in the supply chain and compared to competitors in this competitive industry environment. Therefore, according to the results obtained and based on the identified components, proposed suggested strategies to optimize the financial performance of the supply chain in the home appliance assembly industry, integrating the cash flow of the physical and informational supply chain of home appliance assembly companies; optimizing liquidity with a focus on working capital; creating and strengthening databases related to financial data and physical resources, as well as increasing the speed of response to customers and other company stakeholders. In addition, each industry, considering its characteristics (Technology, required financial and human resources, necessary skills and expertise, customers, competitors, etc.), requires optimizing the financial supply chain in accordance with its situation. In this regard, one of the innovative aspects of this research is the identification of effective factors in optimizing the financial supply chain for home appliance assembly industries in the country.

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## Conflict of Interest

The authors declare that they have no conflict of interest regarding the publication of this manuscript.

## Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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## References

- [1] Kristofik, P., Kok, J., de Vries, S., & van Sten-van't Hoff, J. (2012). Financial supply chain management-- Challenges and obstacles. *Proceedings in finance and risk perspectives*, 12. <https://books.google.com/books>
- [2] Fathi, S., & Najafian, M. (1392). A review of financial position in bankruptcy prediction studies. *The sixth conference on the development of the financing system in Iran*. Civilica. **(In Persian)**. <https://civilica.com/doc/293491>.
- [3] Murray, J. Y., Gao, G. Y., & Kotabe, M. (2011). Market orientation and performance of export ventures: the process through marketing capabilities and competitive advantages. *Journal of the academy of marketing science*, 39, 252–269. <https://doi.org/10.1007/s11747-010-0195-4>



- [4] Mohammadi, M., Aslani, F., & Seydi Ghahfarkhi, F. S. (2020). Public sector financial management for Isfahan province development projects with multiple criteria. *Asset management and financing*, 8(4), 101-116. (In Persian). [https://amf.ui.ac.ir/article\\_24810.html](https://amf.ui.ac.ir/article_24810.html)
- [5] Ebben, J. J., & Johnson, A. C. (2011). Cash conversion cycle management in small firms: Relationships with liquidity, invested capital, and firm performance. *Journal of small business & entrepreneurship*, 24(3), 381-396. <https://doi.org/10.1080/08276331.2011.10593545>
- [6] Quinn, M. (2011). Forget about profit, cash flow is king. *Wall street journal*, 2(3), 2-16. <https://www.wsj.com/articles/SB10001424052970204524604576609740825745286>
- [7] Wuttke, D. A., Blome, C., & Henke, M. (2013). Focusing the financial flow of supply chains: An empirical investigation of financial supply chain management. *International journal of production economics*, 145(2), 773-789. <https://doi.org/10.1016/j.ijpe.2013.05.031>
- [8] Hosseini, S. M., & Darvish Motavali, M. H. (2016). Cement industry supply chain performance using data overlay. *Management, quantitative studies in*, 7(25), 41-64 (In Persian). [https://journals.iau.ir/article\\_702059.html?lang=en](https://journals.iau.ir/article_702059.html?lang=en)
- [9] Gelsomino, L. M., Mangiaracina, R., Perego, A., & Tumino, A. (2016). Supply chain finance: a literature review. *International journal of physical distribution & logistics management*, 46(4). <https://doi.org/10.1108/IJPDLM-08-2014-0173>
- [10] Popa, V. (2013). The financial supply chain management: a new solution for supply chain resilience. *Amfiteatru economic journal*, 15(33), 140-153. <https://www.econstor.eu/handle/10419/168782>
- [11] Jing, B., & Seidmann, A. (2014). Finance sourcing in a supply chain. *Decision support systems*, 58, 15-20. <https://doi.org/10.1016/j.dss.2013.01.013>
- [12] Lamoureux, J. F., & Evans, T. A. (2011). Supply chain finance: a new means to support the competitiveness and resilience of global value chains. *Available at ssrn 2179944*, 289-311. <https://papers.ssrn.com/sol3/Delivery.cfm?abstractid=2179944>
- [13] Pfohl, H. C., & Gomm, M. (2009). Supply chain finance: optimizing financial flows in supply chains. *Logistics research*, 1, 149-161. <https://doi.org/10.1007/s12159-009-0020-y>
- [14] Hofmann, E. (2005). Supply chain finance: some conceptual insights. *Beiträge zu beschaffung und logistik*, 16(1), 203-214. <https://doi.org/10.1007/978-3-658-03815-1>
- [15] Amador-Torres, J. S. (2017). Finance-neutral potential output: An evaluation in an emerging market monetary policy context. *Economic systems*, 41(3), 389-407. <https://doi.org/10.1016/j.ecosys.2016.09.003>
- [16] Wuttke, D. A., Blome, C., Heese, H. S., & Protopappa-Sieke, M. (2016). Supply chain finance: Optimal introduction and adoption decisions. *International journal of production economics*, 178, 72-81. <https://doi.org/10.1016/j.ijpe.2016.05.003>
- [17] Fairchild, A. (2005). Intelligent matching: integrating efficiencies in the financial supply chain. *Supply chain management: an international journal*, 10(4), 244-248. <https://doi.org/10.1108/13598540510612703>
- [18] Gupta, S., & Dutta, K. (2011). Modeling of financial supply chain. *European journal of operational research*, 211(1), 47-56. <https://doi.org/10.1016/j.ejor.2010.11.005>
- [19] Shafiei, A., & Mirabi, V. R. (2020). Design and validation of financing models in large steel industry companies, 14(51), 83-114. [https://journals.iau.ir/article\\_676926.html](https://journals.iau.ir/article_676926.html)
- [20] Gunasekaran, A., Patel, C., & Tirtiroglu, E. (2001). Performance measures and metrics in a supply chain environment. *International journal of operations & production management*, 21(1/2), 71-87. <https://doi.org/10.1108/01443570110358468>
- [21] Huo, S. X., Liu, X. M., Ge, C. H., Gao, L., Peng, X. M., Zhao, P. P., & Yan, M. (2014). The effects of galangin on a mouse model of vitiligo induced by hydroquinone. *Phytotherapy research*, 28(10), 1533-1538. <https://www.cabidigitallibrary.org/doi/full/10.5555/20143363230>
- [22] Li, S., Rao, S. S., Ragu-Nathan, T. S., & Ragu-Nathan, B. (2005). Development and validation of a measurement instrument for studying supply chain management practices. *Journal of operations management*, 23(6), 618-641. <https://doi.org/10.1016/j.jom.2005.01.002>
- [23] Tsai, C. Y. (2008). On supply chain cash flow risks. *Decision support systems*, 44(4), 1031-1042. <https://doi.org/10.1016/j.dss.2007.12.006>

