

The Link between Human Resource Management Practice and Innovative Work Behavior

Muhammad Azril Shuhaizi¹ & Nor Hazana Abdullah^{1,*}

¹Department of Technology and Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia, 86400 Batu Pahat, Johor, MALAYSIA.

*Corresponding Author

DOI: <https://doi.org/10.30880/rmtb.2021.02.01.003>

Received 01 March 2021; Accepted 30 April 2021; Available online 01 June 2021

Abstract: Innovative work behavior is considered one of the key variables in solving new competitive edge problems. It is a multi-dimensional variable that include creating, encouraging and introducing innovative ideas. In order to enhance the innovative work behavior among employees, organizations need to implement human resource practices that could encourage this behavior. Therefore, the purpose of this research is to study the link between human resource practices (HRP) with innovative work behavior among F&B medium sized enterprises employees in Malaysia. This research was a quantitative study where questionnaires were used to collect the data. A total of 400 questionnaires were collected from the employees among F&B medium sized enterprise which in Penang, Perak, Selangor, Kuala Lumpur, and Johor using convenience sampling. Data were analyzed using descriptive analysis and Spearman's correlation analysis. It was found that there are significant relationships between human resource management practices and innovative work behavior. The finding of this study highlights the importance of HRPs in promoting innovative work behavior.

Keywords: HRM practices, Innovative work behavior, Training, Performance appraisal.

1. Introduction

Today, technology and innovation is rapidly changing in response to the evolving business environment and they are regarded as the main driver for organization competitiveness (Aragón-Correa, García-Morales, & Cordón-Pozo, 2005). According to Street and Christopher (2001), any organization that ignores this fact and does not innovate would cause organization's decline and destruction. In fact, the organizations that applied more innovation in their companies are more competitive compared to their competitors that innovate less (Jafri, 2010). Nonetheless, innovation in an organization depends on employee innovativeness, who may have ability to creating new approach,

skills to innovate and develop creative ideas (Riaz, Xu, & Hussain, 2018). Besides, innovative work behavior is important because it allows employees to tackle the potential problem with a good solution and maintain the competitive advantages. According to Janssen (2000), innovative work behavior (IWB) refers to behavior of an employee whose intentional efforts is to provide positive new outcomes at workplace. According to Parzefall, Seeck and Leppänen (2008), by influencing employee ability to innovate, organizations would be more innovative.

1.1 Research Background

Malaysian food and beverage (F&B) industry is a fast-growing industry characterized by a large export market. Over the years, Malaysia's most significant F&B exports are classified in oils and fats, particularly palm oil products, for which Malaysia is one of the biggest exporters in the world. In 2017, Malaysia's exports accounted about 9.8% for F&B industry (EMIS Insights, 2016). As Malaysia government's main focus is on the country's agriculture market, food processing industry has become an important component of the agro-based industry. Ministry of International Trade and Industry Malaysia (2018), reported the Malaysian food processing sector is becoming increasingly sophisticated with increased supplies of both local and imported products. In 2018, manufacturing food and beverage sector recorded highest contribution of revenue totalling RM1, 329.7 billion, which is an increase of 8.3% RM1, 227.3 billion from the previous year. The significant role of F&B industry indicates that F&B companies are required to improve their competitiveness through innovation.

1.2 Problem Statements

According to the survey by Malaysian Science and Technology Information Center (Ministry of Science, 2015), the number of innovative manufacturing companies is lower (38.66%) compared to services oriented companies (61.34%). This statistic indicates that the level of innovation in the manufacturing sector need to be improved. Since actions of individuals are important for ongoing innovation and changes of the company (Ling, T.C and Nasurdin, 2010), studies on innovative work behavior is important. Without employees' efforts to be innovative, company would have difficulty achieving their goals. Consequently, sound human resource management practice (HRP) could improve the innovative work behavior among employees by influencing and guiding employees operative and learning behavior through skills enhancement, participation in decision making, and improved motivation (Sharma & Taneja, 2018). Besides, previous studies have reported an apparent connection between human resource management practice and innovative work behavior (Rousseau and Greller 1994; Rogg and Schmitt 2001; Mohammad Ahmad Al-Omari 2019). Similarly, effective recruitment and selection practices could ensure that organization recruit employees that are innovative and creative.

Moreover, there are lack of studies that explain the relationship between human resource management practice and innovative work behavior among employees of F&B medium sized enterprise which constitutes an empirical gap.

1.3 Research Questions

- (i) What is the current practice of human resource management among employees of food and beverage (F&B) medium sized enterprise?
- (ii) What is the level of innovative work behavior among employees of food and beverage (F&B) medium sized enterprise?
- (iii) What is the relationship between human resource management practice and innovative work behavior among employees of food and beverage (F&B) medium sized enterprise?

1.4 Research Objectives

- (i) To determine the current practice of human resource management among employees of food and beverage (F&B) medium sized enterprise.
- (ii) To determine the level of innovative work behavior among employees of food and beverage (F&B) medium sized enterprise.
- (iii) To study the relationship between human resource management practice and innovative work behavior among employees of food and beverage (F&B) medium sized enterprise.

