

UNLOCKING DIGITAL STRESS AMONG EMPLOYEES IN SMALL MEDIUM ENTERPRISES (SMES) IN SRI SERDANG, SELANGOR, MALAYSIA

GHAZALI, H.^{1*} – SHAHROL, N. I.¹

¹ *Faculty of Food Science and Technology, Universiti Putra Malaysia, Selangor, Malaysia.*

**Corresponding author
e-mail: hazrina[at]upm.edu.my*

(Received 05th March 2025; revised 12th May 2025; accepted 20th May 2025)

Abstract. Digital services have surfaced in various front-of-house and back-of-house operations, including ordering, payment, and administrative processes. In the current digital age, employees in small and medium-sized enterprise (SME) restaurants are anticipated to possess knowledge and skills related to digitalisation. Although the implementation of digitalisation in the workplace can enhance the company's performance, it can also lead to digital stress among employees. Therefore, the purposes of this study are (1) to determine the potential factors that contribute to digital stress among employees in SMEs restaurants and (2) to identify the most influential factor. Additionally, this study investigates the extent to which employees experience digital stress. Upon examining the literature, the primary elements influencing digital stress in employees include information overload, inefficient technical support, and the working environment. The study used a quantitative method with a self-administered survey questionnaire. A total of 125 questionnaires were distributed to SME employees in Sri Serdang, Selangor, with 110 returned and usable for analysis. The data was analysed using Version 27 of the Statistical Package for the Social Sciences (SPSS). The findings revealed that the three factors indicated to a score leaning towards agreement among employee with inefficient technical support (Mean=2.79), information overload (Mean=2.86), and working environment (Mean=3.05). The results indicated a significant positive correlation among all variables and employees' digital stress, with values ranging from 0.517 to 0.759. Additionally, multiple linear regression analysis was performed to forecast digital stress levels using the three independent variables. The findings showed that the primary influencing factor was the inefficient technical support, with an R^2 of 0.629, indicating that 62.9% of the variance in digital stress is explained by these factors. These results suggest that SME restaurant management should identify elements causing digital stress and develop effective strategies to mitigate its impact.

Keywords: *digital stress, inefficient technical support, information overload, SMEs restaurants employees, Selangor*

Introduction

In the era of digital transformation, businesses across various sectors are increasingly integrating digital technologies to enhance productivity and efficiency. Small and Medium Enterprises (SMEs), particularly in the restaurant industry, are no exception, as they incorporate digital tools for operations, management, and customer engagement. However, the rapid pace of digitalization presents challenges that impact employees' well-being, leading to a phenomenon known as digital stress. Digital stress, often referred to as "technostress," arises from the constant need to adapt to evolving digital systems, manage multiple digital tasks, and meet the growing expectations of a technology-driven workplace. Employees in SMEs frequently experience information overload, inefficient technical support, and an overwhelming working environment, all of which contribute to heightened stress levels. The pressure to continuously engage with digital platforms, coupled with the risk of job insecurity due to automation, has led to concerns regarding employee satisfaction, job performance, and overall well-being.

This study identifies the key factors contributing to digital stress among employees working in SMEs in Sri Serdang. By examining the extent and impact of digital stress, this research aims to provide valuable insights for business owners, managers, and policymakers to develop strategies that can mitigate stressors and improve employees' digital work experiences. Understanding these challenges will help SMEs optimize digital adoption while maintaining a healthy and productive workforce (Bak and Reicher, 2023; Campione, 2023; Jadhav et al., 2023; Nefedov, 2023; Patterson-Waites, 2023; Pfister and Lehmann, 2023; Alt, 2021; Neumeyer and Liu, 2021; Roffia et al., 2021; Bondanini et al., 2020; Ridha and Hidayat, 2020; Solberg et al., 2020; Bouwman et al., 2019; Prasanna et al., 2019; Iddris, 2018; Bleicher and Stanley, 2017; Heberle et al., 2017; Eravia et al., 2015; Tarutė and Gatautis, 2014; Carayannis et al., 2006; Mahan and Melody, 2007).

Review of literature

Digitalization has become a crucial part of modern workplaces, influencing employee productivity and well-being. However, rapid technological advancements have led to an increase in digital stress, commonly referred to as "technostress," which negatively impacts employees in Small and Medium Enterprises (SMEs). This section explores relevant literature to understand the significance of digital stress and its key contributing factors.

Digital stress

Digital stress is a term used to describe the negative effects of overuse or excessive reliance on digital devices and technology, including smartphones, laptops, and other electronic devices. Digital stress can arise from the mental effort and time required to navigate digital communication and technology, as well as the desire to maintain connections with others and a sense of belonging. This can lead to cognitive strain for individuals who spend a lot of time online, potentially triggering a stress response (Giray et al., 2024). While digital workspace has emerged as a new paradigm and enables employees to work both in physical and cyberspace (Malik et al., 2022). Historically, the growing demands to effectively utilise digital tools have been examined under "technostress." This term refers to employees' psychological strain when required to acquire knowledge and skills related to new technologies. A study identified that technostress arises when individuals are not properly educated on managing technology. The lack of clarity regarding the use of new technologies, along with the ensuing inefficiency in navigating contemporary technological tools, remains a significant concern in the field of technostress research (Rasool et al., 2022). Employees experience more technology-induced work stress called technostress (Wang et al., 2023), such as information overload, inefficient technical support, and working environment.

