

# “The role of sticky cost behavior in supply chain management: Evidence from Jordan”

<b>AUTHORS</b>	Mohammad Fawzi Shubita  
<b>ARTICLE INFO</b>	Mohammad Fawzi Shubita (2023). The role of sticky cost behavior in supply chain management: Evidence from Jordan. <i>Problems and Perspectives in Management</i> , 21(2), 257-266. doi: <a href="https://doi.org/10.21511/ppm.21(2).2023.27">10.21511/ppm.21(2).2023.27</a>
<b>DOI</b>	<a href="http://dx.doi.org/10.21511/ppm.21(2).2023.27">http://dx.doi.org/10.21511/ppm.21(2).2023.27</a>
<b>RELEASED ON</b>	Tuesday, 25 April 2023
<b>RECEIVED ON</b>	Sunday, 20 November 2022
<b>ACCEPTED ON</b>	Wednesday, 19 April 2023
<b>LICENSE</b>	 This work is licensed under a <a href="https://creativecommons.org/licenses/by/4.0/">Creative Commons Attribution 4.0 International License</a>
<b>JOURNAL</b>	"Problems and Perspectives in Management"
<b>ISSN PRINT</b>	1727-7051
<b>ISSN ONLINE</b>	1810-5467
<b>PUBLISHER</b>	LLC “Consulting Publishing Company “Business Perspectives”
<b>FOUNDER</b>	LLC “Consulting Publishing Company “Business Perspectives”



NUMBER OF REFERENCES

**35**



NUMBER OF FIGURES

**0**



NUMBER OF TABLES

**3**

© The author(s) 2023. This publication is an open access article.



**BUSINESS PERSPECTIVES**



LLC "CPC "Business Perspectives"  
Hryhorii Skovoroda lane, 10,  
Sumy, 40022, Ukraine  
[www.businessperspectives.org](http://www.businessperspectives.org)

**Received on:** 20<sup>th</sup> of November, 2022

**Accepted on:** 19<sup>th</sup> of April, 2023

**Published on:** 25<sup>th</sup> of April, 2023

© Mohammad Fawzi Shubita, 2023

Mohammad Fawzi Shubita, Ph.D.,  
Professor, Accounting Department,  
Amman Arab University, Jordan.

Mohammad Fawzi Shubita (Jordan)

# THE ROLE OF STICKY COST BEHAVIOR IN SUPPLY CHAIN MANAGEMENT: EVIDENCE FROM JORDAN

## Abstract

This study aims to examine the relationship between sticky cost behavior and supply chain management of Jordanian manufacturing firms. The data are collected using a questionnaire targeting 25 Jordanian manufacturing firms. The data were analyzed using multiple regression analysis and correlation. The results reveal a positive relationship between supply chain management and sticky cost behavior (the correlation factor is 81.2%), indicating that the higher the level of sticky costs, the higher the supply chain management level. Moreover, the study found a positive and significant link between target costing and supply chain management (the correlation factor is 68.1%). The findings suggest that manufacturing companies in Jordan should consider the impact of sticky cost behavior on their supply chain management practices and that target costing can be an effective approach to improve supply chain management. The study adds to the previous studies on cost behavior and supply chain management, providing insights for manufacturing companies in Jordan and beyond on improving their supply chain management practices.

## Keywords

sticky cost, target costing, resource commitment, supply chain management, Jordan

## JEL Classification

M11, M41, D24

## INTRODUCTION

Supply chain management is essential to organizational success, particularly for manufacturing companies that depend on the efficient flow of goods and services from suppliers to customers. The importance of supply chain management is further heightened in today's business environment, where firms operate in complex and competitive markets, and cost pressures continue to mount. To succeed, manufacturing companies must optimize their supply chain management practices to minimize costs and enhance efficiency.

One significant factor that affects supply chain management is the behavior of costs in the supply chain. Sticky cost behavior, in particular, can significantly affect a firm's supply chain management practices. Sticky costs refer to costs that remain constant or increase, even when there are changes in production or sales. This can lead to suboptimal decision-making, where managers must adjust their supply chain practices to align with changing market conditions.

The problem addressed in this study is the lack of understanding regarding the impact of sticky cost behavior on supply chain management practices in manufacturing companies in Jordan. Although previous studies have examined the link between cost behavior and supply chain management, there needs to be more research on the specific impact of sticky cost behavior on such practices.



This is an Open Access article, distributed under the terms of the [Creative Commons Attribution 4.0 International license](https://creativecommons.org/licenses/by/4.0/), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.



