

Meaningful Work Mediation: Job Resources and Employee Engagement Among Trailer Truck Drivers of Transport and Logistics Companies

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Abstract

Employee engagement stands as a cornerstone for success within the transport and logistics industry. In this study, the researcher investigated the relationship between job resources, meaningful work, and employee engagement among trailer truck drivers in transport and logistics companies in Cavite, Laguna, and Batangas. This study utilized a descriptive correlational method and collected data from 138 trailer truck drivers through a systematic random sampling technique. The main data gathering instrument was an adapted questionnaire. Statistical tools such as frequency and percentage, mean and standard deviation, multiple linear regression, and general mediation model analysis were employed to analyze the data. The findings revealed that the respondents had a high level of employee engagement, positive perceptions of job resources, and meaningful work. Job variety and autonomy were found to significantly impact employee engagement, while supervisor support, development opportunities, and feedback did not. Additionally, meaningful work was examined as a significant mediator between job resources and employee engagement. However, the results indicated that meaningful work did not significantly mediate this relationship, suggesting its influence on the correlation between these factors was not statistically supported. A Human Resource Intervention Program was proposed to enhance employee engagement, tailored for trailer truck drivers.

Keywords: Employee Engagement; Job Resources; Meaningful Work; Job Variety; Supervisor Support; Autonomy; Development Opportunities and Feedback.

1. Introduction

In the world of the transport and logistics industry, the success and efficiency of employees are critical to smooth operations. However, high job demands, and constant pressure often lead to disengagement, which can ultimately affect productivity and work quality. The concept of employee engagement is a critical factor in the success of any organization. This has been referred to as the emotional, cognitive, and behavioral connection of employees with their work, colleagues, and organization. It goes beyond mere job satisfaction and represents a deeper level of commitment and involvement in one's job and workplace.

According to Gallup, the transportation and logistics industry has one of the lowest employee engagement levels, with only 28% of employees reporting they feel engaged at work. Engaged employees find meaning and purpose in their work, which makes them more likely to look forward to coming to work each day. Likewise, they will exert effort and exhibit behaviors that contribute to business success. (Lockwood, 2007). This elevated level of engagement also has direct economic implications - reducing absenteeism, lowering turnover, and improving operational reliability, all of which are key cost drivers in logistics operations. By improving engagement, organizations may achieve substantial cost savings and performance gains, which aligns with the journal's focus on accounting and efficiency. Research such as that by Ahuchogu et al. (2024) highlighted how fostering engagement through strategic HR practices is vital in long-haul transport, especially in addressing the unique demands faced by trailer truck drivers.

Due to the nature of this industry, their employees spend more than half of their waking lives at work. Their work can be a source of stress, dissatisfaction, and burnout when employees face challenges such as long hours, high-pressure environments, and unfulfilling roles. On the other hand, their work can also provide a sense of meaning, satisfaction, and engagement when employees find purpose in their tasks, enjoy their work, and have positive relationships with colleagues. Research by Siriyasub and Pasunon (2020) supports this perspective, showing that job characteristics, such as task significance and autonomy, strongly influence satisfaction and the intention of truck drivers to remain in their roles.

Research has shown that job resources play a significant role in enhancing employee engagement (Hackman and Oldham, 2018). These essential elements that empower employees to do their duties more effectively include access to training and development, supportive leadership, job autonomy, adequate tools and equipment, and a positive work environment. When employees have sufficient job resources, they are better equipped to handle their job demands, which stimulates a higher level of engagement. The presence or absence of

organizational support and commitment significantly impacts both driver retention and operational performance in logistics firms (Large et al., 2015).

One key factor that has gained attention in the study of employee engagement is the concept of meaningful work. Meaningful work is the mediating variable of job resources and employee engagement. It refers to the perception of significance and purpose in one's job, where employees feel that their work has a positive impact and aligns with their values and aspirations. Meaningful work also has direct linkages to engagement. When employees experience meaningful work, they are more likely to be engaged, committed, and enthusiastic about their roles within the organization (Rich et al., 2010).

Based on the researcher's observation and experience as an HR practitioner in this industry for three years, there are raised issues and concerns among the employees, specifically trailer truck drivers, that need to be addressed by the company. The researcher observed that most of the trailer truck drivers are less likely to show up for work, which directly impacts their engagement. They frequently take unplanned leave, arrive late, or are absent, causing delays in trip schedules. According to monthly attendance reports, they have a higher rate of absenteeism compared to other employees. In 2019, absenteeism rates among trailer truck drivers averaged 8%. In 2020, the absenteeism rate increased to 10%, and in 2021, it further rose to 13%. Beyond its psychological and organizational significance, employee engagement also carries direct economic implications, particularly in an industry where workforce stability and efficiency are critical. Higher levels of engagement have been associated with reduced absenteeism, lower turnover, and improved productivity (Harter et al., 2002), all of which contribute to cost savings and operational reliability.

