



# Happiness, demographic variables, and self-perception as predictors of job satisfaction among factory employees in Malaysia

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## ABSTRACT

In general, job satisfaction is a primary concern of managers in organisations. The general belief that “a happy employee is a productive employee” often prompts managers to prioritise employee satisfaction at work. The importance of employee job satisfaction in the workplace has led to many studies in this area. Nevertheless, no conclusive findings have been established on the contributing factors that influence job satisfaction. The purpose of this study is to examine the relationship of factors such as happiness, self-perception, and demographics with job satisfaction. A survey was conducted involving 475 Malaysian factory employees in Selangor, Perak, Pahang, and Kedah. A series of ANOVA and zero-order correlations tests were carried out to answer the research questions and prove the hypotheses of the study. The findings reveal that happiness, income, and self-perception demonstrate a significant relationship with job satisfaction. Employees who are happy and perceive others as happy tend to be satisfied with their job. Similarly, employees who have a good perception of their personal life, family, and country are satisfied with their job. Consistent with the majority of previous studies, employees who earn a high income tend to be more satisfied with their job. In contrast, the tenure and level of education do not demonstrate a significant relationship with job satisfaction. The duration of employment with an organisation and the certificates or degrees attained also do not predict job satisfaction. Using the framework of the Herzberg two-factor theory in a factory setting, this study expands this theory to organisational communication studies, particularly on job satisfaction. Practical implications of the study are also discussed in this paper.

Keywords: **Demographic, factory, happiness, job satisfaction, self-perception**

## INTRODUCTION

Adults spend most of their time at the workplace. According to the U.S. Bureau of Labor Statistics Report, full-time employees spend an average of 8.5 hours on workdays, that is one-third of their time, at their workplace (2019). Given that much time devoted to work-related activities, satisfaction at work is essential. Having said that, employees are the main players in determining the success of an organisation. Hence, it is no exaggeration to say that the success of an organisation is entirely dependent on employers providing a working environment that guarantees employee satisfaction. More often than not, employee dissatisfaction at work may result in negative consequences such as lower production, delayed growth, high attrition rate, and lack of creativity and innovation (Sony, Chawla, & Sengar, 2016).

In a 2017 survey conducted by JobStreet on employee job happiness, Malaysia was ranked fourth amongst seven countries within the same region for employees who are happy at their workplace (2018). More than half of the respondents (58%) gave scores between neutral and happy for their job (JobStreet, 2018). The three sectors that reported high percentages of job happiness were the civil service, food and beverage industry and medical industry. Although the manufacturing sector was not highlighted in the survey findings, the three industries with the happiest employees might be linked to the manufacturing industry. This is confirmed by a study conducted by A. Manaf, Tengku Mohd Azzman, and Idid (2019), which discovered that 46% of factory workers are considerably satisfied with their job. However, individual factors were not the main focus in this study. In fact, more often than not, the majority of past studies that examined factors contributing to job satisfaction tended to focus on factors related to organisational or working environment instead of individual factors.

In recent years, studies on job satisfaction have received considerable attention from scholars and researchers of various disciplines such as education (Lalitamishra, 2018; Sadeghi, Zaidatol, Habibah, & Foo, 2012; Hua & Omar, 2016; Isa et al., 2019) and management (Sony et al., 2016; Mabaso & Dlamini, 2017), to name a few. However, very few studies have been conducted in the manufacturing or factory organisational setting (A. Manaf et al., 2019). Therefore, this study attempts to fill this gap and expand the literature on job satisfaction in the field of organisational communication.

Overall, 12% of Malaysians worked as plant and machine operators and assemblers (Department of Statistics, 2017) and 2,214,883 workers were employed in the manufacturing sector (Department of Statistics, 2018). Despite the importance of the manufacturing sector in Malaysia, factory workers received very little attention in past studies (A. Manaf et al., 2016; A. Manaf et al., 2019).

Low wages, uncomfortable temperatures, long working hours, exposure to excessive noise, and poor air quality are often associated with the working conditions in factories (Robertson, Brown, & Dehejia, 2016). The nature of work in factories or the manufacturing sector is different from other types of work, as workers are engaged in one particular task throughout, often described as monotonous in nature. Working hours are also strictly regulated. Many factory workers may find these working conditions as challenging to some extent, and envisage more flexibility and variety of work tasks for a more satisfying work life. Additionally, the working conditions in many factories are not good, and in some cases, dreadful. Lack of support from the government, along with ineffective government regulation, have given rise to many unsafe and unhealthy work sites. A number of accident cases are also reported in factories, creating a stressful work atmosphere. Notably, a conducive work environment ensures the well-being of employees, motivating them to work

harder and leading to higher productivity. The conditions mentioned above conceivably hinder them from achieving happiness and satisfaction at work.

