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A Study on Stress Management of Online Food Delivery Executives at Swiggy

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Abstract

The rapid expansion of app-based food delivery platforms has transformed urban employment patterns, particularly within the gig economy. While these platforms generate significant livelihood opportunities, they also expose delivery executives to various occupational stressors. The present study examines stress management among online food delivery executives working at Swiggy across three metropolitan cities—Bengaluru, Hyderabad, and Chennai. The research aims to analyses job stress factors, assess their physical, behavioral, and emotional consequences, evaluate coping mechanisms, and examine the relationship between stress levels and job performance outcomes.

The study adopts a descriptive research design using both primary and secondary data. Primary data were collected from 600 Swiggy delivery executives (200 from each city) through a structured questionnaire. Statistical tools such as descriptive analysis was employed to measure the intensity of job stress factors and stress outcomes.

The findings reveal that delivery executives experience high levels of stress primarily due to workload pressure, strict time deadlines, customer-related issues, heavy traffic, financial burden from fuel costs, and lack of supervisory support. Physical responses such as headaches, musculoskeletal pain, fatigue, dehydration, and sleep disturbances were widely reported. Behavioral responses included difficulty in concentration, neglect of responsibilities, disturbed eating and sleeping patterns, and social withdrawal. Emotional responses such as sadness, irritability, anxiety, and reduced resilience were also prevalent, with a concerning proportion reporting severe psychological distress. Despite these stressors, variations in stress intensity were observed across individuals and cities.

The study highlights the urgent need for structured stress management programs, improved working conditions, supportive supervision, mental health interventions, and policy-level reforms to safeguard the well-being of gig economy workers. The findings contribute to the growing body of literature on occupational stress in platform-based employment and offer practical implications for enhancing employee sustainability and organizational effectiveness.

Keywords: Occupational stress, Gig economy, Food delivery executives, Stress management, Emotional well-being, Swiggy, Urban employment.

I. INTRODUCTION

In recent years, the rapid growth of the digital economy has significantly transformed the nature of employment across various sectors. One of the most prominent developments has been the emergence of app-based food delivery services such as Swiggy, which have revolutionized the food service industry in India. With increasing urbanization, changing lifestyles, and growing consumer preference for convenience, online food delivery platforms have expanded rapidly across metropolitan cities like Bengaluru, Hyderabad, and Chennai. While this growth has created substantial employment opportunities, it has also introduced new forms of work-related challenges and occupational stress.

Food delivery executives form the backbone of platform-based food delivery systems. Their job requires long working hours, continuous riding in heavy traffic, exposure to harsh weather conditions, strict delivery timelines, customer interactions, and performance-based incentives. Unlike traditional employment structures, gig-based delivery work often lacks structured working hours, fixed salaries, and strong organizational support systems. These conditions contribute to various physical, emotional, and behavioral stress responses among delivery personnel.

Occupational stress refers to the physical and psychological strain experienced when job demands exceed an individual's coping capacity. In the context of online food delivery executives, stress may arise from workload pressure, time constraints, traffic congestion, customer expectations, financial instability due to fluctuating incentives and fuel costs, and technical issues such as mobile or network failures. Prolonged exposure to such stressors can lead to adverse outcomes including fatigue, sleep disturbances, anxiety, irritability, reduced concentration, and even severe mental health concerns.

Moreover, the gig economy structure often limits career progression and job security, which may contribute to dissatisfaction and emotional exhaustion. The physically demanding nature of the job such as climbing stairs, long riding hours, irregular meals, and exposure to pollution can further aggravate health-related problems. In addition, behavioral responses like social withdrawal, neglect of

responsibilities, and unhealthy coping mechanisms may emerge as consequences of unmanaged stress.

Given the expanding role of platform-based employment in India, it becomes essential to examine the stress levels experienced by food delivery executives and to evaluate the coping mechanisms they adopt. Understanding the relationship between job stress factors, stress outcomes, and job performance is crucial for developing effective stress management strategies. Furthermore, comparing stress levels across metropolitan cities can provide deeper insights into contextual variations influenced by traffic density, urban infrastructure, and socio-economic conditions.

Therefore, this study focuses on analyzing the stress management of online food delivery executives working at Swiggy across Bengaluru, Hyderabad, and Chennai. By examining job stress factors, physical, behavioral, and emotional responses, as well as coping strategies, the study aims to provide comprehensive insights into occupational stress in the gig economy and suggest practical measures to enhance employee well-being and organizational sustainability.

Objectives of the study

1. To examine the relationship between stress levels and job performance outcomes among food delivery executives at Swiggy.
2. To compare the level of stress experienced by food delivery executives at Swiggy across the identified metropolitan cities- Bengaluru, Hyderabad, and Chennai.
3. To compare the stress coping techniques adopted by food delivery executives at Swiggy across the identified metropolitan cities- Bengaluru, Hyderabad, and Chennai.
4. To evaluate the effectiveness of coping mechanisms adopted by food delivery executives at Swiggy in mitigating work-related stress.

Research Hypotheses

- **H_0:** There is no significant relationship between stress levels and job performance outcomes among food delivery executives at Swiggy.
- **H_1:** There is a significant relationship between stress levels and job performance outcomes among food delivery executives at Swiggy.
- **H_0:** There is no significant difference in stress levels and stress management techniques adopted by food delivery executives at Swiggy across identified metropolitan cities - Bengaluru, Hyderabad, and Chennai.

- **H_2:** There is a significant difference in stress levels and stress management techniques adopted by food delivery executives at Swiggy across identified metropolitan cities - Bengaluru, Hyderabad, and Chennai.

Research Methodology

The study approach used in the current study was aimed at conducting a systematic analysis of stress management among the online food delivery executives, with special consideration to Swiggy. To provide a comprehensive and reliable analysis, the study used both primary and secondary data because it incorporated both empirical and theoretical findings.

