

The Role of Employee Productivity in Promoting the Sustainable Development of Small and Medium Enterprises (SMEs) in Malaysia

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ABSTRACT

In the business world, sustainable productivity is an important concept because it allows an organization to succeed. The combined efforts of managers and employees to raise performance levels are referred to as productivity. Small and Medium Enterprises (SMEs) may have materials, labour, and machine/transportation costs as inputs, and products or services of a certain quality as outputs. Sustainable Employee Productivity (SEP) is the amount of output that employees produce in a given amount of time, an important key to a company's survival. Quantitative research method was used in this paper to analyse the factors affecting SEP among SME employees in Malaysia. Existing research tends to focus on one aspect of employee productivity, and this research offers more holistic view by investigating three critical organizational factors (supervisor support, job satisfaction and work-life balance) that impact SEP. Data was gathered using an online questionnaire survey and analysed using SPSS software, which included Pearson correlation, descriptive statistics and multiple linear regression with 248 valid responses collected. The results indicate a statistically significant negative relationship between employee productivity and supervisor support, which is opposite to the hypothesized relationship while there is no statistically significant relationship between job satisfaction and work-life balance in this sample. This study is useful for gaining an understanding of the organizational factors contributing to SEP in SMEs and for contributing to SDG 8 economic growth and decent work.

Keywords: Sustainable Productivity, Small and Medium Enterprise, Sustainable Development Goal, SME, Organization, Employee Productivity, Management Rules, Malaysian SME.

INTRODUCTION

In the past decade, the global health and wellness sector has been one of the most rapidly growing sectors, whereby the adoption of sustainable technologies has been a significant factor in transforming the nature of service delivery and efficiency in operations (Siow et al., 2026). Organizations ought to determine what motivates employees to perform successfully. No SME (organization) can rely on the efforts of one or two people; instead, it needs the united efforts of all its members to advance. Productivity is an important factor that can influence SMEs' (organizations') success. Performance is what determines an employee's productivity (Khaliq et al., 2026). To accomplish an SME's (organization's) goals, its staff members must be competent, skilled, and experienced.

Every company has a duty to boost employee productivity because it's crucial for achieving the best results (Khaliq et al., 2026; Pintu et al., 2026). Employee productivity refers to the workload (or output) completed by employees in each period. As a manager, a person should be aware of how long it takes each member of your team to complete a given task and whether there are any challenges or distractions that can be removed (Hajiagha et al., 2026; Potdar et al., 2026). According to Costa (2024), clear (author of Atomic Habits), sustainable productivity is an indicator of a person's efficiency in completing tasks. This study aligns with SDG 8, which focuses on economic growth and decent work. The workforce's productivity and dedication to their work will improve both the quality and quantity of their output. As a result, SME will produce more and achieve organizational goals (Arokiasamy et al., 2024; Eng et al., 2025; Topazal et al., 2026). Numerous studies carried out in Kenya's banks, the Ministry of Energy, and supermarkets have demonstrated that an effective performance management system can influence SEP within an organization (Arokiasamy et al., 2024; Al-Shboul, 2024).

Nevertheless, many SMEs failed to consider the importance of good working environment, which brings numerous challenges for the organization (Sipatu et al., 2026). The study examined the relationship between physical workplace environment and sustainable employment productivity (Eshiett & Eshiett, 2025). They argued that it is important to examine the relationship between other organizational environmental factors, such as employee relationship and supervision, with employee productivity (Eshiett & Eshiett, 2025; Ajibade et al., 2025). As Sipatu et al. (2026) argued that more research should be conducted to understand the relationship between different components of organizational environment, work-life balance and SEP in SMEs context.

The contribution of this study is as follows:

- Determining the relationship between supervisor support and SEP.
- Exploring the relationship between job satisfaction and SEP.
- To determine and design the influence of work-life balance on SEP for SMEs.

The introduction and paper contribution are in Section I, and Section II discusses existing and related work on SEP and supervisor support. The research methodology and framework are discussed in Section III. The proposed research analysis and SPSS are illustrated in Section IV. The conclusion presented in Section V included future research.

