

## Key Drivers of Employee Engagement in Malaysian Manufacturing Sector

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### Abstract

**Purpose** – The study aims to explore the concept of employee engagement within the manufacturing sector in Malaysia, which has not been extensively studied before, particularly in the Asian region. It acknowledges that there is a lack of understanding and a single definitive definition of employee engagement and that it may differ across different cultural contexts. The study looked at Social Exchange Theory and the AEON Hewitt Model whilst measuring employee engagement using part of Gallup's Q12 questionnaire and offers suggestive findings. **Design/methodology/approach** – The study uses a quantitative method using a survey conducted on 266 respondents from various occupational levels within manufacturing sectors in Malaysia. The data is analysed using SPSS software. **Findings** – The study found that effective communication and organizational leadership, specifically highlighting the importance of transformational and servant leadership styles play significant key drivers in fostering employee engagement in the manufacturing industry. However, rewards, professional development and work-life balance were found to be non-significant elements to engage employees in their work. Work-life balance is the least positive significant factor of employee engagement among all the factors. **Research limitations** – The study focuses only on the manufacturing industry in Malaysia, with a smaller sample size and using a quantitative research method. **Practical implications** – The study's findings have important implications for managers in the manufacturing sector, HR professionals, and legislators. The results display a priceless window for manufacturing companies in Malaysia into what matters most in boosting employee engagement at work such as organizational leadership, rewards, effective communication, and professional development. The study suggests accommodating policies like flexible work schedules and remote employment options should be taken into consideration as it draws close to underlining the importance of work-life balance in increasing engagement.

**Paper type** – Empirical paper

**Keywords:** Employee Engagement, Leadership, Rewards, Professional Development, Effective Communication, Work-life Balance, Manufacturing Industry.

## Introduction

The manufacturing industry plays a vital role in transforming a nation's economy, particularly in Malaysia where it contributes three-quarters of the GDP (Tsetim *et al.*, 2020). The commitment of employees is crucial in ensuring that the products or services provided meet high standards to satisfy client needs (Saad *et al.*, 2021). Various studies conducted worldwide have highlighted the importance of human capital as an important asset for organizations to achieve their vision, mission, and goals. Disengaged or less engaged workers have been found to cost companies a significant amount of money (Zondo, 2020).

Research by Odilovich *et al.* (2020) suggests that employees can perform at their best when they receive proper training and occasional in-service trainings to enhance their skills in their respective fields. Employee involvement has been shown to positively impact an organization's success (Nizam & Kam, 2018). However, there are instances when employees are burdened with excessive workloads, negatively affecting their work-life balance. Workload and a desire to work longer hours can influence an employee's level of job satisfaction (Chan *et al.*, 2021).

In a business that has consistently tried various strategies to attract and retain employees, one aspect that remains challenging is employee engagement. Afsar *et al.* (2020) argue that employee engagement plays a crucial role in the success of organizations in the manufacturing industry. However, research has found that there is a gap in understanding the factors that influence employee engagement and how it relates to the adoption of new job roles (Chan *et al.*, 2021). Employee wellbeing has been a challenging aspect for businesses that aim to promote employee retention and have explored various measures to address this issue (Galanti *et al.*, 2021; Antony, 2018). Many companies recognize the importance of employee engagement and its impact on organizational success (Chanana, 2021). However, a lack of staff involvement hinders overall output in organizations (Chen, 2019).

Both management and HR departments often struggle to understand what promotes and fosters employee engagement, creating a research gap (Chen, 2019). Additionally, many individuals in the business world fail to grasp the meaning of employee engagement and its overall effect on company performance, constituting a second research gap (Lemon, 2019). According to a third research gap, there are various engagement-related factors that may be influenced by different theories and vary across cultures and industries. Previous studies, primarily conducted in Western cultures, indicate a lack of information and research on employee engagement in non-Western contexts, particularly in Asia (Clifton & Harter, 2019).

According to Gallup research in 2003, actively disengaged employees are much more likely to leave their company within a year compared to engaged employees (Clifton & Harter, 2003). The data shows that in Malaysia, approximately 33% of employees are actively engaged, while a significant portion (between 56% and 60%) are not engaged and 17% are actively disengaged. The low productivity of actively disengaged individuals can lead to job losses, raising concerns about employee engagement in Malaysian's current market. Another study by Wang *et al.* in 2020 found a strong correlation between employee engagement levels and factors such as employee satisfaction, performance, turnover, and behavior. Additional research by Ashraf & Siddiqui in 2020 discovered a connection between employee engagement levels and employee happiness, performance, turnover, and behavior. However, Barreiro & Treglown in 2020 found that some firms have combined employee engagement with other aspects such as employee happiness and staff motivation, leading to potentially different interpretations.

This study highlights the issue of misidentification, as a motivated or content employee may not necessarily be engaged. The current study aims to investigate the main drivers of employee engagement in Malaysian manufacturing companies using the Aeon Hewitt model. This model, developed in 2012 combined with the social exchange theory is applied in this study. It examines factors such as organizational leadership, rewards, professional development, effective communication, and work-life balance which is considered comprehensive and relevant in manufacturing industry within the Asian context.

### **Literature Review**

Employee engagement refers to the level of motivation and satisfaction employees have in contributing to the success of their organization and their overall job satisfaction (Low & Spong, 2022). Actively involving employees in their work enhances their sense of fulfillment and purpose (Hooi, 2021). Businesses with high employee involvement tend to outperform those with low engagement levels in terms of productivity, innovation, and profitability (Ahmad *et al.*, 2019). Engaged employees also have a positive impact on the mood and productivity of their co-workers, creating a cycle of engagement and performance (Abd Razak & Ali, 2021). The promotion of imagination, creativity, and dedication to the organization through employee engagement ultimately enhances performance (Ismail *et al.*, 2021).