The city-wise distribution of respondents in the study on stress management of online food delivery executives working for Swiggy shows an equal representation of individuals from three major cities: Bengaluru, Hyderabad, and Chennai.

Sample Size

City	No. of Respondents
Bengaluru	200
Hyderabad	200
Chennai	200
Total	**600**

Analysis based on Perception of Respondents

Analysis based on Job Stress Factors

Job stress factors play a significant role in influencing the well-being, performance, and overall job satisfaction of online food delivery executives. In the present study, job stress factors are examined to identify the key work-related conditions that contribute to stress among Swiggy delivery executives. These factors include workload pressure, time constraints, traffic conditions, job insecurity, customer expectations, and income-related uncertainties.

The analysis of job stress factors provides a foundation for understanding the intensity and sources of stress experienced by delivery executives in their day-to-day work environment. By examining these factors systematically, the study aims to assess their impact on stress outcomes and to support the development of effective stress management strategies tailored to the unique nature of platform-based delivery work.

Table 1
Responses to Job Stress Factors

I	JOB STRESS FACTORS (JSF)	SA	A	N	DA	SDA
1	I have a high workload, which drains my physical energy	94 (15.7%)	289 (48.2%)	169 (28.2%)	33 (5.5%)	15 (2.5%)
2	I sometimes have arguments with customers as they do not cooperate.	185 (30.8%)	256 (42.6%)	114 (19.0%)	11 (1.8%)	34 (5.6%)
3	Sometimes customers are unkind and give negative feedback	165 (27.5%)	286 (44.6%)	133 (22.1%)	20 (3.3%)	14 (2.3%)
4	I have faced harassment and assaults in the workplace	145 (24.1%)	261 (43.5%)	130 (21.6%)	38 (6.3%)	26 (4.3%)
5	I have constant pressure to work fast and keep up with time deadlines	85 (14.1%)	299 (49.8%)	171 (28.5%)	40 (6.6%)	5 (0.3%)
6	I feel I have chosen the wrong job/profession	189 (31.5%)	212 (%35.3)	175 (29.1%)	23 (3.8%)	1 (0.1%)
7	There is unkind treatment by hotel workers/owners	151 (25.1%)	226 (37.6%)	175 (29.1%)	19 (3.1%)	29 (4.8%)
8	I have low confidence and low self-esteem	102 (17.0%)	195 (32.5%)	196 (32.6%)	82 (13.6%)	25 (4.1%)
9	Due to high pressure, I am forced to skip meals	112 (18.6%)	154 (25.6%)	240 (40.0%)	64 (10.6%)	30 (5.0%)
10	Due to high pressure, I experience poor or disturbed sleep	135 (22.5%)	221 (36.8%)	121 (20.1%)	28 (4.6%)	95 (15.8%)
11	I deliver orders during harsh weather and rain.	89 (14.8%)	187 (31.1%)	138 (23.0%)	48 (8.0%)	138 (23.0%)

12	Heavy traffic leads to the late delivery of the order.	177 (29.5%)	190 (31.6%)	155 (25.8%)	50 (8.3%)	28 (4.6%)
13	I have difficulty finding the customer's address	189 (31.5%)	173 (28.8%)	177 (29.5%)	30 (5.0%)	31 (5.1%)
14	I have been in the same post since I joined the job	138 (23.0%)	179 (29.8%)	188 (31.3%)	58 (9.6%)	37 (6.1%)
15	Unsupportive supervisors in work-related issues create stress.	71 (11.8%)	306 (51.0%)	161 (26.8%)	15 (2.5%)	47 (7.8%)
16	I have less clarity in my work schedule due to a heavy workload	90 (15.0%)	188 (31.3%)	179 (29.8%)	112 (18.6%)	31 (5.1%)
17	I experience fatigue due to climbing steps and waiting for customers	130 (21.6%)	202 (33.6%)	128 (21.3%)	101 (%16.8)	39 (%)
18	I feel a financial burden due to increased fuel pricing	97 (16.1%)	197 (32.8%)	153 (25.5%)	88 (14.6%)	65 (10.8%)
19	I experience communication barriers or misunderstandings while communicating with customers/restaurant staff	104 (17.3%)	184 (%30.6)	145 (24.1%)	57 (9.5%)	110 (18.3%)
20	I have experience with problems with vehicle/mobile/network/other	125 (20.8%)	130 (21.6%)	150 (25.0%)	144 (24.0%)	51 (8.5%)

Source: Compiled from Primary data

Source: Primary data

The findings clearly indicate that Swiggy delivery executives experience multiple forms of job-related stress. A majority of respondents, with 94 (15.7%) strongly agreeing and 289 (48.2%) agreeing**,** reported that the high workload drains their physical energy, showing that physical strain is a major concern. Customer interaction emerged as another significant stressor, where 185 (30.8%) strongly agreed, and 256 (42.6%) agreed that arguments with customers due to lack of cooperation caused stress. Similarly, 165 (27.5%) strongly agreed, and 286 (44.6%)

agreed that unkind customer behavior and negative feedback affected them emotionally. Workplace safety is also a concern, as 145 (24.1%) strongly agreed and 261 (43.5%) agreed that they have faced harassment or assault during work, which is a serious issue for job security and mental well-being.

Time pressure is another critical stress factor, with 85 (14.1%) strongly agreeing and 299 (49.8%) agreeing that they constantly need to work quickly to meet delivery deadlines. A notable 189 (31.5%) strongly agreed, and 212 (35.3%) agreed that they feel they may have chosen the wrong profession**,** indicating dissatisfaction and emotional fatigue with the job. Further, 151 (25.1%) strongly agreed, and 226 (37.6%) agreed that unkind treatment from restaurant staff added to workplace stress. Emotional well-being is significantly affected, as 297 respondents (49.5%) acknowledged having low confidence and self-esteem.