1.5 Scope of the Study

This research focused on the human resource management practice and innovation work behavior in food and beverages manufacturing sector. According to the journal Economics & Prospects (2017) the F&B manufacturing sector is one of the largest contributor to the country's exports and is the second largest contributor to Gross Domestic Product (GDP). This research involve employees of food and beverage medium sized enterprise around Penang, Perak, Selangor, Kuala Lumpur, and Johor.

1.6 Significance of the Study

This study is to provide empirical evidence, since there are limited studies in explaining the relationship between Human Resource Management Practices and Innovative Work Behavior among employees of F&B medium sized enterprises. This study is important because it would addresses the need to better understand the relationship of the human resource management practices and innovative work behavior in F&B medium sized enterprises business context. Besides, the F&B medium sized enterprises woud aware about the important of the level of adaptability of the innovative work behavior toward employees that may influence their performance in the organization. Thus, this research contribute to the others research in future that relate with human resource management practice and innovative work behavior.

2. Literature Review

In this section, conceptual definitions of innovative work behavior, its related models, and human resource practices and its related models, and previous studies on the relationship between human resource management practice and innovative work behavior are discussed.

2.1 Conceptualization of IWB

There are numerous definitions of innovative work behaviors as shown in Table 1. Several authors define innovative work behavior as comprising two dimensions while others claim that IWB has more than three dimensions.

Table 1: Conceptualization of IWB

Author	Dimensions
Mumford, (2003)	3 Dimensions
Janssen, (2004)	4 Dimensions
Carmeli, Meitar, & Weisberg, (2006)	2 Dimensions
De Jong &Den Hartog, (2010)	4 Dimensions

Source: (Mumford, 2003; Janssen, 2004; Carmeli, Meitar, & Weiberg, 2006; De Jong &Den Hartog, 2010)

However, in this study, definition by De Jong and Den Hartog (2010) was used to measure IWB because of its prominence in IWB literature as (Bos-nehles & Veenendaal, 2019; Afsar & Badir, 2017; Tze & Rasli, 2014). Furthermore, De Jong's model has been used, tested and empirically validated by many previous researches.

2.2 Model of Innovative Work Behavior

There are two models of innovative work behavior by Janssen (2000) and De Jong (2007).

(a) Innovative Work Behaviour Model by Janssen (2000)

According to Janssen (2000), innovative work behavior is referred to as a multistage process of three different employee behaviors: idea generation, idea promotion and idea realization in Figure 1.

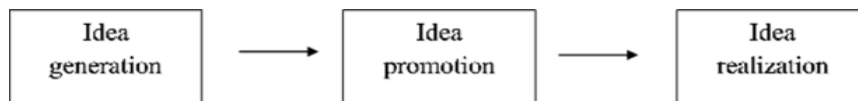


Figure 1: Janssen Model (2000)

Innovative work behavior starts with idea generation and the creation of novel and useful ideas in any area or domain. Innovation is usually triggered by finding a new opportunity or problem that arises as a consequence of the existing need. Therefore, within this idea generation stage employees create the new ways, how to address that needs. Idea promotion, a situation when innovative employee is looking for support for the idea and try to move for it. Innovative worker has to socialize and look for friends or support in order to promote the idea successfully. The final stage of innovative work behavior is the idea realization. The situation of transforming an innovative idea into a novel actual outcome. Where the idea have been generated and have found the supports, it must be implemented and put into practice.

(b) Innovative Work Behaviour Model by De Jong (2007)

Figure 2 shows there are two phases of innovation process according to (De Jong, 2010) which consists initiation and implementation of creative idea.

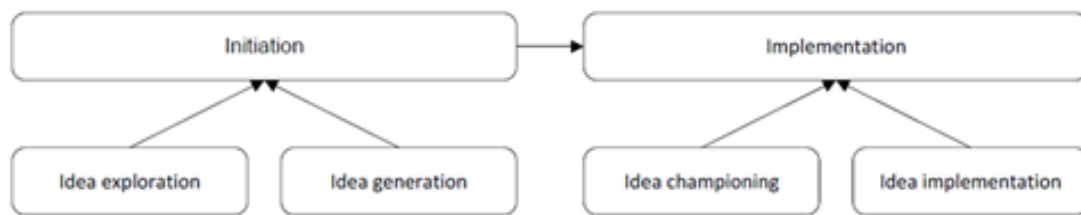


Figure 2: De Jong model (De Jong, 2010)

According to De Jong (2010), the beginning of something new starts with a person exploration of an idea such as searching to enhance existing products, services and work processes. Idea generation is a conceptualizing improvement methods and solutions to identified problems. The idea generation process seems to begin with a reorganization, combination of information to enhance performance and new ideas for problem solving. After an idea has been generated by employees, idea championing becomes relevant. Idea championing often includes encouragement and partnerships by the demonstration of passion for a new idea or concept. Lastly, idea implementation is related to the behaviors of co-workers aimed at developing, testing, and commercializing a new service. Idea implementation can drive to improving existing products or procedures, or developing new ones.