Employees' digital stress

For SMEs, employees are their core assets crucial to survival and growth (Shan and Tian, 2022). Employee digital stress is a psychological strain that is susceptible in a competitive and unstable work setting, as is the case at present. Besides the work environment, the expectations and goals set by the company for employees are also significant contributors to digital stress. Work-related stress can impact employee

performance. Avoiding excessive digital stress for employees is essential, as it can result in high absenteeism, work errors, decreased performance, and damage to the company's reputation due to an unpleasant work atmosphere. Nevertheless, digital stress, when managed effectively and maintained at low levels, can serve as a motivator for employees to enhance their performance (Hanafi and Zunaidah, 2018). From diverse perspectives, positive psychology suggests that digital-related stress can be divided into two primary types: challenge stress and hindrance stress. According to their perspectives, challenge stress refers to stress that has a positive impact on employees' work attitudes and behaviors, enhancing employee performance through greater work responsibility; in contrast, hindrance stress adversely affects employees' work attitudes and behaviors, leading to decreased employee performance due to increased role ambiguity (Yang et al., 2023).

Information overload

Information overload is frequently cited in the literature across various disciplines, such as medicine, business studies, and social sciences, as well as computer and information sciences (Edmunds and Morris, 2000). We can all recognise a state of information overload. However, as Edmunds and Morris point out, there is no universally accepted definition of information overload: it can mean a variety of things, from having more relevant information than you can digest to being overloaded with a large amount of one-sided information, some of which is relevant. The problem of information overload is now widely recognised. We live in an "information society" where we are bombarded with information whether we actively seek it or not. We are all influenced by an ever-increasing number of sources. However, in the workplace, information is considered the key to the organisation's success, and many people have to deal with a huge amount of information from many sources in the work. People cannot ignore information at work. "Professional and personal survival in modern society depends on our ability to acquire a huge amount of new information. However, this information is growing at an exponential rate (Edmunds and Morris, 2000). While there are obvious benefits of easier access to information, research has found that information overload can lead to stress, loss of job satisfaction, and physical ill health. It is now widely recognised that stress can be experienced from a feeling of lack of control (Del Giudice et al., 2018). We can unwittingly allow information technology to become the driver instead of harnessing it as a tool to enhance rather than diminish our lives. The problem of information overload is not going to recede and solutions need to be found to enable people to reduce the amount of information overload they experience (Arnold et al., 2023).

Inefficient technical support

Information and communication technology at the workplace is designed to help workers and enhance their work productivity as well as increase collaboration among workers. However, studies showed that employees are becoming frustrated by the extensive use of technology in the workplace (Rasool et al., 2022). Rapid changes in technology can lead to challenges for employees in adapting to new systems, potentially resulting in increased workload and stress (Ayyagari et al., 2011). In contrast, embracing new technologies in the workplace can also be advantageous for employees. Research indicates that an increased technological demand at work correlates with

higher levels of engagement, suggesting that the process of acquiring new technological skills is viewed as a stimulating challenge (Korunka et al., 2015). To facilitate the perception of technical changes in the workplace as constructive challenges rather than obstacles, it is essential to provide employees with sufficient support in mastering and utilising these technologies. For instance, offering training sessions or guidelines on navigating new media, along with accessible technical support, plays a crucial role in enhancing overall workplace well-being (Yueh et al., 2016). In a research, employees were acquainted with a novel technology implemented in the workplace, which required significant learning effort and resulted in increased emotional exhaustion (Knani et al., 2018). Enhancing work-related resources is crucial for a highly digitalized workplace. Research indicates that stress associated with digitalisation correlates with a decrease in work-related resources. The authors emphasize that key resources to be augmented include social support from coworkers, opportunities for involvement in technology utilisation, and clear communication regarding technological tools. Consequently, health-promoting leadership may prove advantageous in a digitalised environment, as it helps to maintain and replenish these essential resources (Atanasoff and Venable, 2017). The detrimental impact on emotional exhaustion could be mitigated when employees receive substantial support from both supervisors and colleagues. Furthermore, it was noted that leadership behaviors focused on employee well-being serve as a vital resource that may alleviate the adverse effects of digitalisation, including stress (Atanasoff and Venable, 2017). Hence, to avoid employees faced with digital stress due to inefficient technical support, good leadership will be one of the solutions.

Working environment

The working environment is an important context factor at the workplace that affects employees' health. Exposure to a critical working environment with high risks might result in negative psychological states that can negatively affect the individual's behavior at work (Rasool et al., 2022). As reported by the International Labour Organization (ILO), each year, 2.8 million workers succumb to work-related illnesses, and roughly 374 million non-fatal work-related injuries occur annually. This leads to human and economic expenses totaling approximately 4% of the yearly global gross domestic product (Schreibauer et al., 2020). Several specific job traits have been recognised as dangerous. In the job strain or demand-control model, a highly regarded framework for understanding work stress, strain (whether physical or mental) arises from a mix of high psychological demands paired with limited control or decision freedom in executing work tasks. Employees facing significant demands but possessing substantial control over their work processes, often seen in managerial and professional roles, show fewer health issues related to stress compared to those without such control or social support in their workplace (Schnall et al., 2009). For SMEs, the working stress environment is related to the use of technology in the industry. There is a lack in the literature, therefore there is not much study about the working stress environment related to technology used. However, this study will show that technology is mainly one of the reasons for working-stress environments. In restaurants, the use of technology is crucial to ensure a smooth working environment, unfortunately, some employees who have zero knowledge about technology, tend to feel stress especially when the working environment is fully digitalised. This situation may lead to a high turnover of employees, hence potentially disturbing the restaurant's flow of service. Apart from that, the characteristics of ICT and in particular communication technologies (e.g., e-mail)

can also create unwanted norms and expectations that individuals have to deal with and may deviate from the actual desires of an individual (e.g., not wanting to communicate constantly) (Fischer et al., 2021).

