

# **INVESTIGATING THE INFLUENCE OF JOB ROTATION ON CAREER DEVELOPMENT AMONG PRODUCTION WORKERS IN JAPANESE COMPANIES**

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## **ABSTRACT**

The current study aims to investigate the influence of job rotation on career development. Toward this objectives, a survey was carried out amongst 209 production workers in Japanese manufacturing companies in Malaysia. Factor analysis resulted in four distinct dimensions of job rotation namely interest, business knowledge, technical knowledge and administrative knowledge, while career development resulted as unidimension. Multiple regression results indicated that all dimensions of job rotation except business knowledge influence career development. Implications of the findings, potential limitations of the study, and directions for future research are discussed.

**Keywords:** career development, job rotation, knowledge and skills, Japanese management style, production workers

## **1. INTRODUCTION**

The process of career development in an organisation relies on a variety of interventions due to the differences in employee career needs and varying in the career development resources available to them. The most widely used career development interventions include assessment centers, career coaching/counseling, cross-training, flexitime, job enlargement, job enrichment, job rotation, job sharing, sabbaticals and temporary assignments (Olorunsula, 2000; Thamhain, 1992). Numerous firms have used job rotation as a tool to motivate employees by providing task variety and enhancing employee socialization (Susan, 1996). In addition the value of job rotation has long been espoused in promoting employee learning, and career development

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(Campion, Cheraskin & Stevens, 1994). According to Raduan (2002) and Lai Wan (2001) job rotation is recognized as an important training method for production and general workers among Japanese electronics companies operating in Malaysia. This claim is further strengthened by Cosgel and Miceli (2000), where their study found the practice of job rotation contributed to the success of Japanese firm activities.

However, limited research examined the influence of practice of job rotation on career development in Malaysia (Raduan, 2002; Lai Wan, 2001). For instance, Lai Wan (2001) studied to what extent job rotation is introduced and practiced in Malaysian auto manufacturing companies. Meanwhile, Raduan (2002) focused on the job rotation as one of the key elements of employee training and development systems. However these studies did not attempt to examine the influence of job rotation on career development specifically in the Japanese manufacturing companies. Hence a gap exist in the literature pertaining to job rotation in the Malaysian context, thus, this study fills the gap by incorporating the job rotation model by Campion et al. (1994) to provide a basis for examining the influence of job rotation on career development prospects among Japanese manufacturing company in Malaysia.

## **2. LITERATURE REVIEW**

Job rotation refers to the systematic movement of employees from one job to another or any change in assignment, job content or department within the organisation (Olorunsola, 2000). It implies to a systematic change of employee by transferring employee between various area of responsibility on the premise to enhance employee experience in the job. From the view of human resource management, many researchers have described job rotation in broader perspective. For instance, Noe and Ford (1992) described job rotation as opportunities for employee to gain an overall appreciation of organisational goals, to generate a broader knowledge of different functional areas, to develop a network of organisational contacts and to enhance employee skills. This is based on the argument that employees can use the information and skills acquired at one task to improve their performance at other tasks (Lindback & Snower, 2000). Much of this 'inter-task learning' takes place through job rotation within and between teams of workers in production, management and marketing department in an organisation.

While career development refers to as a process for achieving specific employee's and organisation goals, which includes providing career information to employees, helping employees identify advancement opportunities and promoting job satisfaction (Kirk, Downey, Duckett, & Woody, 2000). Likewise, career development program also can be used to sustain or increase employees' current productivity and to achieve a balance between the individual's career needs and the organisation workforce requirements. In other words, career development activities can help employees discover their vocational interests and strengths, whilst, employers can make it as a way to attract the best employees and retain them over time.

Several researchers have confirmed that employee development activities in the organisation are closely connected with the training programs namely job rotation practices (Wright & Belcourt, 1994). For example, Noe and Ford (1992), stated that career development programs if properly designed would help to promote employee career development at some level

through active participation in training and career counseling. In a separate note Wright and Belcourt (1994) concluded that job rotation with the inclusion of on-the-job-training (OJT) techniques would be the primary vehicle for employee development in an organisation. They suggested that learning from experience or learning by doing such as business job rotation can enrich employees' development opportunities. This argument is made based on the premise that being exposed to many functions within the organisation can provide them with multiple areas of expertise. This situation has brought essential effects on individual career that the effective management of job rotation within the organisation can make an essential contribution to employee career and also in helping organisation to achieve competitive advantage from within (Coolahan, 1996). Thus, for both individuals and employer, they must embrace continuous learning in an effort to create a better employee-organisation fit, a better employee-job fit and increase employee loyalty (Kirk et al., 2000). Furthermore, providing meaningful developmental experiences are necessary if the company has a pool of candidates for future management positions.