2.3 Factors Affecting Innovative Work Behaviour

Based on the previous studies, there are numerous organizational factors affecting IWB factors affecting IWB as shown in Table 2.

Table 2: Factors Affecting IWB

Author	Factors
Damanpour, (1991)	Organizational factors
Martinez et al (2016)	Learning orientations
Fauzia (2017)	Learning organization, knowledge sharing and commitment toward organization

Source: (Damanpour, 1991; Martinez et al, 2016; Fauzia, 2017)

However, there are limited study that have been focusing on human resource practices which become the gap of this research. Thus, this study aimed to focus on the HRP as the independent variable.

2.4 Human Resource Management Practices (HRPs)

Majority of experts defined human resource management as an effective process of human resource management that helps organization meet their objective (Laursen and Foss, 2003; Hallberg and Schaufeli, 2006; Foss, 2011). However, different authors specify the human resource practices differently as shown in in Table 3.

Table 3: HRM Practices

Author	Define
Meyer and Smith (2000)	There are four function of human resource practices such as recruitment, selection, appraisal, training and development.
Harter et al, (2002)	Human resource practices enhance employee engagement to increase employee performance.
Minbaeva, (2005)	Human resource practices are a set of practices that organizations used to manage human resources through the development of specific competence.
Tessema & Soeters (2006)	Human resource practices includes staff recruitment, training development and enhancement of performance.

Source: (Meyer and Smith, 2000; Harter et al, 2002; Minbaeva, 2005; Tessema & Soeters, 2006)

However, this study would only be focusing on training and performance appraisal. This is because training and development is a first step that can enhance the employees to improve their knowledge and skills. Besides, performance appraisal will give employees a big-picture feedback on their work to be more innovative and creative. In addition, these human resource practices have been empirically supported by previous studies.

(c) Previous Study

Abdullah, Ping, Wahab, & Shamsuddin (2014), have study the relationship between perception on training and employee innovativeness among employees of small firms. The survey involved a total of

182 employees from 36 small firms. It was found that training explained 28.8% of variance in employee innovativeness and thus proved to be one of the significant predictors of employee innovativeness. The outcomes of this study shown that the importance of training among small firms, which should go beyond on-job training.

Curzi, Fabbri, Scapolan, & Boscolon (2019) draws on the process-based approach to HRM (Bowen and Ostroff, 2004) suggesting that HRM practices may have a signaling effect. A survey of 865 employees working in large, multinational firms operating in digitalized sectors or industries were carried out. The data collected on the main characteristics of the performance appraisal systems adopted by the firm where respondents work, as perceived by employees themselves. The data was gathered on the respondents' overall perception that performance appraisal boosts innovative work behavior (IWB). Outcomes of this study reveal that, as compared to informal feedback, formal performance appraisal is more likely to reduce the perception that performance appraisal promotes individual innovation and creativity at work. In addition, employees' perception on performance appraisal which focused on the achievement of pre-set, quantitative outcomes is more likely to affect IWB positively than appraisal focused on pre-defined skills that employees exhibited performing their work.

Thus, hypotheses for this study is formulated as follows;

H₁: There is a significance relationship between training and innovative work behavior among employees of F&B medium sized enterprises.

H₂: There is a significance relationship between performance appraisal and innovative work behavior among employees of F&B medium sized enterprises.

2.6 Research Framework

This research aims to identify whether different HRM practices has different level of innovative work behaviour. Overall, the conceptual framework of this research is shows as Figure 3.

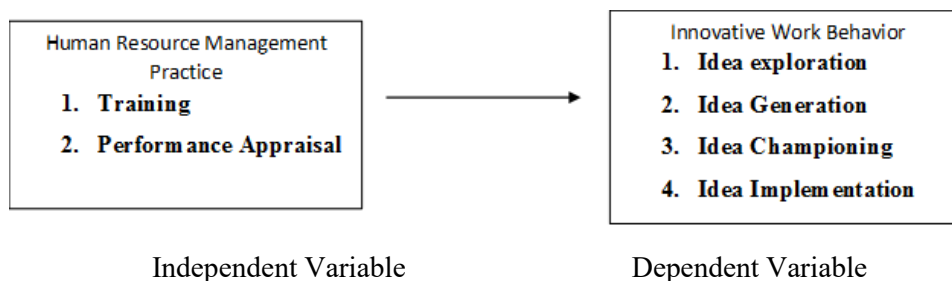


Figure 3: Research Framework

3. Research Methodology

In this study, quantitative approach is the main methodology that been used. This section explains the reason for research design, research method type, data collection techniques, sampling, analysis unit and others detail.

