Outcome-Based Study on the Effectiveness of PSMB Apprenticeship Scheme under 10th Malaysian Plan

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Abstract: In Malaysia, as in many parts of the world, vocational education and training (VET) is frequently perceived as the solution to improving the opportunities of youths who lack the resources, skills or motivation to continue with higher education. The focus of the study falls on the effectiveness of the apprenticeship scheme during the 10th Malaysia Plan. This study may provide an opportunity to find out how the related parties react towards the apprenticeship scheme. This is important, as feedbacks are central to the success or failure of any scheme. It is expected that the relevant government bodies, private sectors, trainers and trainees will have a valuable insight on the progress this far and what need to be done in the future based on the outcome of the research. This study follows snowballing sampling method and gathers the information from apprentices from variety of industrial sectors. The findings indicate effectiveness at some types of training but lacks comprehensiveness and efficient use of resources and future direction, especially during the 10th Malaysia plan period from 2011 to 2016. This exploratory research is a first chapter of the deeper study in this niche.

Keywords: VET, Government Plan, effectiveness, exploratory survey, Malaysia

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Introduction

Apprenticeships is a strategic approach to fill the gap of skilled workers need to help businesses across all sectors by offering a route to harness fresh new talent, whilst giving an apprentice great hands-on experience. It is a great system of training up the next generation in the crafts and skills of a trade/business or career as the nation moves towards a developed economy. They are a mixture of on-the-job training and class based, tutor led, learning and ideal for school leavers who have no interest in taking an academic route to a profession. The benefits for the apprentice are a plenty; opportunity to gain skills and job experience whilst working for a real company, earn a regular wage whilst doing the apprenticeship with qualification recognized and good career prospects. It also benefits the employers in many ways; improve bottom line by improving productivity to be more competitive and cost effective, fill skills gaps as it deliver skills designed around the business and develop the specialist skills needed to keep pace with the latest technology and working practices, besides motivating workforce.

In Malaysia, as in many parts of the world, vocational education and training (VET) is frequently perceived as the solution to improve the opportunities of younge people, who lack the resources, skills or motivation to continue with higher education. But what makes Malaysia apart from the rest, its desire to bring all related parties, the private sector, industries and training organization together. Further, all economic planning beyond 2001 has put importance to apprenticeship training program. The quantum of allocation, through HRDF, has increased from RM16 million in the 8th Malaysia plan to RM46million in the 10th Malaysia plan (2011 to 2015) and this is expected to increase further in the 11th Malaysia plan (2016 to 2020).

With the added responsibility through the Malaysia Plans, HRDF remains committed in ensuring the creation and growth of quality human capital through efficient high-skilled training programs and initiatives that would contribute to skilled Malaysian workforce besides
creating new jobs. This fund is directed through The Human Resources Development Fund (HRDF) under the Human Resources Ministry that was established in 1993.

Through an act of Parliament (PSMB Act 2001), HRDF was given a mandate by the Malaysian Government to incubate the process of creating competent workforce that will contribute to Malaysia’s developed status. Since its introduction in 1993, HRDF is brought fort new direction to the critical mass of Malaysian small and medium enterprises, to help Malaysia move up in rank on the Global Competitiveness Index by creating an effective and efficient Malaysian labor market.

For employers under the PSMB Act 2001, HRDF helps retrain and upgrade the skills of their employees, apprentices and trainees in keeping with the fast evolving global business landscape, while meeting their individual company’s aspirations. HRDF has assumed a greater responsibility to reach out to the corporates; educating and motivating them to seek the benefits and value of HRDF programmes and initiatives. The schemes are divided into two categories, HRDF Levy and Government Special Fund. HRDF Levy is a fund deposited by employer on monthly basis, then they can apply for schemes that provided by HRDF to attend any programmes that recognized by HRDF. Another category is Government Special Fund; an allocation that provided by government to benefit employer by applying on related schemes that offered by HRDF.

