

The Role of Sustainable Megamerger Logistics Practices as a Mediator of the Relationship between Human Factors and Company Efficiency: Development of a Theoretical Concept

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Abstract

Objective - The purpose of this study is to explore the concept of sustainable megamerger logistics practices and how these variables mediate the influence of human factors on company efficiency interacting with the concept

Method - This study was conducted by mapping the theory of socio-ecological interdegradation into a general framework of the conceptual map of the study.

Results - This study produces a research proposition, namely that good human factors will encourage regular maintenance, fuel economy, use of eco-driving, smooth acceleration, reduction of idle conditions, efficient route selection, turning off the engine at red lights, use of original oil, and more regular filter changes after the merger so as to encourage the efficiency of the merged company.

Implications - This study will contribute to the literature on sustainable supply chains.

Originality - This study highlights the importance of internal integration for sustainable megamerger logistics practices and sustainable company efficiency improvements. Second, that environmentally conscious human factors lead to sustainable megamerger logistics practices that improve company efficiency. Third, normative pressures placed on companies can encourage companies to become sustainable. Fourth, sustainable megamerger logistics practices should not ignore inter-organizational and intra-organizational aspects. Fifth, sustainable megamerger logistics practices are essential factors to drive the efficiency of companies that carry out megamerger.

Keywords: Logistics Practices, Megamerger, Company Efficiency, New Concept Development

Abstrak

Tujuan - Tujuan dari penelitian ini adalah mengeksplorasi konsep praktik logistik megamerger berkelanjutan dan bagaimana variabel ini memediasi pengaruh faktor manusia terhadap efisiensi perusahaan berinteraksi dengan konsep tersebut

Metode - Penelitian ini dilakukan dengan memetakan teori interdegradasi sosio-ekologis menjadi kerangka umum dari peta konseptual penelitian.

Hasil - penelitian ini menghasilkan sebuah proposisi penelitian yaitu bahwa faktor manusia yang baik akan mendorong perawatan berkala, penghematan bahan bakar, penggunaan eco-driving, akselerasi halus, reduksi kondisi idle, pemilihan rute yang efisien, mematikan mesin saat lampu merah, penggunaan oli original, dan penggantian filter yang lebih berkala setelah merger sehingga mendorong efisiensi perusahaan yang telah melakukan merger.

Implikasi - Penelitian ini akan berkontribusi pada literatur mengenai rantai pasok berkelanjutan.

Orisinalitas - Penelitian ini menyorot pada integrasi internal penting bagi praktik logistik megamerger berkelanjutan dan peningkatan efisiensi perusahaan yang berkelanjutan. Kedua, bahwa faktor manusia yang sadar lingkungan membawa pada praktik logistik megamerger berkelanjutan yang meningkatkan efisiensi perusahaan. Ketiga, tekanan normatif yang diberikan pada perusahaan dapat mendorong perusahaan menjadi berkelanjutan. Keempat, praktik logistik

megamerger berkelanjutan tidak boleh mengabaikan aspek antar organisasi dan intra organisasi. Kelima, praktik logistik megamerger berkelanjutan adalah faktor esensial untuk mendorong efisiensi perusahaan yang melakukan megamerger.

Kata kunci: *Praktik Logistik, Megamerger, Efisiensi Perusahaan, Pengembangan Konsep Baru*

Introduction

The energy crisis and escalating environmental issues have driven increased attention to sustainable supply chains by both governments and private companies. Various standardization efforts have been undertaken, for example, through the corporate environmental sustainability index, which measures various aspects, from human resources and finances to outputs in the form of innovation and economic impact (Arbolino et al., 2018). The literature also develops a model of environmental management maturity that focuses on the quality of assignments, training, and product quality (Ormazabal et al., 2017).

Freight transportation is a source of carbon emissions and continues to be a serious concern regarding its impact on the environment (Stefanelli et al., 2021). Logistics companies are often questioned about their strategic priorities in addressing environmental sustainability (Evangelista et al., 2017). This is especially true for companies undergoing a major merger. Traditional logistics practices need to be modified to accommodate the merger's aspects, which change the entire organizational structure and culture.