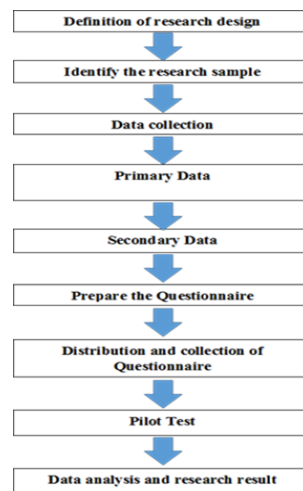


Figure 4: Methodology Flowchart

3.1 Research Design

In this study the quantitative research design was used to test the hypothesis. According to Grinnell (2010), quantitative method is a logical technique and its grounds can be distinguished in positivist worldview. Besides, the quantitative method in the survey context is to gather the data regarding perceptions, beliefs and actions in a fairly clear and straightforward way (Baarda, De geode and Kalmijn, 2007). The main reason of using quantitative approach in this study is because to provide the correlation between human resource management practice and innovative work behavior in F&B medium sized enterprises.

3.2 Research Population and Sampling

A population can be identified as any persons or things you want to understand when targeting a segment of the population for investigation (Hair JF, 2003). According to Hair JF (2003), population is a process of selecting a sample of units from a data set in order to measure the characteristics, beliefs, and attitudes of the people. A standardized questionnaire is used to test the views and behaviors of citizens in sample surveys. The collected data can be a listing of a selected community or subgroup by means of a structured questionnaire. The population of this study focused on the employees of F&B medium sized enterprises companies located in Penang, Perak, Selangor, Kuala Lumpur, and Johor. According to medium enterprises statistic (2019), Selangor has the top ranking in Malaysia with 19.8% followed by Kuala Lumpur with 14.7%, Johor with 10.8%, Perak with 8.3% and lastly Penang with 7.4%. Hence, the population of this study is for F&B medium sized enterprises employees around Penang, Perak, Selangor, Kuala Lumpur, and Johor.

(a) Sampling Technique

In this study, convenience sampling procedure had been used because the researcher could not get the actual sampling due to pandemic covid-19. This study have conducted among employees of F&B medium sized enterprises around Penang, Perak, Selangor, Kuala Lumpur, and Johor. To obtain the total number of sample in this study, the Sample Size Determination from G Power Analysis had been used. According to the Uttley (2019, p. 158)“It is good practice to carry out an a priori power analysis to determine the sample size required to be confident in revealing an effect if there is one truly present” By using the G Power Analysis, the minimum sample size that are needed for this study is 400 employees. Figure 5 shows the calculation of sample size from G Power Analysis.

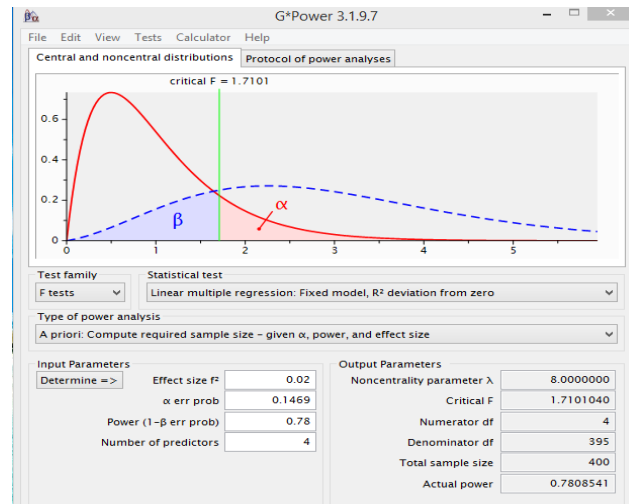


Figure 5: Sample size from G Power Analysis

3.2 Data Collection

Data collection is the process of collecting and measuring information based on variables targeted at an existing system and enabling it to answer relevant questions and evaluate possible decisions. In this study, Figure 6 shows the data collection process.

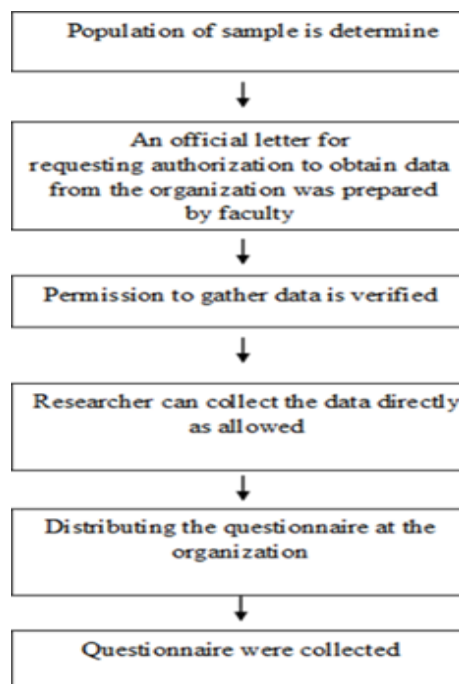


Figure 6 Data Collection Process

3.3 Data Analysis

Descriptive analysis was used to numerically define and illustrate the data collected. In this study, both measure of central tendency and measure of dispersion were calculated using the IBM SPSS Statistics Version 23.0.

In this study, correlation coefficient was used to determine the relationship between human resource management practice and innovative work behavior among 400 employees of F&B medium sized enterprises around Penang, Perak, Selangor, Kuala Lumpur, and Johor. The value of correlation

coefficient from -1 to +1. However, when correlation coefficient values is 0, it shows there is no relationship between the two variables. The larger the correlation coefficient, the stronger the relationship between the two variables. Table 4 show the rule of thumb for interpreting the size of a correlation coefficient.