Many researchers have also reported various issues pertaining the implementation of job rotation in organization in Malaysia (Lai Wan, 2001; Raduan, 2002). According to Lai Wan (2001), job rotation is identified as the most acceptable On-Job-Training (OJT) techniques for production workers in auto manufacturing companies in Malaysia. However, job rotation is not applicable practice for administrative and technical personnel. A study by Raduan (2002) also found that job rotation is an essential characteristic of training system in Japanese manufacturing companies in Malaysia especially in a technical related job.

In view of job rotation practices in Japanese human resource management system, one element that appears to be fundamental of the Japanese model of human resources management is the flexibility that Japanese firms possess, where they depend on multiskilled employee. For instance, employee in the workplace can be assigned to different tasks at different times depending on the work that needs to be done (Tremblay & Rolland, 2000). Moreover, Panos and Udayan (1994) mentioned that job rotation is a characteristic of the Japanese employment system, which to a large extent, supports and supplements the Japanese management systems such as lifetime employment, seniority wages and enterprise unionism. In line with this, all aspects of HRM such as recruitment, training, compensation and participation contribute to the success of the Japanese style management. The Japanese training systems, first and foremost, employs the form of structured OJT as a means to develop human resource capabilities (Brown & Reich, 1997). The training systems, is fundamentally divided into two groups, which are OJT and off-the-job training (off-JT). OJT plays a principal role in the traditional philosophy of Japanese education and training and job rotation is noted as a vital technique (Lai Wan, 2001). The Japanese companies have by principle followed the policy of lifetime employment. This policy encourages the companies to develop training programs through which the employees are prepared to handle new assignments as they grow within the organisation. In an effort to develop a well-rounded employee who is equipped with better balance of practical and intellectual skills, all organisation have realized the importance of OJT and off-JT (Lai Wan, 2001). According to Brown and Reich (1997), the Japanese training systems provide an impressive component of training through OJT and are structured to deepen and broaden all workers' skills. The key characteristic of the Japanese training system is not the amount of

training provided but the highly structured and organized character of the training system. In Japan, OJT is planned, mapped and implemented properly for all level of employees. OJT is important for employees to learn from experience by systematic training necessary knowledge, technical skills, problem solving skills and good attitude toward work (Tremblay & Rolland, 2000).

The importance of multi skilled employees with the OJT approach ignites the implementation of job rotation practices among Japanese firms (Cosgel & Miceli, 2000). Job rotation was practiced in Japan as early as the late 1950s and hold true for all employee in many Japanese firms. For example, an electrical engineer may go from circuit design to fabrication to assembly. A technician may work on a different machine or in a different division every few years and all managers will rotate through all areas of business. It is a common practice for Japanese companies to hire new workers, to train these people and to periodically rotate their jobs. The traditional Japanese model of HRM also emphasizes flexibilities and utilization of skills and knowledge among employees (Lynskey, 1999). The learning process is organized and implemented through job rotation to acquire diversified knowledge and skills among workers (Jacobs & Herbig, 1998). This, therefore, can help them to create versatile employee who is capable of solving a wide array of problems. Because of the Japanese emphasis on lifelong learning and the practice of job rotation which exists in almost every large Japanese firms, transfer of learning to other individuals or to entire other groups can be accomplished easily, quickly and cooperatively. In other words, the sole purpose of establishing job rotation across variable functions in Japanese plants are to enable workers to learn a wide range of different skills and facilitates knowledge sharing among workers.

### ***2.1. Job Rotation and Career Development***

The influence of job rotation on career development could be explained from various perspectives. Firstly, job rotation is an effective way to enhance career development through its contribution in developing employee ability and specifically to those who needs to be trained at the workplace (Bolton & Gold, 2004). For example, Orpen (1994) argued that job rotation is an effective tool to acquire skills that employee needs when mastering new technologies. An employee who is involved in job rotation acquires experience in various discipline more quickly. Thus, frequent job rotation program enables employees to be train as generalist. In another study by Noe and Ford (1992), they suggested that rotation among executive helps career development because it increases management experience in many ways. It provides managers with a broader knowledge in different areas of business ranging from developing a network of organisational contacts to increasing their problem-solving skills.