- [24] G Guta, A., Nixon, S. A., & Wilson, M. G. (2013). Resisting the seduction of "ethics creep": Using Foucault to surface complexity and contradiction in research ethics review. *Social science & medicine*, 98, 301–310. <https://doi.org/10.1016/j.socscimed.2012.09.019>
- [25] Wook Kim, S. (2006). The effect of supply chain integration on the alignment between corporate competitive capability and supply chain operational capability. *International journal of operations & production management*, 26(10), 1084–1107. <https://doi.org/10.1108/01443570610691085>
- [26] Oghazi, P. (2009). *Supply chain management: an empirical study on Swedish manufacturing firms enterprise systems adoption, supply chain integration, competition capability and performance*. [thesis PhD]. <https://www.diva-portal.org/smash/record.jsf?pid=diva2%3A991302&dswid=2047>
- [27] Gamidullaeva, L., Tolstykh, T., Bystrov, A., Radaykin, A., & Shmeleva, N. (2021). Cross-sectoral digital platform as a tool for innovation ecosystem development. *Sustainability*, 13(21), 11686. <https://doi.org/10.3390/su132111686>
- [28] He, M., Ren, C., Shao, B., Wang, Q., & Dong, J. (2010). Financial supply chain management. *Proceedings of 2010 IEEE international conference on service operations and logistics, and informatics* (pp. 70-75). IEEE. <https://doi.org/10.1109/SOLI.2010.5551613>
- [29] Sridharan, K., Drelich, M., & Huffman, E. (2011). Trends in the perception of industry-related medical publications. *Plast. reconstr. surg*, 127(2496). <https://doi.org/10.1113/jphysiol.2011.221879>
- [30] Grim, G. P., Guler, N., Merrill, F. E., Morgan, G. L., Danly, C. R., Volegov, P. L., ... others. (2013). Nuclear imaging of the fuel assembly in ignition experiments. *Physics of plasmas*, 20(5). <https://doi.org/10.1063/1.4807291>
- [31] Solà, A. L., & Bordera, E. P. (2014). Crisi, repressió i endeutament municipal: Bellpuig i la seva baronia durant la Guerra de Successió. *Urtx: revista cultural de l'urgell*, (28), 21–39. <https://raco.cat/index.php/Urtx/article/view/284406>
- [32] Shojaei, S. (2016). Factors affecting the improvement of supply chain management performance using the analytic hierarchy process in the food industry. *Two quarterly journals of value chain management*, 1(2), 1–16. [https://journals.iau.ir/article\\_650407.html](https://journals.iau.ir/article_650407.html)
- [33] Khatami Firouzabadi, S. M. A., Moradi, H., & Feizi, K. (2021). Provide a mathematical model for financing small and medium-Sized Manufacturing Enterprises (SMEs) in the supply chain. *Industrial management studies*, 19(61), 33–64. <https://doi.org/10.22054/jims.2021.49211.2429>
- [34] Zhu, Y., Zhou, L., Xie, C., Wang, G. J., & Nguyen, T. V. (2019). Forecasting SMEs' credit risk in supply chain finance with an enhanced hybrid ensemble machine learning approach. *International journal of production economics*, 211, 22–33. <https://doi.org/10.1016/j.ijpe.2019.01.032>
- [35] Jia, F., Blome, C., Sun, H., Yang, Y., & Zhi, B. (2020). Towards an integrated conceptual framework of supply chain finance: An information processing perspective. *International journal of production economics*, 219, 18–30. <https://doi.org/10.1016/j.ijpe.2019.05.013>
- [36] De Boer, R., Dekkers, R., Gelsomino, L. M., de Goeij, C., Zhou, M. S. Q., Sinclair, S., & Souter, V. (2017). *Towards a theory of supply chain and finance using evidence from a scottish focus group* [presentation]. 24th international conference on production research, poznan. selection and peer-review under responsibility of the organizing committee of the conference eissn (pp. 1330–2357). <https://www.researchgate.net>
- [37] Tseng, M. L., Lim, M. K., & Wu, K. J. (2019). Improving the benefits and costs on sustainable supply chain finance under uncertainty. *International journal of production economics*, 218, 308–321. <https://doi.org/10.1016/j.ijpe.2019.06.017>
- [38] Briot, K., Roux, C., Thomas, T., Blain, H., Buchon, D., Chapurlat, R., ... others. (2018). 2018 update of French recommendations on the management of postmenopausal osteoporosis. *Joint bone spine*, 85(5), 519–530. <https://doi.org/10.1016/j.jbspin.2018.02.009>
- [39] Wahdan, M., & Emam, M. (2017). The impact of supply chain management on financial performance and responsibility accounting agribusiness case from egypt. *Accounting and finance research*, 6, 11014. <http://dx.doi.org/10.5430/afr.v6n2p136>
- [40] Cullen, T., Hatch, J., Martin, W., Higgins, J. W., & Sheppard, R. (2015). Food literacy: definition and framework for action. *Canadian journal of dietetic practice and research*, 76(3), 140–145. <https://dcjournal.ca/doi/abs/10.3148/cjdpr-2015-010>