Table 4: Rule of thumb for interpreting the size of a correlation coefficient

Size of Correlation	Interpretation
0.90 to 1.00	Very high positive correlation
0.70 to .89	High positive correlation
0.40 to .79	Moderate positive correlation
0.20 to .39	Low positive correlation
$r < 0.20$	Negligible correlation

Source: Guilford (1956).

4. Results and Discussion

In this section, return rate, reliability analysis, demographic analysis, descriptive analysis, normality test and correlation analysis were discussed.

4.1 Response Rate

There are 400 respondents involved in this research. Therefore, 400 questionnaire were distributed by using Google form to respondents of F&B medium sized enterprises around Penang, Perak, Selangor, Kuala Lumpur, and Johor, and it has been completed and collected for this research. The response rate for the questionnaire is hundred percent.

4.2 Reliability for Pilot Study

According to Table 5, shows that the Cronbach's Alpha value for pilot study of two variables that consists of innovative work behavior with value of 0.875 and human resource management with value of 0.884 by involved 15 respondents. The value that obtained by the two variables from the pilot test considered strong. Among these variables, human resource management has the highest Cronbach's Alpha with value of 0.884. While, for the real study the data of the two variables from Cronbach's Alpha value is above 0.7. This shows that the data for this study used to be very good reality.

Table 5: Reliability test results

Reliability Analysis	Total No of items	Cronbach's Alpha of Pilot Test (N=15)	Cronbach's Alpha of Actual Test (N=400)
Innovative Work Behavior	10	0.875	0.794
IWB	10	0.884	0.797

4.3 Demographic Analysis

According to Table 4.2 There are 400 respondents that have participated in this study. The data of the respondents are shown in Table 6

Table 6: The discussion of respondents background

Demographic	Items	Frequency	Percentage (%)
Gender	Male	233	58.3
	Female	167	48.1
Age	25 years old and below	154	38.5
	26 - 35 years old	126	31.5
	36 - 45 years old	61	15.3
	46 years old and above	69	15.3
Race	Malay	165	41.3
	Chinese	125	31.3
	Indian	83	20.8
	Others	27	6.8
Educational Level	Secondary School (SPM)	72	18.1
	Pre-University/Diploma	130	32.5
	Bachelor's Degree	181	45.3
	Master	17	4.3
Working Experience	3 years and below	139	34.8
	4 - 6 years	114	28.5
	7 - 9 years	57	14.3
	10 years and above	90	22.5

(a) Respondent Demographic Background

According to the table 4.2, the result shows that the percentage of male respondents are 58.3% which are 233 respondents and 41.8% consists of 167 female respondents. The results showed that the numbers of male respondents is more than the number of female respondents. Besides, the percentage of respondent who 25 years old and below is 38.5% with 154 respondents and it is the highest. The respondent who 26-35 years old is 31.5%. The respondent who 36-45 years old is 15.35% and respondent who 46 years and above is 14.8%.

Furthermore, majority of respondents that are participated in this research by filling out the survey questionnaire was from the Malay group with 41.3% consist of 165 respondents. Then followed by Chinese group which 125 respondents with 31.3 %. Next, would be the Indian group which consists 83 respondents with 20.8 %. While the minority group would be others which has 6.8% with 27 respondents.

In addition, the data of working experience from the respondent's shows that was an amount of 114 respondents with 28.5% that have working experience between 4 to 6 years. Then, followed by 139 respondents which is 34.8% who have a working experience 3 years and below. Next, respondents that have working experience between 7 to 9 years consists of 57 respondents with 14.2 %. While there are 90 respondents with 22.5% that have working more than 10 years in F&B medium sized enterprises.

4.4 Descriptive Analysis

From Table 7, shows the dimension of two variables consists of dependent variable and independent variable. For dependent variable, idea implementation was the highest mean of dependent variable which is $M= 3.761$, ($SD=0.622$), and followed by idea exploration $M=3.714$, ($SD=0.704$), idea championing $M=3.672$, ($SD=0.689$) and idea generation $M=3.689$, ($SD=0.606$).

Besides, training was the highest mean of independent variable which is $M= 3.712$, ($SD=0.585$), and followed by performance appraisal $M=3.697$, ($SD=0.597$). Nevertheless, it can be seen that the

innovative work behavior had a mean of 3.713 and human resource management had 3.705 which belong to high central tendency range.

Table 7: Descriptive statistics

	Mean	Level of tendency
Dependent Variable (Innovative Work Behaviour)		
Idea exploration	3.714	High
Idea generation	3.689	High
Idea championing	3.672	High
Idea implementation	3.761	High
Independent Variable (Emotional Intelligence)		
Training	3.712	High
Performance Appraisal	3.697	High

4.5 Normality Analysis

Table 8: Result of normality test for all variable

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Independent Variables						
Training	0.103	400	.000	0.979	400	.000
Performance Appraisal	0.099	400	.000	0.984	400	.000
Dependent variable						
Innovative work behaviour	0.068	400	.000	0.985	400	.000

Based on Table 8 shows that the significant value of all variables in Kolmogorov-Smirnov and Shapiro-Wilk are not normal because of the critical value is below than 0.05. The critical value must be above than 0.05 to be accepted and can be categorized as a normal data (Ghasemi, 2012). Thus, Spearman correlation test was used to analyze the relationship between dependent variables and independent variables.