Based on the theory of socio-ecological interdegradation (Gruner & Power, 2017), resource-based theory (Barney, 1991), theory of planned behavior (Ajzen, 1991, 2020), and Institutional theory (DiMaggio & Powell, 1983), We propose an integrated research model and focus our attention on developing the concept of sustainable megamerger logistics practices.

Research Gap

Existing research has primarily focused on the human aspects of environmental management in driving corporate efficiency (Chen & Ho, 2019; Fernández et al., 2017; Gomes et al., 2020). Meanwhile, there is no knowledge regarding sustainable logistics practices in the context of megamerger.

Research Problem

Based on the background and research gaps mentioned above, the research problem in this study can be formulated as follows:

"How do external integration, human factors, and normative pressures influence companies' sustainable megamerger logistics practices, and what impact do they have on company efficiency?"

Research Question

Based on the research problem formulation above, the following research questions can be formulated:

1. Is the sustainable megamerger logistics variable statistically feasible?
2. Does the human factor influence the sustainable megamerger logistics practices?

3. Does the human factor influence company efficiency?
4. Does the sustainable megamerger logistics practices influence company efficiency?
5. Does the sustainable megamerger logistics practice mediate the effect of the human factor on company efficiency?

Research Objective

The purpose of this study is to explore the concept of sustainable megamerger logistics practices and how this variable, which mediates the effect of the human factor on company efficiency, interacts with the concept.

1. Empirically test and analyze the statistical feasibility of the sustainable megamerger logistics practices variable.
2. Empirically test and analyze the influence of human factors on sustainable megamerger logistics practices.
3. Empirically test and analyze the influence of human factors on company efficiency.
4. Empirically test and analyze the influence of sustainable megamerger logistics practices on company efficiency.
5. Empirically test and analyze the mediating effect of sustainable megamerger logistics practices on the influence of human factors on company efficiency.

Research Originality

This research highlights five points not addressed by previous research. First, that internal integration is crucial for sustainable megamerger logistics practices and the continuous improvement of corporate efficiency. Second, that environmentally conscious human factors lead to sustainable megamerger logistics practices that improve corporate efficiency. Third, that normative pressures exerted on companies can encourage them to become sustainable. Fourth, sustainable megamerger logistics practices must not ignore inter- and intra-organizational aspects. Fifth, sustainable megamerger logistics practices are essential for boosting the efficiency of companies undergoing megamergers.

Research Importance

This research will contribute to the literature on sustainable supply chains. First, unlike common research that focuses on technical and managerial aspects, this research is based on a combination of socio-ecological interdegradation theory, resource-based theory, the theory of planned behavior, and institutional theory to address the research call for examining the impacts of intra-organizational and inter-organizational environments on logistics practices. (Dragan et al., 2018; Kumari & Patil, 2019; Stefanelli et al., 2021) by developing the concept of sustainable megamerger logistics practices. Second, this study broadens our understanding of the processes and contexts in which sustainable supply chains operate in merged companies. Specifically, this study examines the mediating role of sustainable megamerger logistics practices in influencing human factors on firm efficiency from an employee perspective. Third, previous research rarely addresses the issue of human factors and firm efficiency at the individual level. The literature often examines it within an organizational context. (Stefanelli et al., 2021) atau industri (Jabbour et al., 2017), While this research focuses on the individual level, it is important to consider the context of this research. Fourth, although grounded in logistics

management literature, this research also contributes to other disciplines such as management and transportation. This research offers an integrative perspective on how supply chain sustainability can be developed and extends research in organizational behavior, particularly mergers and acquisitions and organizational culture, to the context of sustainable supply chains. Finally, unlike research based in developed countries, this research examines sustainable supply chains in the context of a developing country, Indonesia, where the environment is increasingly degraded due to rapid economic growth and weak environmental laws and regulations enforced at the corporate level; yet, on the other hand, the community lives in a tradition of harmony with nature within a collectivist culture (Kurniati et al., 2020; Pirmana et al., 2021).

The results of this study are expected to contribute to organizational efforts to improve the quality of their supply chains so that they can be sustainable, especially for logistics companies that merge in developing countries.