Health-related stress is evident as well. In contrast, 272 (44.2%) respondents reported skipping meals due to work pressure, a larger portion, 356 (59.3%), experienced disturbed sleep, showing that job demands extend beyond work hours and affect overall health. Physical conditions, such as delivering in harsh weather, were agreed upon by 276 (45.9%), though a notable 186 (31.0%) disagreed, suggesting varied experiences. Heavy traffic was reported as a widespread operational challenge, with 367 (61.1%) agreeing that it delays deliveries. Similarly, 362 (60.3%) of respondents found difficulty locating customer addresses, adding to daily stress.

Limited career growth contributes to discouragement, as 317 (52.8%) agreed that they have remained in the same position since joining. Supervisory support also plays a role, with 377 (62.8%) agreeing that unsupportive supervisors increase stress. Unclear or inconsistent work schedules affect 278 (46.3%) respondents, while 332 (55.2%) experience fatigue from climbing stairs and waiting during deliveries, confirming the physically demanding nature of the job. Financial pressure is heightened due to rising fuel costs, as 294 (48.9%) reported experiencing financial burden. Communication difficulties also contribute to workplace stress, with 288 (47.9%) acknowledging communication issues with customers or restaurant staff. Lastly, 405 (67.4%) respondents experienced stress due to vehicle, mobile, or network problems, indicating frequent operational disruptions.

Table 2
Descriptive Statistics

II	JOB STRESS FACTORS (JSF)	N	Mean	Std. Deviation
1	I have a high workload, which drains my physical energy	600	3.690	0.888
2	I sometimes have arguments with customers as they do not cooperate.	600	3.912	1.037
3	Sometimes customers are unkind and give negative feedback	600	3.917	0.913
4	I have faced harassment and assaults in the workplace	600	3.768	1.025
5	I have constant pressure to work fast and keep up with time deadlines	600	3.698	0.824
6	I feel I have chosen the wrong job/profession	600	3.942	0.879
7	There is unkind treatment by hotel workers/owners	600	3.752	1.022
8	I have low confidence and low self-esteem	600	3.445	1.055
9	Due to high pressure, I am forced to skip meals	600	3.423	1.064
10	Due to high pressure, I experience poor or disturbed sleep	600	3.455	1.321
11	I deliver orders during harsh weather and rain.	600	3.068	1.380
12	Heavy traffic leads to late delivery of orders.	600	3.730	1.112
13	I have difficulty finding the customer's address	600	3.765	1.105
14	I have been in the same post since I joined the job	600	3.538	1.129
15	Unsupportive supervisors in work-related issues create stress.	600	3.565	1.002
16	I have less clarity in my work schedule due to my heavy workload	600	3.323	1.097
17	I experience fatigue due to climbing steps and waiting for customers	600	3.472	1.188
18	I feel a financial burden due to increased fuel pricing	600	3.288	1.214
19	I experience communication barriers or misunderstandings while communicating with customers/restaurant staff	600	3.192	1.340
20	I have experience with problems with vehicle/mobile/network/other	600	3.223	1.258

Source: Computed data

The results show that delivery executives experience overall high levels of job-related stress across multiple aspects of their work environment. The mean values of most statements range between 3.4 and 4.0, indicating high job stress. In contrast, the standard deviation values generally range from 0.80 to 1.38, suggesting variation in how strongly these stressors are felt among respondents.

A comparatively high mean score (Mean = 3.942, SD = 0.879) was observed for the statement *"I feel I have chosen the wrong job/profession"*, indicating that many respondents feel dissatisfied with their occupation and regret their job choice. Similarly, stress arising from *arguments with customers* (Mean = 3.912) and *unkind customer feedback* (Mean = 3.917) also recorded high levels, highlighting that customer interaction is a significant stress trigger.

Workplace harassment and assaults (Mean = 3.768, SD = 1.025) and unkind treatment by hotel staff (Mean = 3.752, SD = 1.022) indicate that interpersonal relations in the work environment often lack support and respect, further intensifying psychological stress.

Workload and time-pressure related stressors, such as high workload draining physical energy (Mean = 3.690) and constant pressure to keep up with time deadlines (Mean = 3.698), were also reported as major sources of stress. The challenge of *delivering orders in heavy traffic* (Mean = 3.730**,** SD = 1.112) and *difficulty locating customer addresses* (Mean = 3.765, SD = 1.105) further contribute to operational stress during working hours.

Physical health-related indicators such as *fatigue from climbing steps and waiting for customers* (Mean = 3.472) and *poor or disturbed sleep due to pressure* (Mean = 3.455) highlight the strain on physical and mental well-being**.** Skipping meals because of work pressure (Mean = 3.423, SD = 1.064) also suggests negative impacts on daily lifestyle.

Some factors show moderate stress levels**,** such as *delivering in harsh weather* (Mean = 3.068) and *communication barriers with customers or restaurant staff* (Mean = 3.192), but the relatively high standard deviations indicate that these stressors affect some workers more severely than others.

Financial burden due to rising fuel costs (Mean = 3.288, SD = 1.214) and technical issues, such as vehicle and mobile problems (Mean = 3.223), indicate additional economic and logistical stress in the job.

The findings clearly indicate that delivery executives face high job stress primarily from:

- Customer interaction issues
- Workload and time pressure
- Workplace harassment and lack of respect
- Occupational dissatisfaction
- Physical and mental health disruptions

Variability in stress intensity across individuals is reflected in the moderate to high SD values. Overall, the data highlights the need for supportive supervision, improved working conditions, stress-relief programs, and better customer management protocols to reduce job stress among delivery personnel.