## LITERATURE REVIEW

Job satisfaction refers to the level of contentment one feels concerning his/her job (Omar, Mohd Ramdani, Mohd, & Hussein, 2018). Similarly, one of the most cited definitions of job satisfaction by Spector (1997) depicts job satisfaction in terms of how people feel about their job and the different aspects of their job. It is also related to the extent one likes or dislikes his or her job. Locke (1976) explained job satisfaction in the form of a pleasurable or positive emotional state as a result of the appraisal of one's job or job experiences. At this juncture, job satisfaction is also associated with employee attitude, which describes their feelings about the job. Whereas a person with a high level of job satisfaction carries positive feelings about his or her job, a person with a low level tends to harbour negative feelings (Mabaso & Dlamini, 2017). This is evidenced in a study conducted among 2693 village doctors in China which found that job dissatisfaction among the respondents led to a high turnover intention (46.7%) (Zhang et al., 2020).

The findings of a study comparing Malaysian employees against those in Singapore and the United States revealed that Malaysian employees had the lowest job satisfaction (Ibrahim, Ohtsuka, Dagang, & Bakar, 2014). The Malaysian respondents involved in this study were from the manufacturing sector. In Malaysia, factory workers face various challenges and problems. For instance, the increase in the number of foreign workers in factories has created intense competition between local and foreign workers. The Department of Statistics (2018) reported that foreigners take up more than a fifth of employment in agriculture, construction, and manufacturing sectors in the country. The reluctance of local workers to undertake 3D (dirty, dangerous, and difficult) jobs has attracted foreign workers to seek employment in the manufacturing sector (Wei, Murugasu, & Wei, 2018). As a result, employers have become averse to wage increase due to the presence and abundance of cheaper alternatives. In addition to the country's high reliance on low-skilled foreign workers in the manufacturing sector/factories, there is also strong demand for longer working hours to meet the required output.

Studies on job satisfaction among factory workers discovered several antecedents of job satisfaction. A study conducted by Ravichandran, Rajan, and Kumar (2015) found that promotion contributes to high job satisfaction among employees in the manufacturing industry in Puducherry, India. Their findings also suggest that the working environment of factories needs to be improved to ensure that employees will feel safe and secure. In a recent study conducted by Najimuddin and Abeyundara (2019), work arrangement at the workplace was found to be the most important determinant of the overall job satisfaction of machine operators compared to other factors.

In general, previous studies on job satisfaction among factory workers focused mainly on working conditions (Sheikh Ali, Abdi Ali, & Ali Adan, 2013; Najimuddin & Abeyundara, 2019). The present study fills the literature gap by looking at other contributing factors, namely happiness, demographic variables, and self-perception, which may influence job satisfaction of factory workers in Malaysia.

Researchers and scholars have conducted studies on job satisfaction from diverse aspects and perspectives. Additionally, job satisfaction has been closely associated with many organisational aspects such as motivation, performance, leadership, attitude, conflict, moral and so forth. Researchers have attempted to identify the various components of job satisfaction, measure the relative importance of each component, and examine the

effects of these components on employee productivity (Omar et al., 2018). Further, work satisfaction has been studied both as a consequence of many individual and work environment characteristics as well as an antecedent to many outcomes (Singh & Jain, 2013). In this study, the former approach was adopted, where job satisfaction is examined as a result of employee happiness, their demographic factors, and self-perception about their life and surroundings.

More often than not, researchers and scholars use the concept of happiness interchangeably with job satisfaction (Isa et al., 2019; Singh & Jain, 2013). The concept of happiness is constantly associated with employee satisfaction in the workplace. Likewise, Omar et al. (2018) described happiness as a positive affective experience in an organisation. They postulated that happiness refers to positive attitudes or pleasant experiences, for instance, positive feelings, moods and emotions at the workplace. In other words, satisfaction is interrelated with other emotional feelings such as family, work balance and individual well-being.

