

ASIAN JOURNAL OF INTERDISCIPLINARY RESEARCH



DOI: 10.34256/ajir2119

The Influence of Organizational Culture and the External and Internal Factors on Performance Measurement System Adoption: A Conceptual Framework

A.S.A. Hassan a,*, N. Nordin a, A.A. Azamin a

 ${\tt a}$ Faculty of Applied and Human Sciences, Universiti Malaysia Perlis, Malaysia.

*Corresponding author email: absas77@yahoo.com

DOI: https://doi.org/10.34256/ajir2119

Received: 23-02-2021 Accepted: 18-03-2021 Published: 22-03-2021



Abstract: Researchers have perceived the advantages of performance measurement systems for public and private institutions. Besides, they asserted that the failure or the success during the adoption process depends on various external and internal factors. Furthermore, organizational culture is a fundamental pillar of any institutional development or adoption of any modern management system. Neglecting studying the effects of this factor on adopting modern management systems before starting the implementation stages may lead to failure to adopt these systems. Responding to this issue is crucial to understand the adoption practices of performance measurement system in the organizations and to explore the mutual influence between the forces that lead to the institutions adopt this system. This paper aims to develop a conceptual framework by reviewing previous literature and exploring the relationships among organizational culture, internal and external influences, and performance measurement system's adoption. It also aims to integrate the organizational change, contingency, and institutional theories to come up with a more reliable and robust framework.

Keywords: Organnizational culture, Performance measurement system, Adoption, Factors

Introduction

Performance measurement system (PMS) is one of the prominent systems that link the institution's strategy with its various activities and operations to achieve its desired goals, through helping the organization in tracking its progress.

Despite the great potential benefits of PMS for the organizations and its contributions in the efficient and effective management practices, some institutions are facing challenges in the adoption process, which may lead either to failure or at least achieving incomplete benefits (Abubakar et al.,

2015; de Waal & Kourtit, 2013; Jääskeläinen & Sillanpää, 2013). Prior research explored the determinants of PMS adoption and defined many factors that affect firms to adopt such system. Surely, only a certain number of internal and external factors are able to influence the firms to adopt PMS (Pedersen & Sudzina, 2012). However, many researchers concluded that studies on the effect of the internal and external environments adopting the performance measurement system are not sufficient. Some studies examined the impact of some internal factors on the relationship between external forces and the adoption of modern management systems (Agarwal et al., 2018). Other studies have claimed that there was a moderate influence of organizational culture on the relationship between adopting innovation and modern management practices, and the environmental factors (Dubey et al., 2017; Liu et al., 2010).

However, the results of the examined relationships between PMS adoption and its determinants are not conclusive. Moreover, the moderating influence of organizational culture on those relationships have not received adequate attention in previous literature. To fill this gap, this paper aims to construct a conceptual framework to examine the organizational culture as a moderator of the relationships between PMS adoption and its external and internal factors.

Literature review

Performance Measurement System Adoption

To promote the achievement of goals of an institution and its growth, performance measurement systems (PMSs) are developed and adopted. PMSs are constructed so as to facilitate performance monitoring and to help recognizing the areas of success and failure. It is also a tool that helps in enhancing organizational skills improving and organizational learning. According to Melnyk et al. (2014) and Neely et al. (1995), Performance measurement system is the process of developing measures and collecting data to generate organizational performance information by analyzing and interpreting those data. Besides, the 'adoption' term donates the acceptance and the start to use something (Awuzie & Emuze, 2017). Some researchers distinguished the stage adoption from the stage of implementation by the fact that the adoption is the phase of identifying the performance measures and starting to use them, in addition to being the stage of knowledge and awareness of the types

of measurements needed and their different dimensions (Carlucci et al., 2015). On the other hand, the implementation stage includes generating information from this system and using it in evaluating the firm's progress. In contrast, the importance of the adoption stage that it is directly related to the organization's goals and the strategic direction thereof. Consequently, the complexity of the organization's goals and the vagueness of its strategic direction represent the biggest challenge facing the adoption phase of such system. Not only that, but the internal and external environments of the organization play a crucial role, as this stage requires knowledge and acceptance of this system by the internal and external stakeholders alike.