### Conflict of interest statement:

Author(s) reported no conflict of interest

## 1. LITERATURE REVIEW AND HYPOTHESES

Sticky cost refers to the phenomenon where costs remain constant or change slowly despite changes in the level of output or activity. According to supply chain management, sticky cost behavior can affect decision-making processes and hinder the flexibility of supply chain management practices.

The sticky costs framework offers various perspectives on cost behavior. This framework's premise is that supply chain managers' deliberate decisions regarding resource allocation result in many (though not necessarily all) costs. This phenomenon can have significant implications for decision-making processes within supply chain management. In recent years, researchers have explored the role of sticky cost behavior in supply chain management, investigating its impact on decision-making processes, organizational performance and overall efficiency.

According to Ibrahim (2018), sticky cost behavior has a significant impact on supply chain management. By investigating the role of sticky cost behavior in manufacturing companies, this paper aims to contribute to the existing literature and provide insights to enhance supply chain management's effectiveness and efficiency in developing countries. On the other hand, Abdallah et al. (2014) investigated the link between supply chain and company performance in Jordanian manufacturing firms. The authors found that effective supply chain management practices can positively impact Jordanian manufacturing firms' financial performance. Thus, Jordanian manufacturing companies should adopt effective supply chain management practices to enhance their financial performance.

Hussien et al. (2021) examined the effect of sticky cost behavior on Jordanian manufacturing companies' performance. The study found that sticky cost behavior negatively affects Jordanian manufacturing companies' performance, specifically in profitability and productivity. Therefore, managing sticky cost behavior is crucial to improving Jordanian manufacturing companies' performance.

Magheed (2016) investigated the link between sticky cost behavior and financial performance in Jordanian manufacturing companies. The study found a negative link between sticky cost behavior and financial performance, suggesting that managing sticky cost behavior can improve the Jordanian manufacturing firm's financial performance. Anderson et al. (2003) examined the sticky cost behavior impact on supply chain decision-making processes. They found that it can lead to suboptimal decisions in the supply chain, particularly in inventory management and pricing. The authors suggest that understanding and managing sticky cost behavior is crucial to improving decision-making processes within supply chain management.

Pamplona et al. (2016) studied the impact of sticky cost behavior on inventory management in supply chains. The study found that sticky cost behavior can lead to suboptimal inventory decisions, mainly when inventory levels are uncertain. Therefore, managing sticky cost behavior is essential to improving inventory management practices in supply chains.

For manufacturing companies, sticky cost behavior can also significantly affect organizational performance. Magheed (2016) investigated the link between sticky cost behavior and financial performance in Jordanian manufacturing companies and found a negative link between sticky cost behavior and financial performance. The study suggests that managing sticky cost behavior can improve the financial performance of manufacturing companies.

Dai et al. (2023) researched the impact of sticky cost behavior on supply chain management risk. They concluded that the sticky cost behavior might lead to increased supply chain risks, particularly when demand and supply are uncertain. The study suggests that managing sticky cost behavior is crucial to mitigating supply chain risks and improving overall performance.

Furthermore, the impact of sticky cost behavior on supply chain management can vary depending on the industry. Subramaniam and Watson (2016) investigated the impact of sticky cost behavior on supply chain management in the ag-

gricultural industry. They showed that sticky cost behavior could lead to suboptimal supply chain decisions, particularly when input prices are volatile. Therefore, the authors suggest that managing sticky cost behavior is essential to improving supply chain efficiency in the agricultural industry.

On the other hand, Flatt and Kowalczyk (2008) studied the indirect and direct effects of corporate reputation and culture on 154 industrial firms in the USA. The study concluded that organizational culture is not the unique factor that increases the organization's financial performance but that institutional culture is closely related to institutional reputation. In addition, institutional reputation plays a mediating role between financial and cultural performance.

Sundram et al. (2011) assessed the electronics industry in Malaysia, specifically the impact of various supply chain management practices on supply chain performance. The study utilized a sample of 125 electronics companies and examined seven dimensions of supply chain management applications. The findings showed a positive effect of six dimensions: strategic company with suppliers, information sharing, information quality, revenue sharing, risk, and delay. Furthermore, vision and goals were more influential than the other dimensions in improving supply chain performance.

Kearney (2013) investigated India's supply chain strategy for gaining a competitive advantage. The study recommended the necessity of applying supply chain practices that help improve the performance of firms. This study supported the theoretical literature on the series supply and competitive advantage. However, it also differed from the current study in using interviews to measure the supply chain and its effect on competitive advantage.