Conceptual Mapping and Propositions

Socio-ecological interdegradation theory (Gruner & Power, 2017) serves as the general framework for this research's conceptual map. According to the theory of socio-ecological interdegradation, there is a strong interdependence between humans and their environment. When one party experiences degradation, the other party will also experience degradation. Clearly, if humans are able to prevent environmental degradation, they will also benefit because nature will not drag them into degradation. This can be realized through environmentally friendly logistics practices. Consequently, the theory of socio-ecological interdegradation is able to explain the relationship between sustainable human activities and increased corporate efficiency.

Institutional theory argues that a company's strategy is influenced by formal and informal institutions (Kumari & Patil, 2018). Formal institutions include rules, regulations, and law enforcement mechanisms, while informal institutions include cognitive (logical) aspects and unwritten normative (cultural) aspects (Dimaggio & Powell, 1983). Of these two types of institutions, the author focuses on informal institutions, namely normative pressure. Compared to the other two, normative pressure is the most ambiguous. It stems from cultural expectations within the organization and evolves as the company matures. Consequently, normative pressure is rooted in organizational culture theory. This concept is a narrower form of subjective norms found in the theory of planned behavior. (Conner et al., 2003). In the theory of planned behavior, subjective norms come from everyone who is important to the individual, including parents, partners, coworkers, and relatives (Ajzen, 2020). Meanwhile, normative pressure comes from important people within the organization such as superiors or coworkers.

The theory of planned behavior also explains the importance of the human component in this research model. Another component of the theory of planned behavior is attitude. Attitude is a person's evaluation of the potential impact of a behavior (Ajzen, 1991). As a result, the theory of planned behavior is not only able to explain the role of normative pressure, but also the role of human factors in this research model.

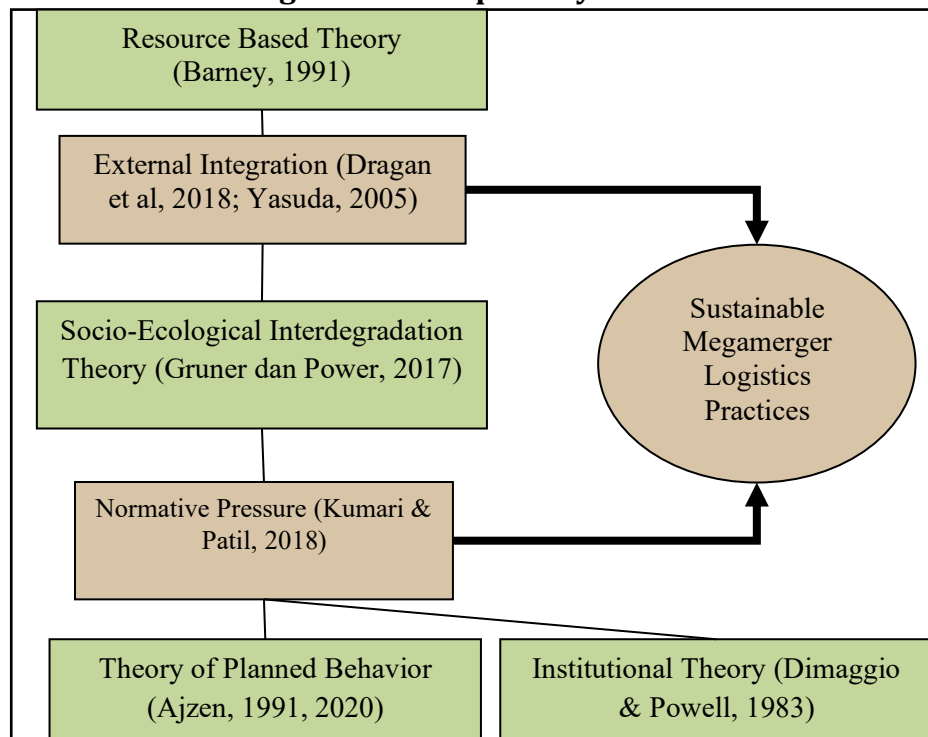
Another theory that supports this conceptual framework is resource-based theory (Barney, 1991). According to resource-based theory, a company can successfully achieve

its goals and gain competitive advantage if it has valuable, rare, inimitable and irreplaceable resources, as well as capabilities which are the ability to manage these resources well (Stefanelli et al, 2021). Human resources are one type of resource that meets these requirements (Wright et al., 1994). Therefore, it can be concluded that the resource-based theory or RBV (Resource-based View) explains the importance of human factor variables in this model.