Secondly, in view of Japanese firms, career development is considerably slow and normally is based on an informal and long-term evaluation of the employee (Tremblay & Rolland, 2000). The promotion system within a work organisation is based on long-term employment and emphasizes of multi-skilled employees. Employees are likely to experience vertical as well as horizontal job rotation, thereby help them in acquiring wider skills. If salary progression for Japanese blue-collar workers is higher than elsewhere, one explanation is that skills acquired through this kind of training are recognized and compensated by these

Japanese firms. Empirical evidence indicates that promotion opportunity within organisation is related with employees on the job experience (Coolahan, 1996; Marian, Patricia, & Kathy, 1995). For example, Marian et al. (1995) reported that promotions for both men and women were based on combination of proven competences and the potential for development such as experience, track record, skill, work ethic and interpersonal skill. In addition, employee ability to work on a team, interpersonal skill and the potential for growth as main reasons for promotion decisions making cannot be denied. As suggested by Coolahan (1996), individual career progression generally takes the view that career advancement is a function of education, ability, job experience and skills. Essentially, an employee's career progression within the organisation may be restricted if there is a mismatch between the abilities and attributes of the individual and the requirements of the job.

Thirdly, job rotation provides information that the firm can use to improve the allocation of jobs among employees, and it indirectly would reflect to career development opportunity (Orpen, 1994). This argument is supported by Lynskey (1999) and Wright and Snell (1998), that job rotation might be used as an effective way to transfer the resources within organisation. Without doubt it might be easier for the firm to find out the most appropriate job for employees if an employee can be observed performing different activities. With job rotation, each time an employee rotates the employer learns about new aspects of employee ability. However, if an employee does not rotate, the employer has to learn more information about the employee abilities.

Finally, literature on functional flexibility suggests that job rotation is a central element within the frame of discussion on employee flexibility (Friedrich, Kabst, Weber, & Rodehuth, 1998). According to Friedrich et al. (1998) functional flexibility is often associated with different models of work system such as job enlargement, job rotation and semi-autonomous work groups. Their finding suggests that by taking over new tasks and by exercising functions independently and responsibly, the employee knowledge and abilities are enhanced. This in turn gives an impression of the diverse work tasks the employees possess. Similarly, Wright and Snell (1998) supported that job rotation process as one of the mechanism that facilitates employee developmental experience. Employees whom possess broad set of skills enables them to accomplish a large number of diverse tasks and provide operational resource flexibility on a day-to-day basis.

### **3. METHODOLOGY**

#### ***3.1. Study Sample and Procedure***

A total of 1000 questionnaires were mailed to a representative of the organization who agreed to participate in this study. These representatives distributed the questionnaires to their production workers. Each participant received one set of questionnaire with a cover letter attached, explaining the purpose of the study and the instructions on how to answer the questionnaire. Participants were also provided with a pre-addressed and postage-paid envelope so that they could post the questionnaire back to the researcher. The respondents (production workers) were randomly selected within those companies. In total, 225 questionnaires were returned

(after a three week collection period) to represent the sample of this study, which represented a response rate of 22.5%. However, 16 responses were eliminated due to excessive missing data. Therefore, the reliable sample size for testing the research hypotheses for the present study was 209 which makes 20.9% response rate.

The participant of the study were mainly made up of female (67.5%), married (67%), of Malay origin (53%, and majority had SPM/STPM as their highest qualification (36.4%). The mean age was 30.45 years, and the mean length of service was 3.45 years.

### **3.2. Measures**

Career development is operationalized as employee perceptions of towards multiple career options in present and future position in an organization which includes promotion opportunity, and skills improvement. Career development was measure using five items adapted from Ledkin and Juwaheer (2000). All items employed a five-point scale ranging from '1' "strongly disagree" to '5' "strongly agree". Examples of items include 'creates working environment that allows me to advance in my career'.

Job rotation is operationalized as employee perceptions of interest in job rotation practices and knowledge that gained from this practice. This construct was measured using an instrument containing 17 items, adapted from Campion et al. (1994). All items employed a five-point scale ranging from '1' "strongly disagree" to '5' "strongly agree". "I am generally in favour of job rotation for training and development" and "I would be interested in job rotation in the near future" were examples of items used in the present study.

The final part of the questionnaire measured age, sex, tenure, marital status and education as demographic information which were determined by asking a single, objectively worded question.

