

# The Relationship Between Knowledge Sharing Behaviour and Job Performance in the Manufacturing Sector

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## Abstract

Knowledge sharing has become increasingly important for preserving and encouraging an organisation's competitive edge. This study explores the relationship between knowledge sharing behaviour and job performance in the manufacturing sector. It aims to determine how seamless knowledge exchange among workers can enhance job performance. A quantitative research design was employed, surveying 377 employees from various manufacturing industries. Data were collected using a structured questionnaire, and the Statistical Package for Social Science (SPSS) was used to examine the correlation between knowledge sharing behaviours and job performance indicators. The findings indicate a strong positive correlation between knowledge sharing behaviour and job performance. These results may serve as a reference to enhance job performance in the manufacturing sector.

## 1. Introduction

Knowledge sharing occurs on a daily basis and is the transfer of knowledge between two or more individuals. Sharing knowledge is not considered an easy task. In essence, it involves disseminating one's knowledge to others (Koivula, 2008). Knowledge is deemed the most critical asset and resources for any organization. Knowledge sharing behaviour consists of procedures for imparting to team members one's knowledge and skills relevant to their line of work in a way that could enhance organizational success (J.Yi, 2009). In the natural world, knowledge sharing takes place in context and can happen in a variety of ways, including unintentional sharing, sharing in response to requests from others, and routine sharing during meetings. While efforts have been made to distinguish between voluntary and solicited knowledge sharing (Teng & Song, 2011). Empirical research on the unique effects of these types of sharing is still lacking. Performance can be understood as both qualitative and quantitative measures of the extent to which an individual, group, unit, or organization progresses toward a predefined goal through their work efforts. In simpler terms, it reflects what has been achieved as a result of the effort exerted (BAŞ & İŞİK, 2014). Job performance can also be conceptualized as behaviour related to achievement, incorporating an evaluative aspect, as described by Motowildo *et al.* (1997). In other words, it represents the degree to which an employee fulfils the general performance expectations of the organization. Maintaining a high level of performance is crucial for all organizations, as the performance of employees is directly linked to the sustained development of the organization (Burney *et al.*, 2009). Knowledge sharing is becoming more and more important for preserving an organization's competitive edge and encouraging innovation (Yaqub & Alsabban, 2023). The smooth transfer of knowledge among employees can result in enhanced job performance in the manufacturing sector, where exact coordination and continuous improvement are critical. Knowledge sharing is becoming more and more important for preserving an organization's competitive edge and encouraging innovation (Yaqub & Alsabban, 2023). The smooth transfer of knowledge among employees can result in

enhanced job performance in the manufacturing sector, where exact coordination and continuous improvement are critical.

In today's competitive business environment, the manufacturing sector faces major challenges when it comes to maintaining high levels of productivity and innovation (Abdallah *et al.*, 2021). Motivating employees became a crucial part of most management before the last decades of the 20<sup>th</sup> century, when performance was thought to be the product of a combination of aptitude and motivation when given sufficient resources (Zhenjing *et al.*, 2022). One of the challenges facing the manufacturing industry is job performance. Job performance can be viewed as an achievement-related behaviour that has an evaluation element; that is, the degree to which a worker satisfies the overall performance standards of the organization (Ángeles López-Cabarcos *et al.*, 2022). According to news from Bernama (2023), many workplaces are experiencing a novel and concerning phenomenon. Employee burnout, or poor mental health among workers, is a rapidly rising epidemic, and Malaysia is not exempt as a developing nation. Employment Hero's 2022 Employee Wellness Report offers important new information about how working condition impact job performance. The report claims that work-related factors account for over half of the significant burnout experienced by Malaysian employees. Burnout is characterized as a unique kind of depression associated with the workplace and a state of emotional or physical exhaustion. According to Langdon, individuals experiencing burnout seem to have lost their sense of self or to not give a damn if they have finished something correctly. In particular, 58% of workers said they were burned out, and burnout is strongly associated with poorer work output. Persistent problems like unclear roles, unfair treatment, poor communication, insufficient time management, and excessive workloads frequently lead to burnout. Reduced job effectiveness and productivity may result from these factors (Bernama, 2023). The existing literature suggests that the relationship between knowledge sharing behaviour and job performance in different sectors is positive (Nurrachman *et al.*, 2019; Hong *et al.*, 2022; Leksono, 2024) but empirical evidence specifically for manufacturing is limited.