Further, some of them exhibit unproductive behaviors such as failure to perform regular basic maintenance checks or ignoring vehicle issues that can lead to breakdowns and service disruptions, neglecting to report incidents and safety violations that can hinder the organization's ability to address safety concerns, refusing to follow company policies or direct orders from immediate supervisor that can disrupt operations and create tension within the organization, increasing incidents in loading & unloading of cargos. Based on the reports of Mr. Chris Dio Gonzales, Maintenance Head of Technik Automobile Specialist Inc., only 30% of trailer truck drivers documented completing the required pre-trip and post-trip inspection checklist regularly. Moreover, only 40% of cargo-related incidents were reported to the safety department, while the remaining 60% of reported incidents were identified through external reporting.

This research can inform logistics labor policies and operational guidelines by identifying specific engagement-related gaps and behaviors that affect both employee well-being and organizational efficiency. The findings may be valuable not only to HR professionals but also to policymakers and operations managers seeking to design more effective labor and compliance strategies in transport and logistics settings.

2. Objectives of the Study

This study determined and assessed the mediating role of meaningful work on the relationship between job resources and employee engagement among trailer truck drivers of transport and logistics companies.

Specifically, it sought to answer the following questions:

- 1) What is the respondents' level of employee engagement?
- 2) How may the respondents assess job resources in terms of;
 - job variety;
 - supervisor support;
 - development opportunities;
 - autonomy; and
 - feedback?
- 3) How do respondents perceive their meaningful work?
- 4) Do job resources significantly affect employee engagement?
- 5) Does meaningful work significantly mediate the effect of the relationship between job resources and employee engagement?
- 6) What inputs to Human Resource intervention programs may be proposed based on findings?

2.1. Theoretical Framework

This shows the theoretical framework that the researchers used as a foundation of the study. The researcher used the model by Simon L. Albrecht, Camille R. Green, and Andrew Marty (2021) in their study, "Meaningful Work, Job Resources and Employee Engagement".

The Structural Model was used to determine the mediator role that perceived meaningful work has in the relationship between job resources and employee engagement. The independent variable is Job Resources, the dependent variable is Employee Engagement, and the mediator variable is Meaningful Work.

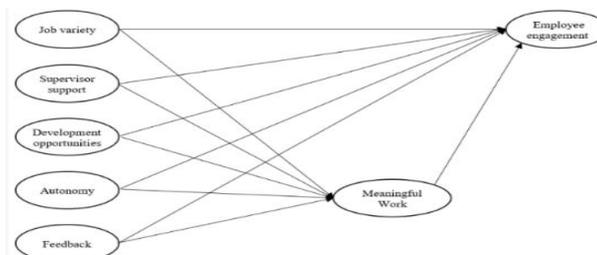


Fig. 1: Theoretical Framework Structural Equation Model by Albrecht, Simon L. et. al (2021).

Figure 1 describes the mediating role of meaningful work on the relationship between job resources and employee engagement. This is to examine meaningful work functions as a critical psychological state within the job demands-resources (JD-R) model that can explain the relationship between job resources and employee engagement. It emphasizes that there are several indicators of job resources, such as job variety, supervisor support, development opportunities, autonomy, and feedback. An organization that considers these indicators makes employee more motivated and improves their performance.

This study is grounded in the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007), which provides a comprehensive framework for understanding how job resources contribute to employee engagement. In particular, the model emphasizes the motivational

role of job resources, such as autonomy, social support, and development opportunities. Additionally, the concept of meaningful work has gained increasing attention as a psychological mechanism that enhances employee engagement (Rosso et al., 2010; Steger et al., 2012). By integrating these perspectives, this research investigates how meaningful work mediates the relationship between job resources and engagement, particularly in the understudied context of trailer truck drivers in the transport and logistics sector.

Moreover, the Job Demands-Resources (JD-R) model, originally developed by Demerouti et al. (2001), provides a robust theoretical framework for understanding employee well-being and motivation across various occupational contexts. The model posits that job resources—such as autonomy, supervisor support, and growth opportunities—can buffer the negative effects of job demands and play a central role in fostering employee engagement. Building on this, recent research has highlighted meaningful work as a potential psychological mechanism through which job resources influence engagement (Bakker & Albrecht, 2018). In high-demand sectors such as transport and logistics, where trailer truck drivers face long hours, isolation, and safety risks, the perception of work as meaningful may be particularly critical. Investigating meaningful work as a mediator aligns with evolving applications of the JD-R model, emphasizing how intrinsic psychological states translate workplace conditions into motivational outcomes.

3. Materials and Methods

3.1. Research Design

The descriptive correlational research design was applied in this study as it describes the variables and the relationships that occur naturally between and among them. According to McBurney & White (2019), descriptive correlational research aims to provide static pictures of situations as well as establish the relationship between different variables and allow the prediction of future events from present knowledge. It concentrates on the accuracy and completeness with which the phenomenon is depicted and revealed. Therefore, the researcher should be able to determine the appropriate measurement and data-gathering methods to ensure the right quality of descriptions.