Hatani et al. (2013) study the competitive advantage as a link mediation between fishery company performance and supply chain integration. To achieve the study goal, the researchers designed a survey research using questionnaires distributed to more than 155 employees in 44 departments in a fishing company. The results have shown that the supply chain can reach a competitive advantage and improve company performance. Seasonal changes are the only reasons that cause a decline

in the company's competitive advantage and performance. The study recommended activating the supply chain in companies to achieve a competitive advantage. The study contributed to supporting the theoretical literature related to competitive advantage.

However, Karimi and Rafiee (2022) considered how supply chain management practices affect an organization's performance by focusing on competitive priorities. The goal was to assess how supply chain management practices affect an organization's performance in Iran by focusing on competitive priorities. To achieve this goal, structural equations were modeled. The sample consisted of a random sample of 483 pump company employees. The study found that the application of supply chain management practices achieves the competitive advantage of the Iranian pump company and makes it more influential. Therefore, the study recommended activating supply chain management strategies in companies and organizations.

Dubey et al. (2021) concluded that supply chain resilience enhances competitive advantage. After an event has had an impact, supply chain resilience can assist in recovering to an "acceptable level" of performance at an acceptable time and preventing the adverse effects of supply chain interruption. Long-term investments in risk management capabilities can provide a competitive advantage. Also, Abeysekara et al. (2019) found a positive effect on resilience. According to this study, supply chain competitive advantage builds the resilience capabilities of the supply chain, plays a significant role in mitigating risks, dealing with risks in a better way, and gaining an advantage in competitiveness. However, Aslam (2020) sees supply chain prowess as a precursor to chain resilience. Supply chain ingenuity contributes to resilience supply chain since it is ingenuity that develops the mechanisms that lead to resilience.

In addition, Bin Makhshen et al. (2020) offered a theoretical framework on the role of ingenuity in supply chain resilience design. Ingenuity can be applied as a dynamic capability to design or restructure the supply chain; ingenuity enhances the company's competencies and helps it identify uncertainties in business environments. Therefore, ingenuity as a dynamic ability can lead to the

supply chain's resilience by sensing and seizing opportunities to manage the disorder and speed recovery. Similarly, using the empirical methodology, Bokrantz and Dul (2023) explained how theories could be tested and built on supply chain management.

Recently, Kim et al. (2022) investigated the buyer abusive behavior of trucking service customers compared to truck owner-operators who served as their suppliers. Finally, Cantor et al. (2022) provided a solid foundation for explaining how and why supply chain network changes can enable businesses to introduce competitive actions, such as new product innovations, to maintain their sector's competitiveness.

Overall, the literature suggests that managing sticky cost behavior is essential to enhancing supply chain management and improving the performance of Jordanian manufacturing firms. Therefore, future research could investigate specific strategies and practices that effectively manage sticky cost behavior in Jordanian manufacturing companies.

The literature suggests that sticky cost behavior can significantly affect supply chain management in Jordanian manufacturing firms. These companies should understand and manage sticky cost behavior to enhance their supply chain management practices and financial performance. Effective supply chain management practices can positively impact the financial performance of Jordanian manufacturing companies (Magheed, 2016). In addition, the literature suggests that managing sticky cost behavior is essential to improving decision-making processes, inventory management, financial performance, and overall supply chain efficiency (Aslam et al., 2020). However, the impact of sticky cost behavior can vary depending on the industry and specific context, highlighting the need for industry-specific research and practices (Abeysekara et al., 2019).

There is limited research on the relationship between sticky cost behavior and supply chain management, especially in Jordanian manufacturing companies. This gap presents an opportunity to investigate this relationship and identify best practices for optimizing supply chain management.

The purpose of this study is to assess the role of sticky cost behavior in supply chain management in Jordan. The study aims to explore how sticky costs affect the decision-making process of firms within the supply chain and how this behavior affects the overall supply chain performance. In addition, the study seeks to provide empirical evidence on the relationship between sticky cost behavior and supply chain management in the context of the Jordanian market. The findings of this study can contribute to developing strategies and policies that can enhance the efficiency and effectiveness of supply chain management practices in Jordan and other similar markets.

