

**Technical
Proposal
for a
Behavioural
Insights
Case Study**

1st July 2020

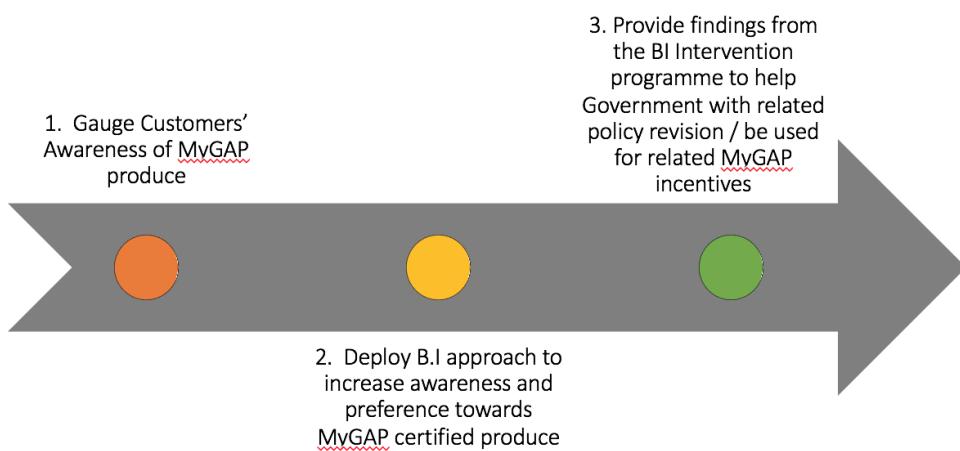
**B.I Study to
Increase the
Number of
Consumers'
Purchase on
MyGAP
Certified
Agrofood
Goods**

TABLE OF CONTENTS

1. Introduction	3-6
2. Background Study	7-10
3. Objectives and Research Scope	10-11
4. Study Methodology	11-13
5. Expected Findings	13
6. Risks	14
7. Limitations	14
8. Organisation	14-16
9. Project Schedule	17
10. Project Cost	18
APPENDIX A	

1. INTRODUCTION

The objective of the proposal is to study consumers' behaviour towards MyGAP certified Agrofood produce particularly among the Malaysian consumers patronizing a particular hypermarket chain with MyGAP Agrofood products offerings. The study is part of the behavioural insights case studies initiative commissioned by the Malaysia Productivity Corporation (MPC) in 2020. The aim of the case study is to increase customers' awareness on the importance of MyGAP certification for consumers and identify the factors that could influence their purchasing behaviour for MyGAP certified produce, which could eventually lead towards the increase of purchase of MyGAP produce.



Source : Author (2020)

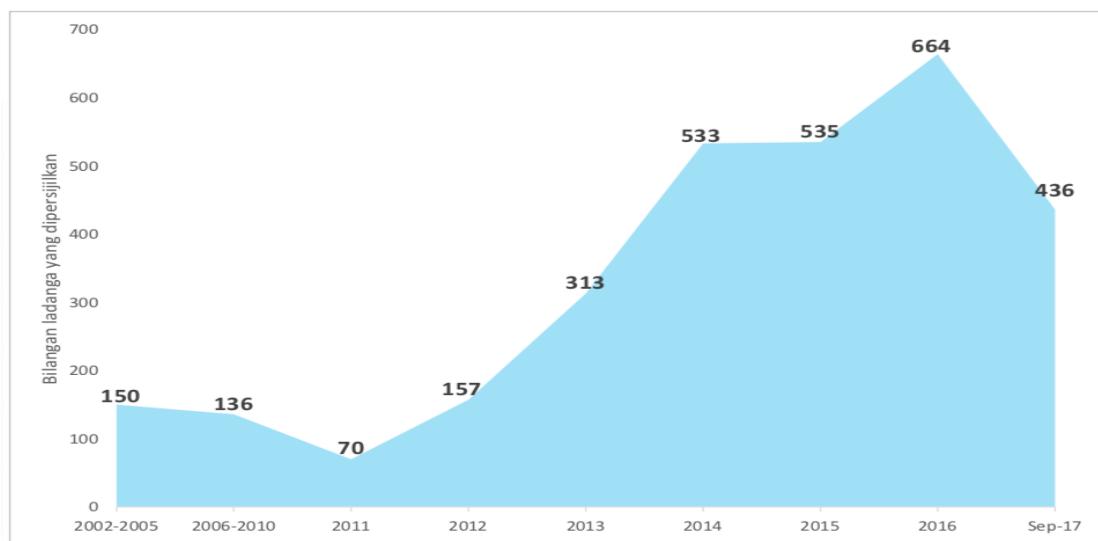
MyGAP or (Malaysian Good Agriculture Practice) certification was introduced in Malaysia in August 28th, 2013 by the Department of Agriculture (DOE) under the Ministry of Agriculture (MOA). The certification was a rebranding initiative of the earlier Malaysian Good Farming Practice scheme known as SALM which was introduced in 2002. The objective of MyGAP is to certify good-farming practices within the agriculture, aquaculture and livestock industry; as well inculcate the culture of good and safe farming amongst the farming community. The standard was developed based on the MS 1784:2005 Crop Commodities – Good Agricultural Practice and Global GAP (European Retailers and Producers Standard for Good Agricultural Practice). It is also an initiative under the Economic Transformation Programme (ETP) under the Strategic

