THE EFFECT OF WORK DISCRETION AND TIME AVAILABILITY TOWARDS ENTREPRENEURIAL ORIENTATION IN MALAYSIA: CASE STUDY FROM SHIN-ETSU MALAYSIA

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Abstract: Determine entrepreneurial orientations of manufacturing employees were very complex issues. However, employee’s entrepreneurial orientation identified as an important factor in any manufacturing organization to sustain in their competitors worldwide. The purpose of the study was, to examine the relationship between work discretion (WD) and time availability (TA) towards entrepreneurial orientation (EO) where mediated by learning orientation (LO) among employees of Shin-Etsu Malaysia (SEM). Seven hypotheses were formulated based on the theoretical framework and supported by Research based view (RBV) theory which were (a) there is a significant relationship between WD and LO, (b) there is a significant relationship between TA and LO, (c) there is a significant relationship between LO and EO, (d) there is a significant relationship between WD and EO, (e) there is a significant relationship between TA and EO, mediating effect by LO and (g) there is a significant relationship between TA and EO, mediating effect by LO. The quantitative research was conducted by using validated research questionnaire. The population consisted of all employees who were working in the SEM. The total number of respondents was 531 out of 700 randomly selected. An overall response rate of 75.8 per cent was obtained. Multiple regression analysis was utilized to analyse the survey data while ensuring that all the necessary assumption are met (high, medium and low level of SEM employees). The result indicated that all seven hypotheses tested were supported. Generally, the study provides empirical evidence that there is a significant relationship between WD, TA and EO. LO was also found to partially mediate the relationship between WD, TA and EO. As a managerial contribution, this study expected to contribute to academic research and management practice in SEM organizations even though a limitation in this research was only conducted among SEM employees. So as a future research, a mixed method longitudinal study should be conducted to gain better understanding of the patterns, determinants and dynamics of change among the constructs’ hypothesis and conduct this research on different sector of industries or businesses.

Keywords: entrepreneurial orientation, work discretion, time availability, learning orientation.

Research Area: Social Science

Paper Type: Research paper
1. INTRODUCTION

Manufacturing organization constantly struggles to secure a core smart ability to get and sustain their competitive advantages. Such a struggle has unavoidabledeepened industrial pieces or parts, shortened product life cycle, and strengthened or got worse competition. The general way things are going is easily seen/obvious in high technology businesses such as computers, communications, and electronics (Woojong, Derick & Kwak, 2004). Manufacturing has been the foundation of managing money development of a process of people making, selling, and buying things in driving mechanical moving ahead (Normah, 2006). In Malaysia, the manufacturing is under expanding weight to improve their execution level (Normah, 2006). When lots of countries communicate and talk with each other, shortening item life cycle, more modern customers, expanding work expense and unpredictability in data costs have made a domain where producers must be able to change, able to do many different things well, able to reply or react or quick to respond and new and interesting (Sohal, Burcher & Lee, 1999). Organizations used to argue in view of cost and quality, yet now they need to argue over all focused way of seeing things, incorporating ability to change and quality of quickly responding to things in the current money-based surrounding conditions (Gunasekaran, 2003).

Problem statement

In the last two decades economy growth found a rapid change and contribution to the manufacturing sector. However, nearly about five hundred workers from consumer and professional devices’ corporation JVC Sdn. Bhd was laid off as part of the Japanese company that allocates at Shah Alam relocate its operations by shutting down its plant (The Rakyat Post, 2015). Another similar manufacturing called Panasonic close their operations in Shah Alam and reallocate at China (Free Malaysia Today, 2013). Another company is that previously a leading hard disk drive maker HGST close its operation in Penang and relocate in Singapore. (The Star Online, 2015). Due to these issues that circulated around, according to the Department of Statistic Malaysia (2015), unemployment rate in Malaysia was 3.5 percent and hit the highest since 2010. It means that nearly 5095000 people unemployed. In additional manufacturing GDP contribution for economic decreasing from last five years. Therefore, organizational regeneration was expected to happen by implementing EO among employees. These phenomena occur due to the present time with the dynamics and uncertainty in the competitive environment and also that company’s strategy to get the proper resources. So, despite an extensive body of research on EO some significant gaps exist that most of the studies conducted generally in organizational instead of specific one organization (Covin & Slevin, 1991).