According to Wesarat, Sharif, and Majid (2015), happiness in the workplace refers to employee satisfaction not only in their work but also in life. In this perspective, happy employees can be described as those who have positive feelings about their life, and thus are happy with their personal life. Based on the discussion above, the research question is formulated as follows:

*RQ: What is the relationship between happiness, demographic variables, and self-perception and job satisfaction?*

Employee happiness plays a crucial role in producing a healthy working environment in organisations. According to Butt, Altaf, Chohan and Ashraf (2019), happy employees will be satisfied with their job. Their happy life somehow leads to positive feelings that bring good motivation at work. As a result, positive outcomes manifest in the workplace such as increased productivity, quality, sales, customer satisfaction, creativity, innovation, adaptation, and flexibility, as well as decreased losses, absenteeism and work stress (Štreimikienė & Grundey, 2009). Veenhoven (2006) equated “happiness” to one’s well-being and quality of life. According to him, there are four qualities of life that one can work for in order to achieve happiness, which are life-ability of the environment, life-ability of the person, utility of life, and satisfaction of life.

Several studies have also looked at the effects of demographic variables on job satisfaction and despite the inconsistent findings, the general consensus contends there is an association between these two variables (Pande & Priya, 2020; Sadeghi et al., 2012). By contrast, in studying Bangi’s factory workers, A. Manaf et al. (2019) found that demographic variables were not an important factor that motivated employees to perform better and feel satisfied at work. However, the study did not include employee income, tenure, and level of education. Hence, the present study examines the effects of demographic variables on job satisfaction.

Income refers to salary, wage, and pay in the form of regular compensation given by an employer or a company to employees for services rendered in the form of time, effort, and skill, which are comprehensively stated in the employment contract (Chaudhrya, Sabirb, Rafi, & Kalyarc, 2017; Mabaso & Dlamini, 2017). Income includes both fixed and non-fixed pay, which is often linked to performance levels.

Income is undoubtedly considered as one of the primary factors of job satisfaction. Often, work-related income becomes an extrinsic factor that appeals, inspires, and retains talented employees. In a study conducted by Sony et al. (2016) among employees aged 25–40 years from various organisations, salary was found to be motivating factor for employees to continue working in their organisation. Specifically, employees are satisfied

if their work experience, which includes a good pay package from their organisation, is acceptable. In other words, a good income provides a favourable working experience for employees and guarantees their level of job satisfaction. Thus, the extent to which both variables affect each other is examined in this study.

Studies have shown that high-income workers are more likely to be satisfied with their job. In May 2011, Gallup classified low-income and high-income workers as those with an annual household income of less than US\$36,000 (RM146,106) and US\$90,000 (RM365,265) or above, respectively (Johnston, 2020). It was further reported that the satisfaction rate among the high-income group is 91.9%.

The definition of high- or low-income employees may differ from one country to another. The basic rule is that each employee should receive a “living wage” to compensate for his or her services and labour. Essentially, the living wage refers to the income level needed to achieve a minimum standard of living, depending on the geographical location (Kana, 2018). In 2016, half of working Malaysians earned less than RM2,700 per month, the living wage suggested by Bank Negara Malaysia (Kana, 2018). In general, the salary range in Malaysia falls between RM1,070 (lowest average) and RM34,900 (highest average) (Salary Explorer, 2020).

Given the importance of income for employees, many studies have examined its relationship with job satisfaction, and found a significant relationship between these two variables. In a study conducted among the academic staff of public universities in Malaysia, a significant association was found between level of income and job satisfaction (Mehrad, 2014). Similarly, a study on job satisfaction in a factory setting (A. Manaf et al., 2016; A. Manaf et al., 2019) found an association between income and job satisfaction.

Notwithstanding, findings from past studies have been inconsistent with regard to the influence of years of working or tenure on job satisfaction (Riza, Ganzach, & Liu, 2016). Although Adewuyi (2018) found no significant relationship between these two variables in her study, Riza et al. (2016) discovered that age and tenure had a positive relationship with job satisfaction. While job satisfaction does increase with age, it can decrease if one stays attached with a particular workplace for too long. In other words, job satisfaction decreases as the years of working or tenure increases but receives a boost when people move to a new organisation, thus starting the cycle anew.

