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Conceptual model of relationship between trust, perceived risk, price dispersion, e-WOM, perceived value, and online transaction intention

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Indonesia has always been a lucrative market for e-marketplace and classified ads development as the country has both a large population of youth and stronger economic growth. However, e-marketplace and classified ads are still highly associated with fraudulent acts. According to the POLRI report from January to July 2019, there were 1.243 cases of fraudulent activities and this condition worsened the trust in using e-marketplace and classified ads. This condition also makes the perceived risk and negative review in using e-marketplace and classified ads to increase. The decrease in confidence also has an impact on price dispersion increasing perceived risk and ultimately makes the perceived value by the community to change. So, based on this phenomenon, this study aims to formulate the conceptual model of the relationship between initial trust, perceived risk, price dispersion, perceived value and e-WOM toward the intensity of transaction. This study uses several models from previous

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Conceptual Model of Relationship between Trust, Perceived Risk, Price Dispersion, E-WOM, Perceived Value, and Online Transaction Intention

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Abstract

Indonesia has always been a lucrative market for e-marketplace and classified ads development as the country has both a large population of youth and stronger economic growth. However, e-marketplace and classified ads are still highly associated with fraudulent acts. According to the POLRI report from January to July 2019, there were 1.243 cases of fraudulent activities and this condition worsened the trust in using e-marketplace and classified ads. This condition also makes the perceived risk and negative review in using e-marketplace and classified ads to increase. The decrease in confidence also has an impact on price dispersion increasing perceived risk and ultimately makes the perceived value by the community to change. So, based on this phenomenon, this study aims to formulate the conceptual model of the relationship between initial trust, perceived risk, price dispersion, perceived value and e-WOM toward the intensity of transaction. This study uses several models from previous authors as a reference to build a conceptual model. Thus, this study proposes a new conceptual model consisting of eight variables for e-marketplaces and classified ads. The findings of this study are to build a conceptual model to determine the relationship between variables for further research.

Keywords

E-marketplace, Classified Ads, Initial trust, Perceived Risk, Price Dispersion, E-WOM, Perceived Value.

1. Introduction

The advent of internet technology has made the development of C2C (consumer to consumer) e-commerce grow very rapidly throughout the world (Dan 2014). The growing development of e-commerce business also has an impact on the increasing number of online fraud cases that occur every year starting from 1993 (Renjith 2018). Indonesia is one of the countries experiencing e-commerce developments, both e-marketplaces, and classified ads.

E-marketplaces are defined as internet-based business facilities for buying and selling on a website, where there are third parties whose job is to direct and be neutral (Janita and Javier 2013). The surveys to 2,026 Indonesian consumers which is conducted by Dailysocial.id (2019) collaborate with JakPat indicated that Shopee is the most preferred e-marketplace service at 34%. Then Tokopedia 28%, Bukalapak 17.5%, Lazada 14%, Blibli 2.15%, and the rest are other e-marketplaces totalling 4.31%. Besides e-marketplaces, selling on stalls or social media providers is also very popular in Indonesia. Selling at stalls and social media providers in the field of e-commerce are called classified ads. Although both are selling in online stores, in classified ads, the stall providers do not interfere in the transaction process (Eko 2013). The data indicated that, in Indonesia, the most preferred classified ads are OLX, mamikos, rumah123, mitula, and others (Similarweb 2020). The survey conducted by APJII mentioned that Facebook (50.7%) is the most visited social media respondents. It is followed by Instagram (17.8%), YouTube (15.1%), Twitter (1.7%) and LinkedIn (0.4%) (Dailysocial.id 2019).

The many e-commerce sites that have arisen in Indonesia has increased fraud cases. Countries in Asia are reported as the countries with the highest fraud rates, especially Indonesia and China, which reached 22% in 2008 by Rofiq and Joseph (2010). Based on Kaspersky Lab and B2B International's research results, 26% of consumers in Indonesia become victims of online fraud and the study calls Indonesia as the country with the most victims in the world

Production Disturbances Handling: Where Are We and Where Are We Heading?