The aim of this study is to fill the gap by examining the level of knowledge sharing behaviour and job performance in the manufacturing sector and investigating the relationship between these two variables. By identifying the factors that facilitate knowledge sharing and assessing their impact on job performance, this study seeks to provide actionable insights for manufacturing organisations to foster a culture of knowledge sharing and improve overall job performance. By analysing knowledge sharing behaviour and its impact on job performance, this study can help organisations in the manufacturing sector establish a more collaborative and efficient work environment.

## 2. Literature Review

### 2.1 Manufacturing sector in Malaysia

Besides transforming raw materials into finished goods, Malaysia's manufacturing industry is a major economic contributor to the nation (Rehman *et al.*, 2021). Manufacturing refers to those industries that produce goods from raw materials using machinery or manual labour; this process usually takes place methodically through the division of labour. In a narrower sense, manufacturing is the large-scale process of producing or assembling parts into finished goods. In 2023, a total of 2.35 million people were employed in the manufacturing industry in Malaysia, compared to only 2.28 million people the year before (2022). This data represents a 3.3% increase in the number of people employed in the manufacturing industry. This growth reflects the continued expansion of the sector and its crucial role in driving economic development in Malaysia. The steady rise in employment underscores the industry's resilience and its ability to create job opportunities amidst global economic challenges (DOSM, 2022).

### 2.2 Knowledge Sharing Behaviour

The act of exchanging and distributing ideas, experiences, and knowledge with others in order to guarantee that the knowledge remains, is sustained, and is retained in the business is known as knowledge sharing behaviour. Knowledge sharing behaviour is defined as employee behaviours and actions that promote knowledge, skill, and expertise sharing within an organization (Nazim & Mukherjee, 2016; Razak *et al.*, 2016; Prompreing & Hu, 2021). This conduct boosts decision-making, innovation, and organizational performance. It also plays a vital role in fostering a collaborative environment where information is freely shared (Nallalingham, 2023; Ahmad & Karim, 2019). Knowledge sharing behaviour can be categorized by system quality, knowledge quality, and service quality (Wang & Yang, 2016; Gorla *et al.*, 2010).

### 2.3 Importance of Knowledge Sharing Behaviour

Effective knowledge sharing ensures that workers have access to the knowledge and skills they need to complete their tasks quickly, which has a direct impact on job performance (Huie *et al.*, 2020; Noermijati *et al.*, 2023; Haider *et al.*, 2022). This can improve the job performance and productivity of the employees in the manufacturing sector. The employee who shares their knowledge with others is better able to acquire new skills, adapt to new

technologies, and put best practices into practice, which increases the quality and productivity of production (Peariasamy & Nur Naha Abu Mansor, 2008; Olmstead, 2024).

## 2.4 Job Performance

Job performance is characterised as distinct human behaviours that are observable and represent added value for the organisation (Schmitt & Borman, 1993). It can also contribute to the organisation achieving its goals (Campbell & Wiernik, 2015). Therefore, job performance includes both the specific behaviours and actions that lead to the desired results of the work as well as the results themselves. When behaviours are evaluated, they provide information about an employee's effectiveness, efficiency, and compliance with organisational standards and thus influence the overall assessment of job performance. Borman & Motowidlo (1997) and Motowidlo & Kell (2012) mention that task performance and contextual performance are two categories into which job performance can be divided.

### 2.4.1 Task Performance

Task performance is the efficiency with which employees carry out tasks that support the technical core of the company, either directly by putting a piece of its technological process into practice or indirectly by giving it the supplies or services it needs (Borman & Motowidlo, 1997). It is often associated with specific quantitative or qualitative results that can be obtained directly from key performance indicators (KPIs) at the organizational level. The degree of task performance is reflected in the effectiveness and efficiency in completing core work tasks (Kahya, 2009). Factory workers' task performance can be evaluated in terms of the quantity and level of goods produced per hour. Task performance can also be linked to the strategies used by teams or employees to accomplish these goals, such as the actions taken and the behaviours demonstrated (Cipd, 2022).