Questionnaire

This study adopted questionnaire based on previous studies within the context of employees' digital stress in the workplace. The respondents involved in this study was SMEs restaurant employees. Respondents divided into two suitable groups to answer the questionnaire, which are Managerial Line, and Non-Managerial Line. Although both have different experiences in digital stress, incorporating both managers and non-managers in the study improves the generalisability of the results, increasing their relevance. The study collected insights from people at various levels in a company, capturing a wider array of experiences and ensuring that the findings are not skewed toward one group (Creswell and Creswell, 2017). This variety enhances the reliability of the research, enabling it to make significant contributions to organisational studies and workplace policies. Consequently, the results can inform the creation of strategies pertinent to various industries, enhancing the research's significance and versatility.

Measurement

This study used a self-report survey as a measurement. A "self-report survey" is a research technique in which participants share insights regarding their thoughts, emotions, actions, and experiences by responding to questions on a survey or during an interview (Fernández-Ballesteros, 2004). This method allows them to convey their viewpoint without external analysis; it is frequently utilised in psychology and social sciences to collect information on subjective experiences that cannot be directly witnessed.

Conceptual framework

The conceptual framework used in this study aimed to answer research questions about the study. This study used a series of items to identify the factors that influence digital stress among employees in Small and Medium Enterprises (SMEs) restaurants in Malaysia. The study variables are indicated in the conceptual framework in *Figure 1*. The Conceptual Framework of Factors Influence Digital Stress Among Employees Small and Medium Enterprises (SMEs) Restaurants Within Sri Serdang, Malaysia.

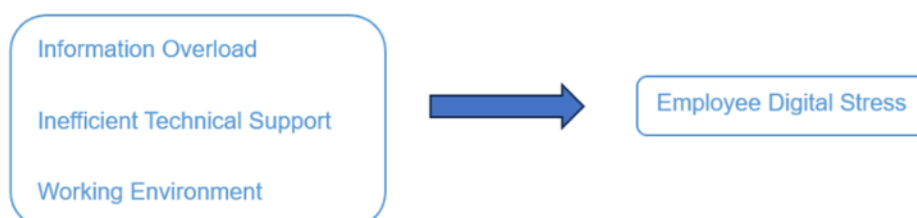


Figure 1. *The conceptual framework of factors influence digital stress among employees in Small and Medium Enterprises (SMEs) in Sri Serdang, Malaysia.*

Materials and Methods

The analysis of methodology involved in this study will be discussed in this chapter and this part comprises all subtopics of research design, target population and sample size, sampling design, data collection method, survey, and the data analysis. Methodology is an important part where the rules of methods and approaches being applied in the particular area of study are defined and the reason for using it. Therefore, aiming to achieve the objectives of this study a quantitative research method had been used. Based on the literature review, SMEs restaurant employees in Sri Serdang are implementing a digitalisation working system in their daily tasks, most of the systems are the same such as POS Systems, electronic equipment, and related software or applications, expecting the data to be homogenous. This research was non-experimental quantitative research conducted using surveys distributed physically, through a visit to SMEs restaurants.

Research design

The purpose of this study was to examine the potential factors that contributed to digital stress among employees in SMEs restaurants. In line with the purpose of this study, a quantitative research approach was used, and a self-administered questionnaire was designed to obtain the data for this study. Quantitative research was a methodical study that mainly aimed to quantify relationships, behaviors, and phenomena using numerical information. It was extensively utilized in diverse areas, such as natural and social sciences, to extract insights and make educated decisions grounded in statistical analysis (Lim, 2025). Quantitative research was defined by its objective stance, seeking to generate dependable and valid outcomes via organized methodologies. It included gathering and examining numerical information to discover trends, validate hypotheses, and forecast outcomes. Important methodological factors encompassed the selection of primary versus secondary research, the structure of cross-sectional and longitudinal studies, and the application of experimental compared to non-experimental designs. Pretesting and piloting tools were essential to guarantee the reliability and validity of the data gathered (Mohajan, 2020). Quantitative data could be analyzed statistically (Watson, 2015). Data could be characterized using percentages, measures of central tendency (mode, median, mean), and measures of spread (range and standard deviation). The definitions of these terms could be found in the table below. The data analysis from the sample could be utilized to make inferences regarding the entire population. Examination was generally conducted using a range of evaluations referred to as inferential statistics. These enabled researchers to examine, for instance, the variations between average values in the treatment and control groups in a randomized controlled trial and to explore the relationships between factors like pain and analgesic dosage.

Population and sample size

The target population used in this study was employees who worked in restaurant which focusing on the employees of Small and Medium Enterprises Restaurants. Employees from SMEs restaurants within Sri Serdang were selected as respondents for this study. In addition, the available population was made up of target group participants who were eligible to participate and available at the time of the study. Therefore, this self-administered questionnaire was distributed to SMEs restaurants, where the

respondents included employees from both managerial and non-managerial departments who worked at restaurants within Sri Serdang area.

Sampling plan

The sample of this study was reached by using a non-probability sampling design, which focused on the convenient sampling method in selecting the respondents. The approachability of respondents in SMEs restaurants, including employees from the managerial and non-managerial departments, was a primary reason for adopting this sampling method. A total of 125 questionnaires were distributed to the respondents in this study. However, only 110 sets of questionnaires were returned and valid for further analysis. The sample was considering small numbers due to time constraints as well as low numbers of participation from the restaurants. Some of SMEs restaurants reluctant to participate due to busy operation hours and tight policy which did not allow third party to interfere their operation.