Gupta *et al.* (2019) examined the development of employee involvement and analyzed the different theoretical perspectives and approaches employed by organizations in India and major multinational corporations globally. Additionally, the research conducted by Iddagoda & Opatha (2017) identified seven gaps in research on employee engagement, including the lack of theoretical justifications and empirical studies on the impact of religiosity on employee engagement, as well as the ambiguity in conceptualizing employee engagement.

### **Organizational Leadership**

In the manufacturing industry, organizational leadership plays a crucial role in stimulating employee engagement. One effective strategy for boosting morale and productivity is transformative leadership, as supported by Haile (2022). Transformative leaders provide their teams with a common goal to strive towards, according to Jiatong *et al.* (2022). On the contrary, authoritarian leadership philosophies can have a negative impact on employee morale, as suggested by Ariussanto *et al.* (2020). When employers cultivate an atmosphere of mistrust and animosity, it can significantly affect employee happiness and motivation.

Research by Zhao and Sheng (2019) also indicates that autocratic leadership philosophies have an adverse effect on employee engagement. In comparison, Thanh and Quang (2022) argue that transactional leadership, which relies on positive and negative reinforcement, may not have a considerable impact on employee engagement. The culture within a company can also influence how effectively a leader engages their workforce. By promoting a positive work environment, transformative leadership can enhance employee engagement, as highlighted by Jiatong *et al.* (2022).

### **Rewards**

Research conducted by Hooi (2020) found that engaged employees are more inclined to give their best work when their efforts are rewarded with acknowledged, and valued appreciation. Recently, Basit *et al.* (2021) discovered a significant increase in employee performance when using gamification as a method to boost employee engagement and

performance among Malaysian IT professionals. Employees are more motivated to work when they receive non-cash rewards such as admiration and acknowledgment, according to Baqir *et al.* (2020).

Furthermore, financial incentives like bonuses and promotions can enhance employee engagement in the Saudi manufacturing industry, as observed by Kamselem *et al.* (2022). Interestingly, research conducted by Manzoor *et al.* (2021) found that pay and bonuses, which are extrinsic incentives, have a limited connection to employee engagement. Employees are more inclined to intrinsic factors such as mastery and meaning in their work, rather than extrinsic rewards of short-term gratitude.

### ***Professional Development***

Research investigation by Sendawula *et al.* (2018) found that professional development opportunities increased employee engagement in the manufacturing sector in Pakistan. Participants who engage in professional development programs report higher levels of engagement, motivation, and job satisfaction. Hassett (2022) also discovered that professional development programs led to increased employee engagement in the Iranian manufacturing sector. Furthermore, a study by Alfes *et al.* (2020) emphasized the importance of professional development in creating a more committed workforce.

However, Triasti and Purba's (2021) research suggests that the impact of professional programs on employee enthusiasm can vary. Access to training and development is crucial for employees to stay updated with market trends and advancements, and management must ensure that necessary resources, such as computers and software, are available for efficient task execution (Abd Razak & Ali, 2021). In addition to training and development programs, the provision of resources and support can also contribute to an engaged workplace (Singh, 2022).

### ***Effective Communication***

According to Abd Razak and Ali (2021), it is crucial for a healthy business environment to have internal cooperation with effective communication. Kalogiannidis (2020) conducted research in China's manufacturing industry and found that effective communication has a positive impact on employee motivation. Furthermore, Akram and Kalogiannidis (2020) discovered that clear and simple communication techniques can increase employee engagement among Pakistani manufacturing workers.

Conversely, research conducted by Hadziahmetovic and Salihovic (2022) demonstrated that ineffective communication can have a detrimental effect on employee engagement. Additionally, Curado *et al.* (2022) found that a lack of communication can diminish employee enthusiasm. In conclusion, the effectiveness of communication methods significantly influences employee engagement, and inadequate communication can result in decreased motivation and dissatisfaction in the workplace.

### ***Work-Life Balance***

Flexible work hours offered by companies can assist employees in managing their personal and professional duties, leading to higher motivation and job satisfaction. Research conducted by Mansor *et al.* (2018) in Malaysia focused on Generation Y employees in public organizations, demonstrating the significance of flexible work arrangements in enhancing employee engagement. Similarly, Larasati *et al.* (2020) study in the Pakistani manufacturing sector revealed a positive association between work-life balance and employee engagement.

Wood *et al.* (2020) examined the relationship among work-life balance, job satisfaction, and organizational commitment in the Taiwanese manufacturing industry, and found favourable substantial influences of the related variables. A healthy work-life balance indirectly influences engagement by impacting an employee's commitment to the organization and job satisfaction. Successfully managing work and personal responsibilities leads to increased happiness and dedication towards one's career, subsequently improving engagement (Allen & Martin, 2017).

### **Underpinning Theories**

The foundation theory on interpersonal interactions that builds the employee engagement models was put forth by Homans in 1958 using the Social Exchange Theory (SET) (Molm, 2015). Homans' theory is based on certain assumptions about human nature and relationships, such as the tendency to seek rewards and avoid punishments. Individuals are motivated by self-interest with the thought, "What's in it for me?" and strive to maximize their earnings while minimizing their effort (Abd Razak & Ali, 2021). Organizations can promote engagement from the self-interest behaviour by offering opportunities for growth, fair compensation, clear expectations, and defined goals. Previous research acknowledges that when employees feel adequately rewarded, their commitment, satisfaction, and motivation increase (Low & Spong, 2022). In the current environment, The SET theory was examined by Mustafa *et al.* (2022) on the different aspect of employee engagement in Malaysia during the COVID-19 pandemic. The research focused on the impact of transformational leadership, communication, and training and development, which were considered crucial during these challenging times.

