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RESEARCH ARTICLE

Current State of Safety Climate among Food Delivery Service in Kuantan

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ABSTRACT - The gig economy has developed as a transformational force in modern labor markets, typified by short-term, freelancer, or independent employment arrangements. It includes a wide range of on-demand labor where individuals work as independent contractors, offering services or performing tasks via digital platforms or applications. The expansion of this industry has provided workers with unprecedented freedom and opportunity, but it has also presented new concerns, notably in terms of occupational safety. The most popular gig works prior Covid-19 pandemic include food delivery riders. This study aims to investigate the safety climate among food delivery services in Kuantan. This current study was focusing on the safety views of Grab's delivery service workers in Kuantan. About 100 respondents participated in this study through convenience sampling. The safety climate assessment was conducted using the NORDIC safety climate questionnaire. From the result, the highest mean value of the seven safety domains was in the Safety procedures and rules domain (2.78), and the lowest mean value belonged to the safety climate domain (2.41).

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1. INTRODUCTION

The widespread emergence of the gig economy, fuelled by the aftermath of the COVID-19 pandemic, has transformed job landscapes, prominently showcasing independent workers in numerous industries, most notably through digital platforms or smartphone apps. This paradigm shift toward on-demand or 'gig' labor has sparked heated debates over safety standards and administrative control in this booming industry. However, a noticeable absence of established safety measures has surfaced despite the fast development of these digital labor platforms catering to varied businesses, creating substantial worries about the well-being of gig workers. The safety climate among food delivery service workers is a multifaceted issue influenced by various factors, including organizational practices, individual behaviors, and external conditions. The current state of safety climate in this sector is characterized by significant challenges, such as high exposure to road hazards, inadequate safety training, and the prioritization of speed over safety. These challenges are compounded by the gig economy's nature, where economic pressures often outweigh safety considerations. However, efforts and strategies are also being implemented to improve safety compliance and foster a safer working environment for food delivery riders. However, the effort varies significantly due to many factors.

While the safety climate in the food delivery sector faces numerous challenges, there are ongoing efforts to address these issues through improved organizational practices, regulatory measures, and enhanced safety training. However, the gig economy's inherent pressures and the prioritization of speed and customer satisfaction over safety continue to pose significant obstacles. Addressing these challenges requires a concerted effort from companies, policymakers, and the workers themselves to create a safer and more sustainable working environment. Hence, the research aims to focus on assessing the safety climate among food delivery services in Kuantan. Despite its limited scope in Kuantan, this study attempts to give in-depth insights into safety dynamics, bringing light to the diverse viewpoints and issues encountered by gig workers in maintaining workplace safety.

2. LITERATURE REVIEW

2.1 Gig Economy

The "gig economy," often known as "on-demand," is a well-known term in today's commercial world [1]. The gig economy is a market-based system in which companies hire independent freelancers to work on short-term projects or provide services [2]. In other words, gig labor is classified as insecure employment since it is typically low-paid and transitory, does not provide training, health, or retirement benefits, and shifts more of the risk of doing business from the corporation to the worker [3]. The "gig economy," which has been defined as an economic system that uses online platforms to connect workers, or "individual service providers," with consumers, represents a new sort of contingent labor [4]. This gig economy is often referred to as contractual jobs as an independent worker, sometimes known as an "independent worker", "gig worker", or "freelancer" [2]. Many various definitions have been explored among writers, and this definition frequently vary depending on how the author's beliefs, perspectives, and fields of study differ.

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2.2 Safety State

Safety is a complex and theoretical notion that is best expressed in terms of a condition or situation. This scenario is devoid of any negative consequences, such as human or animal injury, facility loss, or any other sort of harm or loss. In other terms, safety is the prevention of unanticipated occurrences such as accidents and mishaps. In different contexts, safety may be defined in more practical terms. For example, in the gig economy, gig economy safety entails keeping gig employees safe while they work by avoiding any potential hazards. Daryl Balderson [5] defines safety as "a condition or judgment of adequate control over risks and dangers inherent in what an organization is doing now or plans to do in the future. Good management makes long-term plans for their employees' safety, health, and well-being. As a result, strong management is critical for gig businesses.