Data collection process

Data were collected using a self-administered questionnaire. Researcher approached manager on duty and the manager assisted in distributing and collecting responses, ensuring minimal disruption to daily operations. The questionnaire was bilingual (English and Bahasa Melayu) to ensure clarity for respondents. To prevent response bias, participation was voluntary, and no identifying information was recorded (Figure 2).

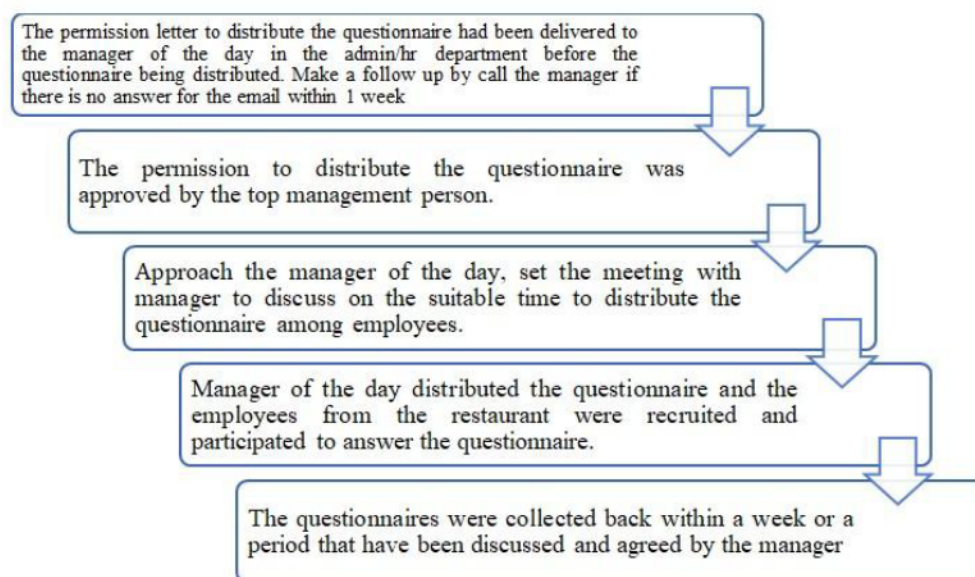


Figure 2. Flowchart of research procedure.

Questionnaire structure

The questionnaire consisted of three sections: Section A (Demographic Information: Age, gender, job role, years of experience); Section B (Digital Stress Factors: Measured using a five-point Likert scale (1=strongly disagree, 5=strongly agree)); and Section C (Work Environment and Digital Engagement: Examined expectations related to digitalization at work) (Table 1).

Table 1. Details of survey sections, scales, and sources.

Sections	Measurement Items	Forms	Sources
Section A Demographic Question	11	Use structured question Nominal and ordinal scale	Kerr et al. (2023)
Section B Employees' Digital Stress	4	5 point Likert Scale "1" equals "Extremely Disagree" and "5" equals "Extremely Agree"	Kurelović et al. (2016) Trianni and Cagno (2012) Khan and Mohiya (2020)
Section C Information Overload Inefficient Technical Support Working Environment	17	5 point Likert Scale "1" equals "Extremely Disagree" and "5" equals "Extremely Agree"	Ogunyomi and Ojikutu. (2014) Khan and Mohiya (2020)

Pilot test study

A pilot study was conducted in November 2024 with 30 SMEs employees to ensure the reliability of the questionnaire. The pilot test assessed the clarity of questions, the time taken to complete the survey, and reliability using Cronbach's Alpha. Minor modifications were made to improve question wording and ensure consistency. A straightforward, brief, and easy-to-comprehend format was utilized, featuring two primary languages, Bahasa Melayu and English, in the questionnaires. The structure of the questionnaires was designed to prevent confusion among the respondents. Brief and uncomplicated questionnaires were also used to prevent respondents from spending excessive time answering due to their busy schedules. The questionnaires were structured into sections to appear organized and motivate respondents to participate. Finally, for this study, the questionnaires were once again distributed to the actual target respondents.

Statistical analysis

In a research article, the most essential component was data analysis. In the examination of data, the gathered information was interpreted and condensed. The process of data analysis involved deconstructing the intricate research data collected into its basic and simplified form. For this research, the data analysis procedure was conducted using the Statistical Package for the Social Sciences (SPSS) version 27. The collected data were examined through five types of analysis: reliability analysis, descriptive analysis, multiple linear regression, Pearson's correlation, and independent T-test. Test reliability was a critical concept in psychometrics and educational measurement, referring to the consistency and stability of test scores across different administrations or forms of a test. It was essential for ensuring that a test accurately measured what it was intended to measure (Cronbach, 1947). SPSS was a flexible software tool that accommodated a variety of statistical analyses, ranging from simple descriptive statistics to intricate multivariate analyses (Čaplová and Švábová, 2020). It enabled users to execute data transformations, produce graphical displays, and handle data files effectively. Multiple regression was a flexible method that accommodated both continuous and categorical variables, rendering it appropriate for various research issues. It was especially beneficial in scenarios where various factors impacted a result, enabling researchers to control for confounders and evaluate the cumulative effect of diverse variables on the outcome (Pandis, 2016). Understanding the relationships between predictor variables and their impact on the dependent variable was essential for interpreting multiple regression results. The Pearson correlation coefficient, represented as (r), evaluated the linear relationship between two variables. It varied from -1 to +1,

with +1 signifying a flawless positive linear correlation, -1 indicating a flawless negative linear correlation, and 0 representing the absence of a linear correlation. This coefficient was suitable for data that followed a normal distribution and were assessed on an interval or ratio scale (Schober et al., 2018).

