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RELATIVE IMPORTANCE INDEX (RII) FOR PHYSICAL WORKING ENVIRONMENT AT FINANCIAL INSTITUTION BUILDINGS

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ABSTRACT

Malaysia's turnover rate has increased for the past few years, while the financial institution sector recorded the greatest turnover rate. This phenomenon has become common in situations where the intention to leave is related to dissatisfaction with the physical working environment. The aim of this study is to highlight the most important attributes of the physical working environment at financial institution buildings. This study adopted a quantitative approach to gather data through a questionnaire survey of 117 employees from a financial institution. The Relative Importance Index (RII) was used for data analysis. There are seven (7) physical working environment attributes which are thermal comfort, air circulation, lighting, acoustics, decoration, working place, and furniture. The strategy to improve a conducive working environment is based on the RII analysis rating. The highest RII rating is lighting with R=0.921 followed by thermal comfort (R=0.884), acoustics (R=0.865) and air circulation (R=0.860). This study hopes to contribute to the organization of financial institutions in providing a conducive working environment for their employees.

Keywords: Facilities Management, Working Environment, Relative Importance Index

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1. INTRODUCTION

The financial institution (FI) plays a crucial role in the economic development of Malaysia. To maintain a stable and thriving financial industry, it is essential to have a satisfied and engaged workforce. Bank Negara Malaysia (BNM) (2018) stated that job separations in the FI sector increased significantly from 6,284 positions in 2016 to 6,417 positions in 2017 in the same quarter (Yeo et al., 2020). It shows an increment of approximately 2% in turnover rate. According to The Star (2021), Malaysia's turnover rate had increased to 17.4% in 2020. However, the financial sector has faced a concerning trend of increasing employee turnover rates, with the sector recording the highest turnover rate in Malaysia at 18.3% in 2020 (Letchumanan & Ramasamy, 2017).

This high turnover rate can have a significant impact on the long-term strategy and sustainability of financial institutions. Factors such as poor employee relations, inadequate compensation and benefits, limited career development opportunities, and a poor working environment have been identified as drivers of employee turnover intention (Hassan et al., 2018) (Yeo et al., 2020). One of the key factors contributing to employee turnover is dissatisfaction with the working environment (Weerasinghe et al., 2017). According to Ranmali et al. (2019), it concludes that the working environment has a major influence on job satisfaction amongst financial institutions' employees. The conducive working environment will improve employee service quality and the company's reputation in financial institutions (Yeo et al., 2020). Thus, the aim of this study is to highlight the most important attributes of the physical working environment at FI buildings in order to improve the conducive physical working environment.

1.1 Physical Working Environment Attributes

The working environment can be broadly categorized into two types: the psychosocial environment (van den Berg et al., 2020) and the physical environment (Thorsen et al., 2021). This study focuses on the physical working environment, which has a direct impact on the physical activities and performance of employees (Shaari et al., 2022) . The physical working environment encompasses various attributes, such as thermal comfort, air quality, lighting, noise levels, and furniture design (Nugroho & Wahjoedi, 2023; Amin & Chakraborty, 2022; Yeo et al., 2020; van den Berg et al., 2020; Kacker et al., 2022; Budie et al., 2019; and Chen et al., 2020) .Previous studies have found that attributes that utmost importance in the working environment. However, the existing literature on this topic has primarily focused on contexts outside of Malaysia, with limited research within the Malaysian financial sector.

Thermal comfort is defined as the combination of temperature, humidity, airflow, and radiant temperature parameters that allow employees to feel comfortable and carry out their physical and mental duties (Aritan, 2019) where it indicates contentment with the temperature conditions in a certain setting (Al Horr et al., 2016) and individuals express their satisfaction with the temperature conditions of their surroundings (He et al., 2017). Based on the ASHRAE, (2017), it stated that the thermal comfort for a physical working environment consists of six (6) attributes that influence thermal comfort; metabolic rate, clothing insulation, air temperature, radiant temperature, air speed, and humidity.