4.6 Correlation Coefficient

Based on Table 9, the value of correlation coefficient, r for training and innovative work behavior is 0.407 with a significant level of $p=0.01$. This indicates that there is a significant relationship between raining and innovative work behavior. This value indicates a relationship which is modest because the value of the correlation coefficient is 0.407 where it is within range moderate positive of relationship.

Table 9: Spearman’s Correlation Analysis training and innovative work behavior.

	Training	Performance Appraisal	IWB
Training	1.000		
Performance Appraisal	0.557**	1.000	
IWB	0.407**	0.304**	1.000

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

The results of this study shown in Table 9 above, shows the value of correlation coefficients for performance appraisal and innovative work behaviour is 0.557 with a significant level of $p=0.001$.

This indicates that there is a significant relationship between performance appraisal and innovative work behavior. However, this value indicates there is a modest relationship because the value of the correlation coefficient, r is 0.557 where it is within a moderate positive of relationship.

5. Conclusion

In this section, discussions and conclusions of this study were discussed. Recommendations and limitations are involved.

5.1 Discussion on Findings

(a) Discussion on the first research objective

The aim of the study was to determine the current practice of human resource management among employees of F&B medium sized enterprises. Based on the findings, the training had received the highest mean which is 3.712 among the dimensions of the human resource practices. Here shows that training practices becomes an important practices in fact it becomes the dominant practices to the human resource management. This means most respondents agreed that training practices should be present in every organization.

(b) Discussion on the second research objective

The second objective of the study was to determine the level of innovative work behavior among employees of F&B medium sized enterprises. Based on the findings, these idea implementation is found has a moderate level of tendency with a mean value of 3.761. This value is the highest min among of the four dimensions studied. Next, highest mean score was followed by idea exploration with 3.714, idea generation with 3.689 and idea championing with 3.672. In conclusion, the results show that Malaysian employees in medium enterprises have a high degree of innovative work behavior.

(c) Discussion on the third research objective and hypotheses

This study found that both training and performance appraisal have positive relationship with innovative work behavior. The findings of this study is similar by a study done by Abdullah, Ping, Wahab, & Shamsuddin (2014), which stated that training is proved to have impacts on developing knowledge workers in terms of innovative work behavior. Moreover, performance appraisal play a strong function that provide employees about their performance in terms of enhancing IWB. According to Prieto, Isabel M^a and Pe´rez-Santana (2014), performance appraisal is used to give employees a big-picture feedback on their work in order to increase innovative work behavior. By using performance appraisal, organization are able to identify the employee strengths and it can motivates the employees to be more innovative. Thus, implemented of human resources management practice played an important part in innovative work behaviour Bos-nehles & Veenendaal, (2019). In conclusion, the human resource management that provides the right practices to their employees can increase the level of innovative work behavior of the employees.

5.2 Conclusion

From the overall results of this study, it can be concluded that training practices and performance appraisal are key human resource practices that could enhance employees innovativeness. This study provides an empirical understanding about the human resource management practices and its components effect on the innovative work behavior.

5.3 Limitations

Among the limitation during the process of this study are encountered is that Researchers have time and pandemic covid-19 constraints to obtain data from respondents. In other words, researchers have limited time and movement research to go to the location area to collect the data. Due to, it has made it difficult for researchers to obtain the dishonest of respondents to answer the questionnaire that has been given. In this regard, cooperation from the respondents to succeed this study is less well received. This is because respondents are dishonest while answering the questions given also occurs among the respondents. This is because most respondents do not pay fully attention and there are a lot of things they need to do during pandemic covid-19 when answering those questions, which are they not have time to pay full attention. This can affect the outcome if such constraints exist regularly during research study. However, researchers will strive to produce the best research so that it can be used as a reference by other researchers in the future.

5.4 Recommendations

(a) For Organization

Organizations are advised to improve their training activities and performance appraisal system. As these two HRP's have been consistently found to improve IWB, organizations should pay more attention on how to develop a high performing human resource practices.

(b) Future Researcher

Based on the researcher's experience while conducting the study, some suggestions are recommended to future researchers. Future researchers are expected to continue this kind of study in order to help organizations understand the importance of innovative work behavior. In addition, they can also study the comparison between these dimensions practices with other dimensions of practices in influencing the level of innovative work behavior. A study on the comparison between the dimensions to find out which dimensions is more effective to innovative work behavior can also be done by future researchers.

Acknowledgement

This research part of Technology & Innovation Management Focus Group activities in developing student competencies. Special thanks to the Faculty of Technology Management and Business and UTHM in general.