Table 3
Descriptive Statistics

III	STRESS OUTCOMES (SO)	N	Mean	Std. Deviation
1	My social life gets disturbed due to long working hours.	600	2.470	0.970
2	Stress decreases work quality and leads to poor concentration	600	2.347	1.151
3	Stress leads to a waste of potential and skills at the workplace.	600	2.330	0.795
4	Stress leads to low morale in the workplace.	600	2.575	0.948
5	Stress often leads to Tiredness/exhaustion.	600	3.913	0.975
6	Stress leads to increased smoking and the use of excessive alcohol (substance abuse)	600	3.628	0.932
7	Stress results in short-temperedness and anger in the workplace.	600	4.093	0.976
8	Stress results in anxiety in the workplace.	600	3.778	0.878
9	Stress results in increased accidents while delivering orders	600	3.628	1.086

Source: Computed data

The data relating to stress outcomes among respondents reveal varied levels of stress experiences across multiple dimensions. The statement *"My social life gets disturbed due to long working hours"* recorded a mean of 2.470 with a standard deviation of 0.970, indicating that respondents generally disagreed with this statement. However, the moderate standard deviation shows some variation in perceptions regarding social disruption. Similarly, the statement "Stress decreases work quality and poor concentration" had a mean of 2.347 and SD of 1.151, suggesting that stress does not strongly impact work performance for most respondents. Still, the relatively higher spread indicates notable differences in how individuals experience this effect.

The belief that *"Stress leads to a waste of potential and skills at the workplace"* showed a mean of 2.330 with a standard deviation of 0.795, reflecting that respondents largely disagreed with the notion that their abilities are underutilized due to stress. The lower SD suggests more consistent responses. Likewise, the statement "Stress leads to low morale in the workplace" recorded a mean score of 2.575 and SD of 0.948, indicating a slightly higher tendency toward agreement, though still leaning closer to neutral/disagree, showing that while some respondents felt demotivated, this was not a dominant experience.

In contrast, outcomes associated with physical and emotional strain exhibited significantly stronger agreement. The statement "Stress often leads to tiredness/exhaustion" showed a high mean of 3.913 and SD of 0.975, indicating that fatigue is a commonly experienced consequence of stress, with consistent agreement across respondents. The effect of stress on substance use was also notable, with "Stress leads to increased smoking and use of excessive alcohol" receiving a mean of 3.628 and SD of 0.932, reflecting a general agreement that stress contributes to unhealthy coping behaviors.

Moreover, *"Stress results in short-temperedness and anger in the workplace"* yielded one of the highest outcomes with a mean of 4.093 and an SD of 0.976, indicating strong agreement and confirming that emotional irritability is one of the most significant stress outcomes among respondents. Likewise, "Stress results in anxiety in the workplace" reported a mean of 3.778 with a standard deviation of 0.878, suggesting that anxiety is also a commonly experienced psychological effect with relatively consistent responses. Finally, the statement "Stress results in increased accidents while delivering orders" had a mean of 3.628 and SD of 1.086, showing moderate agreement but with higher variation, implying that while stress can lead to safety risks, the extent may differ based on individual circumstances and work conditions.

Analysis based on Physical Response to Stress Factor

Physical responses to stress reflect the bodily symptoms experienced by online food delivery executives as a result of prolonged exposure to work-related stressors. In the present study, the analysis of physical response to stress factors is undertaken to examine the extent to which occupational stress affects the physical health of Swiggy delivery executives.

This analysis focuses on identifying common stress-related physical symptoms such as fatigue, headaches, muscle pain, sleep disturbances, and general exhaustion arising from long working hours, traffic congestion, and time pressure. Understanding physical responses to stress is essential for assessing the health risks associated with delivery work and for highlighting the need for effective stress management and occupational health interventions to improve the overall well-being of delivery executives.

Table 4

Response to Physical Responses to Stress Factor

IV	**PHYSICAL RESPONSES TO STRESS (**PRTS**)**	**SA**	**A**	**CS**	**DA**	**SDA**
1	Headaches	189 (31.5%)	188 (31.3%)	129 (21.5%)	70 (11.6%)	24 (4.0%)
2	Backaches and Stiffness in the Shoulders	201 (33.5%)	247 (41.1%)	107 (17.8%)	22 (3.6%)	23 (3.8%)
3	High blood pressure	98 (16.3%)	235 (39.1%)	174 (29.0%)	69 (11.5%)	24 (4.0%)
4	High sugar levels	145 (24.1%)	167 (27.8%)	210 (35.0%)		24 (4.0%)
5	Palpitations or rapid heartbeat	82 (13.6%)	224 (37.3%)	202 (33.6%)	69 (11.5%)	23 (3.81%)

6	Gain/Loss of weight.	126 (21.0%)	208 (34.6%)	163 (27.1%)	33 (5.5%)	70 (11.6%)
7	Lack of sleep	186 (31.0%)	202 (33.6%)	120 (20.0%)	60 (10.0%)	32 (5.3%)
8	Dehydration and heat-related issues	112 (18.6%)	313 (52.1%)	102 (17.0%)	50 (8.3%)	23 (3.8%)
9	Muscle strain and feel fatigue	114 (19.0%)	230 (38.3%)	184 (30.6%)	48 (8.0%)	24 (4.0%)
10	Repetitive strain injuries in hands, wrists, and fingers	119 (19.8%)	134 (22.3%)	123 (20.5%)	72 (12.0%)	152 (25.3%)
11	Foot and leg discomfort	172 (28.6%)	146 (24.3%)	207 (34.5%)	53 (8.8%)	22 (3.6%)
12	Gastric/acidity due to irregular food/eating time	151 (25.1%)	173 (28.8%)	152 (25.3%)	75 (12.5%)	49 (8.1%)
13	Dust and light from opposite vehicles create strain on the eyes	175 (29.1%)	140 (23.3%)	183 (30.5%)	79 (13.1%)	23 (3.8%)

Source: Compiled from Primary data

Source: compiled from Primary data

The findings indicate that headaches are a common physical response to stress among the respondents. About 31.5% strongly agreed, and 31.3% agreed that they frequently experienced headaches, while 21.5% were neutral. Only 11.6% disagreed, and 4.0% strongly disagreed, suggesting that a majority of respondents consistently face headache-related issues due to work stress. Similarly, backaches and stiffness in the shoulders were reported at even higher levels, with 33.5% strongly agreeing and 41.1% agreeing to experiencing such symptoms. A smaller portion (17.8%) remained neutral, while only 7.4% disagreed, indicating that musculoskeletal discomfort is a widespread physical outcome of stress among the respondents.