Air circulation refers to the movement process of air that controls temperature, removes moisture, dust, and carbon dioxide It provides air quality that can create a comfortable and healthy working environment to support employees' productivity. The best practice in managing the air circulation is ensuring that proper ventilation systems are monitored and controlled, where it is indirectly impacts the level of comfort amongst employees (Hrabovsky et al., 2021). Nurwidyaningrum et al., (2019) mention that air quality and thermal comfort are the main elements that contribute to overall environmental satisfaction. Movement of air circulation will provide comfort to employees, which enhances the evaporative and convective cooling from skin (Malaysian Standard MS1525:2007, 2007). The influence of air circulation in the workplace can be identified based on natural ventilation and mechanical ventilation, as stated by Gupta et al., (2020).

The indoor lighting is the main element that has a significant impact on employees' safety and health (Fang et al., 2022). Lighting refers to the supply of sufficient and pleasant illumination for employees to carry out their activities efficiently and uphold their comfort level. Insufficient illumination in the workplace can cause eye strain, headaches, and other health problems. The objective of optimal lighting is to establish a sufficiently illuminated and pleasant setting that facilitates employees' visual tasks and reduces the accident risk. It creates a positive feature to increase the comfort and safety (Kralikova et al., 2021). The influence of lighting in the workplace can be recognised through multiple attributes such as natural lighting, artificial lighting and mixed lighting (Duplakova et al., 2022).

Acoustics is generated by the sound source that makes the vibrations to oscillate the air molecules in the air (Sunarto & Yudhastuti, 2022). The source of sound is called noise. Noise disturbance is one of the general physical hazardous elements that causes physical and psychological harm in the working environment (Esmaielpour et al., 2022). Excessive noise can reduce the employee's productivity rate by three percent to seven percent (van den Berg et al., 2020) and have a negative impact on the employees, especially on mental health and work ability (Esmaielpour et al., 2022). The objective of noise management in the workplace is to establish a conducive environment that promotes the well-being of employees. According to the Sunarto & Yudhastuti (2022), there are three (3) main elements contributing to noise in a working environment. The elements are time exposure, level of noise and exposure pattern.

Physical workplace decoration encompasses the aesthetic components and design characteristics that establish a visually pleasant environment for employees. The presence of suitable embellishments in the workplace can have a substantial effect, as it can enhance employees' emotional state and reduce stress. The general decoration in the working environment can be identified based use of colour, design texture and shape of interior design (van den Berg et al., 2020).

Furniture design in the physical working environment pertains to the careful choice and organisation of furniture to establish a pleasant and efficient workspace for employees. The objective of furniture design is to optimise employees' well-being, productivity, and overall pleasure by crafting an aesthetically pleasing and ergonomically comfortable setting. The significance of suitable furniture design in the workplace lies in its ability to enhance employees' posture (Andrew et al., 2022).

Besides, the working space layout contributes in indoor quality, which influences workplace performance and behaviour. The mismatch of the working space environment would lead to the productivity loss (Al Horr et al., 2016) . Employees in open, spacious areas have lower acceptability and tolerability in the working environment compared to employees in a single office (Chen et al., 2020). Other than the space layout, the functionality of the working space is also important to influence employees' satisfaction (Budie et al., 2019).

Suriadi et al., (2022) had mentioned that the facility is the main attribute of the working environment at FI. Many previous studies focused on attributes from the employee's perspective like van den Berg et al., (2020), Korsavi et al., (2020), and Amin & Chakraborty, (2022), but all of them produce different outcomes. Amin & Chakraborty, (2022), conclude that thermal comfort is the main attribute in Bangladesh. However, due to different climate conditions, van den Berg et al., (2020) and (Korsavi et al., 2020) is not considering thermal comfort as the main attributes based on their study. Circulation of air is the most important attributes as stated by, Korsavi et al., (2020), and supported by Roumi et al., (2023) and Huang et al., (2022) while Van den Berg et al., (2020), conclude that the noise is the main attribute of the working environment. Van den Berg et al., (2020), mention noise is the main attribute in Netherland while Korsavi et al., (2020) mention air circulation at an educational institution in England. Both have similar climate conditions. However, different populations and industries will produce different outcomes. It can be concluded that climate condition is not the only factor influencing

the working environment towards employee satisfaction, but the population audience and type of industry also contribute to the important attributes of the working environment.

