Factors that influence the mitigation of supply chain operational risks in the retail sector

Leonardo Melo Delfim [0000-0002-0411-5206], Matheus Soares Brum de Mello [0000-0003-4700-1097] and Maria Silene Alexandre Leite [0000-0003-3660-2903]

Abstract. The consumer is experiencing a process of change in his buying habits, the main reason being the online environment that, with direct channels to the consumer and information technology, make sales grow quickly (Taylor et al., 2019). In parallel, there is increasing evidence that physical stores are experiencing stagnant or declining traffic and that the Internet is also revolutionizing supply chain management, seeking to offer new services to consumers to access new revenue streams (Weber et al., 2018; Taylor et al., 2019). In this context, new sales channels are emerging more and more and the need for their integration is increasing too much for an effective supply chain management. According to Sousa et al. (2021), channels are the different ways of interacting with consumers and their different types represent how the product or information is transferred. Such a channel integration strategy is called omnichannel and allows a real interaction, in which customers shop in channels from anywhere and at any time, providing them with a unique, complete and continuous shopping experience that breaks the barriers between channels (Juaneda-Ayensa et al., 2016). The omnichannel strategy provides a systemic view of all channels to the consumer and members of the supply chain. In this system, consumers can easily switch from one channel to another in their shopping experience, being able to find a product on one channel (e.g., manufacturer's website), order through another channel (e.g., online retailer's website) and have the product delivered from a third channel (e.g., home delivery) (Saghir et al., 2017). Galipoglu (2018) states that this strategy requires decisions in key areas such as marketing, logistics, supply chain and/or operations, and from his study shows that the number of articles related to this topic has been increasing over time, demonstrating the continued research interest in the subject area and the increased research interest in global technological development and greater use of this technology by consumers. However, there are several challenges and difficulties in this process, such as cannibalism between channels, competition with retailers opting for the online environment in its entirety, channel analysis in a synergistic and coordinated way, inventory management and visibility (Chen et al., 2018; Sousa et al., 2021). In other words, such implementation may be associated with several risks for the business. And in this context, research on integration mechanisms and supply chain visibility in the Brazilian context are scarce (Morais et al., 2019). According to Punniyamooorthy et al. (2013), the complexity of supply chains directly influences the risks associated with their very management. This situation occurs due to the fact that the companies that are members of the chain share not only rewards, but also risks, due to the high vulnerability to which they are exposed. In this sense, risk management is a process, in which decisions are made to assume a certain known or assessed risk, as well as the implementation of actions to reduce the consequences or probability of occurrence (Normman et al., 2004). Therefore, this work is structured as of data collection using documents, questionnaires and surveys related to companies inserted in the multi-retail sector, as well as qualitative and quantitative data analysis. The factors that stand out as success metrics for mitigating operational risks will be described, with the objective of establishing a framework for mitigating risks in this
group of companies. It is worth mentioning that research that addresses the omnichannel strategy and supply chain management may contribute to the advancement of knowledge regarding the association between the risks in supply chains generated by the adoption of this strategy and mitigation tools used by organizations to contain them. Thus, aiming to help managers in decision making and contribute to the literature regarding the lack of studies in the area of risks in supply chains associated with the implementation of the omnichannel strategy, this paper aims to study the factors that influence the mitigation of operational risks in supply chains inserted in the omnichannel multi-retailer sector.

**Keywords:** Risks, Supply Chain, Omnichannel

**References**