### 2.4.2 Contextual Performance

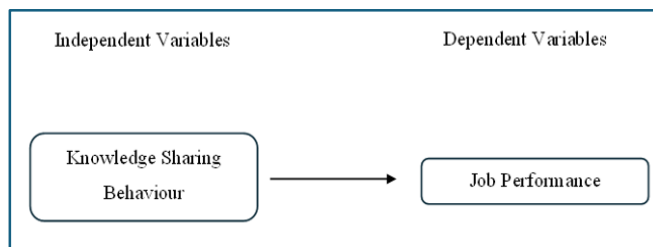
Contextual performance was defined as behaviour that increases organizational effectiveness. It is the behaviours that improve organisational effectiveness by impacting the organisational, social, and psychological aspects of employees' work (Motowidlo & Kell, 2012). Helping colleagues, taking initiative, and displaying a positive attitude are some examples of contextual performance that support and enhance a productive work environment. Contextual performance constructs have a substantial impact on organizational, social, and psychological contexts, but they also reflect employees' willingness to work outside of formal job description activities (Chin & Yusoff, 2018; Bilal *et al.*, 2021).

## 2.5 Importance of Job Performance

Job performance is the most important and best-researched factor in the field of organisational behaviour and industrial management (Carpini *et al.*, 2017). The productivity and effectiveness of an employee in their job role are referred to as their job performance. This encompasses how well employees complete their assigned tasks and responsibilities, including both the quality and efficiency of their work. Effective employees can complete all the tasks correctly on the first try (Kimberlee Leonard, 2019). This minimizes errors, reduces the need for rework, and saves valuable time and resources, enhancing overall operational efficiency. Enhancing the job performance of employees can benefit both the organization and the individuals in question. Previous research that studied the knowledge quality and job performance of employees. This research is done by Justin & . at 2013. The relationship between the quality of knowledge shared and the job performance of employee individuals was investigated in this study. This study examines how employees' job performance can be improved by having high-quality knowledge, and based on the result, the improvement of quality knowledge could improve and increase the job performance of employees in the organisation.

## 2.6 Conceptual Framework

The research framework is presented in Fig. 1. Based on the framework, the following hypothesis is proposed.  
 H1: Knowledge quality has a positive relationship with job performance



**Fig. 1** The conceptual research framework

### 3. Methodology

#### 3.1 Research Design

A quantitative approach is characterised by a systematic investigation of phenomena through the collection of quantifiable data and the use of computational, statistical, or mathematical techniques. (Fleetwood, 2020). To obtain results, quantitative approaches involve measuring and evaluating variables. It entails the use of statistical techniques to analyse and answer questions about numerical data, such as who, what, where, when, how, how many, and how much. Additionally, it describes how to gather numerical data and apply it to the explanation of an issue or phenomenon. (Apuke, 2017). The survey was distributed via the internet and WhatsApp and was conducted using Google Forms. Respondents' agreeableness to the questionnaires was rated on a scale of 1 to 5. By the time the research was finished, the report had the data to support its answers to the research questions. Additionally, the dependent and independent variables of the research have been correlated.

#### 3.2 Research Population and Sample

In this research, the employees in manufacturing industries are the target population of the research. The researcher specifically chose the employees in the manufacturing industries in Penang as the research target respondents. The reason for choosing Penang is that Penang is one of the country's economic powerhouses, owing to its high level of industrialisation and commerce. The population in this study is 17623, and according to Krejcie & Morgan (1979), the sample size is 377 employees in the manufacturing industries in Penang. There are two types of sampling methods: probability and non-probability. Probability sampling, according to research by (Taherdoost *et al.*, 2016), is the process wherein each member of the population has an equal chance of being chosen, whereas non-probability sampling concentrates on smaller samples and greater specifics. A non-probability sampling method was employed in this investigation. The four categories that exist for non-probability sampling are judgement sampling, convenience sampling, snowball sampling, and quota sampling. Convenience sampling is the data collection technique employed. The method was selected by the researcher due to its ease of use and simplicity in sampling.

#### 3.3 Data Collection

Data collection is the process of systematically collecting and measuring information about variables to answer research questions, test hypotheses, and evaluate results (Buchanan, 1981). When performing scientific research, data collection is done to determine what materials are needed for the research. Primary and secondary data are the two categories of data sources. Both data sources have been used by the researchers in this study.

Primary data are those gathered from first-hand experience (Buchanan, 1981). The original, more trustworthy, accurate, and objective data have not yet been released. Four primary sources are focus groups, panels, individual interviews, and non-intrusive techniques. The researcher has been using primary sources of individuals, such as questionnaires to employees in manufacturing industries in Penang, to get more information. The questionnaire aims to investigate the relationship between knowledge sharing behaviour and job performance in the manufacturing sector.