To conclude, previous studies have shown the most importance attributes of working environment with different conclusions. The difference in the conclusion is due to several reasons such as the location of study, type of industry and climate conditions. There is a gap in research where different researcher concludes on different outcomes. This study focuses on the attributes of the working environment towards employee's satisfaction at FI in Malaysia. The assessment of working environment's attributes will help to develop the strategies in producing a conducive environment for the employees, especially at a financial institution.

2. METHODOLOGY

Research methodology technique refers to the method of study used in developing the strategy to achieve the objectives (O'Sullivan et al., 2016). It has to do with the methodical design of the study, which aims to ensure reliable and accurate outcomes that meet the objectives and goals of the research study. The research adopted a quantitative approach to gather data through a questionnaire survey that was distributed amongst technical personnel at financial institutions in Malaysia.

2.1 Research Design

Research design is an idea-based method that influences the research process (Abutabenjeh & Jaradat, 2018). It is a comprehensive systematic plan or approach that outlines all the steps taken by the researcher from the beginning to the conclusion of the study to collect and utilise the data information for the assessment and evaluation. The methodologies used for collecting and evaluating the data lead to significant study outcomes by focusing on identifying a problem statement related to the study. Then convert the problem into information that can be assessed to get an accurate research outcome. In this study, the problem statement was clarified by the current condition of the working environment at the financial institution. Therefore, it is critical to understand the RII for working environment attributes at financial institutions. The RII will influence the strategies to provide a conducive working environment at financial institution buildings. The overall aim of this study is to provide a conducive physical working environment for employee's satisfaction.

2.2 Research Conceptual Framework

The conceptual framework is defined as the method used by a researcher to design and identify the research question's strategies. Swanson (1999) had developed a system model for improvement with the input of the study that helps in generating the analysis. The process of improvement consists of proposal, creation and implementation stages. It provides a foundation for the implementation of the research by establishing the link between dependent and independent variables (Abutabenjeh & Jaradat, 2018). The independent variable is a manipulation of the observation that affects the dependent variable. However, the dependent variable is the outcome of the measured element in the study. It can be concluded that the independent variable is the cause of the dependent variable. It is a cause-and-effect relationship. In this study, there are seven (7) determinant attributes for the independent variable. Based on the study of the independent variable, it will produce the outcome in the importance index for the physical working environment. The outcome is the dependent variable.

