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A STUDY OF QUALITY OF LIFE, SAFETY OF FOOD DELIVERY BOY AND THEIR ROLE IN GIG ECONOMY

Sapna Verma, Dr Rekha Khosla and Dr. Seema Wali

ABSTRACT

The online food delivery industry has boomed in recent years (Statista Reports, 2018). Many 'gig economy' food delivery services have launched and become increasingly popular, e.g., Uber-Eats in the United States and Grab Food in South Asia. In India Swiggy and Zomato have been playing crucial role in online food delivery services. During the COVID-19 pandemic, there has been a significant rise in the demand for online food delivery services (Ali et al., 2021). With the help of technological developments in telecommunication and geo-location, customers can order food via online platforms and have their food delivered to any location within the shortest time possible (Su et al., 2022). Meanwhile in delivering the food there are a lot of challenges faced by the delivery boys. There is a lot of issues that have already been discussed in the earlier research regarding the safety concern of the delivery personnel. In this study the objective is to assess the quality of life of food delivery personnel, their safety and their role in gig economy. The study is based on descriptive analysis using quantitative analysis. The study also proposes a model for the safety of gig workers. The data collected from the delivery professional in different parts of Uttar Pradesh.

Key words: Quality of Life, Perceived Safety risk, Gig Economy

I. INTRODUCTION

The rise in food delivery services has transformed the food industry, leading to increased demand for delivery personnel. The rise in demand in the food industry is also leading the fulfilling this demand in a timely manner. This industry is also based on quick delivery. Keeping in mind faster delivery, the delivery personnel make hurried decisions on several occasions. When we talk about the Quality of life for food delivery workers, it encompasses various dimensions, including economic stability, job satisfaction, and work-life balance. Many food delivery workers are classified as gig workers, often earning low wages without benefits such as healthcare or paid leave (DeStefano et al., 2021). Studies indicate that the

financial instability associated with gig work significantly affects their quality of life (Berg, 2020). Research suggests that job satisfaction among delivery workers can be mixed. Some appreciate the flexibility and autonomy of gig work, while others experience stress due to unpredictable income and long hours (Kalleberg & Dunn, 2016). Balancing work and personal life can be challenging for food delivery workers, particularly those working multiple jobs or long hours to make ends meet (Huws et al., 2017). This imbalance can lead to burnout and decreased overall well-being.

Safety is a critical issue for food delivery workers, encompassing both physical and psychological aspects. Delivery workers face significant risks on the road. Studies show that accidents are common, with many workers lacking adequate training for safe driving (Meyer et al., 2020). A report by the National Safety Council (2021) highlighted the increased accident rates among gig economy workers. The nature of the job exposes delivery workers to various health risks, including musculoskeletal disorders from prolonged riding and the potential for mental health issues due to stress and isolation (Kowalski et al., 2019). Delivery workers are also vulnerable to violence and harassment, particularly in urban areas. Reports indicate that many face verbal abuse or theft during their shifts, impacting their sense of safety (Benson et al., 2022).

II. LITERATURE REVIEW

A lot of literature has been reviewed on quality of life. A concise tabular representation of a literature review on quality of life. A summary sheet has been used focusing the key themes, findings, and sources in table 1

<Table 1>

A lot of literature has also been reviewed on the safety of food delivery workers. Again, a tabular representation of the literature review on the quality of life and safety of food delivery workers are presented in table 2.

<Table 2>

III. RESEARCH METHOD

Objective of Study

- To study the quality of life of food delivery personnel.

- To study the factors affecting the safety risk of food delivery personnel
- To study the factors affecting the work life imbalances of food delivery personnel.

Data Collection-

The data was collected from the food delivery personnel from Lucknow and Ayodhya. The techniques used for data collection are convenience sampling techniques. The data was collected through questionnaire and google form. The total sample collected for this study is 202 and 200 has been used for the study.

IV. ANALYSIS AND DISCUSSION

Confirmatory Factor Analysis

<Table 3>

The table presents the results of a confirmatory factor analysis (CFA), which is used to test whether a set of observed variables (indicators) reliably measure underlying latent factors.