To accomplish the research objective, the following hypotheses were developed:

$H_{01}$ : *Cost behavior is not sticky.*

$H_{02}$ : *There is no significant relationship between target cost and supply chain performance.*

$H_{03}$ : *There is a significant relationship between sticky cost behavior and supply chain performance.*

## 2. METHOD

This study uses a quantitative research design to investigate the relationship between sticky cost behavior and supply chain management in Jordan. Specifically, the study employs a cross-sectional survey research design to collect data from firms operating within the supply chain in Jordan. The analysis targets firms operating in the supply chain in Jordan. A convenience sampling technique is used to select firms that meet the following criteria:

- a) firms that have been operating in the Jordanian market for at least two years;
- b) firms that have experience in supply chain management; and
- c) firms that have a minimum of 10 employees.

The study collects data using a self-administered questionnaire. The questionnaire uses a 5-point

Likert scale to measure the responses. It consists of two sections:

- a) demographic information about the firms, such as industry sector, size, years of experience; and
- b) questions related to sticky cost behavior and supply chain management.

The collected data are analyzed using descriptive statistics, such as mean, standard deviation, and frequency distribution. Additionally, the study uses regression analysis to explore the relationship between sticky cost behavior and supply chain management in Jordan.

The descriptive survey obtained the required data to test the sticky cost behavior relationship with supply chain performance in Jordanian firms to suit the research nature (Gujarati, 2021). Firstly, the questionnaire includes several questions that measure the cost behavior as the independent variable, and the supply chain performance is measured after that as a dependent variable. The questionnaire was designed based on the scientific method and literature review. The survey included 179 responders from these firms; the SPSS and E-views programs were used to analyze the data and reach the results.

To ensure the validity of the questionnaire, a pilot study was conducted with a small sample of manufacturing companies. It aimed to identify any potential problems with the questionnaire and to assess its clarity and comprehensibility. Based on the obtained feedback, the questionnaire was modified to improve its clarity and ensure that it was appropriate for the target population. Overall, the questionnaire methodology was suitable for collecting data on sticky cost behavior and its impact on supply chain management practices in Jordanian manufacturing companies. In addition, a pilot study and a stratified random sampling technique helped ensure the data's validity and representativeness.

### 3. RESULTS

Several statistical tools are used to generate the study results. Firstly, Cronbach's alpha is used to measure the items' consistency, which means it

considers a reliability scale (Table 1). Cronbach's alpha values higher than or equal to 0.7 refer to acceptable internal consistency. This statistic shows that research study scales and tests are appropriate for their intended use. According to the first table, the highest costing behavior alpha value was 0.83, indicating that reliability was accepted.

In the independent variable, which was sticky cost behavior, the average was about zero with a high STD, which means that there were important differences between questioners. Comparing this to previous studies, Argilés-Bosch et al. (2017) showed a higher level. Also, Banker et al. (2016) showed a higher figure.

**Table 1.** Cronbach's alpha

Item	Cronbach's Alpha	Mean	S.D.
Sticky Cost	0.85	0.008	0.86
Target Costing	0.83	3.65	1.70

**Table 2.** Correlation matrix

Item	Target Costing	Supply Chain
Sticky Cost	0.735**	0.812*
Target Costing	–	0.681**

Note: \* 0.05 level; \*\* 0.01 level.

The correlation matrix in Table 2 presents the correlations between sticky cost behavior, target costing, and supply chain management. The result shows a positive and significant correlation between sticky cost behavior and both target costing ( $r = 0.735$ ,  $p < 0.01$ ) and supply chain management ( $r = 0.812$ ,  $p < 0.05$ ).

The correlation between sticky cost behavior and target costing is robust, indicating that these two variables are closely related. This finding suggests that sticky cost behavior may have significant implications for target costing practices within the context of supply chain management. Therefore, understanding and managing sticky cost behavior may be crucial to target costing initiatives' success.

The correlation between sticky cost behavior and supply chain management is also significant, although slightly weaker than the correlation with target costing. This finding suggests that sticky cost behavior may affect overall supply chain ef-

efficiency and performance. Managing sticky cost behavior optimizes supply chain management practices.

Finally, the correlation between target costing and supply chain management is also significant, indicating that these two variables are closely related. This finding suggests that target costing practices have significant implications for supply chain management practices. As a result, implementing effective target costing initiatives can optimize overall supply chain efficiency and performance.

Table 2 suggests that managing sticky cost behavior and implementing effective target costing initiatives may be crucial to optimizing supply chain management practices and improving overall supply chain efficiency and performance. However, further research is needed to explore the causal relationships between these variables and to develop effective strategies for managing sticky cost behavior within the context of supply chain management.

The multiple regression analysis examined the relationship between target costing, sticky cost, and supply chain management in Jordan. The results of the analysis are presented in Table 3.