Reform – Competition, Standard and Liberalisation (SRI-CSL) identified as the enabler to the National Key Economic Area (NKEA – Agriculture).

It is crucial for the country to promote MyGAP certified produce as it is designed to help ensure the safety and quality of fresh produce consumed by the consumers in a holistic farming ecosystem approach. It starts by promoting good farming practice that protects the environment as well as the safety and welfare of the farming community which eventually helps to create higher sustainability of the country's food supplies. These are passed to the consumers in the form of safer agrofood produce. The long term benefit could lead to a healthier community and lower medical costs for the country.

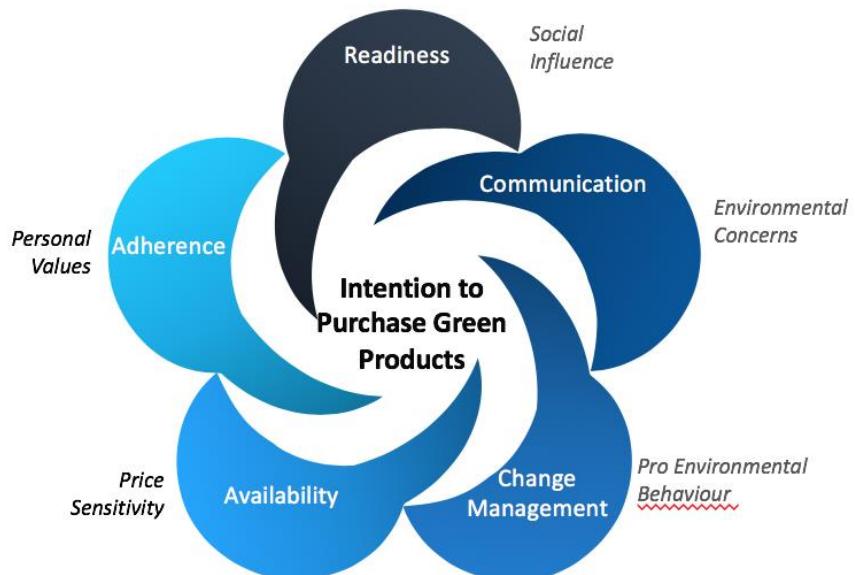
Despite the importance of the certification, concern has been raised that the awareness level of MyGAP certification is low among Malaysian consumers, which has influenced the purchase pattern of MyGAP certified produce. In this study, the behavioural aspects among the target group in purchasing MyGAP produce will be analysed and suitable behavioural interventions strategies will be proposed to support the objective of the study.

According to the DOA's paper produced in 2017, there were 1,421 farms under the vegetables and fruits commodities certified with MyGAP. Trend over 2011 to 2016 showed an increase of certified farms however the number declined by 34 percent in 2017.



Source: Bahagian Kawalan Kualiti Tanaman, DOE Putrajaya September 2017

There are many factors that could drive the decline but demand for MyGAP produce could be one of the advocates and this will be one of the factors to be investigated within the course of this study. According to a study conducted in 2014 by a group of researchers in the Multimedia University titled “Factors Influencing Malaysian Consumers to Purchase Green Product : A conceptual Framework” , there are five known factors involved.



Source : Author's input complemented by study titled “Factors Influencing Malaysian Consumers to Purchase Green Product : A conceptual Framework” (2014)

Based on the diagramme, five factors included social influence, environmental concerns, pro environmental behaviour, price sensitivity and personal values affects consumers behaviours towards green products. This could be relative to their behaviour towards MyGAP produce. To provide a basic indication of how these behaviours could be influenced, the author has stated some approaches (in the blue petals) and mapped them against each behaviour. The most appropriate intervention strategies will be deployed by the team based on this idea with the aim of easing the target consumers' adoption of MyGAP produce.