#### 3.4 Pilot Study

According to In's (2017) pilot study, the questions of whether something can be done, whether the researchers should move forward with it, and how it is posed are posed. But because a pilot study is carried out on a smaller scale than the main or full-scale study, it also has a unique design future. In other words, the pilot study is important for the improvement of the quality and efficiency of the main study. To conduct a pilot test and collect

questionnaire responses and comments from respondents, researchers distributed 30 questionnaires to 30 respondents from the manufacturing sector.

### 3.5 Research Instrument

The data research instrument in this research study is a questionnaire. The questionnaire uses a five-point Likert scale. Scales and questionnaires were used as research instruments. Any survey must have questionnaires as its backbone, and the questionnaire's design determines how well it works. A questionnaire is merely a list of mimeographed or printed questions completed by or for the respondent to express their opinion (Roopa & Rani, 2012). In addition, the scale asks the respondents to place a characteristic or skill on a continuum of possible responses (Sathiyaseelan, 2007). The instrument used to gather data from respondents is the questionnaire, which consists of a number of questions. The relationship between knowledge sharing behaviour and job performance was identified using the questionnaire data. The three sections of the questionnaire are titled Part A, Part B, and Part C. To accomplish the research goal, Part B and Part C will address the knowledge sharing behaviour and job performance, while Part A will focus on the respondents' demographics.

### 3.6 Data Analysis

#### 3.6.1 Descriptive Analysis

Statistical Package for Social Sciences (SPSS) Version 26 was used to analyse the data collected from the survey in this study. The SPSS software framework includes advanced statistical analysis, a vast library of machine learning algorithms, text analysis, open-source extensibility, big data integration, and easy application integration. Because of its ease of use, adaptability, and scalability, SPSS is accessible to users of all skill levels.

#### 3.6.2 Reliability Analysis

The ability of a scale to consistently represent the construct being measured is referred to as reliability analysis (Statistics Solutions, 2022). Measures of internal consistency, like Cronbach's alpha, are also used to evaluate scale reliability. Researchers have used Cronbach's Coefficient Alpha, which has a range of 0 to 1, to gauge reliability. In this Cronbach's Coefficient Alpha method, a higher coefficient value indicates a more reliable outcome. The Cronbach's Coefficient Alpha value is displayed in Table 1.

**Table 1** *Correlation coefficient*

Alpha Coefficient Range	Value
0.00 – 0.50	Unaccepted
0.50 – 0.59	Poor
0.60 – 0.69	Acceptable
0.70 – 0.89	Good
0.90 – 1.00	Excellent

#### 3.6.3 Normality Test

Normality tests are one of the prerequisites for analysing other statistical methods, and it has been carried out to ascertain the data's normality and, in turn, to establish the kind of correlation test that should be used to investigate the hypothesis before moving on with the correlation analysis in this study. The Kolmogorov-Smirnov and Shapiro-Wilk test is used if the sample size is more than or equal to 50, but the Shapiro-Wilk test is a better approach for small sample sizes with less than 50. The Kolmogorov-Smirnov test is used to determine the typicality of the data. If the Kolmogorov-Smirnov and Shapiro-Wilk are not significant, with a significance level greater than or equal to 0.05, the data is distributed normally. On the other hand, a non-normal distribution is present when the Kolmogorov-Smirnov and Shapiro-Wilk test values are less than or equal to 0.05. Parametric tests are used when the data is normally distributed; nonparametric tests are used when the test results indicate that the data is not normally distributed.

#### 3.6.4 Spearman's Correlation Analysis

In this research study, Spearman's correlation analysis was conducted using SPSS to determine the nature of the association between the variables (Corder & Foreman, 2014). The degree of the linear relationship between the two variables is described by correlation analysis. The Statistical Package for Social Science (SPSS) provides a range of statistics based on the level of measurement. The degree to which these two variables are related is

assessed using "Guilford's rule of thumb." The values of the correlation coefficients proposed by Guilford are displayed in Table 2.