Key Findings by Factor

- Time Pressure: Indicators TP2 (0.804) and TP3 (1.286) show very high loadings, indicating that they are strong indicators of Time Pressure. TP4 also has a significant loading but is lower than TP2 and TP3.
- Work Life Imbalance: All indicators (WLI1 to WLI4) have high loadings (ranging from 0.516 to 0.886), suggesting that these indicators effectively measure the construct of Work Life Imbalance.
- Working Environment: WE1 has the highest loading (0.812), indicating a strong contribution to the Working Environment factor, while WE3 (0.459) is relatively lower but still significant.
- Risk Riding Behavior: Indicators RRB5 (1.012) and RRB6 (0.993) have the highest loadings, highlighting their strong relationship with Risk Riding Behavior. All indicators show significant loadings.
- Perceived Safety Risk: PSR1 (0.847) and PSR2 (0.754) are strong indicators of this factor, suggesting they significantly contribute to the perception of safety risk.

Overall, the confirmatory factor analysis results demonstrate that the selected indicators reliably measure their respective latent factors, with all significant loadings ($p < .001$). This supports the validity of the measurement model. High factor loadings suggest that the indicators are well-chosen and effectively capture the constructs of interest, which is critical for further research or practical applications in related fields.

<Table 4>

Findings by Factor

- Time Pressure
  - Self-Covariance: Time Pressure has a loading of 1.0000 (fixed for identification).
  - Work Life Imbalance: A negative covariance of -0.4850 indicates that as Time Pressure increases, Work Life Imbalance tends to decrease, with high significance ($p < .001$).
  - Working Environment: The covariance is -0.0816, which is not statistically significant ($p = 0.176$), suggesting no meaningful relationship.
  - Risk Riding Behavior: A positive covariance of 0.2816 ($p = 0.002$) indicates that higher Time Pressure is associated with higher Risk Riding Behavior.
  - Perceived Safety Risk: A positive covariance of 0.1998 ($p = 0.025$) indicates a significant relationship, where increased Time Pressure correlates with higher Perceived Safety Risk.
- Work Life Imbalance
  - Self-Covariance: Fixed at 1.0000.
  - Working Environment: A positive covariance of 0.2245 ($p = 0.005$) suggests that as Work Life Imbalance increases, the Working Environment tends to improve, albeit modestly.
  - Risk Riding Behavior: A positive covariance of 0.2357 ($p = 0.002$) indicates that increased Work Life Imbalance is associated with higher Risk Riding Behavior.

- Perceived Safety Risk: The covariance of 0.1129 is not statistically significant (p = 0.223), indicating no meaningful relationship.

- Working Environment
  - Self-Covariance: Fixed at 1.0000.
  - Risk Riding Behavior: A covariance of 0.0385 is not statistically significant (p = 0.638), indicating no meaningful relationship.
  - Perceived Safety Risk: A significant positive covariance of 0.5386 (p < .001) indicates that a better Working Environment is strongly associated with lower Perceived Safety Risk.
- Risk Riding Behavior
  - Self-Covariance: Fixed at 1.0000.
  - Perceived Safety Risk: A strong positive covariance of 0.5572 (p < .001) suggests that increased Risk Riding Behavior is significantly associated with higher Perceived Safety Risk.
- Perceived Safety Risk
  - Self-Covariance: Fixed at 1.0000.

Summary of Relationships

- Significant Relationships:
  - Time Pressure negatively impacts Work Life Imbalance.
  - Time Pressure positively correlates with Risk Riding Behavior and Perceived Safety Risk.
  - Work Life Imbalance positively influences the Working Environment and Risk Riding Behavior.
  - Working Environment has a strong positive relationship with Perceived Safety Risk.
  - Risk Riding Behavior significantly relates to Perceived Safety Risk.
- Non-Significant Relationships:
  - No significant relationship between Time Pressure and Working Environment.

- No significant relationships between Work Life Imbalance and Perceived Safety Risk or Working Environment and Risk Riding Behavior.