3.2. Respondents of the Study

The researcher chose trailer truck drivers from transport and logistics companies in Cavite, Laguna, and Batangas as the study's respondents. They were selected because the researcher believed they could provide the appropriate information needed to assess employee engagement, job resources, meaningful work, and aspects of human resources. As front-line employees and critical stakeholders, they are directly involved in daily operations such as coordinating shipments, managing routes, and interacting with customers. The respondents were trailer truck drivers from Technik Automobile Specialist Inc. (TASI), RVL Movers Corporation, Fujitrans Logistics Philippines, XDE Logistics, Onix Movers Corporation, Matsuform Link Corporation (MLI), TF Logistics Philippines (TFLP), CATSEN Logistics Corporation, HJB Calinisan Customs Brokerage, Dimple Star Transport Corporation, CTAT Cargo Movers, Inc., and Decker and Cargo Logistics Corporation.

The researcher used G*Power with an effect size of 0.15, a margin of error of 5%, and a confidence level of 95% to determine the sample size from the total population. Based on these calculations, the targeted number of responses was set to 138 trailer truck drivers. To achieve the sample size, the researcher employed systematic random sampling, selecting respondents with a fixed periodic interval from a larger population to ensure the survey results were generalized. This method was suitable for situations where the researcher did not have details of the entire population. The sampling design involved distributing adapted questionnaires to every third trailer truck driver who reported to their office, ensuring a representative and unbiased sample while maintaining a systematic pattern during regular business operations.

The following demographic profiles were considered to provide a clearer picture of the respondents' background information. The obtained data served as the basis for analyzing and interpreting the results more deeply.

Table 1: Frequency Distribution of the Demographic Profile of the Respondents

Age bracket	Frequency	Percentage
21-25	5	3.6
26-30	17	12.3
31-35	31	22.5
36-40	26	18.8
41-45	42	30.5
above 46 years old	17	12.3
Total	138	100
Marital status		
Single	45	32.6
Married	89	64.5
Separated	3	2.2
Widow/Widower	1	0.7
Total	138	100
Employment Status		
Regular	113	81.9
Probationary		9.4
Contractual	12	8.7
Total	138	100
Length of Service		
Less than 1 year	28	20.3
1-2 years	25	18.1
3-4 years	31	22.5
5 years and above	54	39.1
Total	138	100
Educational Attainment		
Elementary	4	2.9
High School	92	66.7
Vocational	37	26.8
Bachelor's Degree	5	3.6
Total	138	100

Regarding age, most of the respondents (30.5%) were in the 41-45 years old bracket, with a frequency of 42. However, the lowest frequency was 5 (3.6%), from the 21-25 years old bracket. In terms of marital status, most of the respondents are married, with the highest frequency of 89, which comprised 64.5 percent. However, there is 1 respondent who is widowed, which comprises the lowest percentage of 0.7. As regards employment status, the greatest number of respondents were regular employees, with the highest frequency of 113, or 81.9 percent. However, contractual employees got the lowest frequency with 12 or 8.7 percent. With regards to length of service, most of the respondents belonged to brackets ranging from 5 years and above, with the highest frequency of 54 or 39.1 percent. The lowest number of respondents with 1-2 years of service had a frequency of 25 or 18.1 percent. Lastly, in terms of educational attainment, more than half of them were high school graduates, with the highest frequency of 92 or 66.7 percent. The lowest number of respondents, with a frequency of 4 and comprising 2.9 percent, were elementary graduates.

3.3. Data Gathering Instrument

The researcher used an adapted questionnaire as an instrument to gather information intended to measure employee engagement, job resources, and meaningful work among trailer truck drivers in transport and logistics companies.

The questionnaire comprises four parts: the first part elicited the respondent's profile, including age, marital status, employment status, length of service, and educational attainment; the second part focused on assessing the level of employee engagement; the third part dealt with the assessment of job resources; and the last part addressed the assessment of meaningful work.

The table summarizes the list of adapted questionnaires and discloses the result of the reliability test by the statistician.

Table 2: List of Adapted Questionnaires

Variables	No. of Items	Adapted from	Cronbach's Alpha
Employee Engagement	9	Utrecht Work Engagement Scale (Schaufeli, Bakker & Salanova, 2006)	0.818
Job Variety	5	Morgeson, F. P., & Humphrey, S. E. (2006)	0.861
Supervisor Support	10	Burns (2016) and Jackson & Rothman (2005)	0.929
Job Resources	6	Jackson and Rothman (2005)	0.825
Development Opportunities	6	Morgeson, F. P., & Humphrey, S. E. (2006)	0.802
Autonomy	8	Morgeson, F. P., & Humphrey, S. E. (2006)	0.802
Feedback	8	Morgeson, F. P., & Humphrey, S. E. (2006)	0.949
Meaningful Work	6	Psychological Meaningfulness Scale of Jacobs (2012)	0.892

For the level of employee engagement, assessment of job resources and meaningful work, the researcher utilized the 7 Likert Scale. The scale has a range from 1 to 7; 1 being the lowest and 7 being the highest, where each number represents a specific mean score and interpretation as shown in Table 3. Extremely high, very high, high, average, low, very low, and extremely low were the categories used to interpret the mean scores for the level of employee engagement.