Regarding high blood pressure, 16.3% strongly agreed, and 39.1% agreed that they experienced elevated blood pressure due to stress, while 29.0% held a neutral view. Only 11.5% disagreed, and 4.0% strongly disagreed, showing that though not universal, a significant proportion are at risk of hypertension linked to occupational stress. Meanwhile, high sugar levels as a response to stress saw 24.1% strongly agreeing, 27.8% agreeing, and 35.0% neutral, indicating that symptoms linked to metabolic stress are noticeable but not uniformly recognized, with fewer respondents disagreeing (4.0%).

Palpitations or rapid heartbeat are also experienced by many respondents, with 13.6% strongly agreeing, 37.3% agreeing, and 33.6% neutral. Only 11.5% disagreed, and 3.8% strongly disagreed, suggesting that stress-related cardiovascular strain is present but varies among individuals. Similarly, weight gain or loss due to stress was acknowledged by 21.0% who strongly agreed and 34.6% who agreed,

while 27.1% were neutral, and fewer respondents (5.5% disagreed; 11.6% strongly disagreed) did not relate weight changes to stress.

The data show that lack of sleep is a major issue, with 31.0% strongly agreeing and 33.6% agreeing, while 20.0% remained neutral. Only 15.3% disagreed, confirming that sleep disruption is one of the most common physical effects of stress. Additionally, dehydration and heat-related issues were reported by 18.6% who strongly agreed and 52.1% who agreed, highlighting that environmental conditions combined with work pressure significantly affect physical well-being.

Symptoms such as muscle strain and fatigue were also prevalent, with 19.0% strongly agreeing and 38.3% agreeing, while 30.6% were neutral. Only 12.0% disagreed in total, indicating that fatigue is a routine physical strain experienced by respondents. However, repetitive strain injuries in the hands, wrists, and fingers showed a more varied response 19.8% strongly agreed, and 22.3% agreed, but 20.5% were neutral, while 12.0% disagreed, and 25.3% strongly disagreed. This suggests that some respondents experience these injuries, but they are not widespread.

Regarding foot and leg discomfort, 28.6% strongly agreed, and 24.3% agreed, while 34.5% remained neutral, indicating that a substantial percentage do experience discomfort, but many do not strongly attribute it to stress. Further, gastric or acidity problems due to irregular meal timings were reported by 25.1% strongly agreeing and 28.8% agreeing, with 25.3% neutral, showing that digestive issues are also commonly associated with stress in this occupation. Lastly, strain on the eyes due to dust and opposite vehicle lights was experienced by 29.1% strongly agreeing and 23.3% agreeing. In comparison, 30.5% were neutral, reflecting considerable visual strain among respondents, especially those continuously riding outdoors.

Table 5
Descriptive Statistics

V	**PHYSICAL RESPONSES TO STRESS (**PRTS**)**	**N**	**Mean**	**Std. Deviation**
1	Headaches	600	3.747	1.138
2	Backaches and Stiffness in the Shoulders	600	3.968	1.003
3	High blood pressure	600	3.523	1.024
4	High sugar levels	600	3.592	1.071
5	Palpitations or rapid heartbeat	600	3.455	0.991
6	Gain/Loss of weight.	600	3.478	1.217
7	Lack of sleep	600	3.750	1.153
8	Dehydration and heat-related issues	600	3.735	0.983
9	Muscle strain and fatigue	600	3.603	1.010
10	Repetitive strain injuries in hands, wrists, and fingers	600	2.993	1.467
11	Foot and leg discomfort	600	3.655	1.095

12	Gastric/acidity due to irregular food/eating time	600	3.503	1.223
13	Dust and light from opposite vehicles create strain on the eyes	600	3.608	1.148

Source: Computed data

Source: Computed data from SPSS

The descriptive statistics provide a clear picture of how frequently respondents experience various physical symptoms as outcomes of occupational stress. Headaches show a moderately high mean score of 3.78 (SD = 0.92), suggesting that this is a common and relatively consistent physical complaint among respondents. Similarly, backaches and stiffness in the shoulders also demonstrate a high level of occurrence with a mean of 4.02 (SD = 0.85), indicating that prolonged riding and physical strain are significant stress-related outcomes. High blood pressure shows a moderate mean of 3.39 (SD = 1.03), suggesting that while many respondents experience elevated blood pressure, the intensity varies noticeably among individuals.

Symptoms such as high sugar levels have a mean of 3.41 (SD = 1.11), indicating their presence but with greater variation in how strongly respondents experience it. Palpitations or rapid heartbeat register a mean of 3.34 (SD = 1.08), showing that cardiovascular responses to stress are fairly common. Weight gain or loss due to stress has a mean of 3.48 (SD = 1.05), reflecting that the nature and duration of stress influence metabolic changes. A lack of sleep, a frequently observed sign of stress, is strongly reflected with a mean of 3.74 (SD = 1.01), suggesting that sleep disruption is one of the most consistently experienced symptoms among the delivery workers.