Since 2011 to 2015, the period of the 10th Malaysia Plan (figure below), the accumulated unused fund increased from RM0.64 B to RM0.99B an increase of almost 55% that reflects on the efficiency and effectiveness of current approaches.
Figure i.: Underutilized HRD Fund
Source: HRDF 2016

Statement of Problem

Tens of millions are spent yearly on the apprenticeship training program; it is expected to bring the necessary supply of skilled manpower to fill the urgent demands for such manpower and move Malaysia away from labor intensive economy. But has the allocation met with the objectives set. Further, is the current system of training adequate or require adjustment to be consistent with global standard and the need to add more skill course programs. This is an important consideration as organizations face new circumstances and stiff challenges in a globalized world.

The study shall focus primarily on the effectiveness of the apprenticeship scheme during the 10th Malaysia Plan (2011 to 2015). This study may provide an opportunity to find out how the related parties react towards the apprenticeship scheme. This is important as feedbacks are central to the success or failure of any scheme. It is important to work on the assessment of the apprentice training scheme to verify that what has been done to implement training programs and what has been spent on these programs have achieved the objectives and contributed to improving performance and raising productivity. It is expected that the relevant government
bodies, private sectors, trainers and trainees will have a valuable insight on the progress this far and what need to be done in the future based on the outcome of the research.

This study sought to answer the main question: What is the effectiveness of training programs to bring about the desired outcome. Hence, the following Aim and Objectives are designed for a meaningful understanding of the above issues

**General Objective (the primary Aim):**

Hence, the main purpose of this research is to examine the effectiveness of PSMB (Human Resource Development Fund under the Ministry of Human Resources, Malaysia) under the 10th Malaysia Plan (2011 to 2015).

**Specific Objectives:**

To answer the main objective, a couple of specific independent objectives are formulated to better understand the issue. The following specific objectives are formulated:

**Objective 1:** to examine the effectiveness of PSMB based on the opinion of former Apprentices who graduated during the period 2011 to 2015 and who are working.

**Secondary objectives:**

Secondary objectives are included to further understand and to examine: -

- the need for more programs,
- the effectiveness of duration of the program
- the structure of current programs and its effectiveness

**Research Questions:**
With the research objectives as the central theme, this research aims to answer the following research question:

Research Question 1: What is the effectiveness level of PSMB based on the opinion of former Apprentices who graduated during the period 2011 to 2015 and who are working?

Further Research Questions (based on Secondary objectives):

Secondary objectives are included to further understand:

- Is there a need for more programs inclusion?
- Is there a need to examine the duration of the current programs?
- Is there a need to examine the structure of current programs and its effectiveness?

Literature Review

Importance of Training

Skill training is an essential factor for the development of countries in various area of life (International Labor Office 2015). Training is the most expensive investment, especially if we know that 10% of what is spent on training is for the benefit of the work. It is highly concerned with how we can ensure the transfer of learned skills to the work situation (Mavin, Lee and Robson 2010). In general, skill training is designed to improve exiting skills and attitudes, and add new knowledge and ability to improve performance of jobs (Halson and Jeukendrup 2004). Changing in human attitudes and enhancing his skills, can be obtained correctly through forming some theories. Training theories considered the stage materials that usually applied in all training activities. Theories can help training providers and organizations top management taking right decisions that lead to achieve the objectives (Thomson 2001). The goal of training is to make possible for employees to gain adequate knowledge, skills and behaviors giving in training programs in order apply them to their daily work activities. Skills training serve to improve the performance of employees, which, in turn, provides a competitive edge to the
organization (Elnaga and Imran 2013). Training is an effort in which aims to provide the employees with new information and knowledge, gain skills to enhance their work performance or redirect their attitude toward job. To obtain that, number of processes should be followed to amending the positive trends with a special deal, carry out the behavior of the individual in terms of professional or functional, in order to gain the knowledge and experiences needed by humans (AbuShugair and Abuseada 2015). The purpose of skills training is to create job performance outcomes as well as to enhance employee’s knowledge and skills (Nassazi 2013). The objectives of the training are the goals to be achieved, and is the starting point for any training program. They reflect the results that are designed and approved such as the start of any training process. Therefore, since we cannot determine the goal of the training process, it becomes a failed lead to waste of money and effort and time (Shaheen, Naqvi and Khan 2013).