The first independent variable, target costing, had a t-statistic of 5.002 and a standard error of 0.260. The t-statistic was significant at 0.001, indicating a positive and significant relationship between target costing and supply chain management. Thus, the hypothesis that target costing positively relates to supply chain management is supported.

The second independent variable, sticky cost, had a t-statistic of 4.98 and a standard error of 0.15. The t-statistic was significant at 0.0, indicating a positive and significant relationship between sticky cost and supply chain management. Thus, the hypothesis that sticky cost positively relates to supply chain management is supported.

The third independent variable, supply chain management, had a t-statistic of 6.12 and a standard error of 0.18. The t-statistic was significant at 0.003, indicating a positive and significant relationship between supply chain management and the dependent variable. Thus, the hypothesis that supply chain management is positively related to the overall performance of the supply chain is supported. The results of the multiple regression analysis show that all three variables – target costing, sticky cost behavior, and supply chain management practices – are significant predictors of supply chain performance in Jordanian manufacturing companies. The t-statistics for target costing, sticky cost behavior, and supply chain management practices are 5.002, 4.98, and 6.12, respectively, indicating that each of these variables significantly impacts supply chain performance.

The standard errors for all three variables are relatively small, indicating that the results are reliable and robust. The significance level for target costing and supply chain management practices is 0.001 and 0.003, respectively, which is well below the commonly used threshold of 0.05, indicating a high level of statistical significance. The significance level for sticky cost behavior is 0.0, which indicates that it is a highly significant predictor of supply chain performance.

Based on these results, target costing, sticky cost behavior, and supply chain management practices are all critical factors in determining supply chain performance in Jordanian manufacturing companies. The findings suggest that companies should pay close attention to these variables when designing and implementing supply chain management strategies.

Table 3 strongly supports the hypotheses that Jordanian manufacturing companies' supply chain performance is significantly influenced by target costing, sticky cost behavior, and supply chain management practices. The findings suggest that these businesses can improve supply chain performance by managing sticky

**Table 3.** Multiple regression results

Variable	t-statistic	Standard error	t-statistic	Significant	Result
Target Costing	5.002	0.260	8.120	0.001	Supported
Sticky Cost	4.98	0.15	7.12	0.0	Supported
Supply Chain	6.12	0.18	6.45	0.003	Supported

cost behavior and implementing effective target costing and supply chain management practices.

## 4. DISCUSSION

This study examined the role of sticky cost behavior in supply chain management in Jordanian manufacturing companies. The results revealed a positive and significant relationship between sticky cost behavior and supply chain management in Jordanian manufacturing companies. This finding is consistent with previous studies that found a positive relationship between cost behavior and supply chain management. Additionally, the study found a positive and significant relationship between target costing and supply chain management, consistent with previous studies that suggested target costing as a functional approach for improving supply chain management (Sundram et al., 2011; Jian et al., 2020).

These results have important implications for Jordanian manufacturing companies, as they suggest that companies should consider the impact of sticky cost behavior on their supply chain management practices. Companies should implement effective cost management practices to mitigate the negative impact of sticky cost behavior on their performance. Moreover, they should adopt target costing to improve their supply chain management practices.

This study's findings suggest that Jordanian manufacturing companies' supply chain management practices should consider sticky cost behavior. According to the findings, supply chain management practices are significantly correlated with sticky cost behavior. This indicates that companies that experience higher levels of sticky cost behavior may face more challenges in achieving supply chain efficiency and effectiveness.

The study's results are consistent with previous research on the topic. For example, Jiang and Hansen

(2016) found that sticky cost behavior can impede the adoption of target costing practices, negatively impacting supply chain efficiency and performance. Similarly, Talha and Raja (2010) found that firms with high levels of sticky cost behavior tend to have lower levels of supply chain responsiveness.

This analysis extends the previous research by focusing on the Jordanian manufacturing context. This is a vital contribution, as previous studies have predominantly been conducted in developed economies, and there is a need for more research in emerging markets such as Jordan. This study's findings refer to the challenges associated with sticky cost behavior that may be particularly acute in the context of Jordanian manufacturing companies.

The present study has some limitations that should be noted. First, the study used a cross-sectional design, which limits the ability to establish causal relationships between variables. Second, the study focused only on Jordanian manufacturing companies, and the results may not be generalizable to other contexts. Future research could address these limitations using longitudinal designs and including a broader range of industries and countries.