However, scholars emphasized that the process of adopting the performance measurement system is directly affected by the internal and external environments of the institution. Likewise, previous studies stated that institutions' response to internal and external influences, or what is called adaptation, is what makes them either succeed or fail to adopt this system despite the great similarity in the circumstances and the environment in which these institutions operate (Mufid, 2019). Moreover, it was stressed in studies of Mufid (2019) and Al-Dhubaibi et al. (2014) that adopting management accounting practices in general and performance measurement in particular in developing countries, especially countries, is still in its early stages. The researchers determined that these countries are still implementing traditional practices, and modern practices suffer from clear deficiencies. Accordingly, scholars argued that better understanding of the factors that drive PMS adoption and implementation will increase the chance of higher adoption and implementation success rates (Abubakar et al., 2015; Keathley, 2016; Quesado et al., 2016).

External Factor and PMS Adoption

The rapid and successive changes in the external business environment, along with customers' preferences changes and technological development, make it necessary for institutions to adapt to these factors in order to maintain their competitive edge and achieve continuous growth. The external environment, for institutions operating in the various fields, holds many forces that influence directly or indirectly the adoption of change strategies and innovation. Scholars interpret the external factors as those environmental forces that are beyond the control of institutions. However, scholars have different perspectives regarding the conceptualization of the external factor. Some of the researches, e.g., Adeleke et al. (2018), considered the items such as politics, economy, and technology, while others, e.g., Elnihewi et al. (2014), theorized the institutional perspective as a basis of their studies about the relationship between the external influences on change initiatives and innovation adoption. However, contingency perspective has gained more attention among the researchers for the same studying purpose (Lucianetti et al., 2018). Furthermore, literature determined different elements such as environmental ambiguity, market readiness, and policy decisions as the external factors that typically influence adopting new ideas (Choe, 2003; Ochieng, 2015). Other researchers, also, such as Ambler, Kokkinaki, and Puntoni (2004), identified several factors that are important to adopt innovation. including new technology, outsourcing, competition and the growing importance of service industries. In addition, Al-Shareem et al. (2015) reported that adopting new ideas is driven by environmental forces. Authors further claimed that the advent of new technology has greatly motivated organizations to promote a quality standard. Further, literature confirmed the significant role of the external variable on adopting management accounting practices in developing countries. Al-Dhubaibi et al. (2014), for example, stated that the level of adopting contemporary management accounting practices in Yemen is affected by external factors. Additionally, Hassan et al. (2020) found that external factors have a significant effect on PMS adoption in construction firms in Yemen. In the same manner, Al-Akwa (2017) demonstrated that adopting a performance measurement system in Yemen is motivated by external pressure. Similarly, in South Africa, external factors influence management accounting practices among manufacturing companies, as stated by Mbali et al. (2019).

Based on the aforementioned argument, this paper proposes the following hypothesis:

H1: External factor has a significant effect on PMS adoption.

Internal Factor and PMS Adoption

An internal factor is a collection of controllable variables that help or hinder the performance and business environment of the organization. A broad range of determinants is defined in the literature to influence the firms to adopt PMS. Rogers (1983) asserted that the firm's internal features are key attributes in the adoption or rejection of innovation. Furthermore, Anh (2016) and Trang and Huyen (2017) stated that internal features represent a critical factor in adopting modern accounting management practices in various types of companies and institutions. In literature, a single internal element or a set of internal elements were involved in the investigations to determine if there was an effect on the adoption of innovation and modern management practices usage. To explain, in the South East Asian higher education institution, the organizational factors that affect PMS were explored (Mansor et al., 2012). Authors found that employee involvement, performance-oriented culture, and management commitment are the main

organizational factors that influence the implementation of PMS. Truong et al. (2020), also, stated that the internal factor a has significant influence on balanced scorecard (BSC). For performance measurement in Pakistan et al. (2013)considered organizational determinants as an obstacle to BSC adoption. The authors claimed that a specific organizational factor, organizational complexity, lack of slack resources, lack of awareness about BSC and weak organizational supportive domain, were major impediment to decision-making regarding BSC adoption. In the same context, Agarwal et al. (2018), Al-Dhubaibi et al. (2014), and Mbali et al. (2019) discovered that the internal factor was a crucial predictor for the adoption of management accounting practices. Accordingly, this study proposes the following hypothesis:

H2: Internal factor has a significant effect on PMS adoption.

