Problems and Probable Solutions of Platform Based Gig Workers A Study with Reference to Platform-Based Gig Workers in Andhra Pradesh

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ARTICLE INFO	ABSTRACT
	The main purpose of conducting this research study is to identify and examine the problems faced by the platform-based gig workers and to offer suggestions that will eradicate these problems and will ensure welfare and well-being of the platform-based gig workers. For conducting the current study, the researcher has used descriptive and explanatory research designs. Data has been collected using the well-structured questionnaire and interview methods. The major problems identified were No employer-employee relation, Low and inconsistent earnings, Algorithmic management. These problems are negatively impacting the stress levels and welfare of the platform-based gig workers. To eradicate these problems both the government and platform-based companies need to make some structural changes in legislations and company policies respectively. The government has to bring platform-based gig workers in the purview of labor legislations in India. And should make legislations related to minimum living wage and provision of social security benefits for the platform-based gig workers. The platform-based companies have to remove or reduce the scope of algorithmic management and impart more humanized management in these companies. Some key decisions like deactivation, work load assignment and redressal of grievances should be dealt with humanized management rather than algorithmic management. And these companies need to consider workers as employees and should offer social security benefits like pension, provident fund and insurance. The researcher made these suggestions by considering the views of the respondents and strongly believing that these structural changes will eradicate problems of platform-based gig workers.

INTRODUCTION TO PLATFORM ECONOMY:

Platform workers are those individuals who provide services through digital platforms such as food delivery, e-commerce, ride-handling, home services. All these services were available through Applications like Amazon, Flipkart, Myntra, Zomato, Swiggy, Uber, Ola, Rapido etc., These workers come under the category of Gig economy. As it is a very growing economy providing opportunities for many individuals as platform workers. With the widespread usage of smartphones and accessible internet facilitates usage of online services have increased and offers great amount of convenience.

Platform Economy in India:

India is having greater number of platform workers. World bank estimates that nearly 7.7 million individuals working in platform economy by 2023. It could increase up to 23.5 million by 2029-2030. In the transport and delivery sectors, an estimated 84-90 percent of the workers derive their main source of income from this work. As it facilitates major source of employment in our country. Despite being employment provision there are certain vulnerabilities that these platform workers are facing in India. These vulnerabilities include no Employer – Employee relationship, No job security, No social security benefits, Algorithmic management, Deactivation etc.,

This paper critically examines the current social status of platform workers. It examines their livelihood, working conditions, benefits they receive, vulnerabilities they face, legal support they have, status of their social security benefits etc., Online platform giants call these platform workers as partners, independent contractors, taskers, freelancers etc., In all these terminologies they are emphasizing flexibility and independence. But, on the other side they are avoiding legal obligations that tied to formal employment.

REVIEW OF LITERATURE:

➢   Flexibility and autonomy are very crucial factors which are motivating workers in the gig economy. These motives are aligned with self-determination theory, which posits that autonomy is a fundamental psychological need. Meeting this need boosts intrinsic motivation – which naturally drives to perform tasks better for personal satisfaction rather than external rewards. (Rawat, 2024)

➢   In his thesis he stated that "With the greater advancement in technology, invention of smart phones and high-speed internet facilities has made gig economy much bigger. Millions of workers working in this economy and the stimulating factors to work in this these online platforms and gig works are Flexibility and autonomy, Networking and social connections, Variety and novelty, Skill utilization and development, Income opportunities". (Tripathi, 2023)

➢   Platform based companies are avoiding significant risks like harassment from customers, wrongdoings of customers and they are also avoiding majority costs like transportation costs, damage to tools and assets and diverting these losses and costs to workers. Apart from these costs and losses workers are also facing problems related to deactivation, algorithmic management etc. (Juliet B. Schor, 2020)

➢   The growing platform economy is considered as a long-term transformation of the labor market. Which is a result of continuous efforts of the platform companies. It enhances flexibility and autonomy in doing the work. But, on the other side it clearly reduces the benefits that are offered from traditional employment schemes such as Job security, Minimum living wage, provision of social security benefits like pension, insurance, provident fund etc. (Vallas, 2018)

➢   The term contingent work is defined in a way that it differs from full time, permanent, wage and salary employment. It is a non-standard way of work emphasizing flexibility and autonomy. (K.E., 1988)

Research methodology:

Research Design: For the current study the researcher is using Descriptive and explanatory Designs for describing the status and problems faced by the platform-based gig workers in India and to analyze the impact of independent variable (i.e., challenges faced by gig workers) on dependent variable (i.e., Stress levels of gig workers)

Scope of the study:

The range and dimensions of the current study are as follows:

Why: The purpose of conducting the current study is to identify and examine the problems faced by platform-based gig workers in India. And to offer probable solutions for those problems.