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Abstract

Half of manufacturing companies' production capacity is estimated to be compromised due to disturbances. With the upcoming Industry 4.0, this problem is expected to be minimized through technological solutions. The aim of this article is to propose alternatives to handle production disturbances by means of technological support, to minimize their occurrence and impacts. To this purpose, we conducted a literature review and a series of interviews with five companies. We distinguish six stages for handling production disturbances: detection, diagnosis, mitigation/correction, root cause analysis, prevention, and prediction. Our results indicate that all these stages are expected to benefit from Industry 4.0 technologies significantly. Furthermore, our results point out that practitioners perceive the stages of prevention and prediction with the highest potential for improvement. However, focus on the diagnosis and root cause analysis stages is also necessary since those stages are coupled to the prevention and prediction. The contributions of this article are twofold. Firstly, it provides a holistic view of the stages and technologies to handle production disturbances in Industry 4.0, from which practitioners can extract directions for implementation. Secondly, the paper provides focus for further research in the field of disturbance management with the identification of the current challenges.

Keywords

Production disturbances, Industry 4.0

1. Introduction

With the advent of Industry 4.0, production systems are envisioned with nearly zero disturbances (Eleftheriadis & Myklebust, 2016; May & Kiritsis, 2019). Different technologies support the Industry 4.0 era to become a reality. Among the leading technologies are smart sensors, smart devices, big data, data analytics, internet of things (IoT), cloud computing, additive manufacturing, augmented and virtual reality (Posada et al., 2015; The Boston Consulting Group (BCG), 2015). These technologies will provide the means for developing self-adaptable, self-optimized, and self-maintained production systems (Lee et al., 2015).

However, there is a long way to go until we reach a disturbance-free system. The overall equipment effectiveness (OEE) of manufacturing companies is only around 50% (Ylipää et al., 2017). In other words, about half of the manufacturing capacity is not utilized, primarily because of disturbances. Therefore, the reduction of production disturbances causes a significant impact on financial performance. Furthermore, it also affects the environmental and social aspects of sustainability. It is possible to achieve more efficient resource utilization in a production system with fewer disturbances, as well as safer working conditions.

But what is a production disturbance? There are different definitions in the literature, ranging from "unexpected and unplanned events" to "all events that affect quality, operational performance, security or working conditions" (Stricker & Lanza, 2014; Bokrantz et al., 2016; Kaya & Bergsjö, 2018). In this paper, we consider that a production disturbance is "an undesired and unplanned event that causes the production system not to perform as planned".

Simulation Improves Service and Resource Allocation at an Automotive Garage

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Abstract

Discrete-event process simulation historically began its now long and distinguished “career” in support of manufacturing operations, ranging from assembly lines to make-to-order operations. From that auspicious beginning, it has expanded its usage to many other fields, such as warehousing, public transport (e.g., airports, bus terminals, railroads...), health care delivery (e.g., hospitals, clinics, urgent care centers, dental practices...), government functions (e.g., welfare administration, timing of traffic lights, courthouses...), and the service industry. Service industry applications of simulation have included restaurants, retail stores, hotels, and drive-through oil change centers. In this paper, we describe the important and productive role of simulation in improving the service performance metrics and resource allocation within an automotive service center.

Keywords

Discrete-event process simulation, Automotive repair, Service industry, Resource utilization, Queueing system performance metrics

1. Introduction

The first commercial uses, and still among the most numerous uses, of discrete-event process simulation have been in the manufacturing sector of the economy. There, simulation first and dramatically showed its abilities to identify bottlenecks, evaluate proposals for eliminating them, improve and level usage of scarce and/or expensive resources, and improve performance metrics such as total output, queue lengths, and time waiting in queues. As a result of and spurred by these successes, simulation usage rapidly expanded into the warehousing sector, health care (particularly hospitals), government work, transportation networks, and service industries, as documented by Greasley (2005). Cepera and Konrad (2019) applied simulation to governance of complex transportation systems and traffic jams in Germany. Many examples of simulation analyses applied to service industries have been documented in the literature. For example, Villarreal-Navarro et al. (2017) applied simulation analysis to reduce shoppers’ exasperation at empty shelves at a network of Mexican convenience stores. Call centers are a frequent service-industry application of simulation, as recognized by Mathew and Nambier (2013). Williams et al. (2005) applied simulation to improve operations and traffic flow at a drive-through oil-change center.