**Types of Training (Vocational Education and Training)**

Many argue that Vocational Education and Training (VET) provide useful skills to prepare young people into the labor force and improve their chances of a successful professional career (Quintini and Martin 2006, OECD 2010a, Middleton et al. 1993). In particular, by aligning the initial education more closely to particular vocations and tasks demanded in the labour market, the problem of mismatch, often seen as a main source of the high degree of unemployment in developing countries, may be reduced (Almeida, Behrman and Robalino 2012).

As opposed to general education, VET is only a prominent part of secondary education in a number of mostly continental European and Scandinavian countries. Most frequently, VET follows a formal curriculum that combines general and occupation-specific knowledge. Consequently, VET is integrated in compulsory schooling as alternative to an academically-oriented schooling track, or as part of several post-compulsory education options. Similar to
academic education, the skills provided by vocational schools are mostly general in the sense that they are transferable between employers.

_Evaluation of Training Programs_

One of the most important steps in evaluating training program is selection of its model. The importance of the selection of evaluation models lies through their relationship to the goals set by the organization to get out of it (Alathari and Zairi 2002).

*Behavioral Objectives* Approach focuses on the degree to which the objectives of a program, product, or process have been achieved. The major question guiding this kind of evaluation is, “Is the program, product, or process achieving its objectives?”

The *Four-Level Model*, This approach is most often used to evaluate training and development programs on four levels of training outcomes: reactions, learning, behaviour, and results. The major question guiding this kind of evaluation is, ‘What impact did the training have on participants in terms of their reactions, learning, behaviour, and organizational results?’

*Responsive Evaluation* approach calls for evaluators to be responsive to the information needs of various audiences or stakeholders. The major question guiding this kind of evaluation is, ‘What does the program look like to different people?’

*Goal-Free Evaluation* approach focuses on the actual outcomes rather than the intended outcomes of a program. Thus, the evaluator has minimal contact with the program managers and staff and is unaware of the program’s stated goals and objectives. The major question addressed in this kind of evaluation is, ‘What are all the effects of the program, including any side effects?’
**Adversary/Judicial Approaches** adapt the legal paradigm to program evaluation. Thus, two teams of evaluators representing two views of the program’s effects argue their cases based on the evidence (data) collected. Then, a judge or a panel of judges decides which side has made a better case and makes a ruling. The question this type of evaluation addresses is, ‘What are the arguments for and against the program?’

**Consumer-Oriented Approaches** is to help consumers choose among competing programs or products. Consumer Reports provides an example of this type of evaluation. The major question addressed by this evaluation is, ‘Would an educated consumer choose this program or product?’

**Expertise/Accreditation Approaches model** relies on expert opinion to determine the quality of programs. The purpose is to provide professional judgments of quality. The question addressed in this kind of evaluation is, ‘How would professionals rate this program?’

**Utilization-Focused Evaluation** is evaluation done for and with specific, intended primary users for specific, intended uses. As such, it assumes that stakeholders will have a high degree of involvement in many, if not all, phases of the evaluation. The major question being addressed is, ‘What are the information needs of stakeholders, and how will they use the findings?’

**Participatory/Collaborative Evaluation** emphasis of participatory/ collaborative forms of evaluation is engaging stakeholders in the evaluation process, so they may better understand evaluation and the program being evaluated and ultimately use the evaluation findings for
decision-making purposes. As with utilization-focused evaluation, the major focusing question is, ‘What are the information needs of those closest to the program?’

*Empowerment Evaluation approach* is the use of evaluation concepts, techniques, and findings to foster improvement and self-determination. The major question characterizing this approach is what are the information needs to foster improvement and self-determination?

*Organizational Learning envisions* evaluation as a catalyst for learning in the workplace. Thus, evaluation can be viewed as a social activity in which evaluation issues are constructed by and acted on by organization members. This approach views evaluation as ongoing and integrated into all work practices. The major question in this case is, ‘What are the information and learning needs of individuals, teams, and the organization in general?’