References

- Abdullah, N. H., Ping, L. L., Wahab, E., & Shamsuddin, A. (2014). *Initiation Stage – Opportunity Exploration*. pp. 76–80. Retrieved from http://eprints.uthm.edu.my/6199/1/015_89.pdf
- Arthur, W., Bennett, W., Edens, P. S., & Bell, S. T. (2003). Effectiveness of training in organizations: A meta-analysis of design and evaluation features. *Journal of Applied Psychology*, 88(2), pp. 234–245. <https://doi.org/10.1037/0021-9010.88.2.234>
- Aragón-Correa, J. A., García-Morales, V. J., & Córdón-Pozo, E. (2005). Leadership and organizational learning's role on innovation and performance: Lessons from Spain. *Industrial Marketing Management*, 36(3), pp. 349–359. <https://doi.org/10.1016/j.indmarman.2005.09.006>
- Afsar, B., & Badir, Y. (2017). Workplace spirituality, perceived organizational support and innovative work behavior: The mediating effects of person-organization fit. *Journal of Workplace Learning*, 29(2), pp. 95–109. <https://doi.org/10.1108/JWL-11-2015-0086>
- Baarda, D. B., De Goede, M. P. M., & Kalmijn, M. (2007). *Basisboek enquêteren: Handleiding voor het maken van een vragenlijst en het voorbereiden en afnemen van enquêtes*. Groningen/Houten: Wolters-Noordhoff

- Bos-nehles, A. C., & Veenendaal, A. A. R. (2019). Perceptions of HR practices and innovative work behavior : the moderating effect of an innovative climate. 5192. <https://doi.org/10.1080/09585192.2017.1380680>
- Curzi, Y., Fabbri, T., Scapolan, A. C., & Boscolo, S. (2019). Performance appraisal and innovative behavior in the digital era. *Frontiers in Psychology*, 10(JULY), pp. 1–12. <https://doi.org/10.3389/fpsyg.2019.01659>
- Carmeli, A., Meitar, R., & Weisberg, J. (2006). Self-leadership skills and innovative behavior at work. *International Journal of Manpower*, 27(1), pp. 75–90. <https://doi.org/10.1108/01437720610652853>
- De Jong, J. P., & Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, 10(1), pp. 41–64. doi:10.1108/14601060710720546
- De Jong, J. P., & Den Hartog, D. (2010). Measuring innovative work behaviour. *Creativity and Innovation Management*, 19(1), pp. 23–36. doi:10.1111/j.1467-8691.2010.00547.x
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34, pp. 555–590.
- EMIS Insights, I. (2016). Malaysia Food and Beverage Sector Report 2016/2017. Retrieved from EMIS is an ISI Emerging Markets Group Company website:https://www.emis.com/php/store/reports/MY/Malaysia_Food_and_Beverage_Sector_Report_20162017_en_544816738.html
- Fauzia, S., Budiningsih, I., Djaelani, A., & Ahmad, M. (2017). Dominant Factors Affecting The Behavior, 16(1), pp. 32–40. <https://doi.org/10.17512/pjms.2017.16.1.03>
- Foss, N. J. (2011). *Linking Customer Interaction and Innovation : The Mediating Role of New Organizational Practices*. (August). <https://doi.org/10.2307/20868907>
- Ghasemi, A. (2012). *Normality Tests for Statistical Analysis: A Guide for Non-Statisticians*. (December 2012). <https://doi.org/10.5812/ijem.3505>
- Guilford, J.P. (1956) The Structure of Intellect. *Psychological Bulletin*, 53, pp. 267-293. <http://dx.doi.org/10.1037/h0040755>
- Hair JF (2003). *Essentials of Business Research Methods*: Wiley.
- Hallberg, U. E., & Schaufeli, W. B. (2006). “ Same Same ” But Different ? Can Work Engagement Be Discriminated from Job Involvement and Organizational Commitment ? 11(2), pp. 119–127. <https://doi.org/10.1027/1016-9040.11.2.119>
- Harter, J. K., F. L. Schmidt and T. L. Hayes, Business-Unit-Level Relationship Between Employee Satisfaction, Employee Engagement, and Business Outcomes: A Meta-Analysis, *Journal of Applied Psychology*, Vol. 87, No. 2, pp. 268-279, 2002.
- Janssen, O. (2000) Job Demands, Perceptions of Effort-Reward Fairness, and Innovative Work Behavior. *Journal of Occupational and Organizational Psychology*, 73, pp. 287–302.
- Janssen, O. (2003). Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co-workers. *Journal of Occupational and Organizational Psychology*, 76(3), pp.347–364. <https://doi.org/10.1348/096317903769647210>
- Jafri, M. H. (2010). Organizational commitment and employee's innovative behavior: a study in retail sector. *Journal of Management Research*. 10(1). pp. 62-68.
- Janssen, O. (2003). Innovative behaviour and job involvement at the price of conflict and less satisfactory relations with co-workers. *Journal of Occupational and Organizational Psychology*, 76(3), pp. 347–364. <https://doi.org/10.1348/096317903769647210>
- Jafri, M. H. (2010). Organizational commitment and employee's innovative behavior: a study in retail sector. *Journal of Management Research*. 10(1). pp. 62-68.
- Laursen, K., and Foss, N. 2003. New human resource management practices, complementarities and the impact on innovation performance. *Cambridge Journal of Economics*, 27(2): pp. 243- 263.
- Ling, T.C and Nasurdin, A. . (2010). Human Resource Management Practices And Organizational Innovation: An Empirical Study In Malaysia (Vol. 26). <https://doi.org/10.1002/9781118521373.wbeaa223>
- Martínez, V. & V. (2016). *The Impact of Learning Orientation on Innovation and Performance in SME'S in México*. pp. 48–64.
- Minbaeva, D. B. (2005). HRM practices and MNC knowledge transfer. *Personal Review*, 34 (1), (1), pp. 125-144.
- Meyer, J. P., & Smith, C. A. (2000). *HRM Practices and Organizational Commitment : Test of a Mediation Model*.
- Mohammad Ahmad Al-Omari, L. S. C. and M. A. M. A. (2019). *Innovative Work Behavior : A Review of Literature*. (February), 10.