Another theory observed in this research is by Aon Hewitt, a company specializing in human capital consulting, conducted a study in 2012 on global employee engagement trends (Hewitt, 2012). The study analyzed data from 6.7 million employees across Europe, Asia-Pacific, North America, and Latin America, representing over 2,900 different companies. To ensure the study's reliability, a reliability scale of 0.86 was established based on survey results. Aon Hewitt's model identified 21 distinct areas that could be grouped into six key factors of engagement: work, people, opportunities, total rewards, company practices, and quality of life. The model used a scale with six questions, focusing on the concepts of "say, stay, and strive" as the foundation for measuring engagement. However, some critics may argue that certain behaviors, such as endorsing a business, don't always indicate employee involvement (Dangle & Bagga, 2023; Hinzmann *et al.*, 2019). Despite this, the Aon Hewitt model was chosen for the study due to its industry relevancy compared to other measurement methods, allowing for an assessment of the various independent factors influencing employee engagement.

### **Figure 1**

The Aon Hewitt Model Employee Engagement Drivers & Outcome (Hewitt, 2012)



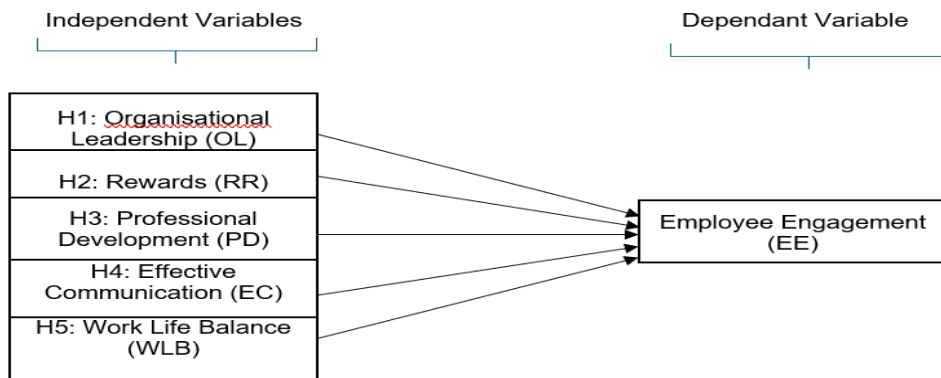
The Aon Hewitt Employee Engagement Model



Research Framework & Hypothesis Statement

This research incorporated the factors discussed in the Social Exchange Theory and Aon Hewitt model to create a conceptual framework. The framework consists of five independent variables and corresponding hypotheses, which were developed after reviewing relevant literature, theories, and models relevant to the manufacturing sector. The effects on the dependent variable of employee engagement, was measured using organizational leadership, rewards, professional development, effective communication, and work-life balance as per figure 2 and the research hypothesis in table 1:

Figure 2  
Conceptual Framework



**Table 1***Research Hypotheses Code and Description - Direct Effect of constructs*

	<b>Description</b>	<b>Path</b>
H1	Organisational Leadership (OL) has a significant effect on employee engagement in Malaysian Manufacturing Sector	OL→EE
H2	Rewards (OL) has a significant effect on employee engagement in Malaysian Manufacturing Sector	RR→EE
H3	Professional Development (OL) has a significant effect on employee engagement in Malaysian Manufacturing Sector	PD→EE
H4	Effective Communication (OL) has a significant effect on employee engagement in Malaysian Manufacturing Sector	EC→EE
H5	Work-Life Balance (OL) has a significant effect on employee engagement in Malaysian Manufacturing Sector	WLB→EE

**Methodology**

The approach to quantitative research is the methodology adopted in this research. Data were acquired through the use of questionnaires, divided into three main sections, the first of which, Section A, has 10 questions about the respondents' demographics. This questionnaire identifies the respondents' demographic details, including gender, age, race, income level, marital status, occupation level, educational background, total number of years worked, state of employment, and manufacturing industry type. Following Section A, Section B contains 5 questions on the dependent variable employee engagement, and Section C is further divided into 5 smaller parts with 5 questions for each of the independent variables, for a total of 40 questions. Five options on a Likert scale, from 1 (strongly disagree) to 5 (strongly agree), are shown to respondents.

The Q12 survey, which employed a 12-item scale created by the Gallup Organization (2008), was largely adapted and used as the basis for the Employee Engagement questionnaire. Five items from this survey were used in the questionnaire. Organisational leadership construct was measured using a scale by Bass and Avolio (1990), which consist of 12 items wherein 5 questions were adopted. For the rewards construct, a scale consisting of 7 items by Leary (2004) was chosen, of which 5 items were adopted and will be used for the questionnaire. For measuring professional development, ORC International pulse scale consisting of seven items was used, and only 5 items were adopted (Makera, 2018). An instrument developed by Chandrasekar (2011) on work environment in 8 items was relatable to communication construct was chosen, however only 4 items will be used to assess effective communication construct and one question was adapted. The Survey Work Home Interaction (SWING) Scale developed by Geurts et. al., (2005) was partially used to analyse this variable with 4 items. From Haar et. al., (2014), 1 questionnaire item were adopted.