In many organisations, educational qualification determines the rank and position of a job. This is particularly true for young employees who have just entered the workforce whereby their job position will be highly determined by their academic degrees and certificates (Herbell & Bustos-Chaves, 2014). Candidates who are highly educated have a higher probability of being hired and even promoted to a higher rank and position as opposed to those with a lower level of education. In other words, to some extent, educational background does play a role in the position and rank attained by employees (Kasika, 2015). Correspondingly, Berker’s theory of human capital introduced in 1964, proposes that education provides individuals with valuable knowledge and skills to be productive in the workplace (Na, 2012). In this regard, employees who demonstrate a higher productivity earn a higher pay. Hence, they are also more satisfied with their job.

On the other hand, the “signalling” or “sorting” model of education argues that employees who are more educated are due to the fact schools or colleges equipped them with vital skills. However, employers do refer to the educational background to differentiate between high-quality workers and low-quality workers (Kasika, 2015). Consequently, individuals with higher-ability use their educational background to gain the “education signals” that allow them to move into high level and high wage positions (Ghazarian, 2015).

Self-perception refers to employees’ perception of factors related to life outside work

or non-work-related factors (Aydintan & KOÇ, 2016). These factors refer to feelings and perceptions about personal life, family, and the environment such as economic or political factors that may influence their job satisfaction. The relationship between “life outside of the office” and life in general with job satisfaction have received significant attention from scholars and researchers over the years (Aydintan & KOÇ, 2016, pg. 72).

There has been an active discourse on the subject of life outside work, often referred to as life satisfaction (see Aydintan & KOÇ, 2016; Butt et.al., 2019; Herbell & Bustos-Chaves, 2014). Literature has shown inconsistent findings in which some studies found significant relationships while others obtained conflicting results (Sarina & Mohamad Adli, 2012; Singh & Jain, 2013).

In a study conducted by A. Manaf et al. (2019) among factory workers, the findings indicate that individuals’ well-being or good feelings about themselves determines their satisfaction at work. Similarly, in a study conducted by Butt et al. (2019), negative well-being such as personality problems, marital problems and job problems (including unemployment) leads to ill-being. According to Singh and Jain (2013), personal factors of employees such as expectation may also influence an employee’s job satisfaction. The personal determinant will assist the employees in keeping themselves motivated, thus encouraging them to work effectively and efficiently. In this study, self-perception refers to employee’s perception of themselves, family, and the future of the country.

Hence, the hypotheses derived from the literature review are as follows:

*H1: Income significantly influences job satisfaction.*

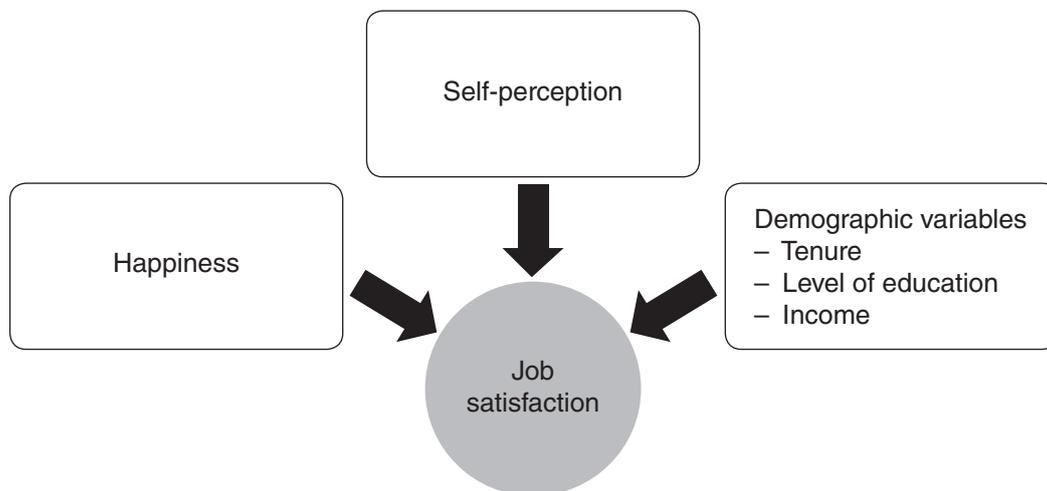
*H2: Level of education significantly influences job satisfaction.*

*H3(a): Happiness significantly influences job satisfaction.*

*H3(b): Tenure significantly influences job satisfaction.*

*H3(c): Self-perception significantly influences job satisfaction.*

A conceptual framework was developed based on the hypotheses proposed (Figure 1).