Results and Discussion

Demographic profile of respondent

A total of 125 self-administered questionnaires utilising convenience sampling were handed out to the staff of Small and Medium Enterprises Restaurants located in the Sri Serdang area (*Table 2*). Out of 125 sets of questionnaires that were distributed, only 110 sets were successfully returned and are eligible for analysis in this study. The demographic analysis of the respondents' demographic profile includes gender, age, race, marital status, highest education level, current position, work experience, average working hours, and salary.

Table 2. *Demographic profile of respondents.*

Variables	Categories	Frequency (N)	Percentage (%)
Gender	Male	52	47.3%
	Female	58	52.7%
Age	< 20 years old	5	4.5%
	20 – 29 years old	56	50.9%
	30 – 39 years old	33	30.0%
	40 – 49 years old	13	11.8%
	> 50 years old	3	2.7%
Race	Malay	73	66.4%
	Indian	16	14.5%
	Chinese	7	6.4%
	Other	14	12.7%
Marital Status	Married	37	33.6%
	Single	72	65.5%
	Other	1	0.9%
Highest Education Level	SPM	32	29.1%
	STPM	6	5.5%
	Matriculation/Foundation	4	3.6%
	Diploma	27	24.5%
	Bachelor Degree	24	21.8%
	Master Degree	5	4.5%
	Other	12	10.9%
Current Position	Full Time	65	59.1%
	Part Time	33	30.0%
	Contract	12	10.9%
	Other	0	0%
Work Experience	< 6 months	18	16.4%
	6–12 months	22	20.0%
	1 – 2 years	27	24.5%
	2 – 4 years	23	20.9%
	5 – 7 years	9	8.2%
	> 8 years	11	10.0%
Average Working Hours	4 hours	0	0%
	6 hours	8	7.3%
	8 hours	50	45.5%
	10 hours	36	32.7%
	> 10 hours	16	14.5%
Salary	RM1500 – RM2500	74	67.3%
	RM2501 – RM3500	21	19.1%
	RM3501 – RM4500	11	10.0%
	> RM4501	4	3.6%
Department	Managerial Line	32	29.1%
	Non-managerial Line	76	69.1%
Stress Frequency at Work	1 – 2 times a week	39	35.5%
	3 – 4 times a week	35	31.8%

Everyday	17	15.5%
Not at all	18	16.4%
Other	1	0.9%

Reliability analysis

The *Table 3* and *Table 4* showed the Cronbach Alpha values of the reliability analysis used for the pilot study and actual data collection in this research. This analysis was conducted to measure the level of understanding of the respondents toward the questions that had been asked in the questionnaire. The reliability of the questionnaires was tested on both dependent and independent variables in this research, which were employees' digital stress, working environment, information overload, and inefficient technical support. Reliability was a crucial element of educational evaluations, serving as an essential prerequisite for validity. In the absence of dependable scores, the credibility of test interpretations and applications was undermined, as scores could be affected by random errors instead of accurately representing actual performance (Miller, 2019). The 30 sets of questionnaires were distributed randomly to the respondents in the Small and Medium Enterprises Restaurant for pilot tests. The reliability tests were conducted on the questionnaires as they were a pioneer instrument used in this research.

Table 3. Reliability analysis for pilot study.

Types of Variables	Total Number of Items	Cronbach's Alpha Value	Cronbach's Alpha Based on Standardized Item
Dependent Variable			
Employees' Digital Stress	4	0.775	0.763
Independent Variables			
Information Overload	6	0.755	0.887
Inefficient Technical Support	6	0.832	0.837
Working Environment	5	0.737	0.734

Table 4. Reliability analysis for actual data collection.

Types of Variables	Total Number of Items	Cronbach's Alpha Value	Cronbach's Alpha Based on Standardized Item
Dependent Variable			
Employees' Digital Stress	4	0.893	0.893
Independent Variables			
Information Overload	6	0.880	0.887
Inefficient Technical Support	6	0.891	0.891
Working Environment	5	0.816	0.817

Descriptive statistic analysis

Descriptive statistics analysis was used to define and summarize the data involved in this study. In this section, tables of mean and standard deviation for each dependent and independent variable were disclosed in *Table 5*. To study the factors that influenced digital stress among employees in SMEs restaurants, the mean and standard deviation of each variable involved in this study were discussed in *Table 5*.

Table 5. Model summary descriptive statistic.

Category	Mean	Median	Std. Deviation	Variance	Minimum	Maximum
Dependent Variable						
Employees' Digital Stress	2.65	2.50	1.09	1.20	1.00	5.00
Independent Variables						
Information Overload	2.86	2.83	1.02	1.04	1.17	5.00
Inefficient Technical Support	2.79	2.83	1.00	1.00	1.00	5.00
Working Environment	3.05	3.20	0.94	0.88	1.00	5.00