LITERATURE REVIEW

The theoretical support for the variables to be studied- supervisor support, job satisfaction and work-life balance are provided in the next section. Organizations (SMEs) should look into what motivates employees to be successful (Amarakoon et al., 2026; Pintu et al., 2026). No institution will make any headway unless all its members work together; no one single individual will suffice. The concept of performance is broad and extensive and has been focused on results or achievements and is closely related to the organizational objectives, as mentioned by Sutoni & Sugiyarti (2025). The workforce of businesses is a major asset that can help them thrive. A key aspect of any organization's success is how well it performs. If a company recognizes that the factors have a significant influence on sustainable employee performance at the workplace, then it must take the necessary corrective actions or adjustments as a result (Lukito et al., 2025; Syarafina & Lo, 2025; Ying & Allaqtta, 2025).

Theoretical Framework

The theoretical framework for this research is based on the gaps identified in the literature, especially those related to understanding SEP of organizations (SMEs). Figure 1 below represents the theoretical framework, which consisted by two parts: the Independent Variable (IV) and Dependent Variable (DV). The IV aligns with supervisor support, job satisfaction and work-life balance and DV goes with employee productivity.

Supervisor Support and Sustainable Employee Productivity (SEP)

According to factors that involve belief, the supervisor's wish to assist, fairness in dealing, and other factors, employees' perceptions of their connection with their supervisor are measured by the social support of their supervisors (Roy et al., 2025). SEP is a result of constant interaction with the supervisor to accomplish the organizational (SMEs) goals (Ying & Allaqtta, 2025); Pahlevy & Wajdi, 2026). The provision of social support from the supervisors is a practical method for reducing unwelcome occurrences, as noticed by Zeb et al. (2023). It reduces feelings of discomfort and encourages people to continue being productive (Shyron et al., 2025).

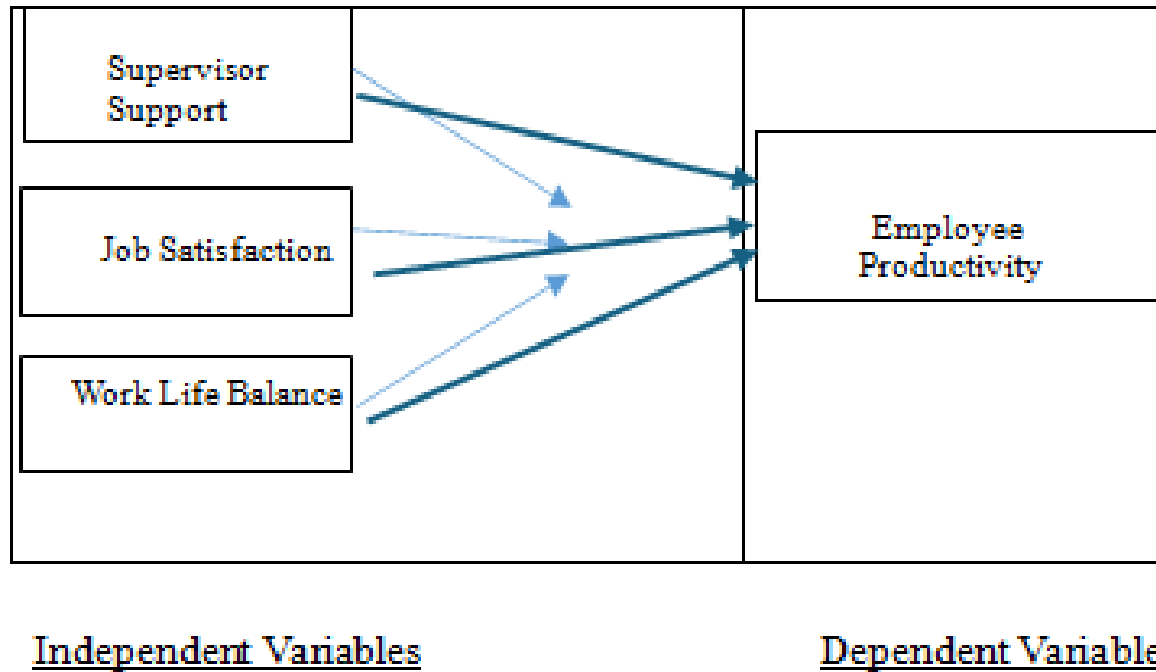


Figure 1. Theoretical Framework

To clarify instructions and goals, service providers must frequently communicate with their immediate supervisor (Pahlevy & Wajdi, 2026; Shyron et al., 2025). An effective strategy for preventing undesired situations is for supervisors to offer social help. Through offering social help, managers and staff can develop a sustainable, stronger sense of trust (Zeb et al., 2023; Zeb et al., 2025; Sakka et al., 2024). Supervisors are viewed as representatives of the organizations (SMEs) because of their duties supervising, organizing, and evaluating sustainable employees' work performance (Zeb et al., 2023; Zeb et al., 2025).