2.3 Safety Climate

The safety climate refers to employee safety attitudes, beliefs, and values that are part of the safety culture [6]. This is a collection of employee feedback on their workplaces. Cooper and Philips [7]defined safety climate as "shared employee perceptions of how safety management is operationalized in a workplace at any given moment," whereas WorkCover Queensland more recently defined it as "the perceived value placed on safety in an organization at any given point in time." [8]. It has been shown that shared beliefs about the value and meaning of safety have an influence on safety in several enterprises that deal with human and environmental dangers [9].

3. METHODS AND MATERIAL

The Gig Economy aligns with the research objectives. Cross sectional study design was implemented by using a survey instrument derived from Kines P [10] was used to assess views of safety among food delivery services in Kuantan. An internet-based questionnaire, distributed through the utilization of QR codes, was employed to gather empirical data, thereby facilitating a streamlined method for obtaining quantifiable and reliable information. The informed consent protocol was articulated at the commencement of the survey to ensure that the respondents possess comprehensive awareness prior to their participation. The methodology implemented to mitigate response bias involves the randomization of question sequences and the application of neutral phrasing. This strategy relied only on quantitative approaches to accelerate data collection, processing, and subsequent statistical analysis, resulting in full insights into the current safety circumstances in the gig economy. The objective of the current study is to gather empirical data from gig employees and examine their perceptions regarding the safety climate, thereby facilitating a more nuanced understanding of the dynamics that characterize the interactions among gig workers in this emergent labor paradigm.

The data was gathered using convenience sampling directly affiliated with Grab in Kuantan. Respondents anonymously offered insights into various safety attitudes using the Nordic Safety Climate Questionnaire on a four-point Likert scale. This study's data was analyzed using the Statistical Package for Social Science (SPSS version 27.0). Modules designed to analyze statistical data, encompassing descriptive statistics and average values pertinent to each variable, were incorporated to evaluate the perceptions of safety and climate regarding food delivery services in Kuantan.

4. RESULTS AND DATA ANALYSIS

4.1 Demographic Profile

The demographic profile in this research contains some of the most important facts on people working in the gig economy on the Grab platform. It comprises researching essential demographic characteristics such as gender, age, work experience, education level, and job position. These characteristics help to illustrate how different types of workers participate in non-traditional working scenarios at the food-app-based gig enterprise.

Table 1 summarizes the demographic characteristics of the study's respondents, with a focus on individuals involved with food delivery services in Kuantan. The gender split reveals that the majority of respondents are men, accounting for 65% of the total, with women accounting for the remaining 35%. This gender gap in the sample might represent the region's current food delivery industry demographics or future gender-related employment patterns in this sector. According to the age distributions, respondents came from a range of age groups, with a substantial representation in the 20-30 and 31-40 age categories, accounting for 35% and 50% of the total, respectively. The study also contains the experiences of a few respondents aged 41-69, indicating the vast age range of those who participated in the study. According to the work experience statistics, a sizable number of respondents had less than one year of experience, showing that the food delivery business has a particularly young and dynamic workforce. Furthermore, respondents' educational backgrounds vary, with the majority having completed high school (69%), followed by college (25%), and junior high school (6%).

Table 1. The characteristics of the respondents

	Characteristics	Food delivery Services	Total	Percentage (%)
Gender	Male	65	65	65.0
	Female	35	35	35.0
Age (Years old)	20-30	35	35	35.0
	31-40	50	50	50.0
	41-50	14	14	14.0
	51-60	1	1	1.0
Work experiences	< 1 year	42	42	42.0
	1 – 3 years	32	32	32.0
	3 – 5 years	26	26	26.0
Education Level	Junior high school	6	6	6.0
	High School	69	69	69.0
	Undergraduate	25	25	25.0

4.2 Level of Safety Climate Among Food Delivery Services in Kuantan

With regard to the safety climate prevalent within the gig economy, the NORDIC Safety Climate Questionnaire (NOSACQ-50) assesses seven distinct factors that elucidate how gig employees perceive their organization's safety measures. Noteworthy trends emerged upon the examination of the mean values associated with these variables in relation to the gig workers. The analysis concentrated on aspects such as leadership commitment, safety training, established systems and procedures, the provision of feedback to both leaders and workers regarding safety consciousness, and the recognition of operational practices.

Table 2 provides a clear framework for analyzing the NOSACQ-50 results in light of the research. The NOSACQ-50 assesses the safety atmosphere across many dimensions, with corresponding findings indicating varied levels of safety perception. A score ≤ 2.70 indicates a low level that demands immediate improvement. The level ranges from 2.70 to 2.99, which is considered bad and requires improvement. Scores in the 3.00-3.30 range are regarded as good but might be improved somewhat. Any score more than 3.30 is considered good and should be sustained and improved over time. This framework is a resource for understanding the safety atmosphere in food delivery services, providing a nuanced interpretation of the numerical scores obtained from the NOSACQ-50 questionnaire [10].