**Figure 1.** Conceptual framework

### ***Herzberg’s two-factor theory***

Herzberg’s two-factor theory (1959) was selected as the theoretical framework of this study (Herzberg, Mausner, & Snyderman, 1959). The basic premise of this theory lies in two separate dimensions, satisfaction and dissatisfaction, which are closely associated with two main attributes, namely motivation and hygiene. While motivation factors operate to

increase and improve job satisfaction, hygiene factors, in contrast, function to decrease job dissatisfaction (Alrawahi, Sellgren, Altoub, Alwahaibi, & Brommels, 2020). The motivation factors refer to six aspects of “job content”, namely achievement, recognition, work itself, responsibility, advancement, and the possibility of growth. On the other hand, the hygiene factors refer to “job context” that includes company policy, supervision, relationship with supervisor, work conditions, relationship with peers, salary, personal life, relationship with subordinates, status, and job security. These two groups of factors, namely hygiene (which is also known as extrinsic) and motivation (which is also known as intrinsic), have different effects on motivation (Sadeghi et al., 2012). Herzberg et al. (1959, pp. 113–114) explained:

*Among the factors of hygiene, when the factors deteriorate to a level below that which the employee considers acceptable, then job dissatisfaction ensues. However, the reverse does not hold true. When job context can be characterised as optimal, we will not get dissatisfaction but neither will we get much in the way of positive attitudes. It should be understood that both kinds of factors meet the needs of the employees; but it is primarily the “motivators” that serve to bring about the kind of job satisfaction, the kind of improvement in performance that industry is seeking from its workforce.*

Herzberg’s two-factor theory, which was influenced by Maslow’s hierarchy of needs, has been widely utilised by scholars and researchers in studying work motivation and job satisfaction (Alshmemri, Shahwan, & Maude, 2017). Initially, Herzberg and his colleagues carried out their study with the hypothesis that job satisfaction and dissatisfaction are influenced by a set of factors, and therefore, job satisfaction and dissatisfaction could not be reliably measured on the same continuum (1959). At this juncture, studies on job satisfaction were conducted to decide which factors in an employees’ working environment cause satisfaction or dissatisfaction (Alshmemri et al., 2017). Subsequently, Herzberg’s theory was expanded to various organisational sectors and groups of employees comprising labourers, clerical staff, foremen, plan engineers and accountants, as well as middle managers.

The main hypothesis of Herzberg’s theory is that certain factors might lead to positive attitudes towards work, while others contribute to negative attitudes. Alshmemri et al. (2017) asserted that the key assumption of Herzberg’s two-factor theory lies in the difference between motivation and hygiene factors, or intrinsic and extrinsic factors of job satisfaction. The presence of motivational factors can generate job satisfaction, but their absence leads to no job satisfaction. In contrast, poor hygiene factors can cause job dissatisfaction, while better hygiene factors can reduce dissatisfaction but cannot produce job satisfaction (Herzberg et al., 1959).

For decades, Herzberg’s two-factor theory has been continuously employed to understand the level of job satisfaction in organisational settings. However, studies carried out to examine the factors that motivate employees have reported varied outcomes. For example, in contrast to Herzberg’s belief that demographic variables do not influence job satisfaction (Herzberg, 1966), some studies have found an association between these variables and job satisfaction (A. Manaf et al., 2019; Sadeghi et al., 2017).

## METHODOLOGY

### *Sampling*

Data collection was done using structured face-to-face and one-to-one interviews where 475 factory workers were interviewed by trained interviewers regarding their demographic

variables, happiness, and perceptions about themselves, family, and the country. This method allows for an in-depth examination of the subject studied (Salleh, Shamsudeen, Wan Abas, & Tamam, 2019). The respondents were selected based on stratified random sampling. The interviews were conducted in industrial areas in Selangor, Perak, Pahang, and Kedah in Malaysia.

The factory employees interviewed consisted of various races, including Malays, Chinese, and Indians, regardless of their religion. The main languages used during the interviews were Malay and English, depending on the preference of each respondent. The structured interviews were conducted from April to May 2019.

The respondents consisted of factory employees, including line workers, operators, engineers, supervisors, and administrative officers. Most of the interview sessions were conducted during their lunch hour and rest period. The duration of each interview session lasted between 30 and 40 minutes. The collected data were analysed using the SPSS program.

### *Research instrument*

A set of interview questions was constructed as the main instrument for data collection. It consisted of eight sections. However, only data from four sections were analysed for this paper: (a) respondent's background, (b) happiness, (c) self-perception, and (d) job satisfaction.