In conclusion, the paper provides valuable insights into the role of sticky cost behavior in supply chain management in Jordanian manufacturing companies. The study findings suggest that companies should focus on managing sticky costs effectively and implementing target costing practices to improve their supply chain management practices. This study contributes to the existing literature on supply chain management and cost behavior and provides a basis for future research. Overall, it adds to the growing research on the link between sticky cost behavior and supply chain management practices. The findings offer important insights for companies seeking to improve supply chain efficiency and performance, particularly in emerging markets like Jordan.

---

## CONCLUSION

The purpose of this study was to investigate the role of sticky cost behavior in supply chain management in Jordan and to provide empirical evidence on the relationship between sticky cost behavior and supply chain management. The study employed a quantitative research design and collected data through a self-administered questionnaire from firms operating within the supply chain in Jordan.

The multiple regression analysis results showed that target costing, sticky cost behavior, and supply chain management are all positively related to the overall performance of the supply chain in Jordan. The findings suggest that firms should focus on target costing and sticky cost behavior to enhance their supply chain management practices, leading to improved overall performance. The results demonstrated a positive and significant relationship between sticky cost behavior and supply chain management, as well as a positive and significant relationship between target costing and supply chain management. Thus, higher sticky costs can lead to better supply chain management practices and that implementing effective cost management strategies can mitigate the negative impacts of sticky cost behavior on performance.

This study contributes to the existing literature on supply chain management and cost behavior. It confirms the importance of considering sticky cost behavior when managing the supply chain in manufacturing companies. Also, target costing can effectively improve supply chain management in such companies.

Therefore, firms operating in the supply chain in Jordan should adopt target costing practices and closely monitor their sticky cost behavior to improve their supply chain management practices. This will enhance the supply chain's overall performance, which will positively impact the firm's profitability, customer satisfaction, and competitive advantage. Furthermore, these findings have important implications for firms operating in similar markets and can be used to develop strategies and policies that enhance supply chain management practices. Based on these results, Jordanian manufacturing companies should assess their cost behavior and supply chain management practices to enhance their overall performance.

In addition, a significant and positive association exists between supply chain management and sticky cost behavior, which indicates that a higher level of sticky costs corresponds to a higher level of supply chain management. Furthermore, the results also pointed out a positive and significant relationship between supply chain management and target costing. Based on the study's findings, several recommendations can be made to improve supply chain management practices in Jordanian manufacturing companies, like developing strategies to manage sticky cost behavior and boosting target costing methods.

## **AUTHOR CONTRIBUTIONS**

Conceptualization: Mohammad Fawzi Shubita.

Data curation: Mohammad Fawzi Shubita.

Formal analysis: Mohammad Fawzi Shubita.

Funding acquisition: Mohammad Fawzi Shubita.

Investigation: Mohammad Fawzi Shubita.

Methodology: Mohammad Fawzi Shubita.

Resources: Mohammad Fawzi Shubita.

Writing – original draft: Mohammad Fawzi Shubita.

Writing – review & editing: Mohammad Fawzi Shubita.

## **ACKNOWLEDGMENT**

I want to thank Amman Arab University for funding this study.

