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MDAB Programme is a Waste of Money?

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ABSTRACT

The MDAB programme is a remedial course introduced by Universiti Teknologi MARA (UiTM) in June 2010. The main objective of the programme is to give an opportunity to Bumiputera students having under qualified entry results and coming from low income families to further their tertiary studies in UiTM. The students entering this programme are fully sponsored and to date about 22000 students have undergone this programme and about RM20 million has been spent just for the students' allowance. Thus, this research was embarked to investigate the overall performance of the students in this programme in order to justify that the money invested was indeed well spent and also such remedial courses have helped the students. The performance of all MDAB students for the last nine semesters as well as the performance of a particular MDAB programme namely Pre-Science at UiTM Sarawak are reported in this paper. The results showed that 83.43% of the overall MDAB students managed to complete the courses and continued their studies at diploma level. However, only 70.94% of Pre-Science students in UiTM Sarawak managed to complete their courses. In general, the overall performance showed that the programme has indeed succeeded in helping the students to further their studies at a higher level.

Keywords: *MDAB, Pre-Commerce, Pre-Science, performance, UiTM*

INTRODUCTION

The MDAB programme, the short form of Destiny Child Nations Foundation (*Mengubah Destini Anak Bangsa*) is a programme that was inspired by Y.Bhg. Tan Sri Dato' Prof. Ir. Dr. Sahol Hamid Abu Bakar, the Vice Chancellor of Universiti Teknologi MARA (UiTM) in 2010, based on the idea sparked by YAB Dato' Sri Haji Mohd Najib bin Tun Haji Abdul Razak, the Prime Minister of Malaysia. The main purpose of this programme is to help the students who want to further their studies but are unable to do so due to their poor performance in the Malaysian public examination namely Malaysia Certificate of Examination (SPM) which is an entry requirement to Malaysian universities. In addition, apart from education limitation, the students who are mainly selected to this programme are all having financial restrictions especially those from the rural areas. As the policy of UiTM, the programme is only offered to Bumiputera students, which consists of students which consists of students from Malay, *Orang Asli* and indigenous natives of Sabah and Sarawak.

UiTM offers two MDAB preparatory courses namely Pre-Commerce (PD002) and Pre-Science (PD007). These two courses can be considered as remedial programmes but with two slightly different focuses. The Pre-Commerce programme helps the students to enhance their Mathematics and English language while the Pre-Science, on top of focusing on these two subjects, also focus on enhancing the understanding in science subjects such as Physics, Chemistry and Biology. Thus, it is rather significant and interesting to find out whether going through such remedial programmes will help those less fortunate students to excel in their studies and continue to the diploma programme of their choice later on. Poverty or low income families are shown to have a direct impact on students' academic performance. Some studies have shown that students from better endowed families perform better in examinations and the adverse effects of poverty on student performance are well documented (Myers *et al*., 2004; Bernstein, 2007). The low income parents face certain constraints in their financial resources, availability of time and educational skills, thus limited their ability to be active partners in their children's education (Hawkins, 2001).

In general, the main objective of the MDAB programme is to give an opportunity to Bumiputera students who do not meet the minimum direct entry requirements to continue their tertiary studies in UiTM. Additionally, the students also received 100% financial assistance. Thus, it is very significant to know whether such a remedial course namely MDAB programme and free financial assistance as such have indeed met its objectives and has helped the students to perform well in their studies despite having under qualified results and coming from low income family. This paper aims to share some analysis gathered on the overall performance of MDAB students for the past nine semesters of intakes for the whole UiTM system. In addition, the performance of Pre-Science students in the first six semesters of MDAB intakes particularly at UiTM Sarawak was also studied in order to get more meaningful output. A short survey was also conducted to identify the students' recommendation on the MDAB programme.

LITERATURE REVIEW

MDAB Requirement

In order to apply for the MDAB programme, the applicants must submit all their certified copies of certain documents including their identification card, SPM results, birth certificate, parents' identification cards, parents' birth certificates and parents' payslips together with the MDAB application form to UiTM branches of their choices. The entry form can be downloaded from the UiTM Official website for free and there is no fee. The general and entry requirements to apply for the MDAB programme is shown in Table 1.