#### *Respondent's background*

In the first section, the respondents were asked about their demographic background including gender, race, religion, age, highest level of education, marital status, current position at workplace, type of house they live in, years of working at workplace, who they live with, and monthly salary. Tenure was measured based on the years of service with the company they currently work with.

#### *Happiness*

This section consisted of four items related to the respondent's perception of level of happiness in life. For the first two items, happiness was measured using a 5-point Likert scale with responses ranging from 1 to 5: 1-Very unhappy, 2-Unhappy, 3-Moderate, 4-Happy, and 5-Very happy. For the remaining two items, respondents were also required to rate their level of happiness in relation to the situation of others. The scale used was: 1-Never, 2-It does not portray myself, 3-It portrays myself a little, 4-It does portray myself, and 5-It really portrays myself.

#### *Self-perception*

The aim of this section is to determine the opinions and perceptions of factory workers regarding themselves, family, and the future of the country. This section consisted of questions that asked, for example, their opinion regarding the future of Malaysia, the current situation of Malaysia compared to three years ago in terms of economy, family condition, life achievements, and the level of safety for self and family. The scale ranged from 1 to 5 where: 1-Very bad, 2-Bad, 3-Moderate, 4-Good, and 5-Very good. Other questions based on the same scale gauged their perception of the cost of life, job opportunity, unity of races, crime, freedom of speech, health service, quality in education, price of goods, as well as public transportation. Apart from these, several questions regarding their perception of the role of the government in problem-solving were also asked using the scale of 1-Strongly Disagree, 2-Disagree, 3-Moderate, 4-Agree, and 5-Strongly Agree.

### *Job satisfaction*

In this section, to measure the respondents' job satisfaction, 14 items were posed pertaining to work instruments, facilities provided, work environment, safety at workplace, relationship with management and between workers, the reward and benefit system practised, salary, allowance, overtime wages, comparison between the salary received by local and foreign workers, and the future of factory workers. These items were measured on a 5-point Likert scale, where the responses ranged from 1–Strongly disagree, 2–Disagree, 3–Moderate, 4–Agree, to 5–Strongly Agree. An open-ended question was included to obtain the respondents' suggestions on improving their existing working conditions.

The independent variables for this study were happiness, income, tenure, level of education, and self-perception; while the dependent variable was job satisfaction. A reliability test was performed to check the consistency and accuracy of the measurement scales. The obtained Cronbach's alpha coefficients were high, ranging from .95 to .99, indicating that the questions in each construct measure similar concepts and that they are internally consistent (Cronbach, 1951).

## RESULTS AND FINDINGS

### *Socio-demographic profile of respondents*

From a total of 475 respondents, 63% were females and 37% were males. The Malays formed the majority of the factory workers who participated in this study (72.5%). The Chinese made up less than a fifth (16.5%), followed by Indians (10%) while other races made up only 0.9% of the respondents.

In general, the respondents in this study were well educated. Almost half of the factory workers (44.8%) have a diploma, followed by those who finished secondary school education (31.5%). Slightly more than a fifth (21.7%) have a degree while only a small portion of the respondents finished primary school education (2%).

In addition, a large proportion of the factory workers were married (67.4%). About one-third of the respondents (30.8%) were single while a small number of the respondents were either separated or divorced (1.8%).

Overall, the factory workers who participated in this study were rather young. Most of the respondents were between 19 and 30 years old (42.4%), followed by workers in the 31–40 age group (24.6%). An equally high percentage of the respondents (23.1%) were between 41 and 50 years old, while a small minority were 51 years old and above (9.9%).

Concerning the workers' monthly income, the results revealed that nearly two-fifths of the respondents (36.5%) earned between RM1,001 and RM2,000 monthly. An equally high percentage of the workers (34.6%) earned RM3,001 and above. This is followed by workers who earned between RM2,001 and RM3,000 (24.6%) while the smallest portion comprised those (4.3%) earning less than RM1,000. The summary of the respondents' demographic profile is shown in Table 1.