Who: The entire study was conducted on platform-based gig workers in Andhra Pradesh. These workers are working in platform like Ola, Rapido, Uber, Swiggy, Zomato, Amazon, Flipkart, Myntra, Ajio, Chegg, Fiverr etc. Workers working in these platforms for delivering the services are called platform-based gig workers.

What: Variables considered for the current study are as follows:

Independent variables: No employer-employee relationship, Challenges related to income, Algorithmic Management

Dependent variable: Worker Stress level

Where: The data collection process was confined to the geographical boundaries of Andhra Pradesh.

How: The data was collected using well-structured questionnaire and Interview methods.

Conceptual Framework:

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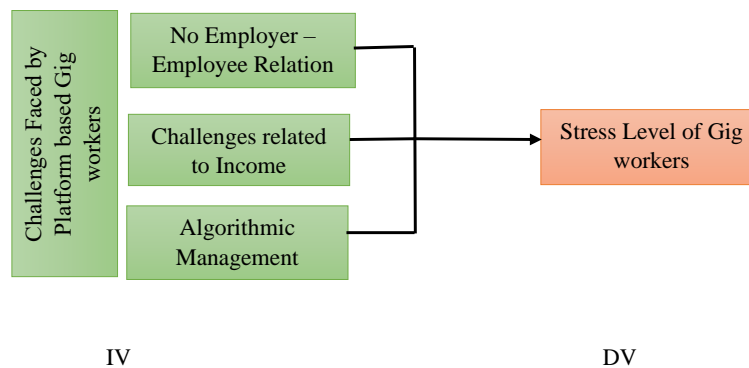
Objectives:

1.   To present the status and problems faced by the platform-based gig workers in India.
2.   To gauge the impact of challenges faced by platform-based gig workers on their stress levels.
3.   To offer probable solutions that will resolve the problems faced by platform-based gig workers.

Hypothesis:

1. H_{01}: There is no significant impact of challenges faced by platform based gig workers on their stress levels.

Sample Design: The researcher used convenient sampling method for the purpose of data collection. The sample size drawn is 120.

Sources of Data:

Primary source: For the purpose of data collection the researcher has used well-structured questionnaire and interview methods. The responses have collected regarding the satisfaction levels of gig workers related to no employer-employee relationship, challenges related to income, algorithmic management. By using these variables, the researcher has identified the impact over stress levels of platform-based gig workers.

Reliability Statistics	
Cronbach's Alpha	N of Items
.723	20

Cronbach's Alpha Value	Reliability Level
0.0 - 0.20	Less Reliable
>0.20 – 0.40	Somewhat Reliable
>0.40 – 0.60	Reliable enough
>0.60 – 0.80	Reliable
>0.80 – 1.00	Very Reliable

From the above table it is clearly evident that the data collected was reliable for conducting the data analysis and to make conclusions on it.

Analysis of the data:

➢   For the purpose of data analysis, the researcher has used descriptive statistics tools like frequency distribution, percentages, mean and standard deviation. And inferential statistics tools like correlation and regression analysis.

FINDINGS AND SUGGESTIONS:

Objective 1: To present the status and problems faced by the platform-based gig workers.

Findings:

1.   It is found that out of the total response's males were 86.7% and females were 13.3%.

Number of Respondents (Source: Field Study)		
Options	Frequency	Percent
Male	104	86.7
Female	16	13.3
Total	120	100.0

2.   Age distribution of the sample data depicts that higher concentration of people in the age group of 25-34 years which clearly indicates that younger workforce dedicating their prime age for the platform-based gig work.

Age Distribution of Platform Based Gig Workers (Source: Field Study)		
Options	Frequency	Percent
18-24	24	20.0
25-34	64	53.3
35-44	24	20.0
45 and above	8	6.7
Total	120	100.0

3.   It is clearly evident that nearly 67% of gig workers are working in this economy for 2-5 years. And more than 13% of the respondents are working in this economy for more than 5 years.

Length of work experience (Source: Field Study)			
	Options	Frequency	Percent
Valid	Less than 6 months	8	6.7
	6 months to 2 years	16	13.3
	2 years to 5 years	80	66.7
	More than 5 years	16	13.3
	Total	120	100.0

4.   From the below table it is clearly shown that majority portion of the platform-based gig workers are working more than 40 hours in a week. Which is nearly 8 hours a day and in accordance with the factories act 1948 they are working on full time basis.