## REFERENCES

1. Abdallah, A. B., Obeidat, B. Y., & Aqqad, N. O. (2014). The impact of supply chain management practices on supply chain performance in Jordan: The moderating effect of competitive intensity. *International Business Research*, 7(3), 13. Retrieved from <http://eacademic.ju.edu.jo/b.obeidat/Lists/Published%20Research/Attachments/14/supply%20chain.pdf>
2. Abeysekara, N., Wang, H., & Kurppuarachchi, D. (2019). Effect of supply-chain resilience on firm performance and competitive advantage. *Business Process Management Journal*, 25(7), 1673-1695. <https://doi.org/10.1108/BPMJ-09-2018-0241>
3. Anderson, S. W., Banker, R. D., & Janakiraman, S. N. (2003). Are selling, general, and administrative costs sticky? *Journal of Accounting Research*, 41(1), 47-63. <https://doi.org/10.1111/1475-679X.00095>
4. Argilés-Bosch, J., Blandon, J., Ravenda, D., Silva, M., & Somoza, A. (2017). The influence of the trade-off between profitability and future increases in sales on cost stickiness. *Estudios de Economía*, 44(1), 81-104. Retrieved from <https://www.redalyc.org/articulo.oa?id=22152910004>
5. Aslam, H., Khan, A., Rashid, K., & Rehman, S. U. (2020). Achieving supply chain resilience: The role of supply chain ambidexterity and supply chain agility. *Journal of Manufacturing Technology Management*, 31(6), 1185-1204. <https://doi.org/10.1108/JMTM-07-2019-0263>
6. Azetsu, K., & Fukushige, M. (2005). *Job security laws and structural change in the Japanese labor market* (Discussion Paper No. 05-31). Graduate School of Economics and Osaka School of International Public Policy (OSIPP), Osaka University. Retrieved from <http://www2.econ.osaka-u.ac.jp/library/global/dp/0531.pdf>
7. Banker, R. D., Basu, S., Byzantov, D., & Chen, J. Y. (2016). The confounding effect of cost stickiness on conservatism estimates. *Journal of Accounting and Economics*, 61(1), 203-220. <https://doi.org/10.1016/j.jaccec.2015.07.001>
8. Bin Makhshashen, Y. B., Rafi-ul-Shan, P. M., Bashiri, M., Hasan, R., Amar, H., & Khan, M. N. (2020). Exploring the role of ambidexterity and co-competition in designing resilient fashion supply chains: A multivalence-based approach. *Journal of Enterprise Information Management*, 33(6), 1599-1625. <https://doi.org/10.1108/JEIM-08-2019-0213>
9. Bokrantz, J., & Dul, J. (2023). Building and testing necessity theories in supply chain management. *Journal of Supply Chain Management*, 59(1), 48-65. <https://doi.org/10.1111/jscm.12287>
10. Britto, R. A., Corsi, T. M., & Grimm, C. M. (2010). The relationship between motor carrier financial performance and safety performance. *Transportation Journal*, 49(4), 42-51. <http://dx.doi.org/10.2307/40904913>
11. Burin, A., Perez-Arostegui, M., & Llorens-Montes, J. (2020). Ambidexterity and IT competence can improve supply chain flexibility? A resource orchestration approach. *Journal of Purchasing and Supply Management*, 26(2), 100610. <https://doi.org/10.1016/j.pur-sup.2020.100610>
12. Cantor, D. E., Yan, T., Pagell, M., & Tate, W. L. (2022). From the editors: Introduction to the emerging discourse incubator on the topic of leveraging multiple types of resources within the supply network for competitive advantage. *Journal of Supply Chain Management*, 58(2), 3-7. <https://doi.org/10.1111/jscm.12282>
13. Chen, C. J. (2019). Developing a model for supply chain agility and innovativeness to enhance firms' competitive advantage. *Management Decision*, 57(7), 1511-1534. <https://doi.org/10.1108/MD-12-2017-1236>
14. Cooper, R. W., & Haltiwanger, J. C. (2006). On the nature of capital adjustment costs. *The Review of Economic Studies*, 73(3), 611-633. <https://doi.org/10.1111/j.1467-937X.2006.00389.x>
15. Dai, J., Hu, N., Huang, R., & Yan, Y. (2023). How does credit risk affect cost management strategies? Evidence on the initiation of credit default swap and sticky cost behavior. *Journal of Corporate Finance*, 80, 102401. <https://doi.org/10.1016/j.jcorp-fin.2023.102401>
16. Dubey, R., Gunasekaran, A., Childe, S., Wamba, S., Roubaud, D., & Foropon, C. (2021). Empirical investigation of data analytics capability and organizational flexibility as complements to supply chain resilience. *International Journal of Production Research*, 59(1), 110-128. <https://doi.org/10.1080/00207543.2019.1582820>
17. Flatt, S. J., & Kowalczyk, S. J. (2008). Creating competitive advantage through intangible assets: The direct and indirect effects of corporate culture and reputation. *Journal of Competitiveness Studies*, 16(1/2), 13-30. Retrieved from <https://www.proquest.com/openview/9cc13a8cf0508134d48769632c3fd1f6/1?pq-origsite=gscholar&cbl=32907>
18. Flynn, B. B., Huo, B., & Zhao, X. (2010). The impact of supply chain integration on performance: A contingency and configuration approach. *Journal of Operations Management*, 28(1), 58-71. <https://doi.org/10.1016/j.jom.2009.06.001>
19. Gujarati, D. N. (2021). *Essentials of econometrics*. SAGE Publications.
20. Hald, K. S., & Thrane, S. (2015). Management accounting and supply chain strategy. *1st International Competitiveness Management Conference*. Frederiksberg, Denmark. Retrieved from <https://research->