Table 1: The General and Entry Requirements to Apply for The MDAB Programme

General Requirements	
i. **Bumiputera* only	
ii. Students from low income and poor families	
Unable to continue their education due to poverty.	
Parents' with a monthly gross income less than RM3000	
Entry Requirements	
i. **Bumiputera* with Malaysian citizenship aged 16 and above	
ii. SPM qualification with 3 credits including *Bahasa Melayu*	
iii. Passed in History	
Programme Entry Requirements	
Pre-Commerce (PD002)	Passed in Mathematics
	Passed in English
Pre-Science (PD007)	Credit in Mathematics / Additional Mathematics
	Passed in English
	Passed in any of these Science subjects (Physics, Chemistry, Biology and Additional Science)
Additional Requirements	
Physically healthy, free from mental illnesses and capable of participating in any planned programmes.	

* **Bumiputera** are Malays; *Orang Asli*; indigenous natives of Sabah and Sarawak

MDAB Funding Partnerships

UiTM has established the fund for the MDAB programme since July 2010. The students benefitting from MDAB fund come from the poor families with a total family income of less than RM3, 000. This programme enables the qualified students to study in UiTM without paying any fees and with free accommodation provided. The students also receive monthly allowances based on their parents' salaries that could help them to support their cost of living in the university.

Yayasan Sime Darby (YSD), is among the sponsors of the MDAB programme. YSD governing council member Datin Paduka Zaitoon Dato' Othman said contributions from the foundation have made it possible for students lacking academic qualifications to enter pre-university courses in Malaysia and those from less fortunate backgrounds, to pursue education opportunities they would never receive elsewhere. YSD strongly believes that with the support given to UiTM through the programme, these underprivileged youths are given a chance to enable and empower themselves to fulfil their dreams and achieve a better livelihood for themselves and their families through higher education (Yayasan Sime Darby, 2013).

YSD has pledged a total of RM6 million for six years from July 2011 to June 2017 to MDAB. The funding covers the students' living expenses, which include allowances for food, pocket money and transportation (Yayasan Sime Darby, 2014). YSD is also working with UiTM to identify MDAB graduates with good academic results and award them with YSD's bursaries as a continuation of the foundation's support for the programme (Yayasan Sime Darby, 2013).

Apart from this, Bank Islam Malaysia Berhad (BIMB) has unveiled a co-branded Platinum MasterCard Card known as 'Kad Platinum MasterCard Bank Islam - Alumni UiTM' in order to raise funds for the MDAB programme. Under this initiative, 0.3% of the amount transacted using these cards will be donated to the fund. In addition, RM60 will also be donated for every new approved and activated Principal Card membership (Bank Islam, 2010).

BIMB Managing Director Dato Sri Zukri Samat said this noble effort will provide a permanent channel for the thousands of UiTM Alumni members who have benefited from their education at UiTM to give back to UiTM and the society by supporting their former alma mater to provide unfortunate students with a life-long gift of education, which will consequently enrich the quality of the country's human capital. Other than that, MDAB has also received funds from the zakat contribution by BIMB (The Borneo Post, 2011), Etiqa Takaful Berhad (The Borneo Post, 2012) and others.

Allowances for MDAB Students

The cost of study for MDAB students are fully supported by UiTM. Additionally, MDAB students also received allowances that help them to support their costs of living in the university and a free accommodation for the whole semesters of study at UiTM hostels.

According to the UiTM circular dated 28 June 2012, it was stated that the total of subsistence allowance received by the MDAB students are based on the family grade income. This means that each MDAB student will receive different amounts of allowance depending on their parents' monthly salary. Table 2 shows the guidelines on the total allowance received by these MDAB students effective from November 2012.

Table 2: The Guidelines on The Allowance Received by The MDAB Students

Criteria			**Total of Allowance**
Student with family monthly income RM499.99 or less			RM1700
Breakdown:			
Food Allowance	RM10 daily x 30 days x 4 months	RM1200	
Pocket Money	RM100 monthly x 4 months	RM400	
Transportation (return fares)	RM100 (one time only)	RM100	
Student with family monthly income between RM500 to RM999.99			RM1220
Breakdown:			
Food Allowance	RM6 daily x 30 days x 4 months	RM720	
Pocket Money	RM100 monthly x 4 months	RM400	
Transportation (return fares)	RM100 (one time only)	RM100	
Student with family monthly income between RM1000 to RM1999.99			RM1040

Breakdown:			
Food Allowance	RM4.50 daily x 30 days x 4 months	RM540	
Pocket Money	RM100 monthly x 4 months	RM400	
Transportation (return fares)	RM100 (one time only)	RM100	
Student with family monthly income between RM2000 to RM2999.99			RM920
Breakdown:			
Food Allowance	RM3.50 daily x 30 days x 4 months	RM420	
Pocket Money	RM100 monthly x 4 months	RM400	
Transportation (return fares)	RM100 (one time only)	RM100	