H1: There is a positive relationship between supervisor support and SEP.

Job Satisfaction and SEP

It's important for individuals to understand the nature of job satisfaction and how it affects productivity. Researchers also added that it might be, for instance, connected to a subjective sense of accomplishment, either quantitatively or qualitatively. However, a happy employee is an excellent employee, as mentioned by Al Rizky & Sakti (2025). Happiness at work is most important when it is due to the satisfaction felt in such a workplace. Most of the factors that increase teachers' job satisfaction can inspire them to perform better, such as an increased level of proficiency (Al Rizky & Sakti, 2025; Topazal et al., 2026). Understanding the nature of job happiness and how it influences productivity is crucial for people. Studies clarified that it could be, for example, tied to a feeling of subjective accomplishment, either in terms of quantity or quality. However, it should be noted that a content employee makes a great employee. Workplace happiness is particularly crucial when frequently because of the happiness experienced in such a setting (Al Rizky & Sakti, 2025; Fitriyani et

al., 2026). Nearly all the elements that increase teachers' job satisfaction may motivate them to deliver higher quality work. Also, such an elevated degree of competence (Roy et al., 2025; Al Rizky & Sakti, 2025).

H2: There is a positive relationship between job satisfaction and sustainable employee productivity.

Work-Life Balance and SEP

The sense of urgency between professional demands and personal and family commitments exists in the modern world. Particularly in fully industrialized countries is an issue that gets worse as the world advances and moves more quickly, as noticed by Ameen et al. (2023). The use of technology has increased market rivalry and labour intensity, indicating that issue is not merely confined to increased overtime and absences (Ameen et al., 2023; Adisa et al., 2022). Citing several researchers and papers that illustrate the repercussions of this imbalance and the most important study, the researchers discuss the significance of life balance for working folks and the implications of these demands on their sustainable productivity and devotion to their profession. The best options are to achieve comfortable and healthy living. There are various, sometimes conflicting, viewpoints on the relationship that occurs in literature between sustainable employees' productivity and work-life balance (Ameen et al., 2023).

According to one study's findings, work-life balance and sustainable employee productivity are not directly correlated (Ameen et al., 2023; Zhao et al., 2025). Moreover, employees adopt a more positive attitude towards work and commitment when enjoying a balanced work-life. Consequently, this can increase their sustainable productivity. As Adisa et al. (2022) highlighted implies that work-life balance could be positively related to sustainable employee productivity (Ameen et al., 2023; Tariq et al., 2024). H3: There is a positive relationship between work-life balance and sustainable employee productivity.

METHODOLOGY

In this section, the methods and procedures used to conduct this study are discussed under the following subheadings: Research design, variable measurement and scales, population of study, sample design and size, sample size and sampling technique, data collection and data analysis methods.

Research Design

Research design can be called as a conceptual plan for data collection, measurement and analysis to develop a plan of action (Bisaria et al., 2026; Rêgo et al., 2026). This study is quantitative and has a cross-sectional, correlational research design and the purpose of the study is to test the hypothesized relationships statistically between the independent variables (supervisor support, job satisfaction, work-life balance) and the dependent variable (sustainable employee productivity) (Rêgo et al., 2026; Villamin et al., 2025). A structured, closed-ended survey questionnaire (Pintu et al., 2026; Villamin et al., 2025) was used to collect data. There were a number of advantages to the survey instrument employed in this study. Firstly, it enabled the researcher to collect responses from the participants in an efficient manner that was also cost-effective, thereby saving both monetary and time resources (Bisaria et al., 2026; Rêgo et al., 2026).