**Table 2** *Correlation coefficient*

Range of Correlation	Interpretation
0.90 – 1.00	Very high positive (negative) correlation
0.70 – 0.90	High positive (negative) correlation
0.50 – 0.70	Moderate positive (negative correlation)
0.30 – 0.50	Low positive (negative) correlation
0.00 - 0.30	Negligible correlation

### 3.6.5 Linear Regression Analysis

In research, linear regression analysis is a statistical technique used to calculate the association and measure the strength of the linear relationship between two variables. Stated differently, the level of change in one variable as a result of a change in the other is determined by linear regression analysis. A weak relationship between the two variables is indicated by a low correlation, while a strong relationship is indicated by a high correlation. To investigate the associative relationship between independent and dependent variables, a linear regression analysis can be helpful. In this research study, the researcher employed this analysis to examine the correlation between knowledge sharing behaviour and job performance.

## 4. Results and Discussion

### 4.1 Survey Return Rate

The population of employees in the manufacturing sector consists of 17623 in the year 2023. According to Krejcie and Morgan (1970), 377 employees are needed. A total of 161 sets of questionnaires from the 377 issued have been collected with the assistance of the respondents. Therefore, the questionnaire survey return rate was 42.71%, indicating that participants were willing to participate in this research study.

### 4.2 Reliability Test for Pilot Study

Researchers have concluded that there is a total of 18 items that have been analysed through reliability analysis in the pilot study. Based on Table 3, the overall Cronbach’s Alpha value has resulted in 0.940, and the independent variable, namely knowledge sharing behaviour, was recorded with a 0.887 value. Besides that, the table above has also illustrated the Cronbach’s Alpha value of a dependent variable, which is job performance, resulting in a 0.900 value. Pilot study has helped researchers to identify if the variables could have proceeded as an actual question for the research findings. Hence, all the result was accepted with all the variables resulting in 0.60 above, and this indicates the researcher can use the questions in the actual research study to collect data.

**Table 3** *Reliability analysis for pilot study*

Variables	Number of Respondents	Number of items	Cronbach’s Alpha Value
Knowledge Sharing Behaviour	30	9	0.887
Job Performance	30	9	0.900
Total		18	0.940

### 4.3 Descriptive Analysis

Table 4 above shows the demographic profile of the total of 161 respondents analysed and illustrated in the table. The demographic information of the respondents was analysed and presented in this section. The demographic information included gender, age, education level, position, working experience, department and type of employment. The analysed information will help to present a clear distribution of the respondents.

**Table 4** Reliability analysis for pilot study

Demographic Profile	Category	N=407	Percent
Gender	Female	91	56.5
	Male	70	43.5
Age	Below 30 years old	56	34.8
	31-40 years old	42	26.1
	41-50 years old	46	28.6
	51 years old and above	17	10.6
	SPM / STPM / Diploma	48	29.8
Education Level	Degree Level	55	34.2
	Master Level	36	22.4
	PhD Level	22	13.7
Position	Staff	42	26.1
	Executive Officer	21	13.0
	Deputy	34	21.1
	Department Head	64	39.8
Working Experience	Less than 1 year	22	13.7
	1-3 years	37	23.0
	4-6 years	50	31.1
	7-10 years	35	21.7
	More than 10 years	17	10.6
Department	Human Resources	29	18.0
	Sales / Marketing	23	14.3
	Research and Development	26	16.1
	Quality Control	35	21.7
	Production	20	12.4
	Others	28	17.4
Type of Employment	Temporary	19	11.8
	Part-time	37	23.0
	Full-time	56	34.8
	Contract	49	30.4

#### 4.4 Analysis of the level of knowledge sharing behaviour in the manufacturing sector

This section is to analyse the level of knowledge sharing behaviour in the manufacturing sector. Part B consists of 30 Likert Scale questions, and the method used to analyse the results would be descriptive analysis. The objective of descriptive analysis is to summarise and organise a large amount of data, and it is comprised of two types, which are a measure of central tendency and a measure of variability.

Table 5 presents that the respondents strongly agreed with the knowledge sharing behaviour-related question, which had high mean scores. KSB 2 scored the minimum mean value of 4.23 with a standard deviation of 0.823. The highest mean value is scored by KSB5 and KSB7, with the value 4.34 and the standard deviation 0.766 and 0.767 for each. KSB1 and KSB8 also get the same mean value, which is 4.32, but different standard deviations for each, which are 0.695 and 0.795. The mean value of KSB3 and KSB4 is 4.33 and 4.30, with standard deviations of 0.731 and 0.814. The other two items in Part B are KSB6 and KSB9 get 4.26 and 4.25 mean values with 0.810 and 0.801 standard deviations for each. In conclusion, with a standard deviation of 0.781, the total average mean score for knowledge sharing behaviour was 4.299, indicating it belongs to the high central tendency level.