(Source: UiTM Circular dated 28 June 2012 and 28 November 2012)

Students' Academic Performance and Low Income Family

The factors affecting students' academic performance are many and tend to vary across time, region and content. However, nearly all empirical studies of measured learning achievements agree that the social-economic status of the family accounts for most of the explainable variation in learning outcomes (Sharifah, 1991; Hanushek, 1995; World Bank, 2003). The students coming from a low income family especially those living in rural areas tend to have low academic performance if compared to other students living in urban areas from high income family (Lee and Barro, 1997). The study done by Kling *et al.* (2007) showed that students coming from a poor neighbourhoods exhibited poorer performance on a number of socioeconomic and health outcomes than the students coming from the rich neighbourhoods'. The authors used several descriptive variables namely physical and mental health, risky behaviour and education, controlling for gender, in a sample of youths. The study in education was performed through students' achievement in reading and mathematics using the Woodcock-Johnson Revised Broad Reading and Math assessment. The study concluded that supporting the poor households through voucher distribution affected

positively the educational performance of female students but interestingly has negative impact on educational performance of male students (Kling *et al.*, 2007).

The study done by Hassan *et al*. (2011), also showed that the higher schooling expenditure by parents has positive correlation with student academic performance which was also proved to be directly related to the higher income parents. The general pattern shows that socioeconomic factors namely better educated and higher income families are significant factors in enhancing educational outcomes. The study further confirmed that poverty in rural areas is invariably linked to lower student achievement and thus ultimately suggested that providing sufficient financial assistance such as subsidies and scholarships for poor students should continue to be very high on policy agenda (Hassan *et al*., 2011).

Carter (2013) also demonstrated that students coming from low income families did not succeed in schools and required remedial courses while in the university. It was stated that a remedial course was taken by as many as 1.7 million first-year students entering colleges in the United States of America (USA) and majority of those who need the remedial course are the low-income students. A remedial course is defined as coursework below college-level offered at a postsecondary institution (Calcagno and Long, 2008). Carter (2013) listed five factors that contribute to low income students requiring the remedial course which are lack of exposure to books; language barriers where English is not their first language; lack of stability in terms of income and health; lack of positive academic role models; and they are the first generation in their families to go to college.

METHODOLOGY

This study employed a quantitative procedure. The overall performance of MDAB students for the latest nine semesters of intake at UiTM branches nationwide was obtained from the Students Information Management System (SIMS). Meanwhile, the performance of Pre-Science (PD007) at UiTM Sarawak for the past six semesters of intake (December 2011 to March 2012, June to October 2012, December 2012 to March 2013, June to October 2013, December 2013 to March 2014 and June to October

2014) was obtained from the report of final examination analysis (LE13). The missing results were found by using SIMS. The data was analysed using Descriptive Statistical Analysis, which was performed by Microsoft Office Excel 2007. A short survey was also conducted in order to identify the students' recommendation on the MDAB programme. The sample of the survey was the Pre-Science graduates of UiTM Sarawak. The survey was done online using Google Forms and the sampling design was based on random sampling. The survey consisted of three sections (Student' Profile; MDAB Significance; Recommendation) which had been validated.

RESULTS AND DISCUSSION

Overall performance of MDAB students

Figure 1 and Figure 2 below show the performance of MDAB students for both Pre-Commerce (PD002) and Pre-Science (PD007) for the latest nine semesters of intake in UiTM. The figures indicated that more than 75% of the MDAB Pre-Commerce students had completed the course and the trend seems to be upward for most semesters except for semester June 2014 to October 2014. As for MDAB Pre-Science, it shows a fluctuating trend. However, the percentage of students who graduated from this course in the latest semester i.e. semester December 2015 to March 2016 was the best (more than 90%) if compared to the past nine semesters.