Table 3: Scoring and Interpretation for Level of Employee Engagement and Extent of Manifestation of Job Resources and Meaningful Work

Response Scale	Mean Score	Interpretation
7	6.50-7.00	Extremely High
6	5.50-6.49	Very High
5	4.50-5.49	High
4	3.50-4.49	Average
3	2.50-3.49	Low
2	1.50-2.49	Very Low
1	1.00-1.49	Extremely Low

3.4. Data Gathering Procedure

The researcher prioritized ethical considerations before administering the questionnaires. The voluntary participation, informed consent, and confidentiality of their responses were discussed before the proper accomplishment of the survey questionnaires. Then, a pilot test was conducted with a subset of the target population to validate the questionnaire and ensure its reliability. Following this, the adapted questionnaires were distributed to the targeted respondents over one month. The distribution was systematically carried out with the assistance of Human Resources personnel from each transport and logistics company. Every third trailer truck driver arriving at their office was given a questionnaire. Completing the questionnaire took an average of 12 minutes, with the shortest time being 8 minutes and the longest 15 minutes. The collection of the complete questionnaires was facilitated on both weekdays and weekends during business operations. A total of 138 questionnaires were distributed for data gathering.

3.5. Statistical Treatment of Data

The statistical analysis of the data was done using the Statistical Package for Social Sciences (SPSS). The data gathered were interpreted and analyzed through Frequency and Percentage, Mean and Standard Deviation, Multiple Linear Regression Analysis, and General Linear Model Mediation Analysis.

4. Results and Discussions

4.1. Respondents' Level of Employee Engagement

Table 4: Respondents' Level of Employee Engagement

Items	Mean	SD	Interpretation
I feel bursting with energy when I'm doing my work.	4.32	2.14	Average
I feel strong and vigorous at my work.	5.41	1.44	High
I am enthusiastic about my work.	5.77	1.34	Very High
My work inspires me.	6.01	1.1	Very High
I feel motivated to go to work when I get up in the morning.	5.69	1.47	Very High
I feel happy when I am working intensely.	5.62	1.37	Very High
I am proud of the work that I do.	6.12	1.19	Very High
I am immersed in my work.	4.53	2.02	High
I get carried away with my emotions when I am working.	4.58	2.03	High
Overall	5.34	1.04	High

As depicted in Table 4, the respondents are said to be highly engaged as revealed by the overall mean of 5.34 with a standard deviation value of 1.04. This finding may mean that trailer truck drivers are perceived to have a high level of engagement in their work. This indicates that they exhibit characteristics aligned with the three dimensions of the engagement scale: vigor (high energy and mental resilience), dedication (a sense of significance and enthusiasm), and absorption (being fully concentrated and happily engrossed in work). The highest response of the respondents was very highly engaged, which comprised the mean of 6.12 with a standard deviation value of 1.19, which the respondents affirmed that they are taking pride in the work they accomplish as trailer truck drivers. It is a clear indication that it signifies several positive aspects of their job and overall work experience. However, the lowest mean of 4.32 with a standard deviation value of 2.14, which is interpreted as average, pointed out that the respondents are feeling bursting with energy when they are doing their work. This indicates a potential disconnect between the perception of energy and the actual level of engagement.

4.2. Respondents' Assessment of Job Resources

The succeeding tables present the respondents' assessment of job resources in terms of job variety, supervisor support, development opportunities, autonomy, and feedback.

Table 5: Respondents' Assessment Towards Job Resources in Terms of Job Variety

Items	Mean	SD	Interpretation
My job involves a wide range of tasks and activities, such as truck inspection, determining the route given, and ensuring that the vehicles are safe and properly loaded and unloaded.	6.32	1.065	Very High
My job involves doing several different things, such as driving, route planning, loading and unloading, and documentation.	6.22	1.125	Very High
My job requires a variety of skills, such as professional driving skills, communication skills, customer service skills, problem-solving skills, and basic maintenance knowledge to do a diverse range of tasks.	6.17	1.186	Very High
My job requires me to utilize a variety of those different skills to complete the work.	6.12	1.255	Very High
My job provides me with new challenges and experiences, such as delivering various types of cargo in different locations.	6.04	1.325	Very High
Overall	6.17	0.897	Very High

As presented in Table 5, the respondents showed a very high assessment on job variety, indicating that they perceive a wide range of tasks, responsibilities, and skills in carrying out the work as revealed by the overall mean of 6.17 with a standard deviation value of 0.897. The item "job of trailer truck drivers are engaging in a wide range of tasks and activities such as truck inspection, determining the route given, and ensuring that the vehicles are safe and properly loaded and unloaded" obtained the highest mean of 6.32 with a standard deviation value of 1.065, which has very high assessment. It is a clear indication that the respondents have recognized and acknowledged the diverse set of tasks and activities involved in their job. This indicates that trailer truck drivers are not only involved in driving but also play a key role in the overall logistics and safety of the transportation process.