The Moderating Effect of Organizational Culture

Organizational culture is a collection of common beliefs, assumptions, and values that certainly influence the behavior and objectives of the institution and help the employees understand how the organization operates (Lewis & Boyer, 2002; White et al., 2003). Scholars, e.g., Ahmad (2012), Jardioui et al. (2017), and Keathley (2016), suggested organizational culture to encourage internal factors such as leadership and management to effective decision-making ensure and guidance, and to enable the organization to adapt effectively to changes in the external environment. Furthermore, authors have concluded that cultural research is valuable in studying performance measurement. Ahmad (2012), also, claimed that performance assessment, as one of the management processes, and organizational culture are mutually dependent and influence each other. In the situation of ignoring this relationship, output assessment may also contribute to counter-productivity. Besides, a strong culture essential for successful performance (Kandula, 2006). In literature, it has been empirically confirmed that organizational culture influences the adoption and use of PMS. In Pakistan, Ahmad (2012) highlighted that organizational culture influences the performance management practices positively. Furthermore, Aboajela (2015) found that organizational culture has a significant relationship with the performance measurement system in Libyan higher education institutions. Similarly, in Nairobi, Nzuve and Njeru (2013) claimed that organizational culture effects the employees' performance management.

However, the conflicting findings regarding the influence of some variables on PMS have pushed several studies to propose exploring the impact of some other organizational variables on this relationship. Peterson-Mccaskill (2012), for example, recommended exploring the influence of the dimensions of organizational culture on the potential link between management practices and BSC adoption. Accordingly, a moderating impact of organizational culture on the relationship between total quality management (TQM) and entrepreneurial orientation and the performance of banks in Yemen was proven by Al-Swidi (2012). Additionally, Dubey et al. (2017) reported that the influence of external pressure on shaping PMS for sustainability benchmarking in Indian manufacturing companies was moderated by organizational culture. Similarly, Dai et al. (2018) revealed that the relationship between corporate environmental strategy and market pressures was moderated by organizational culture.

Therefore, this paper proposes two hypotheses related to organizational culture as follows:

H3: Organizational culture has a moderating effect on the relationship between PMS adoption and the external factor.

H4: Organizational culture has a moderating effect on the relationship between PMS adoption and the internal factor.

Theoretical Basis and Conceptual Framework

The adoption of a performance measurement system is an organizational change initiative that aims to improve organizations' capabilities in the face of environmental changes and technological development. Organizational change theory organizations to adapt to surrounding environment changes and to evolve in customer preferences and market needs. This adaptation requires the alignment between the internal capabilities of the organization and the external requirements (Jones, 2013; Laurie, 2016). From institutional perspective, the motivation for organizations to adopt change strategies is external pressure, not the organizations' desire to develop (Ashworth et al., 2009; Scott, 1987). However, this viewpoint was met with criticism by some researchers, who claimed that there are many shortcomings of this perspective and suggested studying the moderating influence of organizational culture on the relationship between external forces and the adoption of modern management systems (Dubey et al., 2017; Liu et al., 2010). Also, some researchers emphasized that studying the effect of external factors on adopting innovation initiatives and change strategies, apart from studying the impact of internal factors, will lead to incomplete and inaccurate results (Agarwal et al., 2018).

According to that, the Figure framework of this study was developed based on the integration of the three perspectives, namely organizational change, contingency and institutional theories, to come up with a more comprehensive and accurate understanding of the impact of the contextual factors on the adoption of performance measurement systems in institutions. This paper classifies the factors that boost PMS adoption into two groups, namely external and internal, which is similar to the framework of Amara and Benelifa (2017), Shahzadi et al. (2018), and Truong et al. (2020).

Conclusion

In conclusion, this paper provides a conceptual framework to show the proposed relationships between organizational culture, external and internal factors, and PMS adoption.

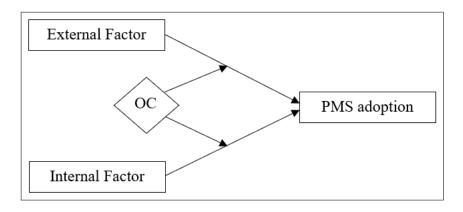


Figure 1. Conceptual framework

It contributes immensely to PMS literature, as it introduces a conceptual framework that is used for explaining the interplay influence of the external and internal variables on the adoption of Furthermore, this paper extends the body of knowledge by clarifying the theoretical possibilities of the integrated perspectives of change, contingency. organizational institutional theories on the subject of performance measurement systems. Besides, it introduces the organizational culture as a moderator to overcome the shortcomings of some theories that were reported by several scholars. It is worth mentioning that this study will also increase awareness among decisionmakers and managers of the organizations to pay more attention to the power of the organizational culture on PMS adoption. Nevertheless, this paper has its limitations because it surely needs further verification by gathering data from the field to investigate the suggested relationships and the proposed model.