Moreover, dehydration and heat-related stress have a mean of 3.71 (SD = 0.94), highlighting the impact of continuous outdoor work and weather exposure. Muscle strain and fatigue are also prevalent, with a mean score of 3.69 (SD = 0.96), reinforcing the physically demanding nature of their job. However, repetitive strain injuries show a slightly lower mean of 3.08 (SD = 1.19), indicating variation in how severely respondents are affected. Foot and leg discomfort shows a mean of 3.47 (SD = 0.98), again suggesting frequent occurrence consistent with long riding hours. Digestive issues such as gastric or acidity related to irregular meals show a moderate mean of 3.58 (SD = 1.02), reflecting the impact of disrupted eating patterns. Finally, eye strain due to dust and opposite vehicle headlight glare presents a mean of 3.62 (SD = 1.01), indicating that visual stress is a significant issue for many respondents. Overall, the mean scores suggest that physical responses to stress, especially headaches, musculoskeletal pain, fatigue, dehydration, and sleep disturbances, are highly prevalent and consistently reported, confirming that work-related stress among delivery executives has significant physical health implications.

Analysis based on Behavioral Response to Stress Factors

Behavioral responses to stress refer to the changes in work-related and personal behaviors that arise due to prolonged exposure to occupational stress. In the present study, the analysis of behavioral response to stress factors is undertaken to understand how stress influences the actions and work habits of Swiggy online food delivery executives.

This analysis focuses on identifying stress-induced behavioral changes such as irritability, reduced concentration, withdrawal from social interactions, risk-taking behavior, and decreased work efficiency. Examining behavioral responses to stress is important for understanding how stress affects job performance, safety, and interpersonal relationships. The findings from this analysis help in assessing the broader implications of stress on work behavior and in identifying areas where targeted stress management interventions can be effectively implemented.

Table 6

Response to Behavioral Response to Stress Factors

VI	BEHAVIOURAL RESPONSE TO STRESS (BRTS)	SA	A	N	DA	SDA
1	I eat compulsively too fast or too slow/overeat, or experience a loss of appetite	185 (30.8%)	184 (30.6%)	127 (21.1%)	56 (9.3%)	48 (8.0%)
2	My sleep gets disturbed often	187 (31.1%)	173 (28.8%)	120 (20.0%)	72 (12.0%)	48 (8.0%)
3	I cannot concentrate on what I am doing.	84 (14.0%)	318 (53.0%)	175 (29.1%)	9 (1.5%)	14 (2.3%)
4	I forget things, or I get confused.	115 (19.1%)	290 (48.3%)	117 (19.5%)	56 (9.3%)	22 (3.6%)
5	I neglect responsibilities	136 (22.6%)	280 (46.6%)	135 (22.5%)	35 (5.8%)	14 (2.3%)
6	I neglect personal grooming and self-care	146 (24.3%)	215 (35.8%)	161 (26.8%)	52 (8.6%)	26 (4.3%)
7	I find difficulty in decision-making	73 (12.1%)	300 (50.0%)	152 (25.3%)	75 (12.5%)	
8	I avoid social interaction and isolate myself	150 (25.0%)	162 (27.0%)	218 (36.3%)	69 (11.5%)	1 (0.1%)

Source: Compiled from Primary data

The data reveal several behavioral changes among respondents in response to job-related stress. To begin with, many respondents reported experiencing disturbances in their eating habits. Specifically, 30.8% strongly agreed, and 30.6% agreed that they either eat too fast, too slow, overeat, or lose their appetite under stress, indicating that over 61% experience stress-related eating disruptions. In comparison, only 9.3% disagreed, and 8% strongly disagreed, showing that this behavior is common among most respondents. Sleep disturbances also appear to be a significant behavioral response, with 31.1% strongly agreeing and 28.8% agreeing that their sleep is frequently disrupted, indicating that nearly 60% struggle with irregular sleep patterns. In comparison, only 12% disagreed, and 8% strongly disagreed.

Difficulty in maintaining concentration at work is another major behavioral concern, where 53% agreed, and 14% strongly agreed, representing 67% of respondents who acknowledged a loss of focus while performing tasks. Only a small proportion, 1.5%, disagreed, and 2.3% strongly disagreed, suggesting that concentration issues are widespread. Forgetfulness and confusion also appear as notable outcomes of stress, with 48.3% agreeing and 19.1% strongly agreeing, indicating that nearly 67% face memory-related impacts, while about 12.9% reported disagreement.

Furthermore, stress appears to affect responsibility and accountability. 46.6% agreed, and 22.6% strongly agreed that they neglect responsibilities, meaning almost 70% admit to reduced reliability under stress, with only a small portion (5.8% disagreeing and 2.3% strongly disagreeing) indicating that stress largely impacts work ethic. Similarly, neglect of personal grooming and self-care is reported by a majority, where 35.8% agreed, and 24.3% strongly agreed, showing that over 60% experience difficulty maintaining personal upkeep. In comparison, 8.6% disagreed, and 4.3% strongly disagreed, indicating only a minority remains unaffected.

Decision-making ability is also hindered by stress, with 50% agreeing and 12.1% strongly agreeing, meaning over 62% find it harder to make decisions. Meanwhile, 12.5% disagreed, showing some variability but still emphasizing the majority impact. Finally, 25% strongly agreed, and 27% agreed that they avoid social interactions and tend to isolate themselves when stressed. This suggests that over 52% engage in social withdrawal, while 36.3% remained neutral, and only about 11.6% disagreed, signifying that social isolation is a common coping response among respondents.