Table 6: Respondents' Assessment Towards Job Resources in Terms of Supervisor Support

Items	Mean	SD	Interpretation
My supervisor helps me learn from my mistakes and turns them into productive development opportunities such as enhancing my ability to anticipate and respond to potential hazards on the road, undergo training on proper cargo securement methods to prevent future incidents and improving my route planning that can lead to time and fuel savings.	5.71	1.279	Very High
My supervisor fosters genuine and trusting relationships by conducting one-on-one or toolbox meetings to discuss drivers' concerns and suggestions.	5.88	1.241	Very High
My supervisor recognizes me when I perform well by expressing sincere gratitude and appreciation.	5.63	1.506	Very High
My supervisor recognizes me when I consistently adhere to safety protocols and maintain incident and accident-free records.	5.68	1.445	Very High
My supervisor helps me get tangible resources (e.g., trip allowances, Personal Protective Equipment (PPE), emergency kit, truck maintenance tools and basic spare parts of truck) and non-tangible resources (e.g., company support and training opportunities) that I need to do my job.	5.8	1.399	Very High
My supervisor supports my professional growth by offering training and development programs.	5.4	1.569	High
My supervisor rewards me by giving a certificate of appreciation, such as "Driver of the Month," with monetary or non-monetary incentives, and that makes me feel valued.	5.25	1.641	High
My supervisor is concerned about my welfare by prioritizing safety first in all aspects of my work.	5.69	1.366	Very High
I can count on my supervisor for help when I come across difficulties at work.	5.71	1.471	Very High
I can discuss work problems and needs with my supervisor.	5.72	1.49	Very High
Overall	5.65	1.065	Very High

Table 6 has an overall mean of 5.65 with a standard deviation value of 1.065. This shows that respondents' responses expressed a very high level that most trailer truck drivers have conveyed a high level of acknowledgment regarding the support that they receive from their supervisors. The highest response of the respondents with verbal interpretation of very high comprised a mean of 5.88 with a standard deviation value of 1.241, which states that their supervisor is building genuine and trusting relationships through one-on-one or toolbox meetings to discuss their concerns and suggestions. This signifies that the approach of supervisors in fostering open communication and trust through personal interactions has received a highly positive response from the trailer truck drivers. On the other hand, respondents also have an overall high assessment that their supervisor is giving them a reward for their performance, in monetary and non-monetary incentives. This got the lowest mean of 5.25 with a standard deviation value of 1.641. They may face financial constraints that restrict their ability to allocate funds for employee rewards and incentives. In such cases, supervisors may prioritize cost-cutting measures over recognition programs. Furthermore, they may focus on target quotas, which are directly tied to revenue generation, and the company can work only towards meeting financial goals and sustaining profitability.

Table 7: Respondents' Assessment of Job Resources in Terms of Development Opportunities

Items	Mean	SD	Interpretation
My job offers me the possibility to progress financially through the competitive salary provided by the company.	6.11	1.212	Very High
My work gives me the feeling that I can meet delivery quotas with zero incidents.	5.93	1.322	Very High
My job offers me opportunities to enhance my driving skills, safety knowledge, and ability to handle various road conditions for personal growth and development.	5.97	1.284	Very High
My company offers me opportunities to attend training courses for drivers.	5.45	1.713	High
My work offers me the possibility to learn new things such as exploring new routes, adopting new technologies (e.g., GPS), and transporting different cargos.	5.73	1.443	Very High
My work offers me the opportunity to develop my strong points, such as the ability to solve problems and manage time efficiently.	5.73	1.468	Very High
Overall	5.82	1.064	Very High

As shown in Table 7, the overall mean of the respondents' assessment on development opportunities is 5.82 with a standard deviation value of 1.1064, which is interpreted as very high. The result of the assessment proves that they have a positive response, which indicates that there are existing programs and resources in place for the drivers that are not only aligned with industry standards but also effectively contribute to their skill enhancement, career growth, and overall job satisfaction.

The highest mean of 6.11, with a standard deviation value of 1.212, which is interpreted as very high, revealed that the respondents can progress financially through a competitive salary provided by the company. Based on the researcher's experience, most of the trailer truck drivers received a high salary due to the high demands of their job. Moreover, intense competition among transportation and logistics companies is one of the possible causes that contribute to offering a competitive salary to attract and retain skilled trailer truck drivers. However, the mean of 5.45 with a standard deviation value of 1.713 and interpreted as high, got the least response, which states that respondents' company offered them opportunities to attend training courses. This means that the company may be facing financial constraints that limit its ability to allocate resources for training programs. Training courses often require financial investment for course fees, materials, and possibly hiring external trainers, which may be a challenge for companies operating within tight budgets.

Table 8: Respondents' Assessment Towards Job Resources in Terms of Autonomy

Items	Mean	SD	Interpretation
The person I report to allows me to make my own decisions about my driving routes and schedules.	5.5	1.646	Very High
My job allows me to plan how I do my work activities.	5.88	1.187	Very High
My job gives me a chance to use my initiative or judgment in carrying out the work.	5.57	1.465	Very High
The job allows me to make decisions and solve problems arising from my work.	5.49	1.51	High
I have freedom in executing my work activities.	5.88	1.427	Very High
The job allows me to decide on my own on how I do my work while on the road.	5.66	1.442	Very High
I can participate in the decision about when a job must be completed.	5.76	1.247	Very High
I can take a break from my work if I feel the need to do so.	5.09	1.905	High
Overall	5.6	1.07	Very High

Table 8 presents the respondents' assessment towards job resources in terms of autonomy. The assessment has an overall mean of 5.6 with a standard deviation value of 1.07 corresponds to very high assessment with the freedom of trailer truck driver in executing their work. This finding may mean that this freedom encompasses various aspects of their work, from managing schedules and routes to making decisions that impact the successful completion of their assignments. The highest response of the respondents obtained a mean of 5.88 with a standard deviation value of 1.187 which is interpreted as very high. This states that they are planning work activities independently. This means that trailer truck drivers feel they have a high level of control and independence in organizing and carrying out their job-related tasks. However, the lowest mean of 5.09 with standard deviation value of 1.905 which is interpreted as high pointed out that respondents can take a break from their work if they feel the need to do so. However, the lowest weighted mean indicates that it may contribute to less engaged trailer truck driver due to perceive limited autonomy regarding breaks.