Research objectives

There were seven research objectives that have been used to conduct this research such as:

1. Determine the relationship between WD and EO.
2. Determine the relationship between TA and EO.
3. Determine the relationship of mediating effect of LO between WD and EO.
4. Determine the relationship of mediating effect of LO between TA and EO.

Research questions

There were seven research questions that have been used to conduct this research they are:
1. Is there a significant relationship between WD and LO?
2. Is there a significant relationship between TA and LO?
3. Is there a significant relationship between LO and EO?
4. Is there a significant relationship between WD and EO?
5. Is there a significant relationship between TA and EO?
6. Is there a significant relationship mediating effect of LO between WD and EO?
7. Is there a significant relationship mediating effect of LO between TA and EO?

**Significant of the study**

The important and activation of EO through an appropriate set of WD and TA have been emphasized by many researchers since past few years. This helps an organization to learn ahead of its competitor which creates sustainable competitive advantages in anticipating and its influence in the organization. An investigation on the effect of the WD, TA, LO and EO among employees is an interest area of this study. Advancement about the layering of the area of interest will be witnesses if the postulates significant relationship between WD and TA and EO among employees. Such a relationship is expected to contribute to academia and also practitioners by identifying the influence of these factors in a dynamic environment.

**Limitation of the study**

This study examines the EO among manufacturing employees only in the year of 2016. Among the limitations are in terms of sample data and populations of sampling are, this study only focusing on employees at Shin-Etsu Malaysia, one of the leading electronic component manufacturer that located in Shah Alam (Shin-Etsu Chemical, 2016).

**Literature review**

Generally entrepreneurship is a process of designing, launching and running new businesses. However, many theories and also received wisdom on the value of entrepreneurship have tended to focus on advanced economy context. In these contexts once small business starters have showed complete awakens and awareness to opportunities there are no other things that block to the understanding or achieving a goal of those opportunities. All organizations have entered a business arena, which is dominated by conclusive change, unprecedented scope, breadth and also pace. Today, the organizations are in need to strengthen their search for organization designs which will help them to reach sustainable competitive advantage hence promise their long term survival in the nature of business. Stage model-based ideas or plans of money-based growth and development suggest that different kinds of small-business starting win at each stage.

WD and TA are features originating both from the management model adopted by the organization, through its structure or success plans of reaching goals, and from the company culture included in the nature of its membership and relationships. It follows that these previously mentioned WD and TA could also be broadly referred to as organizational influences (Simon, 1976). Therefore, the following hypothesis are formulated for the construct:

H1: There is a significant relationship between WD and LO.
H2: There is a significant relationship between TA and LO.
The effect of work discretion and time availability towards entrepreneurial orientation in Malaysia: case study from Shin-Etsu Malaysia

While prior studies have suggested that both LO and EO are beneficial to employees, the relationship may be more complicated than one of simple direct effects (Wiklund and Shepherd, 2005). Therefore, the following hypothesis are formulated for the construct:

H3: There is a significant relationship between LO and EO.

H4: There is a significant relationship between WD and EO.

H5: There is a significant relationship between TA and EO.

H6: There is a significant relationship between WD and EO, mediating effect by LO.

H7: There is a significant relationship between TA and EO, mediating effect by LO.

Research design

This research based on EO among employees at manufacturing sector. Total 700 employees all levels of staffs from different department requested to respond a questionnaire send to them. The manufacturing company chosen for this research study is Shin-Etsu Malaysia, one of the leading hard disk component manufacturer in Malaysia. The survey method was used as a means of collecting the needed data and was considered to be most appropriate design. Many past scholars had been conducted researches on EO among employees in various sectors and fields. However, in this research design, one dependent, two independent variables and one mediator have been used. The dependent variable is EO, WD and TA as independent variables and LO as mediator.