**Table 1.** Socio-demographic profile of respondents

Socio-demographic characteristics		Percentage (%)
Gender	Male	63.0
	Female	37.0
Race	Malay	72.5
	Chinese	16.5
	Indian	10.0

**Table 1.** (con't)

Socio-demographic characteristics		Percentage (%)
Age	19–30	42.4
	31–40	24.6
	41–50	23.1
	51 and above	9.9
Marital status	Married	67.4
	Single	30.8
Income	Less than RM1,000 (Low)	4.3
	RM1,000–RM2,000 (Moderate)	36.5
	More than RM2,000 (High)	59.2
Level of education	Primary/secondary school	33.3
	Diploma	43.4
	Degree	23.4

### *Level of education, income group and job satisfaction*

To examine the influence of factory worker's background on their level of job satisfaction, first, the one-way analysis of variance (ANOVA) test was conducted to compare the three different income groups, i.e., less than RM2,000 (low-income group), RM2,001–RM3,001 (moderate-income group), and more than RM3,000 (high-income group) regarding their impact on job satisfaction (see Table 2). Results of the ANOVA test indicate a significant effect of the three income groups on job satisfaction,  $F(2, 352) = 3.205, p < .05$ . The post-hoc Tukey test result indicates that the high-income group ( $M = 3.44, SD = 0.68$ ) was significantly more satisfied with their jobs compared to those in the low-income group ( $M = 3.24, SD = 0.73$ ). Hence, it is possible to say that workers who earn a high income tend to be more satisfied with their job. Overall,  $H_1$  is supported.

**Table 2.** One-way analysis of variance for job satisfaction by income group

	df	SS	MS	F	Sig
Between groups	3.161	2	1.581	5.544	.042
Within groups	173.619	352	.487		
Total	176.780	354			

Next, the ANOVA test was run to determine the differences of job satisfaction across the respondents' level of education. The results suggest that there is no significant differences in job satisfaction across employees' level of education,  $F(2, 352) = 1.298, p = .27$  (see Table 3). Therefore,  $H_2$  is not supported. Specifically, this indicates that there are no differences in job satisfaction between those who were highly educated (i.e., degree), those with a moderate level of education (i.e. STPM or diploma), and those with a low level of formal education (i.e. SPM or less).

**Table 3.** One-way analysis of variance for job satisfaction by level of education

	df	SS	MS	F	p
Between groups	2	1.294	.647	1.298	.274
Within groups	352	175.486	.499		
Total	354	176.780			

### *Relationship between happiness, tenure, self-perception and job satisfaction*

Next, the zero-order correlation test was conducted to examine the relationships between happiness, tenure, self-perception, and job satisfaction. The independent variables of the study consisted of levels of happiness, tenure, and self-perception, while job satisfaction served as the dependent variable. The overall results revealed that job satisfaction had a significant relationship with happiness and self-perception but an insignificant relationship with tenure.

Specifically, the analysis revealed a significant but weak positive correlation ( $r(349) = .303, p < .001$ ) between happiness and job satisfaction (see Table 4). Therefore,  $H_3(a)$  is supported. Hence, it can be said that workers who are happy tend to be satisfied with their job.

Next, the results revealed no significant association between tenure and job satisfaction ( $r(451) = -.065, p = .23$ ). Therefore,  $H_3(b)$  is not supported. The results suggest that tenure or the length of service at the workplace does not explain job satisfaction.

Finally, the results revealed a significant, weak positive correlation between self-perception and job satisfaction ( $r(334) = .29, p < .001$ ). Thus,  $H_3(c)$  is supported. Hence, it can be said that factory workers who are satisfied with themselves, their family and country also tend to be more satisfied with their job.

**Table 4.** Relationships between happiness, tenure, self-perception and job satisfaction

Control	Variable	Happiness	Tenure	Self-perception	Job satisfaction
None	Happiness	1			
	Tenure	$r = .000,$ $p = .992$	1		
	Self-perception	$r = .238*,$ $p = .000$	$r = -.199*,$ $p = .000$	1	
	Jobsatisfaction	$r = .303*,$ $p = .000$	$r = -.065,$ $p = .000$	$r = .286*,$ $p = .000$	1

\* Correlation is significant at the .01 level

## DISCUSSION AND CONCLUSION

The purpose of this study is to understand how individual factors, that is, individual happiness, demographic variables, and self-perception, affect job satisfaction among factory employees in Malaysia.

The findings revealed a significant relationship between individual happiness and job satisfaction. In other words, happy employees contribute to a good working environment, which results in enhanced job satisfaction. This finding supports Omar et al. (2018), who asserted that happiness contributes to a positive experience at work. From this finding, it is possible to claim that the work-life balance policy may be a contributing factor towards employee's perception of happiness, which in turn leads to job satisfaction. Strict working hours, especially for those working at the production line, may create unhappiness among employees due to the limited time they could spend with their family members. A good solution would be more flexible working hours in shifts to allow employees to spend more time with their family.