Table 9: Respondents' Assessment of Job Resources in Terms of Feedback

Items	Mean	SD	Interpretation
My work activities provide direct and clear information about the effectiveness (e.g., quality and quantity) of my job performance.	5.82	1.352	Very High
My job itself provides feedback on my performance.	5.87	1.292	Very High
My job itself provides me with information about my performance.	5.86	1.285	Very High
I received a great deal of information from my immediate superior and co-workers about my job performance.	5.52	1.47	Very High
Other people in my organization, such as managers and co-workers, provide information about the effectiveness (e.g., quality and quantity) of my job performance.	5.57	1.518	Very High
The person I report to gives me feedback about my performance in my organization.	5.71	1.576	Very High
I receive sufficient information about the purpose of my work.	5.91	1.381	Very High
I receive sufficient information about the results of my work.	5.78	1.528	Very High
Overall	5.75	1.124	Very High

The assessment of job resources in terms of feedback obtained an overall mean of 5.75 and a standard deviation of 1.124, with verbal interpretation of very high. The result of the assessment proves that it encompasses positive feedback between employee and employer relationships. Particularly, the respondents highly agreed that they are receiving sufficient information about the purpose of their work. This obtained the highest mean of 5.91 with a standard deviation of 1.381, which is interpreted as very high. It is a clear indication that they perceive information about the purpose and significance of their work. On the other hand, the item "trailer truck drivers are getting feedback from immediate superiors and co-workers about job performance" got the lowest mean of 5.52 with a standard deviation of 1.47 and was verbally interpreted as very high. This means that the respondents may experience an isolated work environment due to the nature of their job, which leads to fewer opportunities for casual interactions and feedback exchanges with immediate superiors and co-workers.

4.3. Respondents' Assessment Perceive their Meaningful Work

The overall mean of the respondents' assessment perceives their meaningful work is 6.52 with a standard deviation value of 0.817, which is interpreted as extremely high. This could indicate that the respondents find purpose, satisfaction, and fulfillment in their job, and that the various aspects of their work contribute positively to their sense of meaning. As reflected in Table 10, the item "considering the job very important" got the highest mean of 6.59 with a standard deviation value of 1.033, which is interpreted as extremely high. This signifies a favorable perception, which suggests a satisfied workforce. They may feel a sense of purpose and pride in their role, understanding that their efforts play a crucial part in the movement of goods and the functioning of the economy. However, the lowest mean got 6.42 with a standard deviation value of 0.987 and was rated as very high. This corresponds to respondents' assessment that they believe their work is worthwhile. This signals a potential concern regarding how trailer truck drivers perceive the importance and impact of their work.

Table 10: Assessment of the Respondents' Perception of their Meaningful Work

Items	Mean	SD	Interpretation
The work I do in my job is very important to me.	6.59	1.033	Extremely High
My job activities are personally meaningful to me.	6.53	1.027	Extremely High
The work I do in this job is worthwhile.	6.42	0.987	Very High
My job activities are significant to me.	6.51	0.906	Extremely High
The work I do in this job is meaningful to me.	6.57	0.819	Extremely High
I feel that the work I do on my job is valuable.	6.48	1.03	Very High
Overall	6.52	0.817	Extremely High

4.4. Significant effect of respondents' job resources on their employee engagement

The table shows the results of regression analysis on the effect of job resources on employee engagement. The findings revealed that the job resources, such as job variety and autonomy, have significant effects on employee engagement as indicated by the p-values of <.001. This suggests that a higher level of job variety and autonomy corresponds to an increase in the level of employee engagement.

Table 11: Effects of Job Resources on Employee Engagement

Predictor	Est.	SE	T	p	Decision to Ho	Interpretation	VIF
Intercept	1.4143	0.5643	2.506	0.013	Reject	Significant	-
Job Variety	0.2193	0.1107	1.982	0.05	Reject	Significant	1.74
Supervisor Support	0.0912	0.1141	0.799	0.426	Failed to Reject	Not Significant	2.61
Development Opportunities	-0.0236	0.0969	-0.244	0.808	Failed to Reject	Not Significant	1.88
Autonomy	0.3241	0.0889	3.646	<.001	Reject	Significant	1.59
Feedback	0.0656	0.1035	0.634	0.527	Failed to Reject	Not Significant	2.39
<i>Overall Model Test</i>							
F-value	11.5	p-value	<.001	Interpretation	Significant	Adjusted R ²	.277
<i>Assumption Check (p-values only)</i>							
Kolmogorov-Smirnov	.573	Breusch-Pagan	.277	Durbin-Watson	.356	Multicollinearity	See VIF

However, supervisor support, development opportunities and feedback have no significant effects on employee engagement as evidenced by the p-values of 0.426, 0.808 and 0.527. The results are not statistically significant, indicating that these variables may not be a significant predictor of job resources.