Multiple linear regression analysis

Table 6 shows the summary of regression done in this study. Referring to the analysed data, the R Square (R^2) was 0.629. The result shows that 62.9% of variance in employees' digital stress was explained by the independent variables used in this study which are information overload, inefficient technical support and working environment. Since the value of R^2 is more than 0.5, this value is generally considered to have a strong relationship between the dependent variable and independent variables in this study. Table 7 shows that the data analysed provide the information about the levels of variability within a regression model and to test the significance between variables. The result shows that the p-value is less than 0.05 and indicates that a statistically significant relationship exists between the employees' digital stress and factors that influence it. Meanwhile, the result that show p-value is greater than 0.05, indicates the relationship exists between the employees' digital stress and factors that influence it not statistically significant. The regression model is a good fit of the data since, $p < 0.001$, with an R^2 of 0.629. Based on Table 8, there were 3 independent variables highlighted in determining the digital stress of employees in the SMEs restaurant. According to the result, the variable of the information overload and inefficient technical support had a significant p value of <0.001 which are the values were less than the acceptable significant p value of 0.005. Knowing that the p value obtained are <0.001 , which below than 0.005, the result indicated that the information overload and inefficient technical support were significant predictors that influence the digital stress of employees in Small and Medium Enterprises Restaurant. On the other hand, the p value for the working environment variable shows the variable was not significantly determinant to the employees' digital stress, since the p value of 0.972 is greater than the acceptable significant p value of 0.005. Therefore, the result had shown that the influential predictors of the employees' digital stress were information overload and inefficient technical support due the p value less than .005; meanwhile, for the predictor working environment was not the factor that contributed towards the digital stress among employees in Small and Medium Enterprises Restaurant. The digital stress of the employees will increase by 0.338 units for every one unit increase in information overload. Then, the digital stress of the employees will increased by 0.598 units for every one unit increase in inefficient technical support. However, the digital stress of the employees decreased by -0.003 units for every one unit increase in the working environment.

Table 6. Multiple linear regression of studied variables (Model summary).

Model	R	R Square	Adjust R Square	Std. Error of The Estimate
1	0.793	0.629	0.619	0.67624

Note: R square=0.629; meaning that only 62.9% of variance in employees' digital stress was explained by information overload, inefficient technical support and working environment; a. Predictors: (Constant), Information Overload, Inefficient Technical Support, Working Environment.

Table 7. Result of multiple linear regression of ANOVA analysis.

Model		Sum of square	df	Mean Square	F	Sig.
1	Regression	82.188	3	27.396	59.908	<0.001
	Residual	48.474	106	0.457		
	Total	130.662	109			

Note: a. Dependent Variable: Employees' Digital Stress; b. Predictors: (Constant): Information Overload, Inefficient Technical Support, Working Environment.

Table 8. Result of multiple linear regression analysis on possible factors of employees' digital stress (Coefficients).

Model		Unstandardised Coefficients		Standardised Coefficients Beta	t	Sig
		B	Std. Error			
1	(Constant)	0.025	0.234		0.107	0.915
	Information Overload	0.338	0.093	0.315	3.646	<0.001
	Inefficient Technical Support	0.598	0.093	0.546	6.445	<0.001
	Working Environment	-0.003	0.092	-0.003	-0.035	0.972

Note: Predictors: Information Overload ($t=3.646$, $p<0.001$); Inefficient Technical Support ($t=6.445$, $p<0.001$); Working Environment ($t=-0.035$, $p=0.972$).

Pearson correlation analysis

In the Pearson Correlation analysis, if the significant (2-tailed) value is less than or equal to .05 it can conclude that there is a statistically significant correlation between the two variables. Based on results in Table 9, the correlation of each independent variable involved in this study which are the information overload, inefficient technical support, and working environment were significant at 0.01 levels (2-tailed) employees' digital stress. As the result shows that the values for all independent variables are all 0.000. This value indicates that there was a statistically significant correlation between the information overload, inefficient technical support, and working environment towards employees' digital stress since the value of significance (2-tailed) are less than .05. Moreover, the Pearson's Correlation r value between the employees' digital stress and the independent variables were stated in the Table 9. Firstly, the Pearson's r value between the employees' digital stress and the information overload shows that there is strong positive correlation since the value of Pearson's r is 0.685. Secondly, the Pearson's r value between the employees' digital stress and the inefficient technical support is 0.759. This value emphasises that there is a strong positive correlation between the dependent variable and independent variable. Lastly, the Pearson's r value between the employees' digital stress and the working environment is 0.517. Since the value of Pearson's r is close to 1, it is shown that there is a strong relationship between the variables. This highlight between the employees' digital stress and the all three independent variables (information overload, inefficient technical support and working environment) there is strong positive correlation.

Table 9. Table of Pearson Correlation.

Category		EJS	Information Overload	Inefficient Technical Support	Working Environment
EJS	Pearson Correlation	1	.685**	.759**	.517**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	110	110	110	110
Information Overload	Pearson Correlation	.685**	1	.680**	.616**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	110	110	110	110
Inefficient Technical Support	Pearson Correlation	.759**	.680**	1	.595**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	110	110	110	110
Working Environment	Pearson Correlation	.517**	.616**	.595**	1
	Sig. (2-tailed)	.000	.000	.000	.000
	N	110	110	110	110

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

Conclusion

The study investigated digital stress among SME employees in Sri Serdang, focusing on the effects of information overload, inefficient technical support, and workplace digitalization. The findings revealed that digital stress is a significant issue, with inefficient technical support emerging as the most influential factor, highlighting the need for better IT resources and training. Information overload was also a major contributor, emphasizing the necessity of effective data management strategies. Additionally, expectations of constant digital engagement beyond working hours negatively impacted employee well-being. The study contributes to understanding how SMEs can mitigate digital stress through structured support systems, such as enhanced IT training, clearer work-life boundaries, and improved communication channels. However, limitations include the study's focus on a single geographic location and reliance on self-reported data, which may introduce bias. Future research should expand to other industries and examine the long-term effects of digital stress. Ultimately, the study confirms that while digital tools enhance efficiency, they can also lead to significant stress if not properly managed, making it essential for SMEs to implement strategies that balance digital integration with employee well-being.

Acknowledgement

This research is self-funded.