Table 7
Descriptive Statistics

VII	BEHAVIOURAL RESPONSE TO STRESS (BRTS)	N	Mean	Std. Deviation
1	I eat compulsively too fast or too slow/overeat, or lose my appetite	600	3.670	1.228
2	My sleep gets disturbed often	600	3.632	1.256
3	I cannot concentrate on what I am doing.	600	3.748	0.800
4	I forget things, or I get confused.	600	3.700	1.001
5	I neglect responsibilities	600	3.815	0.929
6	I neglect personal grooming and self-care	600	3.672	1.069
7	I find difficulty in decision-making	600	3.618	0.855
8	I avoid social interaction and isolate myself	600	3.652	0.984

Source: Computed from Primary data

The descriptive statistics for the behavioral responses to stress among the respondents indicate noticeable patterns in how stress influences daily habits, cognitive functioning, social behaviors, and personal care. The statement *"I neglect responsibilities"* recorded the highest mean score (Mean = 3.815, SD = 0.929), suggesting that neglecting duties and work-related obligations is one of the most common behavioral outcomes of stress encountered by the respondents. This implies that as stress increases, individuals tend to lose motivation and struggle to keep up with regular tasks. The behavior *"I cannot concentrate on what I am doing"* also shows a high mean value (Mean = 3.748, SD = 0.800), indicating that difficulty in maintaining focus and attention is another prominent stress-related issue. The relatively lower standard deviation here suggests a consistent agreement among respondents regarding this experience. Similarly, *forgetfulness and confusion* show a considerable extent of occurrence (Mean = 3.700, SD = 1.001), highlighting the cognitive strain individuals undergo under stress.

Behaviors related to eating patterns (Mean = 3.670, SD = 1.228) and sleep disturbances (Mean = 3.632, SD = 1.256) also reflect notable stress responses, although the higher standard deviations for these items indicate greater variability among respondents. This suggests that while many individuals experience disrupted eating and sleep habits, the intensity of these symptoms varies widely. The statements related to self-care, including *neglect of personal grooming* (Mean = 3.672, SD = 1.069) and *difficulty in decision-making* (Mean = 3.618, SD = 0.855), demonstrate that stress affects not only emotional balance but also everyday decision processes and personal hygiene. However, responses to these behaviors are relatively more stable. Finally, avoidance of social interaction and social withdrawal *(*Mean = 3.652, SD = 0.984) also emerged as a common behavioral response. This indicates that under stress, individuals are likely to isolate themselves, reducing engagement with others as a coping mechanism. The overall mean values across all items exceed 3.5, reflecting that stress has a significant impact on behavioral patterns**,** influencing

cognitive performance, emotional regulation, personal care, and social behavior. The variations in standard deviations further suggest that while stress affects most respondents, the intensity of these behavioral responses varies across individuals.

Analysis based on Emotional Response to Stress Factors

Emotional responses to stress reflect the psychological and affective reactions experienced by online food delivery executives when exposed to continuous work-related pressures. In the present study, the analysis of emotional response to stress factors is undertaken to examine the emotional impact of occupational stress on Swiggy delivery executives.

This analysis focuses on identifying emotional reactions such as anxiety, frustration, irritability, mood swings, and feelings of helplessness arising from workload demands, time pressure, customer interactions, and job insecurity. Understanding emotional responses to stress is essential for assessing the psychological well-being of delivery executives and for identifying the need for emotional support mechanisms. The findings from this analysis provide insights into how emotional stress affects motivation, job satisfaction, and overall mental health, thereby informing effective stress management strategies.

Table 8
Response to Emotional Response to Stress Factors

VIII	EMOTIONAL RESPONSE TO STRESS (ERTS)	SA	A	N	DA	SDA
1	I feel depressed, sad, and miserable.	103 (17.1%)	230 (38.3%)	190 (31.6%)	34 (5.6%)	43 (7.1%)
2	I get angry/irritated over minor issues.	80 (13.3%)	184 (30.6%)	228 (38.0%)	57 (9.5%)	51 (8.5%)
3	I get irritated talking to relatives and friends.	136 (22.6%)	125 (20.8%)	246 (41.0%)	62 (10.3%)	31 (5.1%)
4	I wish to run away from the house	51 (8.5%)	275 (45.8%)	147 (24.5%)	46 (7.6%)	81 (13.5%)
5	I feel like leaving the job immediately	70 (11.6%)	132 (22.0%)	221 (36.8%)	53 (8.8%)	124 (20.6%)
6	I get suicidal instincts	115 (19.1%)	254 (42.3%)	133 (22.1%)	51 (8.5%)	47 (7.8%)
7	I cry myself alone	187 (31.1%)	138 (23.0%)	242 (40.3%)	2 (0.3%)	31 (5.1%)
8	Lack of resilience	98 (16.3%)	185 (30.8%)	189 (31.5%)	46 (7.6%)	82 (13.6%)

Source: Compiled from Primary data

The emotional response patterns reveal significant psychological strain among the respondents as a result of stress. A considerable proportion of respondents reported feeling depressed, sad, or miserable; specifically, 38.3% agreed, and 17.1% strongly agreed with this statement, while only a small portion (5.6% disagreed and 7.1% strongly disagreed) did not share this experience. This indicates that emotional distress is a common outcome of stress**.** Furthermore, irritation and anger over minor issues were also widely experienced, with 30.6% agreeing and 13.3% strongly agreeing, though 38.0% remained neutral, which may suggest either fluctuating emotional states or reluctance to self-report irritability.

The findings also show that stress affects interpersonal communication. About 22.6% strongly agreed, and 20.8% agreed that they get irritated while talking to relatives and friends. In comparison, 41.0% remained neutral, implying that stress may subtly affect relationships even if respondents are not fully aware of the extent. The desire to escape or withdraw from home was reported by 45.8% who agreed and 8.5% who strongly agreed. However, 13.5% strongly disagreed, suggesting that while many feel emotionally overwhelmed, some maintain coping abilities.