4.5. Meaningful work significantly mediates the effect of the relationship between job resources and employee engagement

To determine whether meaningful work mediated on the effect of job resources on employee engagement, general linear mediation analysis was conducted through SPSS as presented in Table 12.

Table 12: Mediation Analysis of Meaningful Work on the Effect of Job Resources to Employee Engagement

Effect	Estimate	SE	B	Z	P	Decision to Ho	Interpretation
<i>Indirect</i>							
JV ⇒ MW ⇒ Eng	-0.04502	0.0356	-0.03897	-1.266	0.206	Failed to Reject	Not Significant
SS ⇒ MW ⇒ Eng	0.02376	0.0217	0.0244	1.093	0.274	Failed to Reject	Not Significant
DOs ⇒ MW ⇒ Eng	-0.04284	0.0335	-0.04398	-1.277	0.201	Failed to Reject	Not Significant
Auto ⇒ MW ⇒ Eng	-0.00217	0.01	-0.00224	-0.216	0.829	Failed to Reject	Not Significant
Fb ⇒ MW ⇒ Eng	-0.03947	0.0314	-0.0428	-1.255	0.209	Failed to Reject	Not Significant
<i>Component</i>							
JV ⇒ MW	0.27344	0.075	0.3002	3.645	<.001	Reject	Significant
MW ⇒ Eng	-0.16465	0.122	-0.12983	-1.35	0.177	Failed to Reject	Not Significant
SS ⇒ MW	-0.14428	0.0774	-0.18794	-1.865	0.062	Failed to Reject	Not Significant

DOs ⇒ MW	0.26019	0.0657	0.3388	3.962	< .001	Reject	Significant
Auto ⇒ MW	0.01317	0.0603	0.01724	0.219	0.827	Failed to Reject	Not Significant
Fb ⇒ MW	0.23974	0.0701	0.32971	3.418	< .001	Reject	Significant
<i>Direct</i>							
JV ⇒ Eng	0.26435	0.1126	0.22883	2.348	0.019	Reject	Significant
SS ⇒ Eng	0.06743	0.1123	0.06926	0.601	0.548	Failed to Reject	Not Significant
DOs ⇒ Eng	0.01922	0.0993	0.01974	0.194	0.847	Failed to Reject	Not Significant
Auto ⇒ Eng	0.32625	0.0864	0.33667	3.777	< .001	Reject	Significant
Fb ⇒ Eng	0.10505	0.1047	0.11391	1.003	0.316	Failed to Reject	Not Significant
<i>Total</i>							
JV ⇒ Eng	0.21933	0.1086	0.18986	2.019	0.043	Reject	Significant
SS ⇒ Eng	0.09119	0.112	0.09366	0.814	0.416	Failed to Reject	Not Significant
DOs ⇒ Eng	-0.02362	0.0951	-0.02425	-0.248	0.804	Failed to Reject	Not Significant
Auto ⇒ Eng	0.32408	0.0872	0.33443	3.715	< .001	Reject	Significant
Fb ⇒ Eng	0.06557	0.1016	0.0711	0.646	0.519	Failed to Reject	Not Significant

The result showed that when it comes to the indirect effect, meaningful work does not fully mediate the relationship between job resources and employee engagement, as indicated by p-values of 0.0206, 0.274, 0.201, 0.829, and 0.209. Further, as regards component effects, the independent variables of job variety, development opportunities, and feedback have a significant effect on the mediating variable meaningful work as indicated by $p < .001$. On the other hand, the mediator, meaningful work, also has no significant effect on the dependent variable, employee engagement, as evidenced by the p-value of 0.177. Moreover, the effect of supervisor support and autonomy on meaningful work is not significant, as evidenced by $P = 0.062$ and $P = 0.827$. In terms of direct effect, it was revealed that as indicated by p-values of 0.019 and $< .001$, job variety and autonomy have significant effects on employee engagement. While on the part of supervisor support, development opportunities, and feedback, there is no significant effect on employee engagement as indicated by the p-values of 0.548, 0.847, and 0.316. Lastly, as regards to total effect, there is a significant effect on job variety and autonomy on employee engagement as all their p-values ($P = 0.043$, and $P < .001$) are less than .05 while supervisor support, development opportunities and feedback have no significant effect on employee engagement as evidenced by the p-value of 0.416, 0.804 and 0.519 which are greater than .05 level of significance.

4.6. Proposed Human Resource Intervention Program

The results suggest that fostering meaning and purpose in the workplace presents a valuable opportunity for organizations to enhance employee engagement among trailer truck drivers – an outcome strongly correlated with reduced absenteeism, increased productivity, and cost savings. Based on these insights, HR intervention is proposed, each with clear objectives and measurable outcomes.

Empowerment programs such as the 3-month "Driver Autonomy Training Program" aimed at increasing decision-making and autonomy could serve as useful interventions. Empowering employees can lead to a greater sense of ownership and responsibility, which in turn can boost their motivation and commitment to their roles. The goal is to reduce absenteeism by 10% and improve job satisfaction scores by 15%. Empowered employees are more likely to stay engaged and committed, leading to improved delivery reliability, which can contribute to cost savings of up to 7% due to fewer delays and improved on-time delivery rates. This also, in turn, leads to lower turnover, which reduces costs associated with recruitment and training.