Conflict of interest

The authors confirm that there is no conflict of interest involve with any parties in this research study.

REFERENCES

- [1] Alt, R. (2021): Digital Transformation in the Restaurant Industry: Current Developments and Implications. – *Journal of Smart Tourism* 1(1): 69-74.
- [2] Arnold, M., Goldschmitt, M., Rigotti, T. (2023): Dealing with information overload: A comprehensive review. – *Frontiers in Psychology* 14: 28p.
- [3] Atanasoff, L., Venable, M.A. (2017): Technostress: Implications for Adults in the Workforce. – *The Career Development Quarterly* 65(4): 326-338.
- [4] Ayyagari, R., Grover, V., Purvis, R. (2011): Technostress: Technological Antecedents and Implications. – *MIS Quarterly* 35(4): 831-858.
- [5] Bak, G., Reicher, R. (2023): Small and Medium-Sized Enterprises' Perceptions of the Use of Cloud Services. – *Interdisciplinary Description of Complex Systems* 21(2): 131-140.
- [6] Bleicher, J., Stanley, H. (2017): Digitization as a catalyst for business model innovation a three-step approach to facilitating economic success. – *Journal of Business Management* 12: 10p.
- [7] Bondanini, G., Giorgi, G., Ariza-Montes, A., Vega-Muñoz, A., Andreucci-Annunziata, P. (2020): Technostress dark side of technology in the workplace: A scientometric analysis. – *International Journal of Environmental Research and Public Health* 17(21): 23p.
- [8] Bouwman, H., Nikou, S., De Reuver, M. (2019): Digitalization, business models, and SMEs: How do business model innovation practices improve performance of digitalizing SMEs? – *Telecommunications Policy* 43(9): 18p.

- [9] Campione, F. (2023): Employee engagement and technology: a case study analysis of best practice in Italian SMEs. – *International Telematic University Uninettuno* 180p.
- [10] Čaplová, Z., Švábová, P. (2020): IBM SPSS statistics. – In *Statistics and Probability in Forensic Anthropology*, Elsevier 9p.
- [11] Carayannis, E.G., Popescu, D., Sipp, C., Stewart, M. (2006): Technological learning for entrepreneurial development (TL4ED) in the knowledge economy (KE): Case studies and lessons learned. – *Technovation* 26(4): 419-443.
- [12] Creswell, J.W., Creswell, J.D. (2017): *Research design: Qualitative, quantitative, and mixed methods approaches*. – Sage Publications 438p.
- [13] Cronbach, L.J. (1947): Test “Reliability”: Its Meaning and Determination. – *Psychometrika* 12(1): 1-16.
- [14] Del Giudice, M., Buck, C.L., Chaby, L.E., Gormally, B.M., Taff, C.C., Thawley, C.J., Vitousek, M.N., Wada, H. (2018): What is stress? A systems perspective. – *Integrative and Comparative Biology* 58(6): 1019-1032.
- [15] Edmunds, A., Morris, A. (2000): The problem of information overload in business organisations: A review of the literature. – *International Journal of Information Management* 20(1): 17-28.
- [16] Eravia, D., Handayani, T., Julina. (2015): The Opportunities and Threats of Small and Medium Enterprises in Pekanbaru: Comparison between SMEs in Food and Restaurant Industries. – *Procedia - Social and Behavioral Sciences* 169: 88-97.
- [17] Fernández-Ballesteros, R. (2004): Assessment and Evaluation, Overview. – In *Encyclopedia of Applied Psychology*, Elsevier 13p.
- [18] Fischer, T., Reuter, M., Riedl, R. (2021): The Digital Stressors Scale: Development and Validation of a New Survey Instrument to Measure Digital Stress Perceptions in the Workplace Context. – *Frontiers in Psychology* 12: 18p.
- [19] Giray, L., Nemeño, J., Braganaza, J., Lucero, S.M., Bacarra, R. (2024): A survey on digital device engagement, digital stress, and coping strategies among college students in the Philippines. – *International Journal of Adolescence and Youth* 29(1): 19p.
- [20] Hanafi, A., Zunaidah, M.U. (2018): The Effect of Job Stress toward Employee Performance through Job Satisfaction of PT Muara Alam Sejahtera Employees. – *International Journal of Scientific and Research Publications* 8(8): 1-5.
- [21] Heberle, A., Löwe, W., Gustafsson, A., Vorrei, Ö. (2017): Digitalization Canvas-Towards Identifying Digitalization Use Cases and Projects. – *J. Univers. Comput. Sci.* 23(11): 1070-1097.
- [22] Iddris, F. (2018): Digital Supply Chain: Survey of the Literature. – *International Journal of Business Research and Management* 9(1): 47-61.
- [23] Jadhav, G.G., Gaikwad, S.V., Bapat, D. (2023): A systematic literature review: Digital marketing and its impact on SMEs. – *Journal of Indian Business Research* 15(1): 76-91.
- [24] Kerr, J., Van Der Bles, A.M., Dryhurst, S., Schneider, C.R., Chopurian, V., Freeman, A.L., Van Der Linden, S. (2023): The effects of communicating uncertainty around statistics, on public trust. – *Royal Society Open Science* 10(11): 16p.
- [25] Khan, S., Mohiya, M. (2020): Determinants of SMEs employees’ creativity and their impact on innovation at workplace. – *Management Science Letters* 10(16): 3865-3872.
- [26] Knani, M., Fournier, P.S., Biron, C. (2018): Psychosocial risks, burnout and intention to quit following the introduction of new software at work. – *Work* 60(1): 95-104.
- [27] Korunka, C., Kubicek, B., Paškvan, M., Ulferts, H. (2015): Changes in work intensification and intensified learning: Challenge or hindrance demands? – *Journal of Managerial Psychology* 30(7): 786-800.
- [28] Kurelović, E.K., Tomljanović, J., Davidović, V. (2016): Information overload, information literacy and use of technology by students. – *International Journal of Educational and Pedagogical Sciences* 10(3): 917-921.
- [29] Lim, W.M. (2025): What is qualitative research? An overview and guidelines. – *Australasian Marketing Journal* 33(2): 199-229.