**Table 5** Descriptive analysis of knowledge sharing behaviour

Item Code	Items	Mean	Standard Deviation	Level
KSB1	I often share my work experience or expertise with colleagues at my institution.	4.32	0.695	High
KSB2	I like to share with my colleagues the information I have learned using the information and communication on technologies in my institution.	4.23	0.823	High
KSB3	I'm happy to share my study reports with colleagues in the institution I work with.	4.33	0.731	High

KSB4	In my institution, I always share where my colleagues are looking for information.	4.30	0.814	High
KSB5	I actively participate in the discussion on complex issues in my institution.	4.34	0.766	High
KSB6	I share multimedia files, such as information, media, images, or videos with colleagues.	4.26	0.810	High
KSB7	If I have a specific knowledge of how to fulfil the organization’s task, I will tell other employees.	4.34	0.767	High
KSB8	In my institution, I always help my colleagues to find the information they need.	4.32	0.795	High
KSB9	I share my private knowledge and expertise with colleagues.	4.25	0.801	High
Total average score		4.299	0.781	High

#### 4.5 Analysis of The Level of Job Performance in The Manufacturing Sector

Table 6 indicated that respondents strongly agreed with the job performance questions, which had high mean scores. The table shows the nine items in this group with their mean and standard deviation, respectively. The highest mean is scored by the statement JP1, with a mean value of 4.36 and a standard deviation of 0.676. The second highest means in the table have three statements, which are JP4, JP5 and JP8, with their mean value of 4.35, but there are different standard deviations for each item, which are 0.727, 0.654 and 0.702, respectively. JP6 and JP7 get the same mean value of 4.34. For statement JP6, its standard deviation is 0.672, and for JP7, its standard deviation is 0.681. Meanwhile, the lowest mean value was scored by the statement JP2 with 4.23 and 0.816 of standard deviation. There is a 4.27 mean value that was scored by statement JP3 with its 0.781 standard deviation. JP9 scored the mean value at 4.30 with a standard deviation of 0.734. In conclusion, with a standard deviation of 0.716, the total average mean score for job performance was 4.321, indicating it belongs to the high central tendency level.

**Table 6** Summary of demographic analysis

Item Code	Items	Mean	Standard Deviation	Level
JP1	In the institution where I work, the importance of recruiting appropriate staff is given.	4.36	0.676	High
JP2	In my institution, employees are constantly supervised.	4.23	0.816	High
JP3	I am very satisfied with my overall performance.	4.27	0.781	High
JP4	I investigate the problems I have in my area of responsibility.	4.35	0.727	High
JP5	I consistently complete the tasks specified in my job description.	4.35	0.654	High
JP6	I consistently meet job performance requirements.	4.34	0.672	High
JP7	I fulfill all the responsibilities required by my work.	4.34	0.681	High
JP8	I consistently fulfil my obligation to do my job.	4.35	0.702	High
JP9	I always succeed in doing important tasks.	4.30	0.734	High
<b>Total average score</b>		<b>4.321</b>	<b>0.716</b>	<b>High</b>

#### 4.6 Reliability Test

Tables 7 and 8 below show the reliability test result, which is the Cronbach’s Alpha for each independent variable of this research study. The Cronbach’s Alpha value for the dependent variable (Job Performance) is 0.842. As for the independent variable (Knowledge Sharing Behaviour), the result is 0.940. In the Cronbach’s Alpha value, a value of 0.60 to 0.69 is considered a good result and a value of 0.70 to 0.89 is considered a good result. Therefore,

Cronbach's Alpha of all the variables of this research study is proven to be acceptable with a value of 0.60 and above. According to the table above, the research found the level of Cronbach's Alpha of independent variable (knowledge sharing behaviour) with 0.940 is higher than dependent variable (job performance) with 0.0842.