Convenience sampling, which is based on a non-random selection of samples, was the most appropriate sampling technique for this study. In the absence of a sampling frame, convenience sampling allows researchers to gather data that would not have been possible otherwise. Both white collar and blue-collar workers in Malaysia's industrial sector are part of the population chosen for this study. Employees in Malaysia specifically the Klang Valley, that is centered in the federal territories of Kuala Lumpur and includes its adjoining cities and towns in the state of Selangor are polled for this study. According to recent data from Malaysia's National Statistics Organisation (2023), there are approximately 3,000

manufacturing companies operating in the Klang Valley, with a total of around 50,000 employees. Given that the majority of manufacturing enterprises are based in these localities, the region should receive the maximum number of responses.

The research made use of Statistical Package for Social Sciences (SPSS) version 26. The surveys were dispersed to 500 respondents including the leaders addressing the manufacturing companies. In total, 266 respondents answered the survey; they were then given back and subjected to data screening because no polls were rejected. The 266 acknowledged responses, which correspond to 46.8% of the total respondents, were then used. A recommended sample size, such as the sample size multiplied by ten times the number of constructs (Sekaran & Bougie, 2010). According to Hair *et al.* (2010), the minimal sample size for the Maximum Likelihood (ML) method should be between 100 and 150 responses. The 266 replies satisfy the criteria for both needs. Utilizing frequency measurement to ascertain the respondents' background is the fundamental descriptive statistic used to characterize the respondent profile.

## Results

According to Ong (2012), a feasibility analysis, also known as a pilot study, is conducted using SPSS to ascertain the long-term reliability and viability of a substantial project. 49 workers in the manufacturing sector received the questionnaire using Microsoft Forms. According to Mohajan (2017), "the ability of a scale or measuring instrument to measure what is intended to be measured" is how validity is defined. From the reliability test that this questionnaire is reliable and suitable for use in the study as all Cronbach Alpha values are deemed 0.7 and above for all variables as displayed in table 2.

**Table 2**

Summary of Pilot Test Reliability & Validity Statistics

Variables	Cronbach's Alpha	Reliability	Validity	N of Items
Employee Engagement (EE)	0.759	Acceptable	Valid	5
Organisational Leadership (OL)	0.858	Good	Valid	5
Rewards (RR)	0.696	Fair	Valid	5
Professional Development (PD)	0.786	Acceptable	Valid	5
Effective Communication (EC)	0.836	Good	Valid	5
Work Life Balance (WLB)	0.726	Acceptable	Valid	5

After the initial pilot study ensured the instrument's reliability and validity, the data collected from the actual respondents is analyzed. Table 3 summarizes the demographic information of the participants, encompassing relevant factors. These demographic variables were further examined to observe the effects on the study.



**Table 3**

Summary of Demographic Variables (N=266)

<i>Demographic</i>	<i>Options</i>	<i>Frequency</i>	<i>Percent</i>
<i>Age</i>	20 – 29 years	105	39.5
	30 – 39 years	108	40.6
	40 – 49 years	38	14.3
	50 – 59 years	11	4.1
	60 years and above	4	1.5
<i>Gender</i>	Female	124	46.6
	Male	142	53.4
<i>Race / Ethnicity</i>	Chinese	62	23.3
	Indian	67	25.2
	Malay	76	28.6
	Non-National/Expatriate	2	0.8
	Native	9	3.4
	Other	50	18.8
<i>Marital Status</i>	Married	133	50
	Other	2	0.8
	Single	131	49.2
<i>Education Background</i>	Degree	85	32
	Diploma & Professional Certificate	92	34.6
	Masters	20	7.5
	PhD/DBA	1	0.4
	Primary & below	38	14.3
	Secondary	30	11.3
<i>Occupation Level</i>	Senior Management	20	7.5
	Clerk, Assistant & Non-Executive	54	20.3
	Executive & Supervisor	98	36.8
	Head of Department & Manager	33	12.4
	Skilled, Labour & General Worker	61	22.9
<i>Total Work Experience</i>	11 – 15 years	50	18.8
	16 – 20 years	48	18
	21 years and above	22	8.3
	5 years and less	81	30.5
	6 – 10 years	65	24.4
<i>Income Level</i>	RM10,001 and above	25	9.4
	RM2,000 and less	28	10.5
	RM2,001 – RM3,500	114	42.9
	RM3,501 – RM5,000	58	21.8
	RM5,001 – RM6,500	22	8.3
	RM6,501 – RM8,000	13	4.9
	RM8,001 – RM10,000	6	2.3
<i>State of Employment</i>	Johor	2	0.8
	Kedah	4	1.5
	Kelantan	1	0.4
	Kuala Lumpur	78	29.3

	Melaka	3	1.1	
	Negeri Sembilan	19	7.1	
	Pulau Pinang	21	7.9	
	Sarawak	3	1.1	
	Selangor	134	50.4	
	Terengganu	1	0.4	
<i>Industry</i>	Electrical & Electronic Products	38	14.3	
	Food, Beverages & Tobacco	72	27.1	
	Non-Metallic, Mineral Products, Basic Metal & Fabricated Metal	27	10.2	
	Petroleum, Chemical, Rubber & Plastic	13	4.9	
	Textile, Wearing Apparel, Leather & Footwear	66	24.8	
	Transport, Equipment & Other Manufactures	45	16.9	
	Wood, Furniture, Paper Products & Printing	5	1.9	

The reliability analysis is conducted in this study to guarantee the internal consistency of the instruments employed in the questionnaire. According to Moses *et al.* (2021), a Cronbach's alpha of at least 0.7 is considered acceptable. The Cronbach's coefficient alpha for Employee Engagement is 0.849, Organisational Leadership is 0.923, Rewards is 0.758, Professional Development is 0.841, Effective Communication is 0.844, and Work Life Balance is 0.865. The variable with the highest reliability score is Organisational Leadership whereas Rewards has the lowest reliability score at 0.758. The study used skewness and kurtosis assessment and normal qq plot to conduct the normality test. An acceptable threshold recommended by Hair *et al.* (2011) of skewness between -2 and +2 and kurtosis between -7 and +7, to investigate this. The results show that the variables' values for skewness and kurtosis are below the predetermined thresholds, proving that all the data gathered for this study has a normal distribution. Table 4 shows descriptive analysis and reliability for all items within variables.