- [41] Foukerdi, R., & Talavari, Z. (2021). Cash flow optimization in medicine supply chain: a supply risk approach. *Journal of industrial management perspective*, 11(1), 117–145. <https://doi.org/10.52547/jimp.11.1.117>
- [42] Amin Naseri, F., Khurdiar, S., Tahmasebi Amin, H., & Chirani, E. (2021). Dynamic modeling of sustainable supply chain from a financial perspective: a system dynamics approach. *Investment knowledge quarterly*, 79–102. **(In Persian)**. <https://www.magiran.com/p2323796>
- [43] Farhadi, S., Sohrabi, M. R., Motiee, F., & Davallo, M. (2021). Organophosphorus diazinon pesticide removing from aqueous solution by zero-valent iron supported on biopolymer chitosan: RSM optimization methodology. *Journal of polymers and the environment*, 29, 103–120. <https://link.springer.com/article/10.1007/s10924-020-01855-z>
- [44] Bavarsad, B., Ahmadabadi, M. N., Molla-Alizadeh-Zavardehi, S., & others. (2021). Prioritizing the Effective Capital Components in the Agricultural Sector by Fuzzy Analytical Hierarchy Process. *International journal of agricultural science, research & technology (IJASRT)*, 11(2). <https://openurl.ebsco.com>
- [45] Seddiqi, R., & Riahi, M. (2017). Evaluation of cash flow management performance in companies listed on the Tehran Stock Exchange. *Empirical studies of financial accounting*, 14(56), 133–154. **(In Persian)**. [https://qjma.atu.ac.ir/article\\_8782.html](https://qjma.atu.ac.ir/article_8782.html)
- [46] Motiee, M., Etrat Doost, M., & Soltani, M. (2020). Discourse on the currents of enemies' cultural-intellectual influence In the age of Amir al-Momenin Ali (AS)... *Researches of quran and hadith sciences*, 17(4), 175–212. <https://doi.org/10.22051/tqh.2020.30104.2757>
- [47] Fathollah, M., & Najafi, M. (2017). Development of financial supply chain management and supply chain finance model. *Journal of industrial engineering research in production systems*, 4(9), 257–269. [https://ier.basu.ac.ir/article\\_1814.html](https://ier.basu.ac.ir/article_1814.html)
- [48] Liu, Z., & Wang, J. (2019). Supply chain network equilibrium with strategic financial hedging using futures. *European journal of operational research*, 272(3), 962–978. <https://doi.org/10.1016/j.ejor.2018.07.029>
- [49] Azizi Yousefvand, R., Nahavandi, N., & Farnadi, G. (2017). Investigating the effect of supply chain management on the efficiency of pharmaceutical manufacturing companies. *International journal of industrial engineering and production management (persian) (international journal of engineering sciences)*, 28(1), 137–119. <https://www.sid.ir/paper/357645/fa>
- [50] Purwanto, Y., Sarbini, A., Abdullah, J., & Qadafi, A. (2019). Salman mosque as a center of Islamic da'wah and spiritual laboratory for campus community. *Ilmu dakwah: academic journal for homiletic studies*, 13(1), 1–24. <https://doi.org/10.15575/idajhs.v13i1.5839>