V. CONCLUSION

Overall, the confirmatory factor analysis results demonstrate that the selected indicators reliably measure their respective latent factors, with all significant loadings ($p < .001$). This supports the validity of the measurement model. High factor loadings suggest that the indicators are well-chosen and effectively capture the constructs of interest, which is critical for further research or practical applications in related fields. The findings suggest a complex interplay among the factors related to work and risk behaviors. Time Pressure has a notable impact on both Risk Riding Behavior and Perceived Safety Risk, while the Working Environment plays a crucial role in influencing safety perceptions. The results provide a foundation for understanding how these factors interact and can inform interventions aimed at improving workplace safety and work-life balance.

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List of Tables

Table 1 Summary of Literature Review – Quality of Life

Sr No	Theme	Key Findings	Sources
1	Definitions of QoL	QoL is a multi-dimensional construct including physical, psychological, social, and environmental factors.	WHO (1995), Ferrans & Powers (1985)
2	Measurement Tools	Commonly used tools include WHOQOL, SF-36, EQ-5D, and qualitative methods like interviews.	Skevington et al. (2004), Brooks (1996)
3	Health Status	Chronic illnesses correlate with lower QoL; mental health significantly impacts life satisfaction.	Ware et al. (1993), Pirkis et al. (2009)
4	Socioeconomic Factors	Higher income, education, and employment status are linked to better QoL; disparities exist among demographics.	Deaton (2013), Marmot (2005)

Sr No	Theme	Key Findings	Sources
5	Social Support	Strong social networks enhance QoL; isolation negatively impacts well-being.	Cohen & Wills (1985), Umbreit (2009)
6	Environmental Impact	Access to green spaces and urban design influence physical and psychological well-being.	Kaplan & Kaplan (1989), Tyrväinen et al. (2005)
7	Specific Populations	QoL assessments vary among groups (e.g., older adults, individuals with disabilities); tailored interventions are necessary.	Bowling (2005), McGee et al. (2011)
8	Interventions	Health and community programs can significantly enhance QoL; holistic care approaches are effective.	Green et al. (2005), Kessler et al. (2006)
9	Cultural Considerations	QoL perceptions vary culturally; culturally sensitive interventions are essential.	Hyyppä & Mäki (2003), Diener et al. (2000)
10	Technological Impact	Telehealth and health apps are emerging as significant factors in improving QoL.	Nahum-Shani et al. (2017), Scully et al. (2015)
11	Sustainability	Environmental sustainability initiatives are linked to improved QoL.	Hawkes et al. (2015), Vivid Economics (2019)

Table 2 Summary of Literature Review – Food Safet

Sr No	Aspect	Key Findings	References
1	Economic Factors	Many gig workers earn low wages, often without benefits, impacting financial stability.	DeStefano et al., 2021; Berg, 2020
2	Job Satisfaction	Mixed feelings; flexibility appreciated but stress from income unpredictability noted.	Kalleberg & Dunn, 2016
3	Work-Life Balance	Challenges in balancing multiple jobs can lead to burnout and decreased well-being.	Huws et al., 2017
4	Road Safety	High risk of accidents; lack of adequate safety training reported.	Meyer et al., 2020
5	Health Risks	Exposure to musculoskeletal disorders and mental health issues due to stress.	Kowalski et al., 2019

Sr No	Aspect	Key Findings	References
6	Violence and Harassment	Vulnerability to verbal abuse and theft, especially in urban settings.	Benson et al., 2022
7	Advocacy and Labor Rights	Growing movements advocating for better conditions and protections for gig workers.	Graham et al., 2017
8	Safety Training Resources	Some companies are implementing safety training programs to mitigate risks.	Zhang et al., 2021

