

## Testing the “Wheel of Slavery” theoretical framework in Brazilian supply chains.

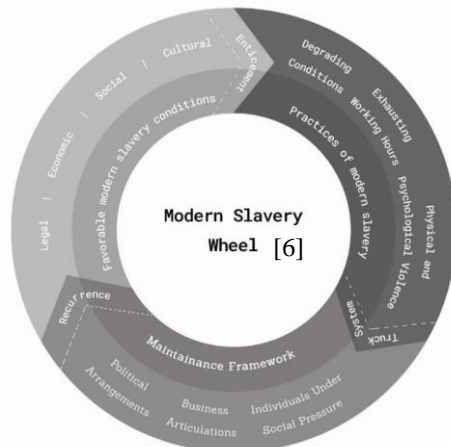
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The study aims to evaluate the effectiveness of the Wheel of Slavery model in reducing the risks associated with modern slavery practices and enhancing supply chain resilience in Brazil. Modern slavery is a global issue that affects workers and supply chains worldwide. Although governments, institutions, and companies have taken steps to address this problem, researchers have given insufficient attention to this issue, and some companies deny the existence of slave labor. The Wheel of Slavery model has been based on the premise that modern slavery is a management practice and that its perpetuation depends on three components. The study is based on previous research on supply chain resilience and modern slavery.

**Keywords:** Modern Slavery, Supply Chain, Risk, Supply Chain Resilience.

### 1 Modern slavery in supply chains, method, and research design

The issue of modern slavery in supply chains has become a global challenge in recent years [1], [2]. Hughes et al. [3] have shown that the COVID-19 pandemic has exacerbated the problem of forced labor in many sectors, such as the Malaysian medical gloves industry. Governments and companies need to develop their purchasing power to address labor issues more effectively and make the supply chain more resilient. Modern slavery is a business concern that crosses jurisdictional and national boundaries, and many countries have enacted laws requiring large companies to identify, manage, and report on the risks of modern slavery in their supply chains. The InPacto Institute in Brazil is an example of an organization that assists companies in monitoring their supply chains and eradicating slave labor. To understand modern slavery practices in production engineering, the researchers propose a theoretical model called the wheel of slavery:



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This model aims to test how the perpetuation of its three main components, namely the conditions

that favor the practices, the nature of the practices, and the maintenance system of modern slavery decreases risk and enhances supply chain resilience capabilities. The

research question is: how does the wheel of slavery model decrease risk and enhance supply chain resilience capabilities? The study is based on the premise that modern slavery is a management practice influenced by social and broken rules elements. The supply chain resilience capability factors are proactive and reactive capabilities used by supply chain members to mitigate the adverse effects of modern slavery [4]. The study selected InPacto as a representative organization of more than 70 companies and 20 civil organizations that monitor and comply with ten standards to combat slave labor in Brazil. This research utilizes a qualitative approach to investigate the effect of the Wheel of Slavery model on supply chain risk reduction and resilience improvement in the context of modern slavery in Brazil. Nvivo software is used for data analysis. The research begins with a literature review of prior research on modern slavery as a management practice and supply chain resilience factors to develop a theoretical framework based on the Wheel of Slavery model. Semi-structured interviews with key informants in modern slavery and supply chain management in Brazil will be conducted in Portuguese, transcribed, and translated into English for analysis using a snowball sampling technique for key informant identification. Nvivo software will be utilized to analyze the data and identify categories and subcategories that emerge from the Wheel of Slavery theoretical framework [5]. Categories will include the conditions that favor slavery practices, the nature of the practices, and the system for maintaining slavery in supply chains, and subcategories will provide further insights into these categories, such as the role of government regulations, the effectiveness of company policies, and the experiences of workers in supply chains. Thematic analysis will be applied to present the findings, focusing on the categories and subcategories that emerge from the data analysis. The study will conclude with recommendations for improving supply chain resilience and reducing the risk of modern slavery practices in Brazil.

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