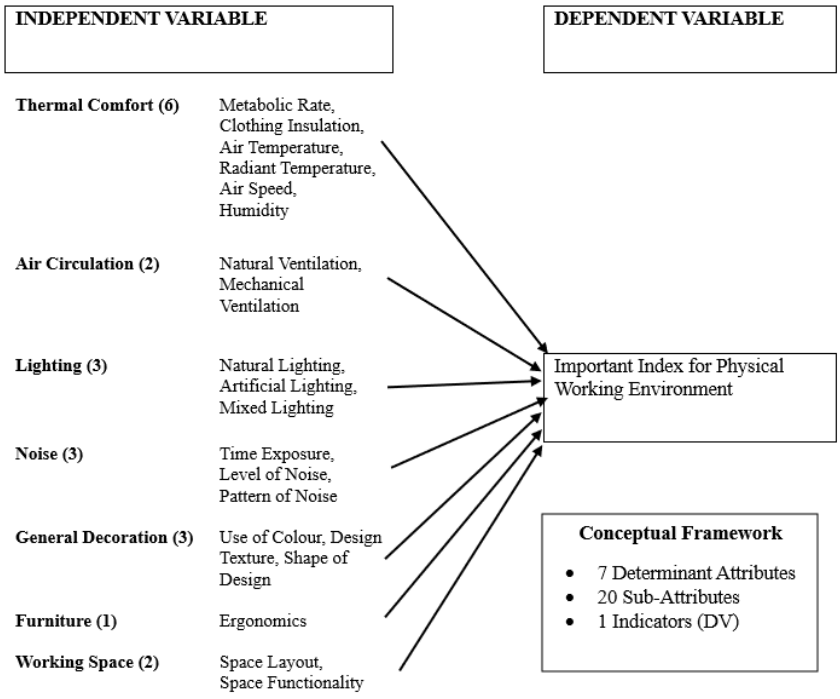

Figure 1: Conceptual Framework

2.3 Population and Sampling

The Population is the targeted group by the researcher to achieve the overall study goals (Abutabenjeh & Jaradat, 2018). It refers to the total number of respondents who share the same particular quality condition. The population study was chosen based on the FI buildings in the Klang Valley area, where most of the headquarters' buildings are located in Kuala Lumpur. Based on the purpose of this research, there are 3 types of institutions that were chosen due to their operational type: banking systems, which comprise Commercial Banks, Islamic Banks, and Development Banks. This type of FI serves as the principal source of financing and the primary mobilizer of funds to sustain economic activities in Malaysia. This study involves 117 respondents among various technical personnel from facilities management (FM) in the FI in the Klang Valley area. The selected respondent is aligned with the objective study.

Research sampling is the design used to ensure the sample of data represents the whole population. There are two (2) types of research sampling designs. The types of sampling are probability and non-probability sampling. Non-probability sampling is used as the sampling design strategy for this study. For this study used the purposive sampling technique was used because the characteristics of the study were the same as those of the target respondents.

2.4 Data Collection: Quantitative Method

Data collection is the process of collecting and measuring the accuracy of data. It is an important process where the data collection process will influence the research method, analysis, and decision-making to improve the understanding of respondent behaviour with an accurate target of respondents. The quantitative method is a systematic method of collecting and analysing numerical data (Creswell & Creswell, 2008) to understand a pattern and mean, categorise the result for a wider population and control variables of interest. The purpose of quantitative research is to evaluate a theory or hypothesis based on the observation of events that impact the particular respondent (Olalere, 2011). The

quantitative method can be used for descriptive, correlational, and experimental research (Saunders M. et al., 2012). This study uses descriptive research to find the overall summary of the study variable, which includes the creation of generalisations and the development of hypotheses.

For the quantitative development, the variables were generated based on the literature review derived from previous research and standards. Based on the data from the literature review, it gave an overall idea of the several types of working environments that influence the employee's satisfaction. This questionnaire will focus on the understanding of the most important attributes in a physical working environment. There are seven (7) physical working attributes that are important for the employee's satisfaction. Likert scale is one of the common formats for scaling the respondent's statement feedback. Generally, the Likert scale requires the respondent to determine the level of agreement or disagreement with the particular statement. Likert scale rating functioned as the measurement scale based on how strongly they agreed or disagreed with the series of statements. The Likert scale used in this study is based on five point scales: "Not Important at All", "Not Important", "Neutral", "Important" and "Extremely Important.". The questionnaires were distributed amongst technical personnel from facilities management at financial institutions in Malaysia. The questionnaire survey was collected using self-completion through the online web-based self-administered Google Form, email and self-distributed to the respective samples together with introductory cover letter.

2.5 Data Analysis

Data analysis is a method and process used to analyse information and data collection that summarizes the analysed data to describe several modes. The analysis used in the study was based on the key indicator to determine the importance of attributes of the working environment towards employee's satisfaction at FI buildings.

Statistical Package for Social Science (SPSS) is a software programme that can be used for statistical analysis (Mellyzar et al., 2023) for quantitative data processing. It allows the user to perform a wide range of statistical analyses, including descriptive statistics. Twenty-seven questions were used to assess important index, each question had five Likert scale items; very important (5), important (4), neutral (3), not important (2) and not important at all (1).

One of the tools to analyse the outcome data is the RII. The RII is the sum of all respondents divided by the number of respondents (Ahmad & Kansal, 2019). The RII is important because it helps to value the index based on its degree of importance (Tholibon et al., 2021). The RII was identified in developing a strategy to provide a conducive working environment aligned with its' research aim and objectives. The RII was calculated for each attribute to determine the most and least importance attributes to the physical working environment at a FI.

Equation (2.1) describe the RII (Tholibon et al., 2021).

$$RII = \frac{\Sigma w / AN = 5\eta5 + 4\eta4 + 3\eta3 + 2\eta2 + 1\eta1}{5N} \quad 2.1$$

3. RESULTS AND DISCUSSION

The data survey was carried out amongst the employees of FM technical personnel at a FI to determine the level of importance of the physical working environment and the attributes that provide a conducive working environment for employee's satisfaction. Only 117 respondents were able to complete the questionnaire. The limitation arises from the fact that the majority of technical personnel in FM at FI are engaged in different buildings and different organizations which requires a longer time to collect all the data samples from various buildings from different organizations.