**Table 4***Summary of Descriptive & Reliability Analysis – All Items of Variables*

<b>Construct/scale</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Cronbach's Alpha</b>	<b>N</b>
<b>Employee Engagement</b>	4.485	0.5085	0.849	266
EE1 - Work expectations	4.64	0.504		
EE2 - Work materials	4.47	0.668		
EE3 - Job purpose	4.51	0.622		
EE4 - Coworker commitment	4.42	0.714		
EE5 - Work belonging	4.38	0.692		
<b>Organisational Leadership</b>	4.231	0.6931	0.923	266
OL1 - Subordinate treatment	4.29	0.740		
OL2 - Leader behaviour	4.25	0.763		
OL3 - Leader expression	4.24	0.774		
OL4 - Teaching/coaching	4.18	0.866		
OL5 - Desire to succeed	4.19	0.813		
<b>Rewards</b>	4.254	0.5792	0.758	266
RR1 - Reward value	3.89	0.980		
RR2 - Increase efforts	4.52	0.651		
RR3 - Work atmosphere	4.53	0.639		
RR4 - Reward distribution	4.00	0.899		
RR5 - Teamwork rewards	4.33	0.836		
<b>Professional Development</b>	4.260	0.6269	0.841	266
PD1 - Regular reviews	4.13	0.874		
PD2 - Development plan	3.97	1.011		
PD3 - Career progress	4.29	0.738		
PD4 - Improved performance	4.48	0.651		
PD5 - Work accomplishment	4.43	0.682		
<b>Effective Communication</b>	4.413	0.5643	0.844	266
EC1 - Treatment equality	4.12	0.875		
EC2 - Coworker relationship	4.53	0.615		
EC3 - Supervisor relationship	4.56	0.637		
EC4 - Team camaraderie	4.50	0.652		
EC5 - Workspace control	4.34	0.782		
<b>Work Life Balance</b>	4.380	0.6338	0.865	266
WLB1-Personal enjoyment	4.42	0.759		
WLB2-Work enjoyment	4.38	0.798		
WLB3-Balance demands	4.39	0.715		
WLB4-Domestic obligations	4.38	0.857		
WLB5-Work obligations	4.33	0.799		
Valid N (listwise)				266

The examination of the normal distribution of the dependent variable is done by looking at the normal P-P plot. Since there are no notable patterns of concern remaining in the residuals and the multiple linear regression may justify greater variance, this suggests that the residuals have a normal distribution for the data analysis in this research (Darlington, 2017).

The degree of similarity between the research variables, indicated by a correlation (r or R), is determined for this study using Pearson's correlation evaluation (Senthilnathan, 2019) in Table 5. It is often a number without units that is situated between 1 and -1. Pearson correlation is chosen since the data in this investigation are normally distributed.) Senthilnathan (2019) stated that a correlation coefficient (r) of 0.50 or above indicates a strong association. As an overall observation, all the correlation analysis data are above 0.50, which indicates that there is a strong positive association between each variable. The result of the Pearson's correlation test is observed in table 6.

**Table 5**  
*Summary of Correlation Level*

Independent Variable	R value	Correlation level
Organisational Leadership	0.76	strong positive
Rewards	0.64	strong positive
Professional Development	0.68	strong positive
Communication	0.66	strong positive
Work Life Balance	0.58	Fairly strong positive

**Table 6**  
*Pearson's Correlation Test Results*

		Correlations					
		Employee Engagement	Organisational Leadership	Rewards	Professional Development	Effective Communication	Work Life Balance
Employee Engagement	Pearson Correlation	1	.760**	.639**	.675**	.655**	.583**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	266	266	266	266	266	266
Organisational Leadership	Pearson Correlation	.760**	1	.752**	.802**	.713**	.617**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	266	266	266	266	266	266
Rewards	Pearson Correlation	.639**	.752**	1	.729**	.720**	.658**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	266	266	266	266	266	266
Professional Development	Pearson Correlation	.675**	.802**	.729**	1	.687**	.627**
	Sig. (2-tailed)	.000	.000	.000		.000	.000
	N	266	266	266	266	266	266
Effective Communication	Pearson Correlation	.655**	.713**	.720**	.687**	1	.719**
	Sig. (2-tailed)	.000	.000	.000	.000		.000
	N	266	266	266	266	266	266
Work Life Balance	Pearson Correlation	.583**	.617**	.658**	.627**	.719**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	
	N	266	266	266	266	266	266

\*\* Correlation is significant at the 0.01 level (2-tailed).

Amid the dependent variable Employee Engagement, the correlation of the independent variables are as follows; Organisational Leadership (r=0.760), Rewards (r=0.639), Professional Development (r=0.675), Communication (r=0.655), and Work Life Balance (r=0.583). All independent variables show strong positive correlation level whereas the exception of Work Life Balance which only shows fairly strong positive correlation.

The scatterplot for multiple linear regression presents a visualization of the standardized residual values. A linear relationship is discovered if the linear sig value is more than 0.5. The scatter plot shows that points have been dispersed and accumulated. As a result, there is a linear link between organizational factors and employee engagement factors. Therefore, we can see it is an unbiased outcome and as a result, the homoscedasticity assumption can be satisfied using them.