Variables Measurement and Scales

The variables in this research will be assessed using primary data from SMEs (organizations). The independent variables are supervisor support, job satisfaction, and work-life balance. Also, dependent variables are sustainable employee productivity will be measured with respondents rating the extent of acceptance and implementation of each variable on a scale of 1 to 5 between 1 (strongly disagree) and 5 (strongly agree) to measure these variables (Lukito et al., 2025; Hermawati et al., 2025).

Population of Study

A target population is one to which the researchers intend to apply the research findings, as mentioned by Maravilla Jr & Flores (2025). Demographic questions have also been asked by the target population to

confirm the target audience's relevance, which have been categorized as (i) age, (ii) gender, (iii) education level, (iv) occupation, and (v) years of experience. These demographic questions help us determine the validity of our target population and help us look at our independent and dependent variables by identifying the differences in demographics between the respondents (Maravilla Jr & Flores, 2025; Belas et al., 2024).

Sample Design and Size

This paper is based on a sample size of 248 respondents from SMEs (organization) employees who answered this research survey. Research aims to target most of the working population (employed) to tackle the corporation of SME (organization) from stakeholders and employees' and supervisors' perspectives. Nevertheless, gathering an extensive sample from the target population remains beyond our current capacity and available resources. It would be more practical for this research to use a type of sampling referred to as random, which involves selecting participants based on specific criteria. This approach allows us to collect data more efficiently. To determine the appropriate sample size and assess whether the sample we collected is representative of the population, researchers utilized the sample size determining table developed by Shahin et al. (2025).

Collection of Data

The collection of primary data through questionnaire with the help of Google Form and sent electronically targeted audiences through social media platforms such as LinkedIn, Facebook, WhatsApp, Twitter, Instagram and other platforms. A checklist with the factors of interest will be used to extract the data (Shahin et al., 2025; Brandy, 2023; Topazal et al., 2021).

DATA ANALYSIS

Statistical Package for Social Sciences (SPSS) software is used to analyse the data acquired for this research. The normality test, reliability test, multiple regression, and ultimately the Pearson's correlation coefficient analysis are employed in this research. The linear regression technique is used to forecast a target variable, and the best fit between dependent and independent variables is defined as the least possible sum of all distances between the shape and the actual sensations at each data point. We had more than one because multiple linear regression was the best method for analyzing the independent variables used in this study (Brandy, 2023).

RESULTS AND ANALYSIS

After providing a detailed explanation of the research methodology, which includes the approach to be undertaken for data collection and analysis techniques. This section examines the actual quantitative data obtained from the proposed research. Various methods of measurement and analysis were employed to analyze the data, resulting in the generation of graphs and tables. The data was rigorously analysed using SPSS, and PLS-SEM software, enabling a comprehensive evaluation of the research findings.

Test Results

This section will discuss descriptive statistics, normality, correlation, multi linear regression analysis, ANOVA and hypothesis testing.

Descriptive Statistics

The descriptive analysis of the respondents involves the analysis of their descriptive profiles, which are included in this proposed research. The total sample of responses obtained for this paper is 248 responses as shown in Table 1. In the next section, researchers present the descriptive analysis for each of the constructions used to measure the demographics of research respondents. The descriptive analysis data of the respondents were analysed using SPSS.

Table 1. Residuals Statistics

	Min.	Max.	Mean	Std. Deviation	N
Predicted Value	2.0105	3.8135	2.6048	0.46053	248
Std. Predicted Value	-1.291	2.625	0	1	248
Standard Error of Predicted Value	0.078	0.208	0.102	0.025	248
Adjusted Predicted Value	1.9779	3.9063	2.6065	0.46179	248
Residual	-2.8135	2.98949	0	1.1644	248
Std. Residual	-2.411	2.562	0	0.998	248
Stud. Residual	-2.451	2.576	-0.001	1.002	248
Deleted Residual	-2.9063	3.02205	-0.0017	1.17449	248
Stud. Deleted Residual	-2.476	2.606	0.001	1.006	248
Mahal. Distance	0.097	6.888	0.996	1.084	248
Cook's Distance centred Leverage Value	0	0.099	0.004	0.009	248
	0	0.028	0.004	0.004	

A technique for minimizing a large amount of data to a smaller, easy to manage and more digestible data set is factor analysis, as depicted in Table 2. It enables the identification of characteristics shared by various patterns, the discovery of hidden patterns, and the visualization of their intersection. It is also employed to make a set of variables for connected elements in set. It can be a more useful technique/tool for complicated sets of data involving psychological research, socio-economic status and other pertinent concepts.