Additionally, the study also demonstrated a strong relationship between income and job satisfaction. This finding affirms the importance of income in determining satisfaction at work. Consistent with previous studies (A. Manaf et al., 2016; A. Manaf et al., 2019; Johnston, 2020; Mehrad, 2014; Sony et al., 2016), income motivates employees to fulfil their job demand and responsibilities, consequently giving them satisfaction with their job. Thus, factory management should pay close attention to employee salary due to its role as the main predictor of job satisfaction.

In contrast, the findings confirmed that tenure and level of education do not have a significant relationship with job satisfaction. Therefore,  $H_3(b)$  and  $H_2$  are not supported. These findings are surprisingly inconsistent with previous studies (e.g., Riza, Ganzach, & Liu, 2016), which affirmed the relationships of these variables with job satisfaction. However, it should be noted that the respondents of this study consisted of factory workers whose chances of moving up to the managerial level is rather limited. To compare, the other studies had looked at managerial level workers who associated education and tenure with upward mobility, thereby leading to job satisfaction in organisations. Additionally, the findings also revealed that the level of education is an essential criterion for individuals only at the initial stage of their career when it secures a good working position, but is not a good predictor of job satisfaction over a long period, particularly if attached to the same organisation. Herbell and Bustos-Chaves (2014) affirmed this as upon entering a new workforce, the job position of young employees would be highly determined by their degrees and certificates.

In addition, the findings also highlighted the presence of a significant relationship between self-perception and job satisfaction. Therefore, employee perceptions towards themselves, family and country are also crucial in ensuring job satisfaction. The study's results confirmed the role of positive self-perception of employees in their work. Therefore, these findings indicate that a healthy working environment is determined not only by organisational factors but also by individual factors.

The present study produced empirical support for the proposed research framework of relationships between individual happiness, income, tenure, education, and self-perception with job satisfaction. Theoretically, the application of Herzberg's two-factor theory in this study on job satisfaction among factory employees extends this theory in this field. However, the findings of the study do not support Herzberg's theory, which considers hygiene factors as a source of dissatisfaction. Nevertheless, the results of this study are consistent with the findings of A. Manaf et al. (2019), where only some factors of motivation and hygiene were found to be sources of satisfaction.

Notably, the findings suggest that salary is the only significant hygiene factor as illustrated in Herzberg's two-factor theory. Similarly, the study demonstrates that happiness is the only significant motivator factor of job satisfaction among factory workers. In this respect, the findings do not support a clear delineation between intrinsic and extrinsic dynamics as Herzberg's theory suggests. It is plausible that in the factory setting, the simplicity of Herzberg's theory is unable to accurately predict a clear delineation of the determinants of job satisfaction.

In terms of practical contribution, the findings propose several recommendations for managers and employers of factories, particularly from the organisational point of view. First, employers are recommended to initiate several measures, such as providing job security, good income, and a harmonious working environment. Second, management should seek to improve their work-life balance policy and programme that affects employees' personal well-being, as factory workers appear to be more satisfied with their jobs when their happiness is maintained at an optimum level. Finally, as job satisfaction

appears to be dependent on a harmonious work environment and satisfactory relationship between co-workers and supervisors, factory managers can play an active role in keeping communication lines open and resolving disputes effectively to ensure that their workers are motivated to perform their job satisfactorily. This is particularly pertinent to the factory setting, where work hours can be unconventional, and the demands of production may cause stressful situations.

There are several limitations to this study. First, the study only focused on respondents working in a targeted industry, that is, employees in factories. Hence, the findings of the study cannot be generalised to other types of organisational setting. Next, since not many studies have been conducted on the working culture of employees in a factory setting, the researchers faced difficulties in obtaining the relevant literature, which limited the understanding of job characteristics in this sector. Therefore, it is hoped that more studies will be conducted in factory settings in the future. Additionally, this study was limited to only individual factors, while organisational factors were excluded. Hence, future studies should consider both individual and organisational factors, which may elucidate job satisfaction more comprehensively. Finally, the utilisation of a structured interview in this study has restricted the understanding of the factors contributing to job satisfaction among factory employees. To obtain a better understanding of this topic, focus groups with factory workers would be a suitable research technique for future research.

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