To further identify the issue, current gaps, and challenges faced by the target group, as well as to gather more information of the relevant behavioural insights evidence, focus group discussion (FGD) and survey will be conducted as part of the pre-intervention phase of the study. The pre-intervention study will help the team to formulate a baseline assumption (Hypothesis) as the baseline of the study. Following that and using evidences collected in the pre-intervention phase, experimental study will be implemented to confirm the types of behavioural insights affecting the target group's behaviour and decision towards the subject matter. The proposed behavioural interventions by means of electronic poster (e-poster) and short messages (through SMS or Whatsapp application) will be introduced consecutively to randomly selected respondents. The activities will be complimented by questionnaires to the target audience. The team will subsequently conduct an evaluation on the effectiveness of the interventions and deploy improvement measures where necessary. Finally, action plan and suggestion will be proposed to address the issue and improve the overall effectiveness of relevant policies.

The target group for all the study phases is anticipated to be located in Selangor, Kuala Lumpur or Putrajaya. However, this will be confirmed during the implementation stage of the study based on the ability to access target group's contact details. Due to the COVID-19 pandemic, wherever possible, all activities identified in this proposal will be conducted electronically or through online platforms.

The stakeholders identified in this issue are the Ministry of Agriculture in particularly the Department of Agriculture, farming community, retailers being the identified

hypermarket and the target consumer group/s. The research team will involve researchers from the UiTM, the MPC's associate and members of the Agro Food Productivity Nexus. Wherever required, relevant stakeholders will be invited to participate in this study.

2. BACKGROUND OF STUDY

Safe and healthy eating habits has inhibited the lifestyle of Malaysian since early 1990s (This is evident with the increase in green produce consumptions and demand for organic products which could be related to the consumption of myGAP produce. Study showed that consumers' inclination towards green and organic produce are motivated by their health-conscious attitude, concern for the environment and well as their willingness to spend on a higher priced produce in return for the benefits that are apparent to these consumer group. This corresponds with the attributes of myGAP produce and therefore the target group for the baseline study will be selected from the group of consumers with the identified shared attributes. The organic users could be the alternative consumers for MyGAP as the concern for food safety may be shared in both cases.

Over 64% of consumers today agree that it is important to eat healthy and pay attention to nutrition (Simmons, 2013). Vegetables are known as a preventer for many diseases and deficiencies such as birth defects, physical retardation, weaken immune systems, and so on (FAO, 2003). In Malaysia, the consumption of vegetables among consumers has increased from 147.3 per capita in 2009 to 150.9 per capita in 2013 (DOA, 2012). At the same time, the cultivation of safe vegetables has also gained attention (The World Vegetable Center, 2014) and so as the demand for safe vegetables in Malaysia (Tey *et al.*, 2009). According to Ares *et al.* (2011), the existing issues of food safety are the establishment of consuming hygienic food and the use of pesticides and residues in their food. One way to ensure that a vegetable product is safe and high in quality is by checking the quality-label on vegetables packaging (Golnaz *et al.*, 2014). MyGAP provides a solution to this. Implementing good agricultural practices (GAP) is the best way to protect customers, improve business and the produce from the industry as a whole (Coleman and Maynard, 2014).

However, the number of farmers who practice MyGAP in Malaysia is relatively small. The number of farms with MyGAP certification for the crop sector is still low at 674 farms nationwide, that is, only 0.2% of the total acreage of vegetable farm land in Malaysia (DOA, June 2014).

At one time, people always believe that consumer's choice was unstructured and natural but at this moment, people know that human behaviour is manipulated, push or even forced by reason. For instance, health conscious is affecting consumers where they will hunt for organic food in order to replace conventional foods. Nevertheless, this is only one of the hypotheses or assumption that we can made, we cannot prove that this is the accurate explanation for the question: "Why the demand of purchasing organic food is increased from year to year?" or "Why the consumption of MyAP produce in Malaysia is still low despite the increasing awareness of healthy food consumption". Additionally, there are many factors that keep moving people from conventional foods to healthier choices. Hence, study on the factor that affect consumer's willingness in purchasing MyGAP produce is an essential part of the intervention exercise in this casestudy.

Human behaviour and customers' choice is not impulsive, unconscious, inborn and natural. Conversely, consumers' behaviour is always motivated by the environment, enthusiasm, sensation and emotion (Ajzen and Fishbein, 1980). Human beings easily get influenced by the environment and objects surrounding them. Therefore, in order to achieve the objective of increasing the consumers' consumption preference for MyGAP produce, the team has to identify the main aspects consumers are focusing on and what are the essential factors that manipulate their preference.