Table 2. Factor Analysis Correlation Matrix

Variables		Supervisor Support	Job Satisfaction	Work-Life Balance
Supervisor Support	Pearson Correlation	1	.504**	.456**
	Sig. (2-tailed)		0	0
	N	248	248	248
Job Satisfaction	Pearson Correlation	.504**	1	.679**
	Sig. (2-tailed)	0		0
	N	248	248	248
Work-Life Balance	Pearson Correlation	.456**	.679**	1
	Sig. (2-tailed)	0	0	
	N	248	248	248

The descriptive statistics are demonstrated in Table 3, which depicts the independent variables (supervisor support, Job satisfaction, and work-life balance) results.

Table 3. Descriptive Statistics Analysis

	N	Minimum	Maximum	Mean	Std. Deviation
Supervisor support	248	1	5	3.6815	1.0217

Job satisfaction	248	1	5	3.2581	1.46412
work life balance	248	1	5	3.2339	1.30777
Valid N (listwise)	248				

Normality Analysis

Determining data normality is important to many statistical tests because many assume normal data as a key premise. There are two methods of analysing normality: graphically and numerically. The results of the descriptive statistics are shown in Table 4.

Table 4. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
Supervisor Support	248	1	5	3.6815	1.0217	-0.201	0.155	-0.812	0.308
Job Satisfaction	248	1	5	3.2581	1.46412	-0.315	0.155	-1.297	0.308
Work-Life Balance	248	1	5	3.2339	1.30777	-0.408	0.155	-0.941	0.308
Employee Productivity	248	1	5	2.6048	1.25216	0.209	0.155	-1.012	0.308
Valid N (listwise)	248	—	—	—	—	—	—	—	—

Correlation Analysis

The Pearson Correlation Coefficient (PCC) test is a statistical testing that helps to measure the statistical association or connection between these (two) variables. Furthermore, it is a technique that is based on covariance, which is why the Pearson correlation analysis is well known as perfect and best technique used in measuring the relationship between variables of interest as demonstrated in Table 5.

Table 5. Pearson Correlation Coefficient

		Employee Productivity	Supervisor Support	Job Satisfaction	Work-Life Balance
Employee Productivity	Pearson Correlation	1	-.368**	-.0108	-.0119
	Sig. (2-tailed)		0	0.91	0.62
	N	248	248	248	248
Supervisor Support	Pearson Correlation	-.368**	1	.504**	.456**
	Sig. (2-tailed)	0		0	0
	N	248	248	248	248
Job Satisfaction	Pearson Correlation	-.0108	.504**	1	.679**

	Sig. (2-tailed)	0.91	0		0
	N	248	248	248	248
Work-Life Balance	Pearson Correlation	-0.119	.456**	.679**	1
	Sig. (2-tailed)	0.062	0	0	
	N	248	248	248	248

As a result, PCC will be employed to investigate and determine the relationship between IVs (supervisor support, job satisfaction, work-life balance) and DVs (employee productivity), as depicted in Table 5.

Table 6: Pearson Correlation Coefficient between Supervisor Support and SEP

		Supervisor support	employee productivity
Supervisor support	Pearson Correlation	1	-.368**
	Sig. (2-tailed)		0
	N	248	248
employee productivity	Pearson Correlation	-.368**	1
	Sig. (2-tailed)	0	
	N	248	248

Table 6 and Table 7 represent PCC between supervisor support and SEP, and job satisfaction and employee productivity respectively.

Table 7: Pearson Correlation Coefficient between Job Satisfaction and Employee Productivity

		Job satisfaction	Employee productivity
Job satisfaction	Pearson Correlation	1	-0.108
	Sig. (2-tailed)		0.091
	N	248	248
employee productivity	Pearson Correlation	-0.108	
	Sig. (2-tailed)	0.091	1
	N	248	248

Multi-Linear Regression Model (MLR) Analysis

The MLR Model is a statistical model predicting a response variable from a set of explanatory variables (also known as independent variables). The main purpose of the MLR model is measuring the relationship between responses (DV) and explanatory (IVs). It was because of this that this study used the MLR for modeling and analyzing the relationship between IVs (supervisor support, job satisfaction and work-life) and DVs (sustainable employee productivity). The MLR model equation is displayed in Table 8 and the independent variables (X) and dependent variable (Y) are indicated.