## **4. RESULTS**

### **4.1. Factor Analyses**

To address the validity of the measure, a factor analysis with principle component analysis employing an varimax rotation was carried out on five constructs. The criteria used by Igbaria et al. (1995) was adapted to identify and interpret factors were: each item should load 0.50 or greater on one factor and 0.35 or lower on the other factor. The analysis on career development measures yielded a single factor solution with eigenvalues greater than 1.0 and explained 67.48% of the total variance. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.82 while the Bartlett's Test of Sphericity was significant (Chi square = 615.42,  $p < 0.01$ ) indicating sufficient intercorrelations for the factor analysis. Table 1 shows the results of the factor analysis for career development.

**Table 1:** Factor Analysis of Career Development

Career Development Items	Component 1
1. I prefer working environment that allows me to advance in my career.	.688
2. I believe skills and knowledge gained help me to improve my capabilities.	.803
3. I believe promotion should be made on the basis of work experience.	.642
4. I believe self confident is valuable in my career enhancement.	.778
5. I believe continued training is important for my future career.	.530
Eigenvalue	3.35
Percentage of variance explained (%)	67.48
Kaiser-Meyer-Olkin	.82
Bartlett's Test of Sphericity Approx. Chi Square	615.42
df	15
Significance Level	.000

The second factor analysis with varimax rotation was conducted to validate the dimensionality of job rotation. A four factor solution that explains 68.97% variance in job rotation was found. KMO measure of sampling adequacy was 0.766 while the Bartlett's Test of Sphericity was significant (Chi square = 583.697  $p < 0.01$ ) indicating sufficient intercorrelations for the factor analysis. The four factors found are interest, administrative knowledge, technical knowledge and business knowledge. Table 2 presents the result.

**Table 2:** Factor Analyses on Job Rotation

Job Rotation Items	Components			
	1	2	3	4
<b>Factor 1: Interest</b>				
1. I am generally in favour of job rotation for training and development.	<b>.652</b>	.010	.122	-.054
2. I would be interested in job rotation in the near future.	<b>.573</b>	.023	.025	-.031
3. I would be interested in job rotation some time in the future if it did practise succession planning in human resource management,	<b>.815</b>	.021	-.011	.023
4. I would be interested in job rotation some time in the future if it did involve cross-training.	<b>.814</b>	-.012	.033	.004

**Table 2:** Factor Analyses on Job Rotation (*cont*)

Job Rotation Items	Components			
	1	2	3	4
<b>Factor 2: Administrative knowledge</b>				
1. Improve planning and organising skills.	-.035	<b>.873</b>	-.158	.045
2. Improve interpersonal skills.	.254	<b>.857</b>	.134	.274
3. Improve leadership skills.	.146	<b>.646</b>	.438	.246
4. Increase self-improvement.	.122	<b>.860</b>	-.040	.166
5. Improve cognitive skills.	.043	<b>.712</b>	.030	.143
<b>Factor 3: Technical knowledge</b>				
1. Enhance knowledge of organisation policies, procedures and practices.	.009	.50	<b>.703</b>	.029
2. Improve production knowledge.	-.020	.255	<b>.749</b>	-.120
3. Improve knowledge of business contact and network.	-.032	.404	<b>.797</b>	-.332
4. Improve communication network.	.023	.021	<b>.664</b>	.083
<b>Factor 4: Business knowledge</b>				
1. Improve knowledge of general/current issues.	.002	.033	-.051	<b>.797</b>
2. Improve knowledge of department's role.	-.101	.05	.080	<b>.783</b>
3. Improve knowledge of external environment of business.	-.032	.125	.075	<b>.654</b>
4. Understand organisational goals.	.053	-.105	.078	<b>.664</b>
Eigenvalue	3.21	1.357	1.243	1.096
Percentage of variance explained (%) = 68.97	31.942	11.435	9.775	9.124
Kaiser-Meyer-Olkin = .766				
Bartlett's Test of Sphericity Approx. Chi Square = 583.697				
df = 78				
Significance Level = .000				

#### 4.2. Means, Internal Reliability and Correlations

Table 3 presents the mean, standard deviation, scale reliabilities and correlation coefficient of the study. Cronbach alpha values for the adapted scales were: interest = .617, administrative knowledge = .520, technical knowledge = .560, business knowledge = .650 and career development = .612. In terms of correlations amongst variables, as shown in the table, all four job rotation measures, interest ( $r = .417, p < .05$ ), administrative knowledge ( $r = .380, p < .01$ ), technical knowledge ( $r = .501, p < .05$ ), and business knowledge ( $r = .273, p < .01$ ), were found significantly positively correlated with career development.



