

Potential Marketability of Graduates From Bachelor of Production Operations Management (Hons), Universiti Utara Malaysia

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Introduction

The Second Malaysian Industrial Master Plan (IMP): (1995-2005) had identified the manufacturing sector as a contributor to Malaysia's economic development. Therefore, to materialize the objective of IMP2, Malaysia needs to depend on the effectiveness and efficiency of its technocrats and operations managers.

The establishment of the Production Operations Management Programme under the Faculty of Technology Management, Universiti Utara Malaysia will enable its graduates to function effectively in a wide range of social and professional contexts. However, in responding to present and future needs of the industry, the programme structure needs to be relevant to the needs of the industry. Measures to ensure quality of the Production Operations Management education must be considered early in the course design stage.

Studies on academic programmes offered are crucial in obtaining vital information regarding the suitability of such programmes in fulfilling current and future

workforce demands. Data from such studies would provide an understanding of graduate unemployment. The main objective of this study is to obtain data from local industries in Kedah with the aim of developing an appropriate academic programme. It also aims to identify the actual needs and demands of local industries with regard to future graduates of the Bachelor of Production Operations Management, Universiti Utara Malaysia. An empirical study involving 30 of the 48 FMM (Federation of Malaysian Manufacturers)-listed manufacturing companies in Kedah was undertaken. These are companies from various industrial zones/locations throughout Kedah. The study found that there is relevance between the courses offered by the programme and the components practised in the field of production management. In addition towards developing a strong and structured academic programme, this study aims to explore career opportunities and industrial placements of graduates.

Literature Review

Production Operations Management is a mainstream functional area in business and management programme. It is also inter-disciplined with Information System, Human Resource, and Marketing and Finance (Chase, 1998). Goffin (2003) states that the Production and Operations

Management [POM] field is a key factor for the competitiveness of any business. Therefore university training in POM is a critical element in preparing future managers for various organizations.

Operations Management Curricula

Traditionally, POM courses have been based around a number of tools and techniques (Adler, 1989; Hill, 1996) and this means that POM has been taught differently to the way in which it is practiced in successful organizations (Davies, 1996). However, many researchers recommend that POM programmes put more emphasis on strategic aspects (Wood and Britney, 1989; Bregman and Flores, 1991; Hill, 1996; Levenburg, 1996; Goffin, 2003). Thus, Hill (1996) recommends that 40 per cent of postgraduate sessions should be allocated to strategy.

Marketability Survey and Job Opportunity

Job opportunities in the field of POM can be classified into three sectors:

- Manufacturing Sector
According to the 2002 Economic Report, from 1998 to the mid 2002, the manufacturing sector consistently contributed 26% of the total overall employment rate (2,670,200 people) which was just less 1% from the service sector. Furthermore, career opportunities

in the manufacturing sector provided 46% or at least 60,000 job opportunities of various levels and positions compared to other sectors. Hence it was not surprising that Malaysian Economic Report Statistics showed that job opportunities offered by the manufacturing sector increased from year to year (Bank Negara Malaysia Annual Report, 2002)

• Service Sector

The prospects of the graduates in this sector centred more in the areas of logistics, distribution and transportation, and procurement. In addition, the POM knowledge itself stresses on the aspect of service operations management.

• Government Sector

There are various career opportunities relevant to POM graduates in the public sector such as in government agencies. The public sector includes government-linked companies such as port managements, state development authorities, SIRIM, as well as ministries such as the Ministry of Trade and Industries, the Ministry of Primary Industry and the Ministry of Transportation.

Research Objectives

The research objectives of this study are:

- i. To determine the opinion and feedback from organizations about the suitability of the structure and program content of the POM degree course.
- ii. To identify Bachelor of Production Operations Management (BPOM) students' job opportunities.

Research Method

Sampling procedure

The number of manufacturing companies in Kedah, based on FMM directory is 48. Since the number of companies is small, we have included all of them as our respondents. Of the 48 respondents, 30 companies replied to the survey. Questionnaires were sent to them by mail. A high response rate of 61% is attained after follow-up letters were sent to those who did not respond to our initial questionnaire.

Instrument

The major data collection instrument was a questionnaire. The questionnaire consisted of three parts:

- I: Background information
- II: Contents of programme and its relevance to the needs of organizations
- III: Career opportunities

Data Analysis

Most of the data were analysed by using frequency and percentages due to the nature of our data. SPSS version 12 was used to analyse the data.

Sample Characteristics

Table 1 and Table 2 show the profile of the sample. Most of the companies that participated were large sized with employees numbering more than 250 people.

Table 1: Size of Manufacturing Companies (N=30)

Size	Frequency	Percent (%)
Large	21	70
Medium	6	20
Small	3	10

Table 2: Characteristics of the respondents (N=30)

Item	Frequency	Percent (%)
Location		
Kedah	30	100
Non-Kedah	-	
Type		
Manufacturing	30	100
Non-manufacturing	-	
Size		
Large	21	70
Medium	6	20
Small	3	10
No. of Employees		
Less than 50	3	10
51 - 150	4	13.3
151 - 250	2	6.7
Over 250	21	70

Results And Discussion

The results were summarized based on our research objectives previously specified:

- (1) Suitability of the structure programme content,
- (2) Job opportunities for BPOM students.