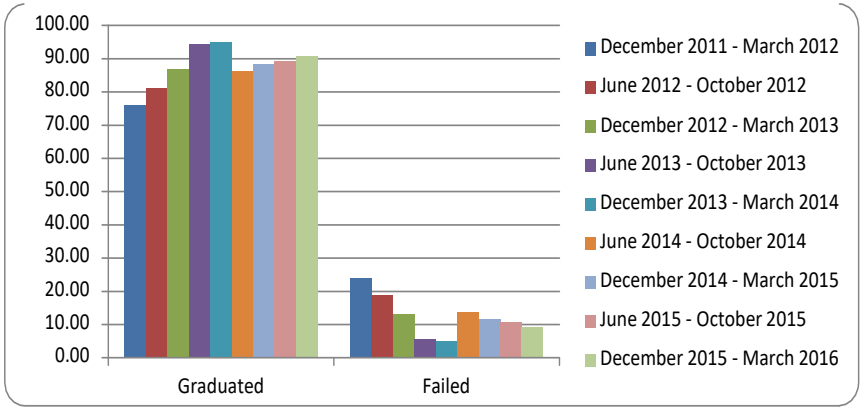

Figure1: The performance of MDAB Pre-Commerce (PD002) Students According to Semesters

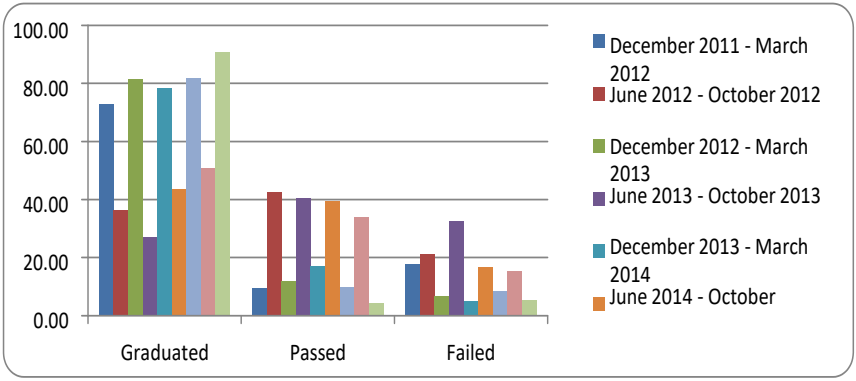

Figure 2: The performance of MDAB Pre-Science (PD007) Students According to Semesters

Table 3 below shows the overall performance of MDAB students for the whole UiTM system. It is shown that 16581 (87.32%) students from Pre-Commerce and 1361 (54.07%) students from Pre-Science successfully completed the courses. 723 (28.72%) students from Pre-Science passed the course and continued their studies in part 2. Unfortunately, 2408 (12.68%) students from Pre-Commerce and 433 (17.20%) students from Pre-Science failed the courses. Overall, from semester December 2011 to March 2012 up to semester December 2011 to March 2015, the total of MDAB students from both Pre-Commerce and Pre-Science was 21506 where 17942 (83.43%) of them graduated and only 2841 (13.21%) failed the courses.

Table 3: The Overall Performance of MDAB Students for the Whole UiTM

Programme	Total	Graduated	Passed	Failed
Pre-Commerce	18989	16581 (87.32 %)	-	2408 (12.68 %)
Pre-Science	2517	1361 (54.07 %)	723 (28.72 %)	433 (17.20 %)
Grand Total	21506	17942 (83.4 %)	723 (3.36 %)	2841 (13.21 %)

Performance of MDAB Pre-Science (PD007) at UiTM Sarawak

MDAB Pre-Science (PD007) consisted of two parts. Students who achieved very good results in part 1 and fulfil the current requirements (CGPA equal or more than 3.00 and passed all subjects) could be promoted straight into diploma programmes whereas those whose CGPA is between 2.00 – 2.99 and CGPA equal or more than 3.00 but failed anyone of the subjects has to undergo part 2 of the programme. Upon completion of part 2, with the fulfilment of the current requirements (CGPA equal or more than 2.00 and passed all subjects), the students are allowed to enter the diploma programmes. Failing to achieve the stipulated requirements will cause the termination of their study.

MDAB Pre-Science Performance in Part 1 Studies

From semester June to October 2011 until semester June to October 2014, the total intake of MDAB Pre-Science students at UiTM Sarawak was 265. Table 4 shows the enrolment of students and their status of studies according to semester of intake.

Table 4: Enrolment of MDAB Pre-Science Students and Their Status of Studies According to Semester of Intake

UiTM Sarawak MDAB Pre-Science (PD007) Part 1

Semester of Intake	Number of Students	Completed and Promoted to Diploma	Passed and Proceed to Part 2	Failed
June 2011 - October 2011	64	22	24	18
December 2011 - March 2012	No Intake			
June 2012 - October 2012	39	16	14	9
December 2012 - March 2013	11	3	7	1
June 2013 - October 2013	57	20	23	14
December 2013 - March 2014	18	6	11	1

June 2014 - October 2014	76	40	29	7
Total	**265**	**107**	**108**	**50**

From the total of 265 MDAB Pre-Science students, 107 of them completed the course and were promoted to diploma programmes in UiTM whereas 108 of them passed and proceeded to part 2. Unfortunately, 50 of them failed in the course.