Table 8: MLR Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.368 ^a	0.135	0.132	1.16676

E. ANOVA Test

The ANOVA analysis results are shown in Table 9. It demonstrates regression and residual.

Table 9. ANOVA Analysis

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	52.385	1	52.385	38.48	.000 ^b
	Residual	334.89	246	1.361		
	Total	387.274	247			

Hypothesis Testing Path (HTP) Model

The HTP model is depicted in Figure 2, where average sustainable employee productivity is 0.328, which consisted in supervisor support shows a negative value (-0.564), job satisfaction also showing a *negative* value (-0.172), while work-life balance shows a positive value (0.226). The R-Square (R²) values of Employee Productivity, which is dependent variable, as shown in Table 10 below. According to these results, r-square measures the explanatory power of the model. Values of 0.75 & higher, 0.25 and 0.50 are moderate and weak and considered substantial respectively. We can see from table that our r-square values are lower than 0.75.

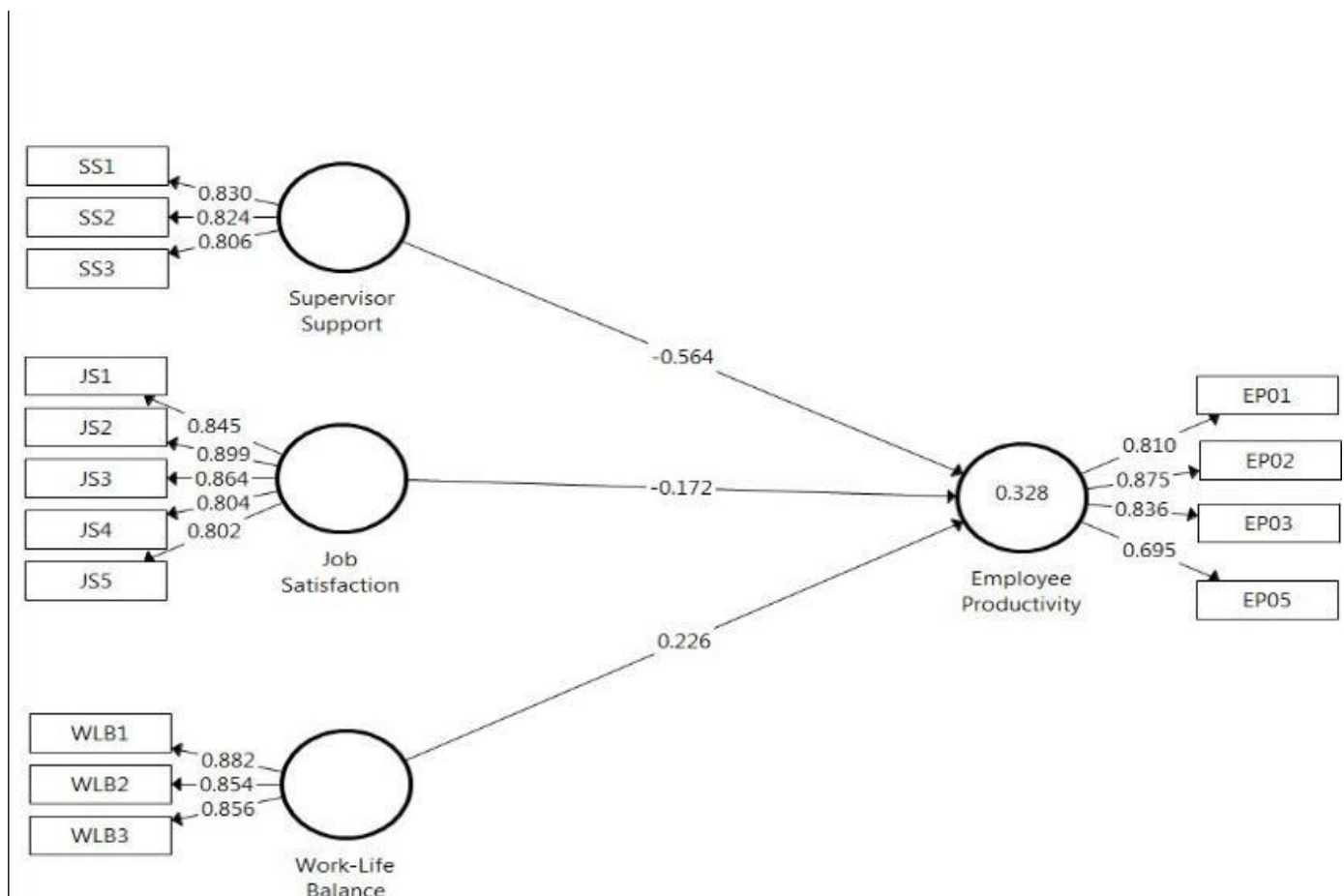


Figure 2 Hypothesis Testing Path Model

Table 10: R-Square (R²)

	R Square	R Square Adjusted
Employee Productivity	0.328	0.319

The f-square values of the variables. F-square values show the effect sizes of the path coefficient. The intensity of the relationship is measured through the values; indicator of large effect size is values of 0.35 and higher. Variables have a medium and small effect size when their f-square values range from 0.150 to 0.349 and 0.020 to 0.149, respectively, as depicted in Table 11.

Table 11: F-Square (F2)

	Employee Productivity
Employee Productivity	
Job Satisfaction	0.015
Supervisors Support	0.277
Work Life Balance	0.031

It should be stressed that a value of f-square less than 0.020 is a sign of no effect. With the data presented in Table 11, where supervisor support's effect on employee productivity is medium ($f^2 = 0.277$), job satisfaction on employee productivity is small ($f^2 = 0.015$), and effect of balancing work-life on productivity of employees is small ($f^2 = 0.031$). This means that among the three predictors, supervisor support is the greatest predictor of variance in employee productivity, followed by balancing work-life and then job satisfaction.

CONCLUSION AND RECOMMENDATION

The overall conclusion of the study, which summarizes the study's findings on the factors affecting sustainable employee productivity in SMEs in Malaysia. The research outlines the conclusion of all the findings related to SEP in the context of balancing work-life, supervisor support and job satisfaction in the SMEs (organizations). The implications of the research are presented, followed by the limitations that the researchers found during the analysis of the research. Lastly, some SMART suggestions for research are provided.