**Table 7** Summary of demographic analysis

Alpha Coefficient Range	Value
0.00 – 0.50	Unaccepted
0.50 – 0.59	Poor
0.60 – 0.69	Acceptable
0.70 – 0.89	Good
0.90 – 1.00	Excellent

**Table 8** Reliability analysis for pilot study

Variables	Number of Items	Cronbach's Alpha Value
Knowledge Sharing Behaviour	9	0.940
Job Performance	9	0.842

#### 4.7 Normality Test

The normality test is one of the prerequisites for analysing other statistical methods. Normality tests have been carried out to ascertain the data's normality and, in turn, to establish the kind of correlation test that should be used to investigate the hypothesis before moving on with the correlation analysis in this study. The Kolmogorov-Smirnov and Shapiro-Wilk tests were part of the normality test for this study. The Kolmogorov-Smirnov test is used if the sample size is more than or equal to 50, but the Shapiro-Wilk test is a better approach for small sample sizes with less than 50. The Kolmogorov-Smirnov test is used to determine the typicality of the data because there were 152 respondents for this survey.

If tests for Kolmogorov-Smirnov and Shapiro-Wilk are not significant, with a significance level greater than or equal to 0.05, the data is distributed normally. On the other hand, a non-normal distribution is present if the Kolmogorov-Smirnov and Shapiro-Wilk test values are less than or equal to 0.05. Parametric tests are used when the data is normally distributed; nonparametric tests are used when the test results indicate that the data is not normally distributed.

Table 9 shows each variable's significance level under the Kolmogorov-Smirnov and Shapiro-Wilk tests. The data are not normally distributed, as seen by the significant values of  $p < 0.05$  for the variables knowledge sharing behaviour and job performance. To achieve the study's goals, the researcher had to apply Spearman's rho correlation test to both the independent and dependent variables.

**Table 9** Test of normality

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Knowledge Sharing Behaviour	.383	161	<.001	.596	161	<.001
Job Performance	.403	161	<.001	.611	161	<.001

#### 4.8 Correlation Analysis

##### 4.8.1 Relationship between Knowledge Sharing Behaviour and Job Performance

The degree of the linear relationship between the two variables is described by correlation analysis. The Statistical Package for Social Science (SPSS) provides a range of statistics based on the level of measurement. The degree to which these two variables are related is assessed using "Guilford's rule of thumb." The values of the correlation coefficients proposed by Guilford are displayed in Table 10.

To determine the pattern observed, correlation analysis was commonly used. Research commonly employs inferential analyses to determine the strength of the relationship between an intervention and an outcome. Table 10 represents the correlation analysis between knowledge sharing behaviour and job performance. According to the findings, Spearman's rho correlation coefficient is 0.779, and  $p < 0.001$  is considered significant. It shows that

knowledge sharing behaviour has a positive and high relationship with job performance. This indicated that the hypothesis of this study was accepted, that knowledge sharing behaviour is positively related to job performance.

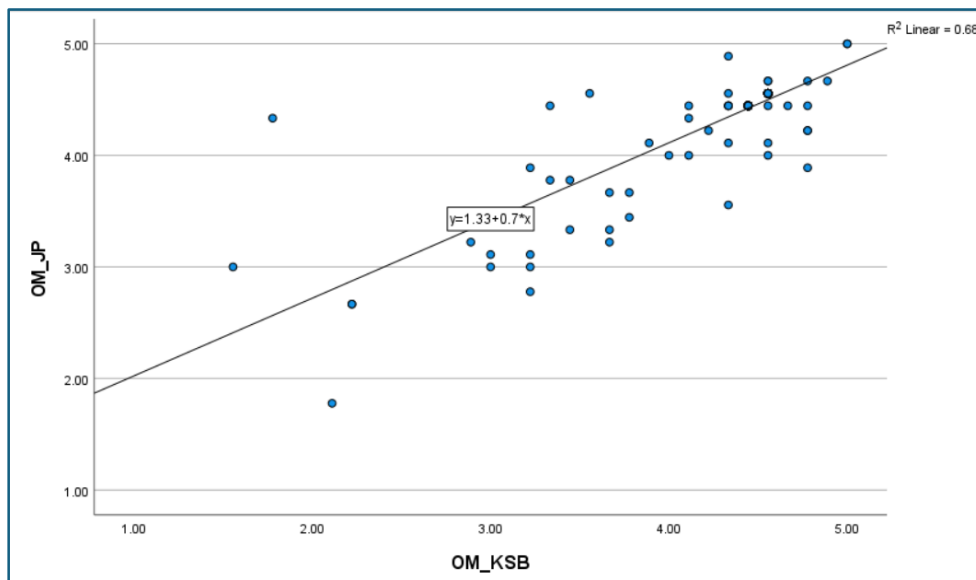
**Table 10** Result of Spearman's correlation

		Knowledge Sharing		
			Behaviour	Job Performance
Spearman's rho	Knowledge Sharing Behaviour	Correlation Coefficient	1.000	.779**
		Sig. (2 tailed)	.	<.001
		N	161	161
Spearman's rho	Job Performance	Correlation Coefficient	.779**	1.000
		Sig. (2 tailed)	<.001	.
		N	161	161

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

### 4.8.2 Relationship between Knowledge Sharing Behaviour and Job Performance

Fig. 2 shows the relationship between knowledge sharing behaviour and job performance. The linear equation that has been obtained for this relationship is  $y=1.33+0.7(x)$ .