*Theory-Driven Evaluation* approach to evaluation focuses on theoretical rather than methodological issues. The basic idea is to use the program’s rationale or theory as the basis of an evaluation to understand the program’s development and impact. By developing a plausible model of how the program is supposed to work, the evaluator can consider social science theories related to the program as well as program resources, activities, processes, and outcomes and assumptions. The major focusing questions here are, ‘How is the program supposed to work? What are the assumptions underlying the program’s development and implementation?’

*Success Case Method* approach to evaluation focuses on the practicalities of defining successful outcomes and success cases and uses some of the processes from theory-driven evaluation to determine the linkages, which may take the form of a logic model, an impact
model, or a results map. Evaluators using this approach gather stories within the organization to determine what is happening and what is being achieved. The major question this approach asks is, ‘What is really happening?’

Kirkpatrick model one of the best known and most widely used as frameworks for classifying evaluation. Kirkpatrick in the beginning planned the model as steps in 1959 and expressed the model as levels in 1994. Kirkpatrick’s four levels are: Level 1; Reaction: what the participants thought of the program, normally measured by the use of reaction questionnaires. Level 2; Learning: the changes in knowledge, skills, or attitude with respect to the training objectives, normally assessed by use of performance tests. Level 3; Behaviour: changes in job behaviour resulting from the program, to identify whether the learning is being applied. Assessment methods include observation and productivity data. Level 4; Results: the bottom-line contribution of the training program.

Research Gap

There were many previous studies that addressed the training of various dimensions, however, this research will focus on evaluating the effectiveness of the training and efficiency of apprenticeship program under PSMB specifically for the period of the 10th Malaysia plan, where significant allocation was made. As this research is for a very recently concluded period, it is understood that no comprehensive research is undertaken and incidentally also the request of the government body responsible for the training needs of PSMB. It is expected that this comprehensive review, from graduates’ angle, will shed new meaning to the ongoing program for structural or functional change.

Methodology

Quantitative Research
This research takes the form of quantitative analysis as the main theme is to generalize findings; data are collected through questionnaires, surveys and data bases. Statistics is used widely in a variety of ways to support an inquiry or program assessment and evaluation. Since Observations are developed into model; quantitative analysis provides a testing platform for an empirical observation. With correct sampling technique for this specific situation, i.e. the use of snowballing and sample size, for minimum pattern observation, it is hoped that findings and observations can be generalized to larger population.

For the interest group, Apprentice program graduates, during the period 2011 to 2015, will be identified through snowballing technique and divided based on specific industries (stratification).

**Summary of Findings**

From the result of survey respondents (N=60), it was discovered that the majority were male respondents (53.3%) than female respondents (46.7%). In terms of age group, it was discovered that the majority of the respondents 25-35 years old (65%) and the lowest percentage falls on age gap between 36-above (35%). Based on the responses majority of participants’ employment experience falls in the gap from 1-5 years (73.3%) 6 years – above (26.7%).

The following table demonstrates the intensity among training apprentices.

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**TABLE I: OVERALL IMPRESSION OF THE TRAINING AMONG PARTICIPANTS, BASED INDUSTRY**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Telecommunication</th>
<th>What was your overall impression of the training for specialization</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Satisfactory</td>
<td>Good</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

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The table above demonstrates that majority of participants belong to Service Industrial sector (N=30) and have a good overall impression of the training. Educational industry represents only 10 participants in this survey and they have an excellent impression upon the training. Telecommunication industry number of participants is 8 and 6 out of this number have an excellent impression.

**TABLE II: IMPROVEMENT OF THE LIFE QUALITY AMONG PARTICIPANTS BASED INDUSTRY**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Telecommunication</th>
<th>Service</th>
<th>Resource</th>
<th>Manufacturing</th>
<th>Educational</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disagree</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>No opinion</td>
<td>3</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Agree</td>
<td>5</td>
<td>21</td>
<td>2</td>
<td>1</td>
<td>5</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>8</td>
<td>31</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>60</td>
</tr>
</tbody>
</table>

According to the Table 2. The majority of the respondents (21 Service industry) agreed that the training program has improved the quality of life generally. No opinion answered 3 participants from Telecommunication industry, 8 participants from Service sector, 1 from Resource Industry, 2 participants from Manufacturing sector and Educational sector disagree that the program has positively influenced the quality of life. The following table will elaborate on the question whether the training program inspired participants to continue career as a professional.
Table III demonstrates that majority of survey respondents feel inspired to continue the career movement, based industry: Telecommunication (N=6), Service industry (17), Manufacturing (N=7), Educational industry (N=8). Participants under Resource industry do not have an opinion to this question.