3.1 Demographic Information

Table 1: Demographic background

Variable	Frequencies	Percentage, %
Academic Qualification		
SPM / STPM	11	9.4
Diploma / Technical Certification	35	29.9
Degree	64	54.7
Master / PhD	7	6.0
Total	**117**	**100.0**
Working Experience		
1 – 5 Years	40	34.2
6 – 10 years	38	32.5
11 – 15 Years	24	20.5
16 – 20 Years	9	7.7
More than 20 Years	6	5.1
Total	**117**	**100.0**
Type of Financial Institution		
Commercial Bank	48	41.0
Islamic Bank	37	31.6
Development Financial Institution	32	27.4
Total	**117**	**100.0**
Current Position		
Middle / Top Management	17	14.5
Officer / Executive	53	45.3
Technician / Technical Personnel	35	29.9
Admin / Support Staff / Others	12	10.3
Total	**117**	**100.0**

Majority of the respondents have degree qualifications, with 54.7%. It was followed by diploma/technical certification (29.9%), SPM/STPM (9.4%) and Masters/PhDs (6.0%). Based on the Jabatan Perangkaan Malaysia (2022), it shows that 47% of labour in Malaysia has SPM or STPM as higher education. While 28% of labourers have a diploma or technical certification and a degree. However, due to the scope of work and the job requirements, most of the jobs require a degree holder to fulfil the position of FM. Other than that, a diploma or technical certification as a technical executor.

Generally, the respondents have less than 5 years of experience (42.2%). It was followed by 6 to 10 years (32.5%) and 11 to 16 years (20.5%). Most of the respondent with 66% of the respondent has working experiences less than 10 years. Even though, the respondent has minimum of 5 years of working experiences, the respondents are appointed as officers to manage the building and as the relevant personnel to answer the questionnaire form.

It can be concluded that the majority of the respondents have engaged at Commercial Bank, with 41.0%. It was followed by Islamic Bank (31.6%) and Development FI (27.4%). Based on the registered financial institutions in Malaysia, the largest institutions are these three (3) institutions. The respondent is focusing on this institution and the survey was distributed equally amongst this population.

Most of the respondents are officers or executives (45.3%). Then it followed technician/technical personnel (29.9%) and middle/top management (14.5%). Based on Jabatan Kerja Raya (2014), it shows that 25.5% of the labour profession in Malaysia is professional, which consists of management and officers. Another 60.7% is semi-professional, which consists of technical or technical personnel. However, based on the data collection, it shows that at least 60% of respondents are professionals and another 30% are semi-professionals. Most of the respondents are working as officers or executives because the organisation at the FI is focusing on the professional level, where most of the jobs that are related to semi-professionals will be engaged with service providers.

3.2 RII for Physical Working Environment

Based on Ahmad & Kansal (2019), it was stated that the higher the RII, the higher the importance index. The individual Likert-scale ratings for each identified variable were transformed into corresponding relative factor values to facilitate subsequent analysis (Yasmin et al., 2017) as indicated in Table 2.

Based on Table 3, it shows the RII for the physical working environment towards employee's satisfaction. It shows that the highest rating of RII is lighting, with RII=0.921. Then, it was followed by thermal comfort (RII=0.884), noise (RII=0.865) and air circulation (RII=0.860). The bottom three of the RII rank are working space (RII=0.858), general decoration (RII=0.810) and furniture (RII=8.03). The rank showed the most important physical working environment.

Table 2: Importance Level of RII

RII Values	Importance Level	Indicator
$0.8 \leq RII \leq 1$	High	**H**
$0.6 \leq RII \leq 0.8$	High – Medium	**H-M**
$0.4 \leq RII \leq 0.6$	Medium	**M**
$0.2 \leq RII \leq 0.4$	Medium – Low	**M-L**
$0 \leq RII \leq 0.2$	Low	**L**