**Table 3:** Descriptive Statistic, Scale Reliabilities and Correlations Variables

Variables	Mean	SD	I	AK	TK	BK	CD
Interest (I)	4.12	2.53	(.617)				
Administrative knowledge (AK)	3.67	1.99	.269*(.520)				
Technical knowledge (TK)	3.23	2.32	.248**	.377**(.560)			
Business knowledge (BK)	4.12	1.98	.268**	.384**	.159*(.650)		
Career development (CD)	3.97	2.86	.417*	.380**	.501*	.273**(.612)	

Notes: \*  $p < .05$ , \*\*  $p < .01$

### 4.3. Multiple Regressions

Multiple regression analysis is used to indicate the proportion of the variance in dependent variable explained by the independent variables. It is noted that 37.2% of the variance in career development had been significantly explained by the interest, administrative knowledge, and technical knowledge. The results specifically indicated that out of the four job rotation measures three variables were positively significant, with technical knowledge recording a higher beta value ( $\beta = .370$ ,  $p < .01$ ), followed by interest ( $\beta = .265$ ,  $p < .01$ ), and administrative knowledge ( $\beta = .135$ ,  $p < .01$ ). However, business knowledge is not related to career development. Table 4 presents the results of multiple regression analysis.

**Table 4:** Regression Results on the Influence of Job Rotation on Career Development

Independent Variables	Dependent Variable: Career Development
Interest	.265**
Administrative knowledge	.135**
Technical knowledge	.370**
Business knowledge	.092
R <sup>2</sup>	.372
Adj. R <sup>2</sup>	.360
F value	30.190**

Notes: \*  $p < .05$ , \*\*  $p < .01$

## 5. DISCUSSION

The present study aimed to examine the relationship between job rotation and career development amongst production workers in Japanese electronic manufacturing companies in Malaysia. As expected, the results of multiple regression revealed that job rotation measures were found to be positively related to career development. Specifically, the present study found that interest in job rotation, administrative and technical knowledge are significant

predictors of career development. With regards to the relationship between job rotation and development it suggests that employees with a high level of interest in participating in job rotation are more likely to have a higher desire of being promoted within the organisation. The findings was consistent with Campion et al. (1994) which implies that production workers perceive job rotation as a platform to get a better position in the organisation. The employees may realize the essential effect of job rotation because they believe that experience, skill and knowledge gained from the job rotation may provide them with the necessary preparation for various job functions in the future. Therefore, the tendency of employees to participate in job rotation is strongly related with their perceptions that job rotation practices is a best way to gain experience, knowledge and skills that are considerably required for promotion (Campion et al., 1994; Marian et al., 1995).

In addition, the tendency for organisations to promote experienced employees to new jobs indirectly would help employees to participate in job rotation exercise. As suggested by Marian et al. (1995) most organisations are more likely to promote employees to higher positions whom were strongly connected with previous experience. The job preparation experience such as ability to work in team, strong work ethic and good understanding of organisation business may place them in good positions to be selected as suitable candidates for promotion. By mastering those skills and knowledge needed for higher level of positions in organisations, they can easily be promoted based on their strengths, abilities and talents to other positions which they can excel in. Consequently, job rotation practices should be in place in order to equip employees with the best possible skills, knowledge and performance for promotion. Thus, the job rotation practice is viewed by the production workers as a good practice that would help them to be elevated in their career.

The result further suggests that technical and business knowledge gained from job rotation could also increase the chances for employee to promoted in the organization. The positive relationship between both variables indicates that the production workers in Japanese electronic manufacturing companies placed high importance on job rotation as a workplace training activity and could also produced a lot of chances for employees in improving their knowledge and skills needed in production jobs. Thus, the gathered knowledge and skills bring them the recognition as well as seen as important assets in the organisation. In terms of individual benefits, the ability of employees in mastering various areas of skills will increase and maintain the employees' employability within the organisation. This is consistent with the argument made Bolton and Gold (2004) that job rotation can be used to help employees in acquiring and mastering new skills and experiences. By rotating into different job functions, they can enrich their knowledge about the production process as a whole, as well as to build up good business and technical knowledge. In addition, all production workers in Japanese companies were increasingly performing tasks that required systematic training and skill development programs. The emphasis on this issue, will indirectly force production workers to adapt to new knowledge and skills required in performing routine work especially when organisations bring in new technology that demand new skills to run it. The ability of employees in mastering a variety of skills at the same time will give more information about job-employee matches and help the management to determine the most suitable person for the job. According to Wright and Snell (1998), employees who possess a broad set of skills are able to accomplish a large

number of diverse tasks. In summary, job rotation must be employed by production workers with an intention to improve worker knowledge and skills. As reported by Lai Wan (2001), active job rotation practice among Malaysian production workers should be implemented in a proper way and this practice must be able to give better chances for them to gain experience and skill for a good position in the future. This situation could create good understanding and awareness among production workers with the outcomes of job rotation.