A Multiple Regression analysis is carried out to determine how much variation in employee engagement in manufacturing companies could be explained by the independent variables. The calculated R<sup>2</sup> in table 7 is 0.613, whereas the adjusted R-squared was 0.605. This means that the organisational leadership, rewards, professional development and effective communication factors explain 60.5% of the variance in employee engagement. This also demonstrates that other research factors not included in this survey account for about 39.5% of the difference in employee engagement.

**Table 7***Regression Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.781 <sup>a</sup>	.613	.605	.3195
a. Dependent Variable: Employee Engagement				
a. Predictors: (Constant), Work Life Balance, Organisational Leadership, Rewards, Effective Communication, Professional Development				

Ramlan & Adnan (2016) state that the F-statistic is used to test whether the null hypothesis should be accepted or disregarded. Through the ANOVA test, F-statistic result along with the p-value indicate that the entire set of results from the analysis were significant. The table below demonstrates that the explanatory variables are statistically significant, i.e., the model fits the data well, with a p value of 0.000. The regression analysis in table 8 yielded an F-value of 82.287 and a p-value of 0.000. A p-value less than 0.05 suggests that the independent factors have a substantial impact on employee engagement. This reveals a substantial relationship between employee engagement and independent variables.

**Table 8***ANOVA Test Results*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.987	5	8.397	82.287	.000 <sup>b</sup>
	Residual	26.533	260	.102		
	Total	68.520	265			
a. Dependent Variable: Employee Engagement						
b. Predictors: (Constant), WLB, Organisational Leadership, Rewards, Effective Communication, Professional Development						

The standardized coefficients ( $\beta$ ), according to McHugh (2013) represent the strength of the explanatory variables' effects on the dependent variable. If the significance is less than 0.05, the factor has a significant effect on employee engagement; however, if the value is more than 0.05, the factor has an insignificant effect. As we investigate standardized coefficients ( $\beta$ ) in table 9, leadership ( $\beta=0.371$ ,  $P=0.000$ ) has the highest positive significance followed by communication ( $\beta=0.133$ ,  $P=0.027$ ). There are no known negative significances due to nil negative ( $\beta$ ) values. On the flip side the balance 3 independent variables which are Rewards, Professional Development and Work Life Balance has a value of [(RR)  $\beta=0.023$ ,  $P=0.700$ ], [(PD)  $\beta=0.076$ ,  $P=0.181$ ] and [(WLB)  $\beta=0.071$ ,  $P=0.132$ ] respectively have p-value more than 0.05 therefore it is conserved as a non- significant outcome. This can be interpreted that; Rewards, Professional Development and Work Life Balance does not support the dependant variable of Employee Engagement.

**Table 9***Multiple Regression Analysis Coefficients*

Model		Unstandardized Coefficients		Coefficients	T - value	Sig. P-value 0.05
		B	Std. Error	Beta		
1	(Constant)	1.597 $\beta_0$	.166		9.619	.000
	Organisational Leadership (OL)	.371 $\beta_1$	.053	.506	6.946	.000
	Rewards (RR)	.023 $\beta_2$	.059	.026	.386	.700
	Professional Development (PDT)	.076 $\beta_3$	.057	.094	1.341	.181
	Effective Communication (EC)	.133 $\beta_4$	.060	.147	2.219	.027
	Work Life Balance (WLB)	.071 $\beta_5$	.047	.089	1.511	.132
a. Dependent Variable: Engage						

In terms of identifying the strongest and weakest relationships, the focus is on the magnitude of the regression coefficients (beta values) The higher the absolute value of the coefficient, the more pronounced the relationship, with positive coefficients indicating a positive relationship and negative coefficients indicating a negative relationship. In this study, the leadership coefficient (0.371) shows the strongest relationship, while the rewards coefficient (0.023) indicates the weakest relationship as seen in table 10. Sufficient evidence supports the existence of a relationship between all independent variables and the dependent variable of employee engagement.

**Table 10***Summary of Hypothesis*

No	Hypotheses	R	$\beta$	T - value	P-value	Result
H1	OL $\rightarrow$ EE	0.76	.371	6.946	.000	Supported
H2	RR $\rightarrow$ EE	0.64	.023	.386	.700	Not Supported
H3	PDT $\rightarrow$ EE	0.68	.076	1.341	.181	Not Supported
H4	EC $\rightarrow$ EE	0.66	.133	2.219	.027	Supported
H5	WLB $\rightarrow$ EE	0.58	.071	1.511	.132	Not Supported

The significance of organizational leadership has been acknowledged as a crucial factor in creating a participative work environment. Transformational and servant leadership approaches were highlighted as essential for this purpose. Additionally, the study emphasized the importance of a well-developed rewards and recognition system in enhancing employee engagement by providing both tangible and intangible rewards that foster a sense of fulfilment and pleasure. Furthermore, continuous learning opportunities and professional development were found to be significant in increasing employee excitement and dedication to their careers, emphasizing the importance of professional growth. Finally, work-life balance was identified as a crucial component of engagement, suggesting that companies



should implement policies that allow employees to effectively manage their personal and professional responsibilities, leading to higher job satisfaction and decreased stress levels.

### **Discussions**

**H1:** There is a positive significant relationship between Organisational Leadership (OL) and Employee Engagement (EE) in Malaysian manufacturing industry.

It is demonstrated in the analysis that there is a strong correlation between Organisational Leadership and employee engagement with a p-value of less than 0.0001. It is shown that there is a Pearson correlation of 0.760 between Organisational Leadership and employee engagement, thus they are strongly and positively correlated. The leadership coefficient of 0.371 shows the strongest relationship among all the variables.