Population and sampling

A questionnaire was developed and delivered to the target employees of SEM. The questionnaire is in five-points-Likert-scale. According to Zikmund (2000), this type of questions encourages respondents to answer and consume lesser time for completion. In addition, it helps in better comparison and analysis of data, allowing efficient analysis of the data collected (Oppenheim, 1992). Neuman (2004) explained that sampling involves the process of systematically selecting respondents or ceases to be included in the research. The sampling process is adopted in the research because it is not feasible to include the entire population in the study. The time and financial constraints are also preventing a research attempt to cover the entire population for the study. Nevertheless, it is also equally important that the sampling frame includes almost all members of the population so that it will be a
good representative of the population (Lowhorn, 2007). This research attempts to study employee entrepreneurial orientation as a dependent variable with work discretion and time availability as an independent variable that mediated by learning orientation. According to Ary, Jacobs, and Razavieh (2002), all things being equal, the larger the sample size, the better the representativeness of the population. However, they indicated that usually, the main concern of any sample within a research is not really the size, rather the representativeness of the sample towards the target population. Although larger sample size is found to be better than the smaller ones in producing reliable and generalizable results, Roscoe (1975) argues that sample size which is larger than 30 and less than 500 should be appropriate for most research. This research is concerned with an EO among employees of SEM. Considering that there are in SEM, hence, population size found to be higher. However, Lowhorn (2007) indicated that the size of the population, whether narrow or broad is not a concern in a research as long as relevant individuals who fit into the study are considered.

**Methodology**

A quantitative research method used for this study. According to Wolfer (2007), quantitative research approach was quite well-thought-out and educated guess oriented, draws heavily upon numbers, applied statistical tests to analyse the data and measure causal relationship of the variables that under study. Total 700 all levels of employees were selected for this research study and send the questionnaire by internal email for those in high level and face to face hand over those in medium and low level employees. Then, one month as responded time period given to them. Factor analysis performed for data screening and multiple regression analysis performed to get relationship as constructed in a theoretical framework.

**Analysis and findings**

Employees of SEM were targeted at the population for this survey. As highlighted before, all levels of employees were targeted as the population of this survey. The sampling frame was determined by contacting the Human Resources department of the organizations. Altogether, there were about 700 employees from all levels of the organization made up the population size. Given the population size, a minimum sample size of 367 was set at 95 percent confidence levels based on Saunders, Lewis, & Thornhill (2009). About 700 questionnaires were sent out to collect data. The data for the survey was collected by face to face and also via email. So, the total usable questionnaire was 480 of total sample, 531 employees at SEM. This represents about 75.8 percent of respondents’ rate. According to the response rate 83.1 percent of the respondents were female while the remaining were male. This indicated that the organization is female dominant considering the nature of the business. The composition of the respondents’ in term of age range reflects that at least half of the respondents are in the age range of 20 to 30 years old while the remaining respondents make up the other 50 percent and very less respondents were constituting to a age range of more than 50 years old. This reflects that younger workforce of the age range of 20 to 30 years old possesses higher tendency to take risks and accomplish their work with a great amount of motivation, energy level and also self-commitment in order to succeed in their jobs (Stevenson & Jarillo, 1989; Storey, 1994). The respondents’ years of service categories ranged between 0 to 5 years at 49.8 percent; 6 to 10 years at 14.4 percent and the rest of the respondents who worked more than 10 years made up to 35.8 percent. As far as department category was concerned, most of the respondents were distributed across production and following with engineering and technical. At least 79.8 percent of respondents constitute to
these two departments while the remaining respondents were coming from Administration, Human Resources and Finance, Import/Export and IT, Store and Shipping, Training and Development/Safety, Quality Assurance and Customer Service and other departments. In view of educational background, most of the respondents’ possesses a certification. Respondents with certification constitute to about 47.5 percent of the total respondents. Multiple regressions were used to predict the relationship between WD, TA and EO. Sekaran (2003) indicated that multiple regressions will provide insights about how much the dependent variable was explained by the independent variables. In order to test for the mediating effect of LO, Baron and Kenny (1986) three step approach was used. There were two independent variables, one dependent variable and one mediator considered in this study. They were WD, TA, EO and LO. Multiple regression analysis was conducted in order to predict these relationships.