Table 3: RII for Attributes of Physical Working Environment

Physical Working Environment attributes	Not important at all	Not important	Neutral	Important	Very important	RII	Rank	Importance level
Lighting	0	0	1	44	72	**0.921**	**1**	**H**
Thermal Comfort	0	1	2	61	53	**0.884**	**2**	**H**
Acoustic	0	0	9	61	47	**0.865**	**3**	**H**
Air Circulation	0	0	3	76	38	**0.860**	**4**	**H**
Working Space	0	0	7	69	41	**0.858**	**5**	**H**
General Decoration	0	1	12	4	20	**0.810**	**6**	**H**
Furniture	0	0	18	79	20	**0.803**	**7**	**H**

Based on the importance level of the working environment, all attributes are high, which range from 0.803 (high) to 0.921 (high). Even though all the attributes are indicated as high, the RII is determined based on ranking to differentiate between each attribute. The researcher is focusing on the

top five (5) attributes that show the RII value is higher than the average value of RII, which is 0.857. Lighting is the most important aspect (RII=0.921). It indicates its strong influence on the work environment. Fang et al. (2022) mentioned that the lighting environment is the main element influencing human health and safety. Individuals have been spending most of their time working in an indoor environment. Moreover, lighting is essential for ensuring visual comfort, as it allows personnel to carry out activities with precision and effectiveness to enhance performance, reaction time, and mood. Inadequate illumination can result in visual fatigue, migraines, and heightened levels of stress, ultimately impacting employee contentment and efficiency.

Thermal comfort is the condition in which employees feel comfortable or satisfied with their surroundings. It plays an important role in occupant productivity (Al Horr et al., 2016). Optimal thermal conditions, which include characteristics such as temperature and humidity, are crucial for ensuring employee contentment and well-being. Jiang et al. (2019) have mentioned that altering the room temperature by a few degrees will have a significant impact on satisfaction. The thermal condition must be at the appropriate level, where it can't be too extreme or too low.

The significance of acoustic (R=0.865) and air circulation (R=0.860) is evident from their respective RII values. The impact of noise levels on focus and productivity is substantial, in implementing sound management. Sunarto & Yudhastuti (2022) have mentioned that excess noise exposure that exceeds specific limitations can cause health problems such as hearing loss. Noise has a direct impact on both physical and psychological health, as stated by Esmaielpour et al. (2022). The primary factor that influences excessive noise is the noise level.

Air circulation is crucial for maintaining a healthy interior environment since it improves comfort and minimises the likelihood of health problems. The air circulation system ensures optimal ventilation to enhance the comfort of the personnel. It provides sufficient air circulation in the building. The ventilation inside a building is mostly dependent on the forceful circulation provided by mechanical ventilation systems.

Working space significantly impacts their level of job satisfaction. However, this aspect is not of extreme importance when compared to other factors such as lighting, thermal comfort, acoustics, and air circulation. Al Horr et al. (2016) stated that the design layout should be strictly constructed to maximise the functionality of the area. Efficient space organisation optimises space utilisation. According to Chen et al. (2020), achieving a balance between individual offices and private office rooms is essential. Occupants in various workspace layouts demonstrate different levels of acceptance and tolerance towards a conducive working environment.

Table 4: RII for Sub-Attributes of Physical Working Environment

Attributes	Sub-attributes	Not important at all	Not important	Neutral	Important	Very important	RII	Rank	Importance level
Acoustic	Noise level	0	1	2	56	58	**0.892**	**1**	**H**
Lighting	Mixed lighting	0	1	5	57	54	**0.880**	**2**	**H**
Lighting	Artificial lighting	0	0	7	56	54	**0.880**	**3**	**H**
Thermal Comfort	Radiant temperature	0	1	10	57	49	**0.863**	**4**	**H**
Thermal Comfort	Air temperature	0	1	8	65	43	**0.856**	**5**	**H**
Air	Mechanical	0	0	8	69	40	**0.855**	**6**	**H**