The following demonstration of the data will elaborate the answers based on gender and working experience.

**Discussion**

The deeper investigation of the data stated that the majority of the respondents are Male (N=32) out of this number (N=16) have an excellent impression of the training program. Out of the number of participants (N=60), 20 female apprentices agreed that the training helped to improve the quality of life. However, Male participants seem to be more inspired to continue the career as a professional 21 out of 30 agreed on that, whereby only 17 out 28 female participants agreed.

Furthermore, the investigation considered the working experience of survey respondents. Excellent impression of the training among people with max 5 years’ experience is dominating. Although participants with more than 6 years’ experience find the training as an excellent exposure. Out of (N=44) participants with max 5 years’ experience 26 agreed that the training...
program helped to improve the quality of life. Same opinion shares the group of respondents with more than 6 years working experience out of (N=16) 13 agreed with this statement. Furthermore, out of the same number 11 stated that they feel inspired to continue the career movement after the training program.

Conclusion

The undertaken study gives the view and explores the effectiveness of vocational training on apprentices in the frame of 10th Malaysian Plan (2011 to 2015), based on variety of factors: motivation and intensity, desire to continue pursuing career as a professional and measures the quality of life in general. This study demonstrated positive output. And answers the objectives stated in the study. Based on the fieldwork it appears that the positive feedback and effectiveness has an efficient impact on the workforce, therefore there is need to empower the apprentices to gain qualification and experience in order to support the working organization with professional manpower. However it needs to be admitted, that the snowballing technique for this nature of study gives only limited information. It is recommended to broaden the scope and scale and consider longitudinal analysis, having two different time horizons. It is recommended to undertake the study from the perspective of Trainee Providers and Employers.

Recommendation and policy Dimension

The findings support the view that the program is popular and effective among takers. However, there are shortcoming in the program, especially in the use of financial resources and the broadness of the training attraction. It has provided skilled workforce with knowledge, but do they remain competitive is any body’s guess, there is no monitoring of graduates over a period
of time, to understand their views of change and continues training needs. Hence, monitoring of graduates need to be made part of the program success, going beyond the current exit interview.

Is there a clear professional recognition for the program, or foreign tie-up, what are the future for graduates beyond the three levels of certification, professional certification and attendance? Foreign, tie-up will make it more attractive for future apprentices, and help move beyond the service and non-technical attraction now. The tie up and clear career paths must be communicated to aspirants through continuous dissemination of information. This must be the choice, rather than this aspirants enrolling in private colleges and universities into programs where they are not cut for in the academic arena. Hence, serious focus must be made for tie-ups and professional recognition beyond local recognition.

Why the reluctance, to release workers (beyond the statutory number) by HRDFs’ registered companies and focusing on simple certification program? Is there a loss of manpower hour that affects output or other specific issues and hurdle on the company faces? Why the need to focus on skills already an employee has, to reinvent the wheel. The is a need to study in what ways the specific employees can contribute to the productivity levels of companies, and the benefits investigated through a gap analysis. This can assist industries to identify current needs but with a focus on future needs, to uplift the economic status, investigated and policy incorporated for a win-win situation.

There is a need to relook at some of the programs, for a future oriented skilled workforce to propel Malaysia to a competitive beyond (one of the objective of HRDF). There is a need to identify, courses that are specifically used to strengthen the current and future economy (vision of HRDF) rather than combination of theory and practical at approved centers, where facilities are basic and skills are recycled materials. The current discussion with companies need to be
viewed in the future tense, rather than fulfilling current needs. New direction programs, from successful developed foreign governments, can be part of the training programs and the company given incentives to use such trained apprentice, through adjustment made in current mundane and outdated practices by such companies. This is the future direction HRDF need to look at to be relevant and uplift Malaysia to a developed nation status.

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**Details on Evaluating Models Discussed**

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