References

- Aboajela, S.M., (2015). The Influence of Organisational Culture on Performance Measurement Systems in Libyan Higher Education, PhD thesis, University of Huddersfield. http://eprints.hud.ac.uk/id/eprint/25431/
- Abubakar, A., Saidin, S., & Ahmi, A., (2015). Adoption of the performance measurement system in the Nigerian public sector: Challenges and prospects. International Conference on Accounting Studies (ICAS), Johor, Malaysia. http://repo.uum.edu.my/id/eprint/17545
- Adeleke, A.Q., Bahaudin, A.Y., Kamaruddeen, A.M., Bamgbade, J.A., Salimon, M.G., Khan, M.W.A., & Sorooshian, S., (2018). The influence of organizational external factors on construction risk management among Nigerian construction companies. Safety and Health at Work, 9(1), 115–124. https://doi.org/10.1016/j.shaw.2017.05.004
- Agarwal, A., Giraud-Carrier, F.C., & Li, Y. (2018). A mediation model of green supply chain management adoption: The role of internal impetus. International Journal of Production Economics, 205, 342–358. https://doi.org/10.1016/j.ijpe.2018.09.011
- Ahmad, M.S., (2012). Impact of Organizational Culture on Performance Management Practices in Pakistan. Business Intelligence Journal, 5(1), 52.
- Al-Akwa, K.A., (2017). Adoption and Implementation of Performance Measurement System in the Yemeni Public Sector: Challenges and Prospects, Doctoral dissertation, Cranfield University, Cranfield, UK. http://dspace.lib.cranfield.ac.uk/handle/1826/14316

- Al-Dhubaibi, A.A.S., Abdul rahman, I.K., Haniff, M.N., & Sanusi, Z.M., (2014). Contingencies influencing management accounting practice: a Yemen-based empirical study. Asia-Pacific Management Accounting Journal, 9(2), 69–84. http://ir.uitm.edu.my/id/eprint/29705
- Al-shareem, K.M., Yusof, N., & Kamal, E.M. (2015). External Factors Influencing the Readiness for Implementing Public- Private Partnerships among Public and Private Organizations in Yemen. Journal of Science and Technology Policy Management, 6(1) 56-75. http://dx.doi.org/10.1108/JSTPM-07-2014-0030
- Al-Swidi, A.K. (2012). The Moderating Effect of Organizational Culture on The Relationship between Total Quality Management, Entrepreneurial Orientation and The Performance of Banks in Yemen, Doctoral dissertation, Universiti Utara Malayasia, Kedah, Malaysia. https://etd.uum.edu.my/id/eprint/3781
- Amara, T., & Benelifa, S. (2017). The Impact of External and Internal Factors on the Management Accounting Practices. International Journal of Finance and Accounting, 6(2), 46–58. https://doi.org/10.5923/j.ijfa.20170602.02
- Ambler, T., Kokkinaki, F., & Puntoni, S. (2004). Assessing Marketing Performance: Reasons for Metrics Selection. Journal of Marketing Management, 20(3–4), 475–498. https://doi.org/10.1362/026725704323080506
- Anh, D.N.P. (2016). Factors Affecting the Use and Consequences of Management Accounting Practices in A Transitional Economy: The Case of Vietnam. Journal of Economics and Development, 18(1), 54–73. https://doi.org/10.33301/2016.18.01.04
- Ashworth, R., Boyne, G., & Delbridge, R. (2009). Escape from the iron cage? Organizational change and isomorphic pressures in the public sector. Journal of Public Administration Research and Theory, 19(1), 165–187. https://doi.org/10.1093/jopart/mum038
- Awuzie, B., & Emuze, F. (2017). Promoting sustainable development implementation in higher education: Universities in South Africa. International Journal of Sustainability in Higher Education, 18(7), 1176–1190. https://doi.org/10.1108/IJSHE-09-2016-0167
- Carlucci, D., Schiuma, G., & Sole, F. (2015). The adoption and implementation of performance measurement process in Italian public organisations: the influence of political, cultural and rational factors. Production Planning & Control, 26(5), 363–376. https://doi.org/0.1080/09537287.2014.906678
- Choe, J.M. (2003). The effect of environmental uncertainty and strategic applications of IS on a firm's performance. Information and Management, 40(4), 257–268. https://doi.org/10.1016/S0378-7206(02)00008-3
- Dai, J., Chan, H.K., & Yee, R.W.Y., (2018). Examining moderating effect of organizational culture on the relationship between market pressure and corporate environmental strategy. Industrial Marketing Management, 74, 227–236. https://doi.org/10.1016/j.indmarman.2018.05.003
- de Waal, A., & Kourtit, K., (2013). Performance measurement and management in practice: Advantages, disadvantages and reasons for use. International Journal of Productivity and Performance Management, 62(5), 446–473. https://doi.org/10.1108/IJPPM-10-2012-0118
- Dubey, R., Gunasekaran, A., Childe, S. J., Hazen, B., Giannakis, M., Roubaud, D., & Hazen, B., (2017). Examining the effect of external pressures and organizational culture on shaping performance measurement systems (PMS) for sustainability benchmarking: Some empirical