Average weekly working hours (Source: Field Study)			
	Options	Frequency	Percent
	Less than 20 hours	0	0.0
Valid	20-40 hours	40	33.3
	More than 40 hours	80	66.7

	Total	120	100.0

5.   For almost 87% of the respondent's income from platform work is the primary source of income and rest of the 13% of the respondents are drawing it as secondary source of income.

Source of Income (Source: Field Study)			
	Options	Frequency	Percent
Valid	Primary Source	104	86.7
	Secondary Source	16	13.3
	Total	120	100.0

6.   Workers are getting low and inconsistent earnings and they are dissatisfied with the payments they receive from the gig work.

IV1: Low and Inconsistent Earnings (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	96	80.0
	Agree	16	13.3
	Neutral	8	6.7
	Disagree	0	0.0
	Strongly Disagree	0	0.0
	Total	120	100.0

7.   Platform based companies related to ride sharing are charging high platform commission. Which becomes an additional burden on the gig workers.

IV1: High platform commission (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	64	53.3
	Agree	8	6.7
	Neutral	8	6.7
	Disagree	0	0.0
	Strongly Disagree	40	33.3
	Total	120	100.0

8.   Platform workers are getting payments in timely. Some companies are paying them with 24 hours of work done and some companies are paying within 48 hours.

IV1: Delayed payments (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	8	6.7
	Agree	0	0.0
	Neutral	56	46.7
	Disagree	24	20.0
	Strongly Disagree	32	26.7
	Total	120	100.0

9.   Platform workers are not getting minimum wages in every month. Sometimes due to low and lack of work they are unable to get even minimum wages also. It was showing negative impact over their livelihood.

IV1: Not getting minimum wages in every month (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	96	80.0
	Agree	8	6.7
	Neutral	16	13.3
	Disagree	0	0.0
	Strongly Disagree	0	0.0
	Total	120	100.0

10.   Platform based gig workers are not getting social security benefits like pension, insurance and provident fund from the employer.

IV2: Not getting social security benefits from the employer (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	72	60.0
	Agree	16	13.3
	Neutral	32	26.7
	Disagree	0	0.0
	Strongly Disagree	0	0.0
	Total	120	100.0

11.   There are no supporting workers unions or associations for the platform-based gig workers. Which clearly indicates that there is no proper representation or voice for their grievances.

IV2: Absence of unions or representation (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	112	93.3
	Agree	0	0.0
	Neutral	8	6.7
	Disagree	0	0.0
	Strongly Disagree	0	0.0
	Total	120	100.0

12.   There are no supporting legislations in India for the benefit of platform-based gig workers. There is no scope for them to address their grievances in front of the legal bodies. No legal act in India has specifically mentioned about platform-based gig workers.

IV2: Inefficient legal framework (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	80	66.7
	Agree	8	6.7
	Neutral	32	26.7
	Total	120	100.0

13.With the presence of algorithmic management workers feel that there is no interaction with the management. It is difficult for them to reach out to the management and express their concerns. Which leads to erosion of workers autonomy.

IV3: Erosion of workers autonomy (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	96	80.0
	Agree	8	6.7
	Neutral	16	13.3
	Disagree	0	0.0
	Strongly Disagree	0	0.0
	Total	120	100.0

14.   There is a risk of deactivation in the platform-based gig work. Because it is completely algorithmic and which decides whether to continue or discontinue the worker on the basis of rating and other parameters. There is no scope for worker to express his views over the poor rating or the underperformance.

IV3: Risk of deactivation (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	88	73.3
	Agree	0	0.0
	Neutral	32	26.7
	Disagree	0	0.0
	Strongly Disagree	0	0.0
	Total	120	100.0

15.   Rating of the worker performance will decide the amount of work load or orders they receive in the platform-based gig work. Unfortunately, workers with poor or average rating unable to get the minimum work which leads to lesser opportunity for income generation.

IV3: Rating based workload (Source: Field Study)			
	Options	Frequency	Percent
Valid	Strongly Agree	88	73.3
	Agree	0	0.0
	Neutral	16	13.3
	Disagree	8	6.7
	Strongly Disagree	8	6.7
	Total	120	100.0

Objective 2: To gauge the impact of challenges faced by gig workers on their stress levels.

H_{01}: There is no significant impact of challenges faced by gig workers on their stress levels.

To present this objective and for testing the related hypotheses the researcher conducted multiple regression analysis to see the impact of independent variables over the dependent variable. For further proceeding to the multiple regression analysis there are certain assumptions that are to be followed and they are shown as follows:

Assumption No.1: The Dependent variable is to be measured on a continues scale.