Adopting the Behavioural Insight approach, the study, apart from gaining understanding of consumer behaviour and factors that affect their preference for myGAP produce will also help farmers / retailers to market the products, help government to better know the needs of citizen, help retailers or wholesalers to do some related activities to encourage consumers purchases for MyGAP produce and help producer to estimate production in future.

According to OECD, behavioural insights refer to: "An inductive approach to policy making that combines insights from psychology, cognitive science, and social science

with empirically-tested results to discover how humans actually make choices” (OECD).

Using concept such as nudges, it is hoped that behavioural insights can offer a novel approach and solution to the issue based on a better understanding on the decision-making made by the target group involved. It is however noted that barriers to adoption of MyGAP produce by the target group can also be attributed to non-behavioural factors.

In early 2020, several workshops were organised by MPC to identify the issue as well as associated benefits and develop preliminary project plan for each case study. Salient points from the workshops are given below.

The issue of MyGAP adoption by consumers is believed to be attributable to the following problems:

1. Lack of awareness of MyGAP products and their benefits against awareness of organic product as the only option for safe produce
2. Lack of availability : only recently made available in hypermarket namely AEON, Tesco and Mydin (MyMetro, Feb 2020)
3. Affordability : assumption that myGAP produce are as expensive as organic produce

If this issue is not addressed, the country could be implicated by health related issues caused by unsustainable farming and its produce, leading to a high medical cost for the country. Agriculture lands will face the threat of losing soil fertility and eventually lower the country’s food supplies, increase the need for food importation and causes revenue losses for local farming community. That in the long run will threaten the country’s social and economic stability.

Some of the key benefits of MyGAP agriculture practice and consumption are:

1. Enhance the consumption of safe agriculture produce

2. Prevent illnesses caused by unsafe produce which could lead to savings of medical cost for individuals and the country
3. Conserve the environment, the ecosystem and soil quality which in the long run helps to increase food supply sustainability
4. Protect the safety and health of farmers and the farming community

3. OBJECTIVE & RESEARCH SCOPE

STUDY OBJECTIVE

In line with the Terms of Reference, the objectives for this study are to apply behavioural insights to the following:

- i. To identify the issue and main problem for the case study by conducting a test on the baseline assumption
- ii. To identify current status of the issue and analyse the case in detail to ensure the appropriate intervention programme
- iii. To implement experimental study to change behaviour of the target group
- iv. To analyse the impact of target consumers' behaviours post intervention and propose an action plan to improve consumers's behaviour towards MyGap produce.

To achieve the above objectives, we propose to:

- a) Examine the issue and current status of MyGAP produce awareness among the target group, from behavioural insights perspective;
- b) Examine the use of behavioural interventions to increase the awareness of MyGAP produce among the selected respondents within the target group as well as increase their preference and purchase for MyGAP produce.

STUDY SCOPE

In line with the Terms of Reference, the scope of this study is as follows:

- i. To review and examine relevant literatures, particularly related to the case study and behavioural insights to drive behaviour change and achieve the desired policy outcomes;
- ii. To make comparison on the behavioural insights practices, regulations and policies adopted by other countries in relation to the case study, particularly among the targeted retailers and consumer group;
- iii. To analyse current practices and scenario of MyGAP produce sales and demand in selected location(s) in Selangor, Kuala Lumpur or Putrajaya (subject to confirmation during implementation stage);
- iv. To identify gaps, issues and challenges faced by consumers in adopting MyGAP produce into their lifestyle;
- v. To identify potential consumers behaviours with regards to the adoption of MyGAP produce.
- vi. To recommend action plan including behavioural insights interventions that can be used to encourage consumers to increase the adoption of MyGAP produce into their purchase.
- vii. To propose improvements and potential solutions.

4. STUDY METHODOLOGY

In accordance with the objectives and scope set out above, this study will use several research methods as follows. Wherever required, the methodology outlined below will be improved and fine-tuned during the implementation stage as and when more information is made available throughout case study.

Due to the COVID-19 pandemic, wherever possible, all methods identified in this proposal will be conducted electronically or through online platforms.

The research methodology is based on the ‘Behavioral Insights’ approach where interventions are used to encourage users to make more accurate choices. This study will begin with the formation of a baseline assumption (hypothesis) as the framework of the study. The research framework will identify several factors that influence consumer decision making. Sampling of the consumer population will be identified according to the appropriate sampling method.