The findings emphasize the important role of organizational leadership in influencing the level of employee engagement in Malaysian manufacturing sector, which is consistent with previous research. For example, a study conducted by Anser *et al.* in 2017 confirmed the positive effect of transformative leadership on employee engagement. Transformative leaders have the ability to inspire and motivate their employees, leading to higher levels of engagement and commitment. Additionally, a study by Aryee *et al.* (2017) revealed the benefits of servant leadership, which prioritizes the needs of employees, in enhancing employee engagement. When leaders focus on nurturing and developing their team members, it creates a positive work environment that encourages greater involvement. Furthermore, a study by Shuck and Reio Jr. (2018) found that authentic leadership, characterized by transparency, integrity, and honesty, fosters employee engagement. Genuine leaders foster openness and trust, contributing to a stronger sense of purpose among employees. Moreover, a meta-analysis conducted by Jiang *et al.* (2021) demonstrated that leadership behavior not only directly impacts employee engagement but also indirectly influences it through its effects on corporate culture. Leaders can promote a culture that encourages participation and innovation, ultimately enhancing employee engagement.

**H2:** There is a perceived significant positive relationship between Rewards (RR) and Employee Engagement (EE) in Malaysian manufacturing industry.

In the finding of the analysis, rewards and employee engagement were demonstrated to have insignificant correlation at a p-value of 0.0001 or below. The Pearson correlation coefficient of 0.023 indicates the weakest relationship among the other variables. This means that this hypothesis is rejected, insinuating that Rewards (RR) have no significant effect towards Employee Engagement (EE) in Malaysian manufacturing industry.

The result of the analysis shows that employee engagement in Malaysian manufacturing sector is not influenced by rewards and recognition, as supported by existing research in the fields of organizational behavior and human resource management. Several research in manufacturing industry have indicated that financial rewards do not justify an additional amount of variance in work engagement and work performance over job resources and job demands. These findings suggest that there is insufficient evidence to claim that compensations, benefits, and bonuses are related to employee work engagement level (Kulikowski & Sedlak, 2020; Siswanto *et al.*, 2021).

However, there are many research contradicting to the finding of this research. Gupta and Sharma (2018) discovered a positive relationship between employee engagement and

incentives, specifically noting that both financial rewards and recognition had a significant impact on employee engagement. These findings were consistent with a study conducted by Alnaimi *et al.* (2020), who proposed that efficient merit programs could be utilized to enhance engagement by making employees feel appreciated for their achievements, thereby increasing their motivation and commitment to their work. Additionally, a study by Merino and Privado (2015) revealed that acknowledgment can improve self-esteem and self-efficacy, both of which are crucial factors in fostering engagement. Ultimately, when employees feel their work is acknowledged and recognized, they tend to exhibit greater dedication and put forth more effort.

**H3:** There is a perceived significant positive relationship between Professional Development (PD) and Employee Engagement in Malaysian manufacturing industry.

At a p-value of 0.181 and correlation coefficient of 0.675, it was demonstrated that there is statistically insignificant strong relationship between professional development and employee engagement. The result of this research is aligned to the findings from the research conducted by Triasti and Purba's (2021). Their research suggests that the impact of professional programs does not necessarily effect the employee enthusiasm to engage in their work. Malaysian manufacturing workers tend to rely on their leaders to guide their progress rather than having to participate in professional development programs. It emphasizes the importance of leaders to align programs with organizational objectives and display to the manufacturing employees the importance of work advancement, and offering support to participants before, during, and after the program. When workers are informed by the leaders of their careers' progressing and evolving, they display higher levels of engagement (Grawitch *et al.*, 2019).

Employees who believe their employer is committed to their professional growth tend to be more dedicated and engaged (Alfes *et al.*, 2020). Another study by Viterouli *et al.*, (2022) highlighted the crucial role of continual education and training in boosting employee engagement. Providing opportunities for employees to learn enhances overall engagement by increasing motivation and job satisfaction. When businesses invest in the skills and knowledge development of their employees, they feel valued, leading to higher levels of engagement.

**H4:** There is a perceived significant positive relationship between Effective Communication (EC) and Employee Engagement (EE) in Malaysian manufacturing industry.

The analysis shows that effective communication and employee engagement is demonstrated to have a substantial correlation at a p-value of 0.0001 or below. The r (Pearson) coefficient between effective communication and employee engagement was found to be 0.655, thus showing that they have a strong and favourable link with employee engagement.

The finding aligns with research conducted by Kamselem *et al.* (2022), which indicates that effective internal communication has a significant impact on employee engagement. When employees are informed about their roles, company goals, and any recent changes, their engagement levels tend to increase. A study by Baqir *et al.* (2020) also suggests that leaders who are open and honest with each other create a healthy work atmosphere where

employees feel more connected to their tasks and the organization as a whole. Strategic communication by management can foster a sense of community and shared objectives among staff members, ultimately enhancing engagement. This notion is supported by an earlier study by Basit *et al.* (2021), which argues that trust, a vital element of employee engagement, is cultivated through open communication in both directions. When employees feel that their opinions are valued and heard, their level of engagement is more likely to be higher.

**H5:** There is a perceived significant positive relationship between Work Life Balance (WLB) and Employee Engagement (EE) in Malaysian manufacturing industry.

The analysis of H5 demonstrated that there is statistically insignificant relationship between work life balance and employee engagement with P-value of 0.132. The analysis supports the study from Dinh's research in 2020 on flexible work schedules and employee happiness in Australia indicated that increased employee engagement is not necessarily a direct result of work life balance such as flexible work hours. The effectiveness of flexible work arrangements is also influenced by factors such as job design and employee preferences. It should be noted that according to Wood *et al.*'s (2020) study, work-life balance rules in the South Korean manufacturing sector may negatively impact employee engagement, as certain strategies could lead to increased workloads, ultimately decreasing engagement levels.