Furthermore, monthly workshops over 6 months addressing emotional disengagement and job resources could further enhance engagement, enabling drivers to manage job demands more effectively. These workshops could focus on stress management techniques, resilience training, and building emotional intelligence, which are crucial for maintaining high levels of engagement and productivity in demanding jobs. These sessions aim to reduce emotional exhaustion by 20%, helping drivers better manage job demands and avoid burnout, ultimately improving workforce stability and reducing turnover-associated costs. By providing tools and strategies to cope with job-related stress, organizations can help employees maintain a positive outlook and remain committed to their work.

Conducting quarterly one-on-one development conversations with drivers could ensure they are given opportunities to enhance their skills and experience a variety of challenges in their roles. These conversations can identify individual career aspirations and development needs, allowing for tailored training and growth opportunities. This personalized approach can lead to higher job satisfaction and a stronger alignment between individual goals and organizational objectives.

Other interventions aimed directly at fostering meaningfulness in the workplace could include discussions about aspirations, values, and strengths to gain a deeper understanding of what drives employees. Regularly engaging in these conversations can help managers create a work environment that aligns with employees' personal values and career goals. This alignment can lead to a more motivated and committed workforce. This aims to foster deeper meaning in work and increase organizational commitment by 12%. This alignment has been shown to increase retention, contributing to reduced recruitment and onboarding costs.

Encouraging and training employees to collaborate with external institutions such as TESDA for advanced specialized training could help them excel in their jobs. This collaboration can provide employees with access to cutting-edge knowledge and skills, enhancing their competence and confidence in their roles. It also demonstrates the organization's commitment to continuous learning and professional development. These upskilling efforts are projected to enhance delivery reliability and reduce operational error rates by 8%, which translates into reduced fuel waste, fewer incidents, and improved customer satisfaction with a quantifiable economic impact.

Moreover, explicitly linking trailer truck drivers' roles and tasks to the larger mission and purpose of the organization could promote an understanding of the "bigger picture." When employees see how their work contributes to the overall success of the company, they are more likely to feel a sense of pride and purpose in their roles. This can be achieved by a monthly recognition initiative and rewards programs to highlight their contributions and dedication to their work. Regular recognition can reinforce the value of their efforts and encourage a culture of appreciation and motivation. By clearly connecting day-to-day tasks with company-wide goals, the program aims to boost morale and promote a sense of purpose. Success will be measured by a 10% improvement in engagement survey scores and enhanced organizational citizenship behavior.

Each of these interventions is designed not only to increase engagement but also to deliver measurable economic benefits through reduced absenteeism, improved delivery performance, and lower turnover costs, contributing to a more sustainable and efficient logistics operation.

5. Conclusions

Based on the findings, the following conclusions were drawn:

- 1) Trailer truck drivers exhibit a high level of engagement with their organization.
- 2) Trailer truck drivers generally assessed job resources as very high in terms of job variety, supervisor support, development opportunities, autonomy, and feedback.
- 3) Trailer truck drivers perceive their meaningful work as being extremely high.
- 4) Job variety and autonomy have a significant effect on employee engagement, while supervisor support, development opportunities, and feedback do not significantly affect employee engagement.
- 5) The perception of meaningful work does not significantly mediate the relationship between job resources and employee engagement.
- 6) There is a need for the proposed HR intervention program to strengthen the engagement of trailer truck drivers of transport and logistics companies.

6. Recommendations

Based on the foregoing, the following recommendations are offered by the researcher.

- 1) Trailer and truck drivers may participate in the proposed Human Resource intervention program to enhance their employee engagement.
- 2) The proposed Human Resource intervention program may be reviewed, validated, and considered so it may be utilized by transport and logistics companies to enhance the engagement of trailer truck drivers within the organization.
- 3) Transport and logistics companies may invest in providing better job resources and foster a supportive work culture where trailer truck drivers feel valued and recognized for their contributions.
- 4) Other companies or institutions may consider the evaluation of job variety, supervisor support, development opportunities, autonomy, and feedback as job resources and adopt the best practices to enhance the level of their engagement and perception of meaningful work.
- 5) Future researchers may conduct similar studies in other institutions or companies to improve the consistency of the results. They may also include other variables to deeply understand the relationship between employee engagement, job resources, and meaningful work.
- 6) Future studies may consider incorporating behavioral outcomes, such as turnover rates, punctuality, and safety compliance, as these metrics provide a more direct link to operational performance.
- 7) Future research may explore the potential moderating role of specific job demands, such as workload intensity, time pressure, and emotional strain, on the relationship between job resources and employee engagement. Integrating these variables into mediation models may offer a more nuanced understanding of how meaningful work is sustained under varying job conditions.
- 8) Employing longitudinal designs and incorporating behavioral outcomes like absenteeism and employee turnover may significantly enhance the validation of HR interventions aimed at improving engagement among trailer truck drivers in the transport and logistics sector.

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