**H1: There is a significant relationship between WD and LO.**

H1 stated that there is significant relationship between WD and LO. From the regression test result, the Adjusted R Square value was obtained at 0.228, F Calculating at 142.856 with a significant level of p < 0.000 (less than 0.05). It shows that 22.8 percent of LO has been significantly explained by WD. Nevertheless, the balance 77.2 percent is explained by the other dissimilar outside variable used in this research, so the regression model is useable for predicting how strong the WD variable influence is. In other words, independent WD variable lightly influences the LO. Based on the result of the regression test which tested the relationship between WD and LO, it was found that there is a significant positive relationship between WD and LO with standardized coefficient of 0.480 at significant value of 0.000 (sig = 0.000 (<0.05)). Since sig < 0.05 and the standardized coefficient is positive, the result of the test shows that there is a significant positive relationship between WD and LO in the SEM. Therefore, Hypothesis H1 is accepted. It can be concluded that WD has a positive relationship towards LO. This shows that for every increase of WD, LO will also increase at a positive value.

**H2: There is a significant relationship between TA and LO.**

H2 stated that there is significant relationship between TA and LO. From the regression test result, the Adjusted R Square value was obtained at 0.545, F Calculating at 574.837 with a significant level of p < 0.000 (less than 0.05). It shows that 54.5 percent of LO has been significantly explained by TA. Nevertheless, the balance 45.5 percent is explained by the other dissimilar outside variable used in this research, so the regression model is useable for predicting how strong the TA variable influence is. In other words, independent TA variable lightly influences the LO. Based on the result of the regression test which tested the relationship between TA and LO, it was found that there is a significant positive relationship between TA and LO with standardized coefficient of 0.739 at significant value of 0.000 (sig = 0.000 (<0.05)). Since sig < 0.05 and the standardized coefficient is positive, the result of the test shows that there is a significant positive relationship between TA and LO in the SEM. Therefore, Hypothesis H2 is accepted. It can be concluded that TA has a positive relationship towards LO. This shows that for every increase of TA, LO will also increase at a positive value.

**H3: There is a significant relationship between LO and EO.**

H3 stated that there is significant relationship between LO and EO. From the regression test result, the Adjusted R Square value was obtained at 0.750, F Calculating at
The effect of work discretion and time availability towards entrepreneurial orientation in Malaysia: case study from Shin-Etsu Malaysia

1440.810 with a significant level of $p < 0.000$ (less than 0.05). It shows that 75 percent of EO has been significantly explained by LO. Nevertheless, the balance 25 percent is explained by the other dissimilar outside variable used in this research, so the regression model is useable for predicting how strong the LO variable influence is. In other words, independent LO variable lightly influences the EO. Based on the result of the regression test which tested the relationship between LO and EO, it was found that there is a significant positive relationship between LO and EO with standardized coefficient of 0.867 at significant value of 0.000 ($\text{sig} = 0.000 (<0.05)$). Since sig < 0.05 and the standardized coefficient is positive, the result of the test shows that there is a significant positive relationship between LO and EO in the SEM. Therefore, Hypothesis H3 is accepted. It can be concluded that LO has a positive relationship towards EO. This shows that for every increase of LO, EO will also increase at a positive value.

**H4: There is a significant relationship between WD and EO.**

H4 stated that there is significant relationship between WD and EO. From the regression test result, the Adjusted R Square value was obtained at 0.310, F Calculating at 216.170 with a significant level of $p < 0.000$ (less than 0.05). It shows that 31 percent of EO has been significantly explained by WD. Nevertheless, the balance 69 percent is explained by the other dissimilar outside variable used in this research, so the regression model is useable for predicting how strong the WD variable influence is. In other words, independent WD variable lightly influences the EO. Based on the result of the regression test which tested the relationship between WD and EO, it was found that there is a significant positive relationship between WD and EO with standardized coefficient of 0.558 at significant value of 0.000 ($\text{sig} = 0.000 (<0.05)$). Since sig < 0.05 and the standardized coefficient is positive, the result of the test shows that there is a significant positive relationship between WD and EO in the SEM. Therefore, Hypothesis H4 is accepted. It can be concluded that WD has a positive relationship towards EO. This shows that for every increase of WD, EO will also increase at a positive value.