The analysis supports the study by Haar *et al.* (2017), which discovered a correlation between work-life balance and employee engagement. The researchers argued that when individuals can blend their personal and professional lives effectively, they are more likely to feel content and motivated in their work. In a similar vein, Allen and Martin's (2017) research identified that an organization's support for work-life balance plays a significant role in enhancing employee engagement. Methods of support could include options for remote work or flexible schedules, which enable employees to successfully manage their work and personal obligations.

This study aims to close knowledge gaps about the elements that influence employee engagement, particularly in non-Western contexts, with a specific focus on the Asian manufacturing sector. The study identifies work-life balance, career advancement, rewards and recognition, and organizational leadership as key drivers affecting employee engagement. The findings have important implications for companies aiming to increase employee engagement levels to enhance performance and productivity. By emphasizing the impact of cultural and industry-specific factors on employee engagement, this study also highlights the need for more research that is specific to the context. With this valuable information, businesses can modify their strategies to cultivate a motivated and productive workforce. The results of this study will provide manufacturing companies in various sectors in Malaysia with valuable insights into the key factors that drive employee engagement. By identifying the areas that have the greatest impact, manufacturing companies can better cater to the needs and expectations of their employees in this particular segment. As a result, overall motivation will improve, leading to higher job satisfaction, increased productivity, and greater profitability for the organization.

### **Practical Implications**

The research findings have significant implications for various stakeholders, including managers in the manufacturing sector, HR professionals, and legislators. The study highlights

the importance of effective organizational leadership and communication in determining employee engagement. This suggests that in Malaysian manufacturing industry the key drivers towards positive employee engagement are ensuring good leaders delegating employees with their voices heard. This requires effective two-way communication. Manufacturing companies should prioritize leadership training and promote leadership behaviours that motivate and inspire workers.

Although leadership and communication play a major role as the key drivers to job engagement, it is crucial for manufacturing companies to develop reward programs that give equal importance to recognition and appreciation alongside monetary incentives, as engagement is greatly influenced by merit and incentive systems. Organizations should also focus on providing opportunities for continuous learning and growth, creating a work environment that encourages individuals to further their careers, as professional development has a huge impact on engagement. The report emphasizes the need for transparent and open communication channels that foster trust and a sense of community, as effective communication is a driving force behind engagement. The study suggests considering accommodating policies like flexible work schedules and remote employment options, as work-life balance plays a significant role in increasing engagement.

This research adds to the body of knowledge on the key drivers towards employee engagement in the manufacturing sector mainly in the Malaysian context. Firstly, it underscores the significance of supportive and transformative leadership styles in fostering organizational leadership and employee engagement, which expands the discussion on leadership's impact within the manufacturing context. Secondly, it also emphasizes the importance of transparent and effective communication in establishing trust and a sense of community among employees. Thirdly, the understanding of how non-monetary rewards, such as incentives and recognition programs, may not affect employee commitment and thereby may not significantly increase job engagement. Additionally, the study highlights the value of leadership in the process of learning and development opportunities in the workplace, demonstrating their impact on engagement. Lastly, the study's attention to work-life balance is valuable as it underscores the significance of this concept for employee engagement.

### **Limitations and recommendations**

There are several limitations of this study which future research can explore. One constraint is the narrow focus on the manufacturing industry in Malaysia. To overcome this practical limitation, future studies can examine other industries or expand the geographical scope. Additionally, the methodology used in this study only relied on a small sample size and quantitative research methods. To overcome this limitation, future studies should involve a larger sample size and incorporate qualitative techniques like focus groups or interviews. This would provide a more comprehensive understanding of the subject matter. Furthermore, longitudinal research could be conducted to investigate the long-term effects of the identified determinants on employee engagement. This would offer a more dynamic perspective on the topic.

### **Conclusion**

To summarize, this research has contributed to the understanding of the evolution of employee engagement. It provides valuable insights and recommendations for driving employee management in the manufacturing business, with the aim of increasing company

values. The study also suggests that these recommendations could serve as a guide for other industries looking to enhance employee engagement. However, it is important to approach the survey results with caution due to the small sample size, research methodology, and wide range of variables. Future research should consider increasing the sample size to capture diverse viewpoints within the manufacturing sector. Qualitative methods such as focus groups and interviews could also enrich the findings and overcome limitations of conventional surveys. Additionally, a longitudinal study could provide a more comprehensive understanding of the impact of identified drivers on employee engagement over time.

### **Contribution**

By identifying and analysing five important drivers of employee engagement, including organizational leadership, rewards, professional development, effective communication, and work-life balance, this study contributes to the body of knowledge on workforce management, particularly within the manufacturing sector. The key theoretical contribution of this study is the development of a manufacturing-specific framework of employee engagement. The paper highlights the importance of collaborative leadership, through transformational and servant leadership approaches, and an interactive communication channel between leaders and subordinates, as significant drivers for improving engagement. While there may be conflicting research on the significance of rewards, professional development, and work-life balance in improving employee engagement, it is essential to consider the broader context and incorporate expert opinions and real-world examples that emphasize the importance of these factors in the manufacturing sector. The practical contribution suggests the implementation of the framework in the manufacturing sector, accompanied by proper guidelines for achieving engaged employees. The framework can assist manufacturing companies to understand what drives employee engagement and how to measure it, leading to better engagement initiatives and improved business outcomes. The role of the framework signifies the management standards for effective workforce with interactive leaders to groom employees to be more involved in their productivity, deliver better results, and increases their likelihood of staying with their employer, ultimately leading to reduced turnover rates and increased profitability.

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