Attributes	Sub-attributes	Not important at all	Not important	Neutral	Important	Very important	RII	Rank	Importance level
Circulation	ventilation								
Working Space	space layout	0	1	12	65	39	**0.843**	**7**	**H**
Lighting	Natural lighting	0	0	18	61	38	**0.834**	**8**	**H**
Working Space	Space functionality	0	0	19	64	34	**0.826**	**9**	**H**
Furniture	Ergonomics	0	0	17	75	25	**0.814**	**10**	**H**
Acoustic	Exposure pattern	0	1	21	66	29	**0.810**	**11**	**H**
Thermal Comfort	Air velocity	0	1	20	70	26	**0.807**	**12**	**H**
Decoration	Design shape	0	1	32	68	16	**0.802**	**13**	**H**
Acoustic	Time exposure	0	1	22	67	27	**0.805**	**14**	**H**
Thermal Comfort	Humidity	0	1	23	72	21	**0.793**	**15**	**H-M**
Air Circulation	Natural ventilation	0	0	30	63	24	**0.790**	**16**	**H-M**
Decoration	Design texture	0	1	17	79	20	**0.769**	**17**	**H-M**
Decoration	Decoration colouring	0	1	32	68	16	**0.761**	**18**	**H-M**
Thermal Comfort	Clothing rate	0	1	42	62	12	**0.745**	**19**	**H-M**
Thermal Comfort	Metabolic rate	0	3	46	61	7	**0.723**	**20**	**H-M**

Based on all the sub-attributes of the working environment, the importance level ranges from 0.723 (high-medium) to 0.892 (high). Fourteen (14) sub-attributes were indicated as high importance level, while another six (6) sub-attributes were indicated as medium-high importance level. The most important sub-attributes are noise level. Then it followed with mixed lighting and artificial lighting with an index of 0.880. Radiant temperature, air temperature, and mechanical ventilation show an index of 0.863, 0.856, and 0.855. Space layout (0.843), natural lighting (0.834), space functionality (0.826) and ergonomics (0.814) are defined as the top 10 in the important ranking index. All these sub-attributes play a role in inspiring the satisfaction level in the working environment.

Noise is extremely influential in building design, where the building acoustics performance is crucial to control the noise level for optimal task performance for the occupants (Al Horr et al., 2016). It is important that humans have limitations on their exposure to noise levels. If the employees are exposed to the extreme noise level, it will cause another problem, like hearing illness. Besides that, lighting plays an important role in providing a conducive working environment. Artificial lighting and mixed lighting are important in designing the working area. Fang et al. (2022) mentioned that the lighting environment is the main element influencing human health and safety. The proper lighting system helps the employees concentrate more on their daily tasks by reducing visual strain and improving accuracy.

Radiant temperature and air temperature are the major factors influencing thermal comfort in the

working environment. Alam & Salve (2021) stated that there is a significant impact on the satisfaction rate for the radiant temperature and air temperature. The extreme temperature will make it uncomfortable for the employees to do their job. Mechanical ventilation is ranked as the sixth place in RII. Mechanical ventilation helps to recirculate the air inside the building. Mechanical ventilation can operate more efficiently than natural ventilation. It is because mechanical ventilation can control the sufficient air flow that the occupant requires at a certain time (Gupta et al., 2020).

Metabolic rate and clothing rate are not as critical as other factors and rank as the lowest and second lowest in the RII. According to Rinjei et al. (2022), metabolic rate and insulation clothing is a personal factor in thermal comfort. Both sub-attributes have less impact on the conducive physical working environment.

4. CONCLUSION

In conclusion, there are seven (7) attributes of the physical environment that are indicated as high importance level, which consist of thermal comfort, air circulation, lighting, acoustics, general decoration, furniture, and working space. A variety of sub-attributes influence each attribute. Each sub-attribute has a significant effect on the employee's satisfaction in terms of the physical environment. The analysis shows fourteen (14) sub-attributes were indicated as high importance level, while another six (6) sub-attributes were indicated as medium-high importance level. All the attributes and sub-attributes are identified by a ranking method to evaluate the analysis rating. Analysis tools such as the RII can determine the importance level of attributes of the physical working environment at a FI. The RII method analyses the respondents' ratings to statistically assess the various attributes. The RII method assigns weights to each element based on the participants' assessments, emphasizing the variables they deem most important. Researchers use it to prioritize future inquiry and model development based on variables that significantly influence study outcomes in the decision-making process. It helps to address the research gap that is suitable for the working environment at FI in Malaysia. This study aims to develop strategies for implementing a conducive physical working environment to enhance employee satisfaction based on the RII analysis. It is crucial for the building-related personnel, such as building management operators, building designers, organisation's policymakers to implement strategies that can create an optimum environment that attracts and maintains their best employees.

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