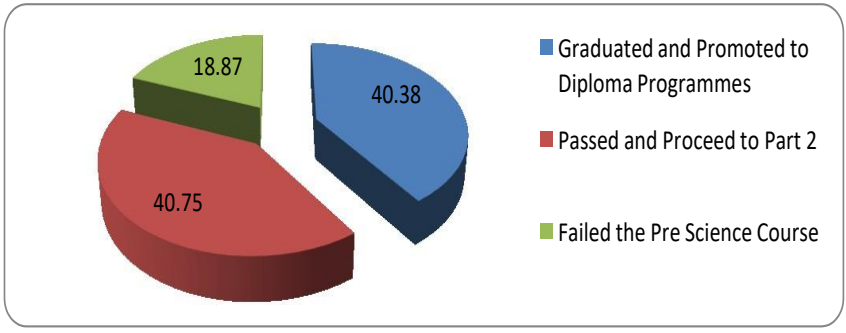

Figure 3: The MDAB Pre-Science Students (Part 1) According to Status of Studies

Figure 3 shows the percentage of the students who passed and were promoted to diploma, passed and proceed to part 2 and failed in the Pre-Science course. It indicates that more than 80% of the students passed the Pre-Science course in part 1 where 40.38% of them successfully graduated and promoted to Diploma programmes.

MDAB Pre-Science Performance in Part 2 Studies

From the total of 108 students who passed and proceeded to part 2, only 95 of them continued their studies. Table 5 shows the number of students and their status of studies according to semesters. It is shown that 81 MDAB students from part 2 completed and were promoted to diploma programmes. Unfortunately, 14 students failed in the course. From Figure4, it is shown that more than 85% of students from MDAB part 2 managed to complete their Pre- Science programme and have been promoted to diploma level. Out of 95 students, 86 of them (90.5%) had improved their GPA in part 2. This is consistent with Iris et. al. (1999) which reported that Part 2 Pre-Science graduates tended to do better in their second semester of the Pre-Science course. The improvement in GPA of the Part 2 students means

that that there was improvement as well in their CGPA. However none of them obtained CGPA of 3.50 – 4.00.

Table 5: Number of MDAB Pre-Science Students (Part 2) and Their Status of Studies

Semester of Intake	Number of Students	Promoted to Diploma	Failed
June 2011 - October 2011	24	18	6
December 2011 - March 2012	No Intake		
June 2012 - October 2012	12	12	0
December 2012 - March 2013	7	6	1
June 2013 - October 2013	19	17	2
December 2013 - March 2014	7	6	1
June 2014 - October 2014	26	22	4
Total	**95**	**81**	**14**

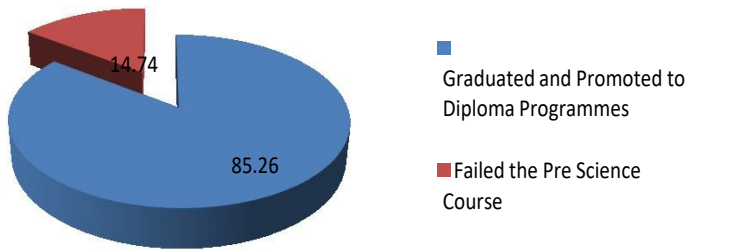

Figure 4: Percentage of the MDAB Pre-Science Students (Part 2) According to Status of Sudies

MDAB Pre-Science Performance in Overall

Based on Table 6, out of 265 MDAB students who enrolled in Pre-Science from semester June to October 2011 until semester June to October 2014, 188 (70.94%) of them completed their Pre-Science courses and promoted to the diploma programmes at UiTM branches nationwide. Meanwhile, 64 (24.15%) students failed in this course and the remaining 13 (4.91%) decided not to proceed with the part 2 studies.

TABLE 6: Summary of the status of studies for MDAB Pre-Science Students

Status of Studies	Frequency	Percentage
Promoted to Diploma	188	70.94
Failed Pre-Science Course	64	24.15
Didn't proceed with part 2	13	4.91

Factors contributed to the Pre-Science Failure

Based on Table 4 above, 50 (18.87%) students from MDAB Pre-Science part 1 failed the programme. The reason for the failure was the students achieved a CGPA below than 2.00. Table 7 shows the CGPA distribution of these students.