**Fig. 2** The relationship between knowledge sharing behaviour and job performance

## 5. Conclusion

The first objective of this study was to identify the level of knowledge sharing behaviour in the manufacturing sector. As presented in Chapter 4, the descriptive analysis revealed a high level of knowledge sharing behaviour with a mean score of 4.299, indicating that employees frequently share expertise and participate in discussions. Specific items such as active participation in discussions (mean = 4.34) and sharing specific knowledge to fulfill tasks (mean = 4.34) were notable contributors to this behaviour. These findings align with earlier literature discussed in Chapter 2, such as Cabrera *et al.* (2006) and Shah & Mahmood (2013), which highlighted knowledge sharing as a vital component of organizational knowledge management. The findings reaffirm that a high level of knowledge sharing behaviour is instrumental in achieving organizational efficiency and innovation.

The second objective focused on assessing the level of job performance among employees in the manufacturing sector. As outlined in Chapter 4, the analysis revealed a high level of job performance with a mean score of 4.321. Specific items, such as fulfilling job responsibilities (mean = 4.34) and consistently completing tasks (mean = 4.35), were key indicators of this high performance. These findings align with the theoretical framework discussed in Chapter 2, particularly the works of Borman and Motowidlo (1997), which categorize job

performance into task and contextual performance. Motowidlo & Kell (2012) further highlighted the importance of task efficiency and contextual behaviours in enhancing organizational effectiveness.

The third objective examined the relationship between knowledge sharing behaviour and job performance. As presented in Chapter 4, the analysis demonstrated a strong positive correlation between the variables, with Spearman's  $\rho = 0.779$  ( $p < 0.001$ ). This finding confirms the hypothesis that knowledge sharing significantly impacts job performance. These results are consistent with earlier research discussed in Chapter 2, such as Deng *et al.* (2023) and Yang *et al.* (2021), which found that knowledge sharing improves decision-making, efficiency, and performance. The findings in this study align with these prior studies, demonstrating that knowledge sharing enables employees to acquire new skills, adapt to changes, and enhance task efficiency. By integrating knowledge sharing as a strategic tool, organizations in Malaysia's manufacturing sector can significantly enhance employee performance and overall productivity.

This study successfully investigated the relationship between knowledge sharing behaviour and job performance within Malaysia's manufacturing sector. The research objectives were achieved by identifying the high levels of knowledge sharing and job performance, as well as confirming a strong positive correlation between the two variables. The findings align with existing literature and highlight the significant role that knowledge sharing plays in fostering efficiency, innovation, and productivity within organisations. The use of a quantitative approach and a robust sample ensured reliable results that contribute valuable insights to both theory and practice. By addressing the limitations of this study and implementing the proposed recommendations, organisations and policymakers can better leverage knowledge-sharing practices to enhance workforce performance and competitiveness. Additionally, this research provides a foundation for future studies to explore this relationship in different industries and contexts. Ultimately, the results of this study underscore the importance of fostering a collaborative culture where knowledge sharing is prioritized as a strategic tool. This approach not only enhances individual and organization performance but also strengthens Malaysia's manufacturing sector's resilience and adaptability in a rapidly evolving global economy. The insights gained from this research serve as a guide for stakeholders aiming to achieve growth and innovation.

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## Conflict of Interest

Authors declare that there is no conflict of interests regarding the publication of the paper.

## Author Contribution

The authors confirm contribution to the paper as follows: **study conception and design:** Ng Chai Wei and R. Chandrashekar; **data collection:** Ng Chai Wei and R. Chandrashekar; **analysis and interpretation of results:** Ng Chai Wei and R. Chandrashekar; **draft manuscript preparation:** Ng Chai Wei and R. Chandrashekar. All authors reviewed the results and approved the final version of the manuscript.

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