The remainder of this paper is organized as follows: The next section presents an overview of the services provided by and the operations of the repair garage. Next, we describe the data required by the model and describe the collection of those data. Next, we present the process of building, verifying, and validating the simulation model. Subsequently, we describe the results provided by the model and our analysis of them, leading to recommendations provided to the garage managers and owners. We conclude with a summary of the project and indications of likely future work.

2. Overview of Repair Garage Services and Operations

Servicing consumers’ vehicles is a huge market worldwide, with three types of participants: Dealers who also sell vehicles, independent repair shops, and a miscellaneous category including, for example, filling stations and specialty shops, as described by Horowitz and Shilling (1989). The automotive service center studied in this simulation work is of the second category; it was opened in 2017, and is located near the economic development district of Beijing, the capital of China. This garage enjoys, has earned, and very much wishes to maintain, an excellent reputation for repair services performed with integrity and quality (in sharp contrast to worldwide stereotypes of automotive repair shops). The center operates five days a week (Monday through Friday), opening each day at 8am. After 4pm, no new arrivals are accepted for service that day, but the mechanics and other service personnel stay on duty until almost all (exception noted below) vehicles arriving that day have received service. Therefore, a customer (e.g., an employee in a nearby office building) can and routinely does drive his or her vehicle (drivable but in need of repairs and/or routine maintenance) to the garage, leave it there, and

Sustainability Best Practices for Oil and Gas Sector in Mexico

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Abstract

The objective of the research is to identify the best sustainability practices most used in companies in the oil and gas sector to reduce the environmental damages of their activities, in order to take them into account in Mexico. The research is documentary, in which the leading companies in the oil and gas sector were considered as subjects of study based on their environmental performance and the development of substantive activities. The results presented are the best sustainability practices and the environmental impacts derived from the central activities of the oil and gas sector, as well as the mechanisms for implementing best sustainable practices in the case of Mexico. There is evidence that companies in the sector invest in sustainability practices to improve their environmental performance, while continuing to obtain economic benefits, in the direction of low carbon economies, however, it is necessary to give greater impetus to renewable energy sources that have taken relevance in recent decades.

Keywords

Sustainability Best Practices, Environmental impacts, Oil and Gas Sector.

1. Introduction

The oil and gas sector is considered vital and strategic for the development and economic growth of many countries, including Mexico. This sector plays a central role as a supplier of hydrocarbons around the world, which are considered the largest sources of primary energy in global consumption with a participation of 57% (BP, 2017), they also represent economic potential and military strategic value (Puyana, 2015). The value chain of the sector consists of the Upstream, Downstream and Midstream phases, being its main activities: exploration, production, industrial transformation and hydrocarbon logistics.

Activities throughout the value chain of this sector have caused serious impacts on the physical and biological means of its areas of influence (Roa, 2011), leaving serious environmental liabilities and deteriorating the quality of the environmental services they provide, of which there is evidence throughout the world and in the history of this industry (Oilwatch, 2006). Globally, it is estimated that in the next 20 years, hydrocarbons will continue to contribute a significant share in global energy consumption (EIA, 2016), therefore, the sector would be carrying out activities around this projection, but facing fundamental challenges, on the one hand, the supply of these resources and, on the other, how to achieve it through ethical behavior in the economic, social and environmental dimensions (Saavedra & Jiménez, 2014). The incidence of companies in this sector in Mexico has taken on greater relevance today, mainly due to the implementation of the Energy Reform of 2013, which now allows private participation in the activities of the sector, which were previously exclusive to the Mexican state (SENER, 2013). In this research, the sustainability management carried out by leading companies in the sector is analyzed and compared, which have been considered based on their relevance and participation at the international level in terms of sustainability and, some of which develop activities in important natural areas protected from the planet, in addition to being dabbled in alternative energy sources, all in search of those sustainability practices with which they have managed to reduce the impacts on the means of areas of influence, as well as the mechanisms they use for their implementation. This paper is organized as follows; in the following section of the literature review is developed. Second, methodology is introduced. Third, sustainability management and best sustainability practices in the oil and gas sector are discussed. Fourth, mechanisms for implementation of sustainability best practices for the case of Mexico are presented. Finally, the theoretical and applied contribution of this research is provided.

2. Literature Review