- Mumford, M.D. (2003) Where Have We Been, Where Are We Going? Taking Stock in Creativity Research. *Creativity Research Journal*, 15, pp. 107–20.
- Ministry of International Trade and Industry Malaysia. (2018). MITI Report 2018. *Miti Report 2018*, pp. 56–66. Retrieved from https://www.miti.gov.my/miti/resources/MITI_Report/MITI_Report_2018.pdf
- Ministry of Science, T. and I. (MOSTI). (2015). *National Survey Of Innovation*.
- M.O.F Malaysia. (2017). Economic management and prospects 1. *Economic Report 2015/16*, pp. 1–38. Retrieved from http://www.treasury.gov.my/index.php?option=com_content&view=article&id=6442:economic-report-2015-2016&catid=262&Itemid=2478&lang=en
- Prieto, Isabel M^a and Pe´rez-Santana, M. P. (2014). *Managing innovative work behavior : the role of human resource practices*. <https://doi.org/10.1108/PR-11-2012-0199>
- Parzefall, M.-R., Seeck, H., & Leppänen, A. (2008). Employee innovativeness in organizations: a review of the antecedents. *Finnish Journal of Business Economics*, 2(08), pp. 165–182.
- Riaz, S., Xu, Y., & Hussain, S. (2018). Understanding Employee Innovative Behavior and Thriving at Work: A Chinese Perspective. *Administrative Sciences*, 8(3), 46. <https://doi.org/10.3390/admsci8030046>
- Rousseau, D. M., & Greller, M. M. (1994). Human resource practices: Administrative contract makers. *Human Resource Management*, 33(3), pp. 385-401.
- Rogg, K. L., Schmid, D. B., Shull, C., & Schmitt, N. (2001). Human resource practices, organizational climate, and customer satisfaction. *Journal of Management*, 27(4), pp. 431-449.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students* (5th ed.). Harlow: Pearson Education Limited.
- Sekaran, U., & Bougie, R. (2010). *Research methods for business: A skill building approach* (5th ed.). West Sussex, UK: John Wiley & Sons Ltd.
- Steinmetz, S. (2016). *Non-probability sampling*. (January).
- Street, C. T. K. F. R., & Christopher, T. S. (2001). Toward a multi-dimensional measure of individual innovative behavior. *Journal of Intellectual Capital*, 2(3), pp. 284–296. Retrieved from <http://dx.doi.org/10.1108/EUM0000000005660>
- Sungsanit, S. K. and M. (2018). *Human Resource Practices and Innovative Work Behavior The Influence of Multilevel Factors of Human Resource Practices on Innovative Work Behavior*. 13(August), 20. <https://doi.org/10.13140/RG.2.2.17798.68163>
- Sharma, S., & Taneja, M. (2018). The effect of training on employee performance. *International Journal of Recent Technology and Engineering*, 7(4), pp. 6–13. <https://doi.org/10.31104/jsab.v2i2.49>
- Tamasevicius, V., & Diskiene, D. (2018). *Human Resource Management Practice in Lithuania : Evidences and Challenges*. 16(1), 20. <https://doi.org/10.14254/1800-5845/2020.16-1.14>
- Teresa M. Amabile. (1988). A model of creativity and innovation in organization. *Research in Organizational Behavior*. Vol.10, pp. 123-167.
- Tessema, M. T., & Soeters, J. L. (2006). *Challenges and prospects of HRM in developing countries : Testing the HRM- performance link in the Eritrean civil service Challenges and prospects of HRM in developing countries : testing the HRM – performance link in the Eritrean civil service*. (January). <https://doi.org/10.1080/09585190500366532>
- Tze, C., & Rasli, A. (2014). The Relationship between innovative work behavior on work role performance : An empirical study. *Procedia - Social and Behavioral Sciences*, 129, pp. 592–600. <https://doi.org/10.1016/j.sbspro.2014.03.717>
- Uttley, J. (2019), "Power Analysis, Sample Size, and Assessment of Statistical Assumptions— Improving the Evidential Value of Lighting Research", *LEUKOS*, Vol. 15 No. 2-3, pp. 143-162