- findings. International Journal of Production Economics, 193, 63-76. https://doi.org/10.1016/j.ijpe.2017.06.029
- Elnihewi, I., Fadzil, F.H., & Mohamed, R., (2014). The Effect of Institutional Factors on the Organizational Performance through Performance Measures of Commercial Banks in Libya. Procedia Social and Behavioral Sciences, 164, 635–640. https://doi.org/10.1016/j.sbspro.2014.11.157
- Hassan, A.S.A., Nordin, N., & Azamin, A.A., (2020). The Influence of the External and Internal Factors on the Adoption of the Performance measurement System in the Construction Industry in Yemen. IOP Conference Series: Materials Science and Engineering, 864(1), 012153. https://doi.org/10.1088/1757-899X/864/1/012153
- Jääskeläinen, A., & Sillanpää, V. (2013). Overcoming challenges in the implementation of performance measurement: Case studies in public welfare services. International Journal of Public Sector Management, 26(6), 440–454. https://doi.org/10.1108/IJPSM-12-2011-0014
- Jardioui, M., Garengo, P., & Alami, S. El. (2017). The Impact of Organizational Culture on Performance Measurement System Design, Implementation and Use: Evidence from Moroccan SMEs, IFIP International Conference on Advances in Production Management Systems. 1, 553–559. https://doi.org/10.1007/978-3-319-66923-6
- Jones, G.R., (2013). Organizational theory, Design, and Change (Seventh Ed). Pearson Education Limited.
- Kandula, S.R., (2006). Performance management: Strategies, interventions, drivers. PHI Learning Private Limited.
- Keathley, H.R., (2016). Empirical Investigation of Factors that Affect the Successful Implementation of Performance Measurement Systems, Doctoral dissertation, Virginia Tech, Blacksburg, VA, USA. http://hdl.handle.net/10919/73100
- Laurie, J.M., (2016). Management and Organizational Behavior (Eleventh Ed). Pearson Education Limited.
- Lewis, M.W., & Boyer, K.K., (2002). Factors impacting AMT implementation: An integrative and controlled study, Journal of Engineering and Technology Management, 19(2), 111–130. https://doi.org/10.1016/S0923-4748(02)00005-X
- Liu, H., Ke, W., Kee, K., Gu, J., & Chen, H., (2010). The role of institutional pressures and organizational culture in the firm's intention to adopt internet-enabled supply chain management systems. Journal of Operations Management, 28(5), 372–384. https://doi.org/10.1016/j.jom.2009.11.010
- Lucianetti, L., Jabbour, C.J.C., Gunasekaran, A., & Latan, H., (2018). Contingency factors and complementary effects of adopting advanced manufacturing tools and managerial practices: Effects on organizational measurement systems and firms' performance. International Journal of Production Economics, 200, 318–328. https://doi.org/10.1016/j.ijpe.2018.04.005
- Mansor, N.N.A., Chakraborty, A.R., Yin, T.K., & Mahitapoglu, Z. (2012). Organizational Factors Influencing Performance Management System in Higher Educational Institution of South East Asia. Procedia Social and Behavioral Sciences, 40, 584–590. https://doi.org/10.1016/j.sbspro.2012.03.234