- [30] Mahan, A., Melody, W.H. (2007): Diversifying participation in network development: Case studies and research from WDR research cycle 3. – *Lirne.net* 230p.
- [31] Malik, N., Tripathi, S.N., Kar, A.K., Gupta, S. (2022): Impact of artificial intelligence on employees working in industry 4.0 led organizations. – *International Journal of Manpower* 43(2): 334-354.
- [32] Miller, M.D. (2019): Reliability in Educational Assessments. – In M. D. Miller, Education. Oxford University Press 110p.
- [33] Mohajan, H.K. (2020): Quantitative research: A successful investigation in natural and social sciences. – *Journal of Economic Development, Environment and People* 9(4): 50-79.
- [34] Nefedov, D.A. (2023): A global approach to defining small and medium-sized enterprises. – *Ekonomika I Upravljenje: Problemy, Resheniya* 3/4(139): 147-152.
- [35] Neumeyer, X., Liu, M. (2021): Managerial Competencies and Development in the Digital Age. – *IEEE Engineering Management Review* 49(3): 49-55.
- [36] Ogunyomi, P.O., Ojikutu, R.K. (2014): Employee resourcing and performance of small and medium enterprises in Lagos State, Nigeria. – *Journal of Entrepreneurship and Business Innovation* 1(1): 16-35.
- [37] Pandis, N. (2016): Multiple linear regression analysis. – *American Journal of Orthodontics and Dentofacial Orthopedics* 149(4): 1p.
- [38] Patterson-Waites, A. (2023): Smaller and mid-sized businesses are fighting for survival. This is how they could prosper. – *World Economic Forum* 12p.
- [39] Pfister, P., Lehmann, C. (2023): Measuring the success of digital transformation in German SMEs. – *Journal of Small Business Strategy* 33(1): 1-19.
- [40] Prasanna, R., Jayasundara, J., Naradda Gamage, S.K., Ekanayake, E., Rajapakshe, P., Abeyrathne, G. (2019): Sustainability of SMEs in the Competition: A Systemic Review on Technological Challenges and SME Performance. – *Journal of Open Innovation: Technology, Market, and Complexity* 5(4): 18p.
- [41] Rasool, T., Warraich, N.F., Sajid, M. (2022): Examining the Impact of Technology Overload at the Workplace: A Systematic Review. – *Sage Open* 12(3), 18p.
- [42] Ridha, R., Hidayat, N.K. (2020): Impact of innovation & certification to SME performance in F&B Sector. – In *Conference Series* 3(1): 337-360.
- [43] Roffia, P., Moracchiato, S., Liguori, E., Kraus, S. (2021): Operationally defining family SMEs: A critical review. – *Journal of Small Business and Enterprise Development* 28(2): 229-260.
- [44] Schnall, P.L., Dobson, M., Roskam, E., Elling, R.H. (2009): Unhealthy work: Causes, consequences, cures. – New York: Baywood Publishing Company 364p.
- [45] Schober, P., Boer, C., Schwarte, L.A. (2018): Correlation Coefficients: Appropriate Use and Interpretation. – *Anesthesia & Analgesia* 126(5): 1763-1768.
- [46] Schreiberbauer, E.C., Hippler, M., Burgess, S., Rieger, M.A., Rind, E. (2020): Work-Related Psychosocial Stress in Small and Medium-Sized Enterprises: An Integrative Review. – *International Journal of Environmental Research and Public Health* 17(20): 23p.
- [47] Shan, T., Tian, X. (2022): The effects of social capital on entrepreneurial resilience of SME from China: A moderated mediation model of entrepreneurial passion and Confucian traditional golden-mean thinking. – *Frontiers in Psychology* 13: 23p.
- [48] Solberg, E., Traavik, L.E.M., Wong, S.I. (2020): Digital Mindsets: Recognizing and Leveraging Individual Beliefs for Digital Transformation. – *California Management Review* 62(4): 105-124.
- [49] Tarutė, A., Gatautis, R. (2014): ICT Impact on SMEs Performance. – *Procedia-Social and Behavioral Sciences* 110: 1218-1225.
- [50] Trianni, A., Cagno, E. (2012): Dealing with barriers to energy efficiency and SMEs: Some empirical evidences. – *Energy* 37(1): 494-504.

- [51] Wang, H., Ding, H., Kong, X. (2023): Understanding technostress and employee well-being in digital work: The roles of work exhaustion and workplace knowledge diversity. – *International Journal of Manpower* 44(2): 334-353.
- [52] Watson, R. (2015): Quantitative research. – *Nursing Standard* 29(31): 44-48.
- [53] Yang, C.C., Smith, C., Pham, T., Ariati, J. (2023): Digital social multitasking (DSMT), digital stress, and socioemotional wellbeing among adolescents. – *Cyberpsychology: Journal of Psychosocial Research on Cyberspace* 17(1): 18p.
- [54] Yueh, H.P., Lu, M.H., Lin, W. (2016): Employees' acceptance of mobile technology in a workplace: An empirical study using SEM and fsQCA. – *Journal of Business Research* 69(6): 2318-2324.