Table 7: The CGPA Distribution of MDAB Pre-Science Failure in Part 1 Studies

CGPA	Frequency	Percentage
0.00 – 0.49	6	12.0
0.50 – 0.99	1	2.00
1.00 – 1.49	23	46.00
1.50 –1.99	20	40.00

Meanwhile, 14 (14.74%) students from MDAB Pre-Science part 2 failed the programme (refer to Table 5). Table 8 shows the CGPA distribution of these students. The table indicated that 13 students from MDAB Pre-Science failed the programme with the CGPA of 2.00 – 2.99. The reason for the failure was these students failed one of the courses taken in their second semester. 11 of them failed in MAT082 (Mathematics 1B) while the remaining two students failed in ELC020 (English 2). None of these students failed the Pre- Science because of the Science courses.

Table 8: The CGPA Distribution of both MDAB Pre-Science Failure in Part 2 Studies

CGPA	Frequency	Percentage
0.00 – 0.49	0	0
0.50 – 0.99	0	0
1.00 – 1.49	0	0
1.50 –1.99	1	7.14
2.00 – 2.49	10	71.43
2.50 – 2.99	3	21.43

Students' recommendation on MDAB Programme

Table 9 shows the students' recommendation on the MDAB programme. The results indicated that 82.73% of the respondents fully support the programme to be continued in the years to come with no changes, 5.45% of them fully support the programme to be continued with small changes whilst 10.9% fully support the programme to be continued with some changes.

Table 9: Students' Recommendation on the MDAB Programme

Recommendation	Female	Male	Total	Percentage (%)
I would fully support the programme to be continued in the years to come with no changes.	60	31	91	82.73
I would fully support the programme to be continued with small changes.	5	1	6	5.45
I would fully support the programme to be continued with some changes.	9	3	12	10.9
I would recommend this programme to be repealed.	1	0	1	0.91
Grand Total	75	35	110	100

Only one respondent (0.91%) chose the last statement, "I would recommend this programme to be repealed". This clearly showed that more than 80% students were satisfied with the existing MDAB programme and totally supported the programme to be continued in years to come.

Expenses return for MDAB students

The MDAB students received an allowance according to the total parents' income per month as shown in Table 2. The allowances were cost spent by MDAB Funding Partnerships to support the students' living costs during studies. Based on Table 3, the total of MDAB students in UiTM system from December 2011 to March 2015 was 21506. Table 10 shows the estimated minimum cost spent by UiTM just to cover the students allowance and the return of benefits in the form of students' success in completing the MDAB courses. About 86.79% of the total money spent for 18665 students has been successfully used as these students managed to complete their MDAB studies and continued their studies at diploma level.

Table 10: The Estimated Minimum Expenses for Students' Allowances and the Benefit Return

	Graduated & Passed	Failed	Total
Number of students	18665	2841	21506
Minimum Expenses (RM) (RM920 per student- Table 2)	17,171,800	2,613,720	19,785,520
Percentage of Minimum Expenses	86.79	13.21	100.00

CONCLUSION

The MDAB programme has indeed been proven to benefit the students. More than 80% of MDAB students from the whole UiTM system managed to complete the programme and pursue their studies at the diploma level. With regard to the students' recommendation on the MDAB programme, 82.73%

of the respondents fully supported and are satisfied with the existing MDAB programme. The study data also showed that providing financial assistance to those coming from lower income group has indeed substantially helped those students who were initially under qualified to pursue their studies at the tertiary level. This result parallels the claim made by Hassan *et. al*. (2011) in their study. Thus, the MDAB programme should be continued in years to come to ensure less privileged students have the same opportunity to pursue their studies at tertiary level and a much more organised and fixed financial assistance should be developed. What is more significant is, the MDAB programme (through MDAB Pre-Science) has greatly contributed to the increasing number of graduates in science, technology, engineering and mathematics (STEM) programmes, which in the end can fulfil the job demands in the technical area especially from among Bumiputera graduates. This indeed creates another avenue for the Government of Malaysia on ways to increase the number of students in Science and Technology areas. Although UiTM has spent about RM20 million just for the allowance to 22000 students, it was worth it as majority of these students graduated the programme and managed to further their studies at higher level. Without MDAB programme, the students may not be able pursue their studies and achieve the success like now. Thus, MDAB is not a waste of money.

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