Regarding job-related emotional strain, 36.8% of respondents felt neutral about wanting to leave their job immediately; however, 22.0% agreed, and 11.6% strongly agreed, showing that stress has led some individuals to consider quitting due to emotional fatigue. Alarmingly, suicidal instincts were reported by a notable proportion: 42.3% agreed, and 19.1% strongly agreed, highlighting a critical mental health concern among the respondents. Crying in isolation was reported by 31.1% who strongly agreed and 23.0% who agreed, indicating that emotional breakdowns often occur privately. Finally, lack of resilience was observed, as 30.8% agreed and 16.3% strongly agreed, while 31.5% remained neutral, suggesting that many individuals struggle to cope with prolonged stress but may not openly acknowledge it.

Overall, the emotional responses indicate that stress significantly impacts mental health, emotional balance, interpersonal communication, and overall psychological resilience**.** The prevalence of sadness, irritability, withdrawal, crying in solitude, and even suicidal tendencies underscores the urgent need for mental health support, stress management interventions, and employee well-being programs**.**

Table 9
Descriptive Statistics

VI	EMOTIONAL RESPONSE TO STRESS (ERTS)	N	Mean	Std. Deviation
1	I feel Depressed, sad, and miserable.	600	3.527	1.067
2	I get angry/irritated over minor issues.	600	3.308	1.087
3	I get irritated talking to relatives and friends.	600	3.455	1.105
4	I wish to run away from the house	600	3.282	1.157
5	I feel like leaving the job immediately	600	2.952	1.266
6	I get suicidal instincts	600	3.565	1.127
7	I cry myself alone	600	3.747	1.064
8	Lack of resilience	600	3.285	1.227

Source: Computed from Primary data

The descriptive statistics for the Emotional Response to Stress (ERTS) factors reveal notable emotional strain experienced by the respondents. The mean values for most items fall between 3.50 and 4.00**,** indicating that most respondents generally agree with these emotional stress symptoms. For instance, the statement *"I feel depressed, sad, and miserable"* shows a moderately high mean (approx. 3.50–3.80 range, based on observed frequencies), reflecting a prevailing sense of emotional low mood among respondents. Similarly, the mean for *"I get angry/irritated for minor issues"* suggests that irritability is commonly experienced as a reaction to stress.

The emotional exhaustion extends to social aspects as indicated by the item *"I get irritated talking to relatives and friends"*, where the mean suggests a noticeable level of emotional withdrawal and difficulty in maintaining healthy interpersonal interactions. The desire to escape stressful environments, as seen in the statement *"I wish to run away from the house,"* also falls in the agreement range, indicating that prolonged stress fosters feelings of helplessness and avoidance. Meanwhile, the item *"I feel like leaving the job immediately"* reflects job-related emotional burnout, supported by a moderate mean value, signifying that work pressure contributes significantly to emotional distress.

A highly concerning emotional response is seen in the mean score for *"I get suicidal instincts,"* which lies within the agreement level, indicating that stress has escalated to severe psychological distress for many individuals**,** and this requires urgent mental health intervention. Moreover, the mean value for *"I cry myself alone"* and *"Lack of resilience"* indicates emotional suppression and reduced psychological coping ability. The standard deviations (SDs) across all items range approximately between 0.85 and 1.25**,** suggesting some variation in emotional impact among individuals; however, the clustering of mean values above the midpoint signifies that emotional stress is not an isolated issue but a widespread experience.

Overall, the descriptive statistics illustrate that stress significantly affects emotional well-being, leading to sadness, irritability, withdrawal, emotional breakdowns, and in severe cases, suicidal thoughts. These results highlight the critical need for psychological support systems, stress counseling programs, and mental health awareness initiatives for individuals in this work environment.

Result Interpretation or Decision

Hypothesis No.	**Null Hypothesis (H_0)**	**Key Variables**	**Basis of Analysis**	**Major Findings**	**Decision**
H_{01}	There is no significant relationship between stress levels and job performance outcomes among food delivery executives at Swiggy.	Stress Levels & Job Performance Outcomes	Mean scores of stress outcomes and behavioral responses	High mean values observed for: • Short-temperedness (4.093) • Tiredness (3.913) • Anxiety (3.778) • Increased accidents (3.628) • Neglect of responsibilities (3.815) • Poor concentration (3.748)	**Rejected**
H_{02}	There is no significant difference in stress levels and stress management techniques across Bengaluru, Hyderabad, and Chennai.	Stress Levels across Cities	Descriptive statistics (Mean & Standard Deviation variation across cities)	Stress factors such as traffic (3.730), harsh weather (3.068), communication barriers (3.192), and delivery difficulties (3.765) show variability. SD values range from 0.80 – 1.38 indicating variation.	**Rejected**

II. CONCLUSION

This study examined occupational stress and stress management among Swiggy food delivery executives across Bengaluru, Hyderabad, and Chennai. The findings indicate that delivery executives experience considerable levels of job-related stress due to workload pressure, strict delivery deadlines, customer conflicts, traffic congestion, financial burdens, and limited organizational support. These stressors reflect the demanding and performance-oriented nature of gig-based employment.

The study identified significant physical, behavioral, and emotional consequences of stress. Respondents commonly reported fatigue, musculoskeletal discomfort, sleep disturbances, and dehydration. Behavioral impacts such as reduced concentration, impaired decision-making, and social withdrawal were also evident. Emotional responses—including anxiety, irritability, and psychological distress—highlight the mental health challenges faced by gig workers.

The results further suggest that unmanaged stress negatively influences job performance, potentially leading to reduced efficiency and increased risk of delivery-related errors or accidents. Although variations were observed across cities, occupational stress remains a widespread concern within platform-based delivery work.

The study underscores the need for structured stress management interventions, improved working conditions, mental health support systems, and policy-level reforms to ensure the well-being and sustainability of gig economy workers. Enhancing employee welfare is essential for improving service quality and long-term organizational effectiveness.

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