- Mbali, P.M., Ngibe, M., & Celani, J.N., (2019). Factors Influencing The Adoption of Management Accounting Practices (MAPs) By Manufacturing Small And Medium Enterprises (SMEs) In Durban, Kwazulu-Natal. International Journal of Entrepreneurship, 23(4). http://hdl.handle.net/10321/3512
- Melnyk, S. A., Bititci, U., Platts, K., Tobias, J., & Andersen, B. (2014). Is performance measurement and management fit for the future? Management Accounting Research, 25(2), 173–186. https://doi.org/10.1016/j.mar.2013.07.007
- Mufid, A. (2019). Adoption of Advanced Management Accounting Practices in Gulf Cooperation Council Countries: Insights from Institutional Theory Analysis, Doctoral dissertation, University of Salford, . http://usir.salford.ac.uk/id/eprint/51495
- Neely, A., Gregory, M., & Platts, K. (1995). Performance measurement system design: a literature review and research agenda. International Journal of Operations & Production Management, 15(4), 80-116. https://doi.org/10.1108/01443579510083622
- Nzuve, S.N.M., & Njeru, L.K. (2013). Perceived Factors affecting Performance Management among Local Authorities in Kenya: A Case of the City Council of Nairobi. DBA Africa Management Review, 3(2), 59–69. http://journals.uonbi.ac.ke/damr/article/view/1158
- Ochieng, P.A. (2015). External Environmental Factors Influencing Financial Performance of Kenya Airways, Master thesis, University of Nairobi. http://erepository.uonbi.ac.ke/handle/11295/94308
- Pedersen, E.R.G., & Sudzina, F., (2012). Which firms use measures?: Internal and external factors shaping the adoption of performance measurement systems in Danish firms. International Journal of Operations and Production Management, 32(1), 4–27. https://doi.org/10.1108/01443571211195718
- Peterson-Mccaskill, A.D., (2012). Exploring the Feasibility of Implementing the Balanced Scorecard in French Manufacturing Companies, Doctoral Dissertation, Northcentral University, ProQuest LLC.
- Qadri, M.M., Azhar, T.M., & Imam, A., (2013). Organizational Determinants as a Barrier of Balanced Scorecard Adoption for Performance Measurement in Pakistan. European Journal of Business and Management, 5(20), 7–22. http://hdl.handle.net/123456789/1324
- Quesado, P.R., Aibar-Guzmán, B., & Rodrigues, L.L., (2016). Extrinsic and intrinsic factors in the Balanced Scorecard adoption: An empirical study in Portuguese organizations. European Journal of Management and Business Economics, 25(2), 47–55. https://doi.org/10.1016/j.redeen.2016.03.002
- Rogers, E.M., (1983). Diffusion of Innovations (3rd Ed). The Free Press. New York.
- Scott, W.R., (1987). The Adolescence of Institutional Theory, Administrative Science Quarterly, 32(4), 493–511. http://www.jstor.org/stable/2392880
- Shahzadi, S., Khan, R., & Toor, M., (2018). Impact of external and internal factors on management accounting practices: a study of Pakistan. Asian Journal of Accounting Research, 3(2), 211–223. https://doi.org/10.1108/AJAR-08-2018-0023
- Trang, D.H., & Huyen, L.M., (2017). Factors Affecting to The Success of The Contemporary Management Accounting Practices in Vietnamese Enterprises. International Conference for

Young Researchers In Economics And Business, ICYREB 2017, 194–202. https://tmu.edu.vn/uploads/tmu/news/2017 11/ky-yeu-ht-phan-1.pdf#page=238

Truong, D.D., Nguyen, H., & Duong, T.Q.L., (2020). Factors Influencing Balanced Scorecard Application in Evaluating the Performance of Tourist Firms. Journal of Asian Finance, Economics and Business, 7(5), 217–224. https://doi.org/10.13106/jafeb.2020.vol7.no5.217

White, J.C., Varadarajan, P.R., & Dacin, P.A., (2003). Market situation interpretation and response: The role of cognitive style, organizational culture, and information use, Journal of Marketing, 67(3), 63–79. https://doi.org/10.1509/jmkg.67.3.63.18654

Does this article screened for similarity: YES

Funding: No funding was received for conducting this study.

Conflict of Interest: The authors have no conflicts of interest to declare that they are relevant to the content of this article.

About the License

© The author(s) 2021. The text of this article is open access and licensed under a Creative Commons Attribution 4.0 International License