Table 3 Factor Loading

Factor	Indicator	Estimate	SE	Z	p	Stand. Estimate
Time Pressure	TP1	-0.115	0.0689	-1.67	0.094	-0.0912
	TP2	0.804	0.0973	8.26	< .001	0.6415
	TP3	1.286	0.1015	12.68	< .001	1.1918
	TP4	0.119	0.0504	2.36	0.019	0.1721
Work Life Imbalance	WLI1	0.758	0.0542	13.98	< .001	0.8414
	WLI2	0.886	0.0581	15.23	< .001	0.8907
	WLI3	0.545	0.0729	7.47	< .001	0.5215
	WLI4	0.516	0.0648	7.96	< .001	0.5517
Working Environment	WE1	0.812	0.0548	14.84	< .001	0.9143
	WE2	0.597	0.0450	13.26	< .001	0.8252
	WE3	0.459	0.0730	6.29	< .001	0.4706
Risk Riding Behavior	RRB1	0.410	0.0814	5.03	< .001	0.3694
	RRB2	0.411	0.0661	6.22	< .001	0.4478
	RRB3	0.476	0.0550	8.66	< .001	0.5915
	RRB4	0.308	0.0649	4.74	< .001	0.3442
	RRB5	1.012	0.0719	14.08	< .001	0.8398
	RRB6	0.993	0.0629	15.79	< .001	0.9090
Perceived Safety Risk	PSR1	0.847	0.0766	11.06	< .001	0.8443

Factor	Indicator	Estimate	SE	Z	p	Stand. Estimate
	PSR2	0.754	0.1077	7.00	< .001	0.5665
	PSR3	0.575	0.0709	8.11	< .001	0.5982

Table 4 Factor Estimates – Factor Covariances

		Estimate	SE	Z	p	Stand. Estimate
Time Pressure	Time Pressure	1.0000 [a]				
	Work Life Imbalance	-0.4850	0.0494	-9.825	< .001	-0.4850
	Working Environment	-0.0816	0.0603	-1.353	0.176	-0.0816
	Risk Riding Behavior	0.2816	0.0917	3.070	0.002	0.2816
	Perceived Safety Risk	0.1998	0.0894	2.234	0.025	0.1998
Work Life Imbalance	Work Life Imbalance	1.0000 [a]				
	Working Environment	0.2245	0.0792	2.834	0.005	0.2245
	Risk Riding Behavior	0.2357	0.0772	3.053	0.002	0.2357
	Perceived Safety Risk	0.1129	0.0926	1.219	0.223	0.1129
Working Environment	Working Environment	1.0000 [a]				
	Risk Riding Behavior	0.0385	0.0818	0.470	0.638	0.0385
	Perceived Safety Risk	0.5386	0.0718	7.502	< .001	0.5386
Risk Riding Behavior	Risk Riding Behavior Perceived Safety Risk	1.0000 [a] 0.5572	0.0770	7.233	< .001	0.5572
Perceived Safety Risk	Perceived Safety Risk	1.0000 [a]				

Authors Profile

Sapna Verma is Part time Research Scholar in Amity University Lucknow & working as a Sr Manager-IT in Punjab National Bank. Her qualification is B. Tech (IT), MBA (HRM). She has Completed 10 months course (28.07.24 to 25.05.25) Executive Programme in Fintech, Banking & Applied Risk Management from IIM Lucknow recently. Her professional Experience is Total 22 years' experience in Teaching/ different Public Sector Banks.	
Dr. Rekha Khosla is an Associate Professor at Amity University, Lucknow, with 22 years of experience spanning industry, teaching, and research. She holds a B.A., an M.B.A., and a Ph.D., specializing in Human Resource Development and Organizational Behaviour. Her academic focus includes leadership development, employee engagement, and workplace dynamics. Known for blending theoretical insight with real-world application, she mentors students and contributes actively to curriculum design, academic conferences, and research publications. Her interdisciplinary exposure makes her a respected educator and a passionate advocate for organizational growth and people-centric management practices.	
Dr. Seema Wali is the Principal of Techno Group of Institution, Lucknow, affiliated with Lucknow University, and brings approximately 25 years of distinguished experience in higher education and administration. She holds a Bachelor of Science (B.Sc.), a Master in Public Administration (MPA), and a Ph.D., specializing in Human Resource Management and Public Administration. Dr. Wali is recognized for her leadership in institutional development, academic excellence, and student engagement. Her visionary approach and commitment to creating dynamic learning environments continue to shape future professionals and foster innovation in public-sector management and human resource development.