Research Limitations

According to the methodology used in collecting primary data for this research, the study may have potential limitations such as: - primarily the data is collected using a questionnaire technique. As a result, face-to-face interviews may be used in future work to boost reliability. To increase the number of responses (from participants) data (primary data), so that the accuracy and reliability of this research can be improved. In terms of contextual and/or moderating factors, more published studies and a greater number of dimensions covered should be the goals of future research. This could strengthen and improve the analysis, even in the absence of further statistically significant findings. Consequently, the research can be expanded to encompass more studies conducted in other nations or Southeast Asia. Additionally, studies that can be carried out in different parts of the world will provide researchers with more trustworthy data. It was also recommended that future researchers make use of the most accurate data-gathering method available, considering the specifics of the research, time limits, and other considerations.

Conclusion

In this study, three hypotheses were formulated at the outset of the research, namely: H1- supervisor support has an influence on sustainable employee productivity; H2- job satisfaction has an influence on SEP; and H3- work-life balance has an influence on sustainable employee productivity of SME employees in Malaysia. The Pearson correlation and multiple linear regression results suggest that at least supervisor support is statistically related to employee productivity, but not as a positive relationship as predicted in H1, which may be considered a substantive result if checked against the original data and coding of the items. In this sample, there were no statistically significant relationships between work-life balance, job satisfaction with employee productivity, so H2 and H3 are rejected. Theoretically, this study is an extension of the existing literature since it examines the relationships between work-life balance, supervisor support, job satisfaction and sustainable

employee productivity in the SME context. Future research can use this study as a reference point to further examine the association between these variables. Regarding practical application, the results indicate that SME management should give special attention to the supervisor support delivered. This factor was the greatest predictor of employee productivity, but the causal links need to be further investigated. In addition, the results and discussion section of the research has been carried out a reliability test which showed that the data obtained from the questionnaire used in this study is consistent within itself.

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