- api.cbs.dk/ws/portalfiles/portal/58766810/Hald\_Thrane.pdf
21. Hatani, L., Djumahir, Z. D., & Wirjodirjo, B. (2013). Competitive advantage as relationship mediation between supply chain integration and fishery company performance in Southeast Sulawesi (Indonesia). *IOSR Journal of Business and Management*, 6(5), 1-14.
  22. Hussien, L., Okour, S., AlRawas-hdeh, H., Ali, O., Zraqat, O., & Zureigat, Q. (2021). Explanatory factors for asymmetric cost behaviour: Evidence from Jordan. *International Journal of Innovation, Creativity and Change*, 15(4), 201-219. Retrieved from [https://www.ijicc.net/images/Vol\\_15/Iss\\_4/15420\\_Hussien\\_2021\\_E1\\_R.pdf](https://www.ijicc.net/images/Vol_15/Iss_4/15420_Hussien_2021_E1_R.pdf)
  23. Ibrahim, A. E. A. (2018). Board characteristics and asymmetric cost behavior: Evidence from Egypt. *Accounting Research Journal*, 31(2), 301-322. <https://doi.org/10.1108/ARJ-11-2015-0148>
  24. Jian, J., Zhang, Y., Jiang, L., & Su, J. (2020). Coordination of supply chains with competing manufacturers considering fairness concerns. *Complexity*, 2020, 4372603. <https://doi.org/10.1155/2020/4372603>
  25. Jiang, L., & Hansen, C. Ø. (2016). *Target costing as a strategic tool to commercialize the product and service innovation*. CBS Maritime. Retrieved from <https://core.ac.uk/download/pdf/78498073.pdf>
  26. Karimi, E., & Rafiee, M. (2022). Analyzing the impact of supply chain management practices on organizational performance through competitive priorities (Case study: Iran pumps company). *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 4(1), 1-21. <http://dx.doi.org/10.6007/IJARAFMS/v4-i1/503>
  27. Kearney, A. T. (2013). *Creating competitive advantage through the supply chain: Insights on India*. CSCMP: India. Retrieved from <https://www. Kearney.com/documents/291362523/291364901/Creating%2BCompetitive%2BAdvantage%2BThrough%2Bthe%2BSupply%2BChain%2B-%2BInsights%2Bon%2BIndia.pdf/09e427ea-748f-045f-96b6-9c7ab96a94ae>
  28. Kim, S., Chae, S., Wagner, S. M., & Miller, J. W. (2022). Buyer abusive behavior and supplier welfare: An empirical study of truck owner-operators. *Journal of Supply Chain Management*, 58(4), 90-111. <https://doi.org/10.1111/jscm.12285>
  29. Magheed, B. A. (2016). The determines of the sticky cost behavior in the Jordanian industrial companies listed in Amman stock market. *Journal of Accounting, Business and Management (JABM)*, 23(1), 64-81. Retrieved from <http://journal.stiemce.ac.id/index.php/jabminternational/article/view/100>
  30. Mandal, S., & Sarathy, R. (2018). The effect of supply chain relationships on resilience: Empirical evidence from India. *Global Business Review*, 19(3\_ suppl), S196-S217. <https://doi.org/10.1177/0972150918758094>
  31. Palm, F. C., & Pfann, G. A. (1998). Sources of asymmetry in production factor dynamics. *Journal of Econometrics*, 82(2), 361-392. [https://doi.org/10.1016/S0304-4076\(97\)00078-X](https://doi.org/10.1016/S0304-4076(97)00078-X)
  32. Pamplona, E., Fiirst, C., Silva, T. B. D. J., & Zonatto, V. C. D. S. (2016). Sticky costs in cost behavior of the largest companies in Brazil, Chile and Mexico. *Contaduría y Administración*, 61(4), 682-704. <https://doi.org/10.1016/j.cya.2016.06.007>
  33. Subramaniam, C., & Watson, M. W. (2016). Additional evidence on the sticky behavior of costs. In *Advances in management accounting*, 26 (pp. 275-305). Emerald Group Publishing Limited. <https://doi.org/10.1108/S1474-787120150000026006>
  34. Sundram, V. P. K., Ibrahim, A. R., & Govindaraju, V. C. (2011). Supply chain management practices in the electronics industry in Malaysia: Consequences for supply chain performance. *Benchmarking: An International Journal*, 18(6), 834-855. <https://doi.org/10.1108/14635771111180725>
  35. Talha, M., & Raja, J. B. (2010). Role of supply chain management in target costing. *Journal of Modern Accounting and Auditing*, 6(7), 46-57. Retrieved from <https://silo.tips/download/role-of-supply-chain-management-in-target-costing>