Structure and Program Content

- Courses offered

Table 3: Importance rating of POM courses

Courses	Frequency	Importance (%)
Production & Operations Management	30	100.00
Management of Quality	30	100.00
Management of Quality System	29	96.66
Industrial Engineering	28	90.00
Manufacturing Technology	26	86.67
Inventory Management	25	83.33
Purchasing & Supply Chain Mgt.	24	80.00
Operations Strategy	24	80.00
Project Management	23	76.67
Operation Management Information System	23	76.67
Occupational Safety and Health	23	76.67
Design of Operations System	22	73.33
Electrical & Electronic Technology	20	66.66
Mathematics for Technology	18	60.00
Management Science	18	60.00

Most courses that are offered are considered relevant to practitioners' needs. This could be seen from the ratings provided by practitioners on each POM course. Table 3 above indicates in percentages the important courses from the practitioners' viewpoint. Among the given courses with the highest rating are Production & Operations Management, and Management of Quality (100%), Management of Quality System (96.66%), and Industrial Engineering (90%). Today, most firms express their goals in terms of customer satisfaction or level of quality to beat the competition. According to Russell (2006), the way to achieve the

competitive edge is by deploying basic functions of operations management such as quality. Based on Table 3, it can be said that POM is a very important and relevant subject to offer on this programme and fulfils industry's needs.

Career Opportunity

• Job Opportunities

All the respondents agree that graduates of the POM programme are suitable to work in their organization and agree to recruit graduates from this programme.

• Relevant posts

The top ten relevant posts considered by the respondents are Production Planner, Operations and Planning Executive, Production Executive, Production Control Executive, Production Manager, QA/QC Executive, Quality System, Inventory Planner/ Controller, Logistics Executive and Buyer/ Purchaser/ Purchasing Officer/ Executive.

• Appropriate income

Overall, respondents have positive perceptions of the appropriate income for fresh graduates of this programme. As shown in *Figure 1* on page 6, 50% of respondents agree to pay the graduates a starting salary of RM 1501-RM 2000, compared to 43% of respondents who are willing to pay RM 1001-RM 1500. This result indicates that production operation management graduates can expect to receive relatively high starting salaries.

Conclusion

The majority of organizations stated that the offering of this POM programme and its course content is definitely suitable and in line with the organizations' workplace needs. Every single component of the course offered is rated important. Majority of them stress that this programme is able to fulfil the needs of the workforce market through various executive positions. Furthermore, a majority of the respondents agree to accept POM students to undertake their practical training at their organization.

Based on the feedback received from the various industries, the programme can be implemented and fulfil the justification in order to produce skilled and expert graduates required by organizations.

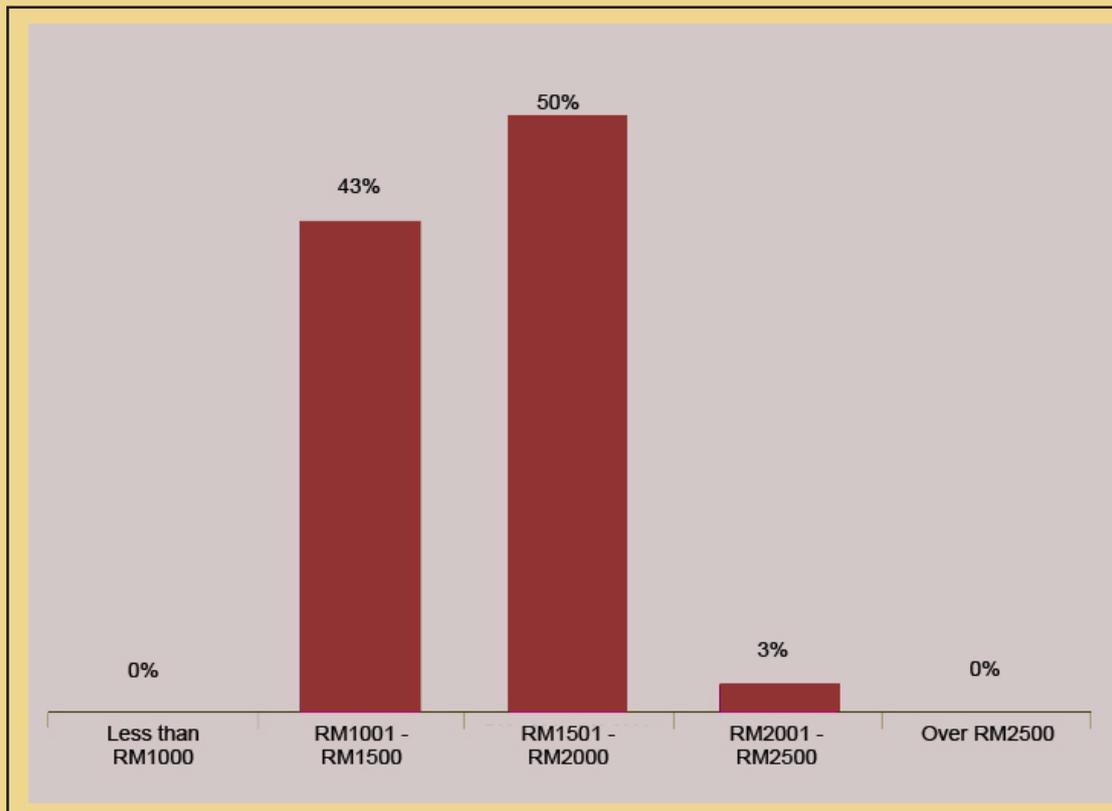


Figure 1: Appropriate Income

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