Table 2. Interpretation of NOSACQ-50

Value	Interpretation
≤ 2.70	Low level, lowest and requires revision
2.70 - 2.99	The level is quite low, and requires improvement
3.00 - 3.30	Good enough, requires slight improvement
≤ 3.30	Good level, which must be maintained and improved continuously

Table 3 displays the mean values for each dimension of safety climate domain perceived by food delivery workers. The dimension (D1-D7) relates to numerous safety climate parameters measured by the NOSACQ-50 which are Safety Management Commitment (D1), Priority of Safety Over Production (D2), Participation and Communication (D3), Organizational Learning (D4), Safety Climate (D5), Safety Procedures and Rules (D6), and Competence and Safety Training (D7). The mean values reveals that food delivery workers perceived lowest level on six dimensions D1, D2, D3, D4, D5, and D7, with scores ranging from 2.41 to 2.68. According to the NOSACQ-50 interpretations, these characteristics may need to be addressed and requires revision from the company to raise safety perceptions. Dimensions D6 have higher mean values (2.78), but it is still considered lowly perceived by the gig workers and implying that it requires improvement in the future. The findings elucidate the prevailing perceptions regarding the safety climate experienced by gig workers. It is observed that virtually all domains are assessed as relatively inadequate, which underscores the pressing need for an examination aimed at enhancing their occupational safety. These results illuminate specific attributes of the safety environment that may necessitate focused interventions and enhancements for food delivery personnel operating within meal delivery enterprises.

Table 3. Level of safety climate parameters

No	Dimension	Mean Value
		Gig Worker
1	Safety Management Commitment	2.56
2	Priority of Safety over Production	2.57
3	Participation and Communication	2.66
4	Organizational Learning	2.68
5	Safety Climate	2.41
6	Safety Procedures and Rules	2.78
7	Competence and Safety Training	2.62

It is appropriate to combine the Results and Discussion sections into a single section. Clear and concise results are required. The significance of the work's findings should be discussed in detail throughout the discussion section. Extensive citations and discussion of already published material should be avoided.

5. DISCUSSION

The analysis of the NOSACQ-50 data from Kuantan's food delivery services shed light on the sector's safety atmosphere. The mean values across dimensions reveal variations in how food delivery services perceive safety. Notably, all dimensions have low mean values, indicating potential issues with all related aspect in safety processes, communication, and overall safety culture. These findings are consistent with other research on safety climate, which emphasizes the importance of communication, management commitment, and organizational safety processes in shaping employees' perceptions of safety [11-14]. Lower mean scores in key aspects may indicate potential vulnerabilities that need targeted efforts to enhance food delivery services' safety awareness and conduct. Food delivery services must consider these findings when planning safety improvement strategies, which may include implementing targeted training programs, communication enhancements, or operational modifications to address the identified gaps [9].

Prior research supports the importance of these findings. Research in similar service industries repeatedly shows that a positive safety atmosphere leads to improved safety performance and lower accident rates [15]. For example, research in the logistics and transportation industries has highlighted the significance of communication, training, and management commitment in developing a positive safety culture among employees [16-19]. Drawing on these parallels, the current study's identification of features with lower mean scores underscores the need for targeted safety actions at food delivery services. Using previous research findings, industry stakeholders may implement evidence-based measures to enhance the safety climate, resulting in a safer working environment for food delivery workers in the food delivery services business.

6. CONCLUSION

The research contributes to understand the current condition of the safety climate of gig economy especially food delivery services. Based on the findings, it is recommended to improve in important aspects such as management commitment and safety prioritizing. Recommendations include strengthening safety policies, expanding communication channels, and creating effective training programs. Future research should include greater sample numbers and a wide range of firms to obtain full safety attitudes. However, constraints such as small breadth and dependence on a single questionnaire underscore the need for more studies to address safety concerns in the gig economy adequately.

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CONFLICT OF INTEREST

The authors declare no conflicts of interest

AUTHORS CONTRIBUTION

N. W. A. Mohd Yusoff (Methodology; Data curation; Formal analysis, Writing - original draft)

N. M. Hussin (Conceptualization; Supervision, Resources, Writing- Review & Editing)

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