### **5.1. Research Implications**

Findings from the present study have several implications to both theoretical and practice. From the theoretical perspective, the positive relationship between job rotation, business and technical knowledge and career development outcomes indicated that there is a tendency among production workers to improve their current career in the organisation by actively participating in job rotation. Therefore, with regard to a model of career development developed by Wright and Belcourt (1994), job rotation can be used as a part of organisational strategy to improve employee core skills and self-development. According to this model, training activities needed to be taken according to the stage in the employee's career/position or the changing needs of both the organisation and individual. With respect to production workers, it can begin with a well-developed job rotation program for employees in early career (low tenure) and continue throughout their career in the organisation as a part of a career development process.

Secondly, the findings of the current study indicated a positive relationship between job and knowledge outcomes and career development; hence, this finding would suggest important implications for organisation learning. Organisation learning is a concept used to describe certain type of activity that takes place in an organisation. This concept deals with the learning process within an organisation and individuals learning to play as agents for the organisation. The knowledge creation process is done by enlarging the individuals' knowledge through a variety of experiences and a personal commitment to learn. In other words, knowledge creation within an organisation focuses on the individual's ability to support and encourage one another's learning, which will, in the long term, benefit the organisation.

In terms of implications for practice, the research finding show that job rotation had significantly correlated with employee perception towards career development opportunity. From this standpoint, human resource executives can draw a clear understanding of the essential influence of job rotation on employee promotion decisions. Specifically, job rotation provides an incentive to the organisation to promote workers form within, accompanied with the sets of skills needed for a higher-level position in the organisation. At the same time, job rotation provides information that the organisation can use to improve the allocation of jobs among employees. In other words, it may be easier for the management team to determine the most appropriate job for that worker. By doing so, job rotation practices can not only be used to eliminate worker boredom in their work environment, but it also can increase the employee interest in learning.

Secondly, with regard to knowledge and skill acquisition and its influence on career development, human resource executives should be aware of the importance of training

activities in the workplace. Nowadays, the impact of new technologies in the production process also calls for more emphasis on workplace training program. As reported by Raduan (2002), since electronic products are made for international demand, production workers must be able to acquire new skills in order to adapt the new changes in production operations. The production workers are required to actively participate in multiskill job rotation for the purpose of preparing themselves with the necessary skills and abilities needed in the future. In this case, job rotation might be valuable for organisations that require specific skills and knowledge from its workers.

### ***5.2. Limitations and directions for Future Research***

This study is subjected to two major limitations. First of all, this study was conducted on a relatively small sample (n=209 production workers) in Japanese electronic manufacturing companies operating in Malaysia, so generalisation of results and conclusions can be questioned. The respondents participated in this study were only from electrical and electronic companies in Malaysia, which raises the issue whether their interest to participate in job rotation and their perception towards career development outcomes can be generalised to other groups of employees in other manufacturing companies. This limitation might have led to difference in perception among production workers regarding the outcomes of job rotation practices. So the generalisation of the findings should be done with caution to all production workers in Japanese companies in Malaysia, as well as to other manufacturing settings.

Secondly, since this study is descriptive and quantitative in nature, with the sole use of a questionnaire survey to obtain data regarding production worker perception towards job rotation and career development outcomes, which might not fully, cover the real feeling of the respondents. A combination of questionnaire surveys and a series of interviews are recommended in the future for gathering more data and to improve the overall findings of the study.

## **6. CONCLUSION**

In conclusion, the study has provided additional insight into the relationship between job rotation and career development especially among Japanese manufacturing companies operating in Malaysia. Despite the insignificant result of business knowledge, all in all the findings of the present study have managed to provide empirical evidence that some benefits of job rotation can effect career development. The findings suggest that production workers in the Japanese manufacturing companies operating in Malaysia are also concerned about career development by gaining knowledge, experience and abilities through job rotation.

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