The assumption is fulfilled as the stress levels of platform-based gig workers was measured in an interval scale and the same was entered in SPSS software also.

Assumption No.2: There must be at least two or more independent variables which can be measured on continuous scale.

The assumption is fulfilled as study contains three independent variables (i.e., No employer-employee relation, Income related challenges and algorithmic management) Which are measured in interval scale and the same was entered in SPSS software.

Assumption No. 3: The data should have independence of observation.

It is measured by using the Durbin-Watson statistic. As per this "the Durbin-Watson statistic value should not less than 1 and not greater than 3 i.e., between 1-3.

The same was conducted in SPSS, the value of Durbin-Watson statistic for the present study was 1.706. (Shown in the model summary table) And the obtained value is in between the threshold limit. So, this study satisfies the assumption of independence of observation.

Assumption No. 4: There should be no multicollinearity among the independent variables.

The multicollinearity was measured using the following indicators:

a.   Tolerance: As per Tabachnick and Fidel, 2001 if the tolerance < 0.1 then there is significant issue of multicollinearity in the dataset. In the present study the tolerance values of No employer-employee relation (0.655),

Income related challenges (0.994), Algorithmic management (0.655) was above 0.1. so based on the tolerance there is no multicollinearity in the independent variables. (As per coefficient table shown below)

b.   b) VIF (Variance Inflation factor): as per hair et al.,1995; kennedy,1992 if VIF > 10 then, there is significant issue of multicollinearity in the dataset. In the present study, the VIF values of No employer-employee relation (1.526), Income related challenges (1.006), Algorithmic management (1.526) was below 10. So, on the VIF there is no multicollinearity in the independent variables. (As per coefficient table shown below)

c.   Condition Index: as per kennedy, 2003 if the condition index > 30 then there is significant issue of multicollinearity in the dataset. In the present study condition index for all items is less than 30. So, as per condition index there is no multicollinearity in the independent variables. (as per below table).

Collinearity Diagnostics

Model	Dimension	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Income Related Challenges	No Employer-Employee relation	Algorithmic Management
1	1	3.803	1.000	.00	.01	.01	.00
	2	.124	5.549	.02	.27	.38	.02
	3	.050	8.697	.10	.37	.51	.33
	4	.023	12.851	.88	.36	.10	.65
a. Dependent Variable: Stress levels of workers							

d. Correlation analysis: According to the rule of thumb if the correlation coefficient between independent variables is greater than or equal to 0.7 then there is a significant issue of multicollinearity in the data set. In the present study correlation coefficients among independent variables are less than 0.7 as per the below table.

Correlations

		Income Related Challenges	No Employer-Employee relation	Algorithmic Management
Income Related Challenges	Pearson Correlation	1	.036	-.033
	Sig. (2-tailed)		.693	.720
	N	120	120	120
No Employer-Employee relation	Pearson Correlation	.036	1	.585[**]
	Sig. (2-tailed)	.693		.000
	N	120	120	120
Algorithmic Management	Pearson Correlation	-.033	.585[**]	1
	Sig. (2-tailed)	.720	.000	
	N	120	120	120
**. Correlation is significant at the 0.01 level (2-tailed).				

Model summary:

Model Summary										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.599ª	.359	.342	1.01110	.359	21.617	3	116	.000	1.706
a. Predictors: (Constant), Income Related Challenges, No Employer-Employee Relation, Algorithmic Management										
b. Dependent Variable: Stress Levels										

The overall model was statistically significant, p < .001. The model accounted for a good proportion of the variance in the criterion variable, with an R-square of 0.359. The coefficient of determination (R-square) indicates that approximately 35.9% of the variance in the criterion variable can be explained by the predictors included in the model. The adjusted R-square, which considers the number of predictors and the sample size, was 0.342. This suggests that approximately 34.2% of the variance in the criterion variable can be explained by the predictors after adjusting for the degrees of freedom. Overall, the results indicate that the predictors (Income Related Challenges, No Employer-Employee Relation and Algorithmic Management) collectively contribute to explaining a significant amount of the variance in the criterion variable. However, it is important to note that there may be other unmeasured variables that could further enhance the predictive ability of the model.

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	66.298	3	22.099	21.617	.000ᵇ
	Residual	118.591	116	1.022		
	Total	184.889	119			
a. Dependent Variable: Stress						
b. Predictors: (Constant), Algorithmic, Income, Relation						

An analysis of variance (ANOVA) was conducted to examine the relationship between the predictors (Income Related Challenges, No Employer-Employee Relation and Algorithmic Management) and the dependent variable (Stress Level). The results revealed a statistically significant overall model, $F(3, 116) = 21.617$, $p < .001$.