**H5: There is a significant relationship between TA and EO.**

H5 stated that there is significant relationship between TA and LO. From the regression test result, the Adjusted R Square value was obtained at 0.610, F Calculating at 723.566 with a significant level of $p < 0.000$ (less than 0.05). It shows that 61 percent of EO has been significantly explained by TA. Nevertheless, the balance 39 percent is explained by the other dissimilar outside variable used in this research, so the regression model is useable for predicting how strong the TA variable influence is. In other words, independent TA variable lightly influences the EO. Based on the result of the regression test which tested the relationship between TA and EO, it was found that there is a significant positive relationship between TA and EO with standardized coefficient of 0.558 at significant value of 0.000 ($\text{sig} = 0.000 (<0.05)$). Since sig < 0.05 and the standardized coefficient is positive, the result of the test shows that there is a significant positive relationship between TA and EO in the SEM. Therefore, Hypothesis H5 is accepted. It can be concluded that TA has a positive relationship towards EO. This shows that for every increase of TA, EO will also increase at a positive value.

**H6: There is a significant relationship between WD and EO, mediating effect by LO.**

H6 stated that there is mediating effect of LO between WD and EO. Following Baron and Kenny (1986) procedure for mediation, path $a$ (WD to LO) was assessed with regression...
The effect of work discretion and time availability towards entrepreneurial orientation in Malaysia: case study from Shin-Etsu Malaysia

analysis. The result indicated that path was significant at t-value of 11.952 and p < 0.05 supported (β = 0.507, p < 0.001). Then the second step measuring path b was undertaken for LO and EO. The results obtained significant at t-value of 37.958 and p < 0.05 supported path b (β=0.818, p< 0.001). Path c (WD and EO) was measured as the third step and the result was significant at t-value of 14.703 and p < 0.05 and supported path c (β = 0.557, p < 0.001). First three steps were significant. Therefore, step four was performed to test for full mediation, partial mediation or no mediation. The fourth requirement for mediation, path c was assessed through a regression analysis (where paths a and b are controlled). The results obtained indicated that there is still a significant relationship (t-value of 7.508 and p < 0.05), however with a reduced standardized beta value (β = 0.185, p < 0.001). Given the statistical findings, it was concluded that there is partial mediation in the relationship. Therefore, hypothesis H6 is supported indicating that there is partial mediation effect of LO between WD and EO.

H7: There is a significant relationship between TA and EO, mediating effect by LO.

H7 stated that there is mediating effect of LO between TA and EO. The result indicated that path a was significant at t-value of 23.976 and p < 0.05 supported (β = 0.790, p < 0.001). Then the second step measuring path b was undertaken for LO and EO. The results obtained significant at t-value of 37.958 and p < 0.05 supported path b (β=0.818, p< 0.001). Path c (TA and EO) was measured as the third step and the result was significant at t-value of 26.899 and p < 0.05 and supported path c (β = 0.783, p < 0.001). First three steps were significant. Therefore, step four was performed to test for full mediation, partial mediation or no mediation. The fourth requirement for mediation, path c was assessed through a regression analysis (where paths a and b are controlled). The results obtained indicated that there is still a significant relationship (t-value of 9.633 and p < 0.05), however with a reduced standardized beta value (β = 0.302, p < 0.001). Given the statistical findings, it was concluded that there is partial mediation in the relationship. Therefore, hypothesis H7 is supported indicating that there is partial mediation effect of LO between TA and EO.

Limitations and future research

While this study expected to contribute to academic research and management practice in SEM, its findings may be limited several ways. First, given the quantitative and cross-sectional nature of this study, the study only captured and analysed a snapshot of the influences of SEM employees on the EO of this organizations. To give a better picture on the causal relationship, a mixed method longitudinal study should be conducted to gain better understanding of the patterns, determinants and dynamics of change among the constructs. Next, this study should conducted in different business sectors will not only provide further evidence to support of refute hypotheses under consideration but also will improve the generalizability of findings in regards to the relationship between WD, TA and EO apart from the mediating effect of LO.

2. FIGURES AND TABLES
3. CONCLUSION

From the study, it was observed that at SEM is generally female dominated due to the nature of the industry. Most of the respondent who participate in the survey were coming from an age group of 20 to 30 years old. As far as years of service were concerned, at least 49.8 percent respondents have served the organization less than five years. From the education perspective, the research indicated that employees with basic certification is common qualification standard in the SEM. There were four variables namely WD, TA, LO and EO that tested according to the formulated hypotheses. Totally seven hypotheses were formed and all hypotheses are supported their relations.

REFERENCES