RBV also argues that when firms are unable to acquire resources through market transactions, firms need to enter into alliances (Yasuda, 2005). This alliance or vertical integration provides a company with additional resources to achieve its goals by combining technological, manufacturing, distribution, and financial resources with its partner. Vertical integration is known to increase company efficiency in the context of transportation suppliers allying with travel agents (Dragan et al, 2018). In the context of this research, alliances are directed at efforts to obtain relevant resources for sustainable supply chains.

The concept of sustainable megamerger logistics practices can be directly derived from the theories mentioned above. The theory of socio-ecological interdegradation serves as a framework that shapes the sustainable component of this concept. Resource-based theory highlights sustainable megamerger logistics practices as a strategy that utilizes resources derived from the merger. The theory of planned behavior builds the foundation that sustainable megamerger logistics practices contain a normative component in the form of rules developed based on customs within the merged companies.

Figure 1. Conceptual Synthesis



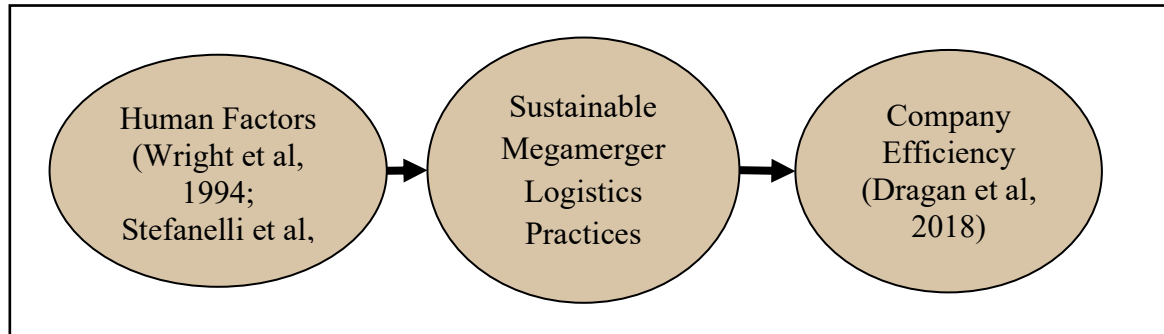
In line with this, the indicators of sustainable megamerger logistics practices are the customary logistics practices of individual and joint organizations resulting from the

merger that take sustainability into account. The indicators were developed from indicators of green logistics practices (Lin dan Ho, 2011) which is modified with the situation of a company that uses two-wheeled motorized vehicles (Go-Jek) plus the use of external integration (Dragan et al, 2018) which adds the phrase "more often" and Normative Pressure (Kumari dan Patil, 2018) which added the phrase "after the merger." The main question in this questionnaire was how much change was experienced post-merger on a Likert scale: 5 = much better, 4 = slightly better, 3 = about the same as before, 2 = slightly worse, and 1 = much worse. These indicators include:

1. Performing routine maintenance on time
2. Motorcycles/cars using the manufacturer's recommended fuel
3. Vehicles increasing the frequency of using eco-driving features
4. Accelerating suddenly
5. Not idling the vehicle
6. Choosing efficient routes (fastest and avoiding traffic jams)
7. Turning off the engine at red lights
8. Using original oil
9. Changing the filter regularly

The following figure highlights the relationship between the theories and concepts outlined above.

Figure 2. Empirical Research Model



The above figure, in turn, encourages the development of the following research proposition:

"Good human factors will encourage regular maintenance, fuel economy, eco-driving, smooth acceleration, reduced idle speed, efficient route selection, engine shutdown at red lights, use of genuine oil, and more frequent filter changes after a merger, thereby boosting the efficiency of the merged company."

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