Coefficients										
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-1.279	.478		-2.672	.009	-2.226	-.331		
	Income Related	.381	.144	.197	2.643	.009	.095	.667	.994	1.006

Challenges									
No Employer-Employee relation	.552	.184	.275	2.992	.003	.186	.917	.655	1.526
Algorithmic Management	1.068	.273	.360	3.916	.000	.528	1.608	.655	1.526
a. Dependent Variable: Stress levels of workers									

Regression Model:

$Y = b_0 + m_1 X_1 + m_2 X_2 + m_3 X_3 + e$

Were,

Y = Dependent variable (Stress level)

X1, X2, X3 = Independent variables (Income Related Challenges, No Employer-Employee Relation and Algorithmic Management)

b0 = Constant term or Y – intercept

m1, m2, m3 = Slope coefficients for each independent variable.

e = error

Therefore,

The Present Model as per the analysis is as follows:

"Stress Level" = -1.279+ (0.381) Income Related Challenges + (0.552) No Employer-Employee Relation + (1.068) Algorithmic Management"

Objective -3

Suggestions and Probable Solutions:

Suggestions:
1. From the above findings we can state that the majority portion of workers who are working in the platform economy are clearly dependent on that work. And they are contributing their full-time effort for the betterment of those platform-based companies. These workers deserve to be considered as employees in those organizations and are eligible for the social security benefits that need to be provided in accordance with the labour legislations in the India.
2. Government needs to introduce legislations mandating fair pay, benefits and protection for gig workers. Government needs to introduce Universal Basic Income (UBI) to provide a safety net for gig workers, ensuring they receive minimum living wage to rely on regardless of fluctuations in work availability.
3. Some platform-based companies relating to ride sharing need to reduce the platform-based commissions on rides. And need to provide more incentives for better performance.
4. Gig workers need to establish unions or associations related to their specific work. These groups can represent workers collectively and advocate for needs and problems and make negotiations with the management accordingly. And the management should also need to play an instrumental role in setting up of those unions.
5. Platform based companies need to replace algorithmic management with transparent and rule-based systems that workers can understand and challenge if needed. Which ensures that platforms provide clear explanations for decisions like deactivation, suspension and for job assignments.

6. Combine human and algorithmic management to balance efficiency and fairness. There should be some limits to the algorithmic management. Some key issues like deactivation, work load assignment and dispute resolution should involve human managers.

7. There should be a job security for the worker. Sudden deactivations can ruin their livelihood. Establish a formal process for appealing deactivations with transparency in the reasons behind account suspensions or bans and allow third-party mediations for dispute resolution.

CONCLUSION:

This research work completely focuses on problems faced by the platform-based gig workers. As the gig economy is the growing economy and it requires much consideration on the light of legislations. The common problems that the platform-based gig workers are facing are No employer-employee relation, Low and inconsistent earnings and algorithmic management. These problems are critically impacting the stress levels and livelihood of platform-based gig workers. In order to mitigate these problems both the government and platform-based companies need to extend their support in the desired manner. The government has to frame labour legislations by considering the platform-based gig workers. Government has to ensure that these workers are getting minimum living wage irrespective of the day-to-day work load, these workers should get social security schemes offered in accordance with the existing labour legislations, these legislations should create a safety net for the welfare of the platform-based gig workers. The platform-based companies should consider these workers as employees and should offer social security schemes like Provident Fund, Pension and Insurance. Algorithmic Management need to modified and should create more human interaction in the day-to-day work. Some key issues like deactivation, assigning of work load and dispute resolution must be dealt with the human interaction than algorithmic management. Implementation of these suggestions will reduce the stress levels and ensures better livelihood and welfare of the platform-based gig workers. There is an immediate need to implement these suggestions on the light of workers welfare and well-being.

This study is being conducted by taking samples from the state of Andhra Pradesh and the sample size is 120. There is a scope for extending the research to other geographical areas. And the research can be conducted on problems other than No employer-employee relation, Income related challenges and Algorithmic Management and can offer suggestions to eradicate those problems.

With the advancement of technology and changing needs of the people the world is growing in different dimensions. Growth of gig economy is the outcome of these two elements. Platform-based companies which are conducting business by using the services of these platform-based gig workers are yielding better profits and wealth. But, on the other side these platform-based gig workers are facing several vulnerabilities. Those vulnerabilities need to be eradicated with immediate effect. Therefore, both the Government and Platform-based companies need to consider the problems of these platform-based gig workers and should implement the above-mentioned suggestions with immediate effect for ensuring welfare and well-being of the platform-based gig workers.

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