Online platform will be fully utilized in data collection and intervention. Data collection will be conducted in two stages, before and after the intervention. The instrument to be used is questionnaire that will be developed in accordance with the objectives of the study. The intervention modules deployed to the consumer sample will be developed by experts in the fields of food safety, agricultural certification and MyGAP certification. Data analysis will focus on the translation of the range of data differences before and after the intervention is carried out.

4.2. Pre & Post Design

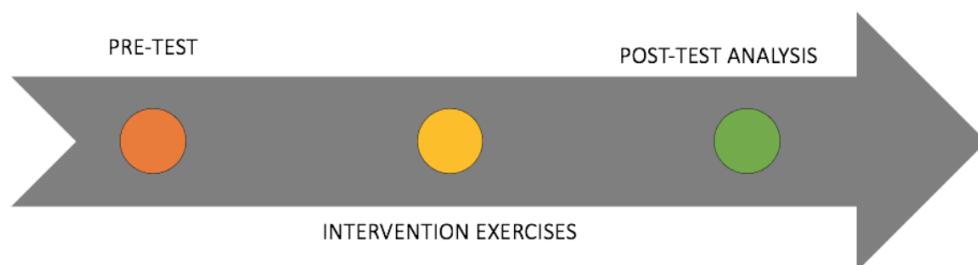


Figure 1: Pre & Post Research Design

i. Preparation

a. Preparation for Data Collection: This is important to identify the real issue, gaps and challenges faced. This will also ensure the appropriateness of the proposed interventions in the next phase.

- Development of research framework and identification of variables
- Sampling (with adherence to ethics and authorisation)
 - There are 3 options for sampling (only one will be selected)
 - ✚ Targeting AEON loyalty program members
 - ✚ DOA interest group
 - ✚ Random participation by voluntary group of respondents
 - Proposed sample size (150 respondents)
 - The same respondents will be participating in pre, actual and post intervention because it is important in measuring the effectiveness of the pre and the actual intervention program.
- Development of Data Analysis Framework
- Development of Instrument (Reliability and Validity tests)

b. Development of Intervention Module

- Intervention Framework
- Intervention Module (10 to 12 weeks)

ii. Pre-Intervention Test

- 150 respondents
- To gauge respondents' awareness and understanding of MyGAP products, food safety and their benefits to their respondents.
- Compilation of survey findings and analysis to establish pre-intervention awareness level.

iii. Actual Intervention

- 150 respondents (same group from the pre-intervention survey)
- Intervention modules will be implemented within the period of 12 -14 weeks.
- Data input into spreadsheet
- The data collected will undergo descriptive and inferential analysis.

iv. Post Intervention

- Post survey (150 respondents from the same group)
- Analysis and Interpretation using SPSS database (to analyse the difference between pre and post intervention survey data)
- Data Analysis and Interpretation

v. Report Writing and Management Presentation

List of stakeholders:

- a. Policy makers and Government Agencies:
 - Ministry of Agriculture, Malaysia (MOA)
 - Department of Agriculture (DOA)
 - Other relevant Ministries/ Department
- b. Non-governmental parties are as follows:
 - Consumer and Farmers associations
 - AEON Hypermarket (to be confirmed)
 - Other related parties

5. EXPECTED FINDINGS

Study findings can be used as inputs in applicable public policy formulation. The findings can also be used as reference for future work directly related to the issue and behavioural insights in general.

6. RISKS

Risks identified for this study include:

- (i) Unable to access contact details of the target group. To date the team has not obtained specific information of the target consumers for MyGAP produce and purchase pattern.
- (ii) To get a committed set of respondents who are willing to participate throughout the project duration.

- (iii) Target group not cooperating or poor cooperation from the target group for various reasons e.g. No access to or unfamiliar with video conferencing due to the restrictions of social distancing in relations to the COVID 19 rules adherence.
- (iv) Limitations due to online communication requirements and technology performance.
- (v) The composition of respondents could be dominated by certain type of players due to the foreseen limited access to walk-in consumers.

7. LIMITATIONS

Due to time and cost constraints, as well as constraints imposed by the COVID-19 pandemic, this study can only cater for a limited number of sites/respondents (to be confirmed during the implementation stage).

While findings and lessons from this study may offer useful insights on the issue of MyGAP produce adoption by the target group as well as behavioural insights application in general, care should be taken so as not to generalize findings from this study to other sites/target groups.

8. ORGANISATION

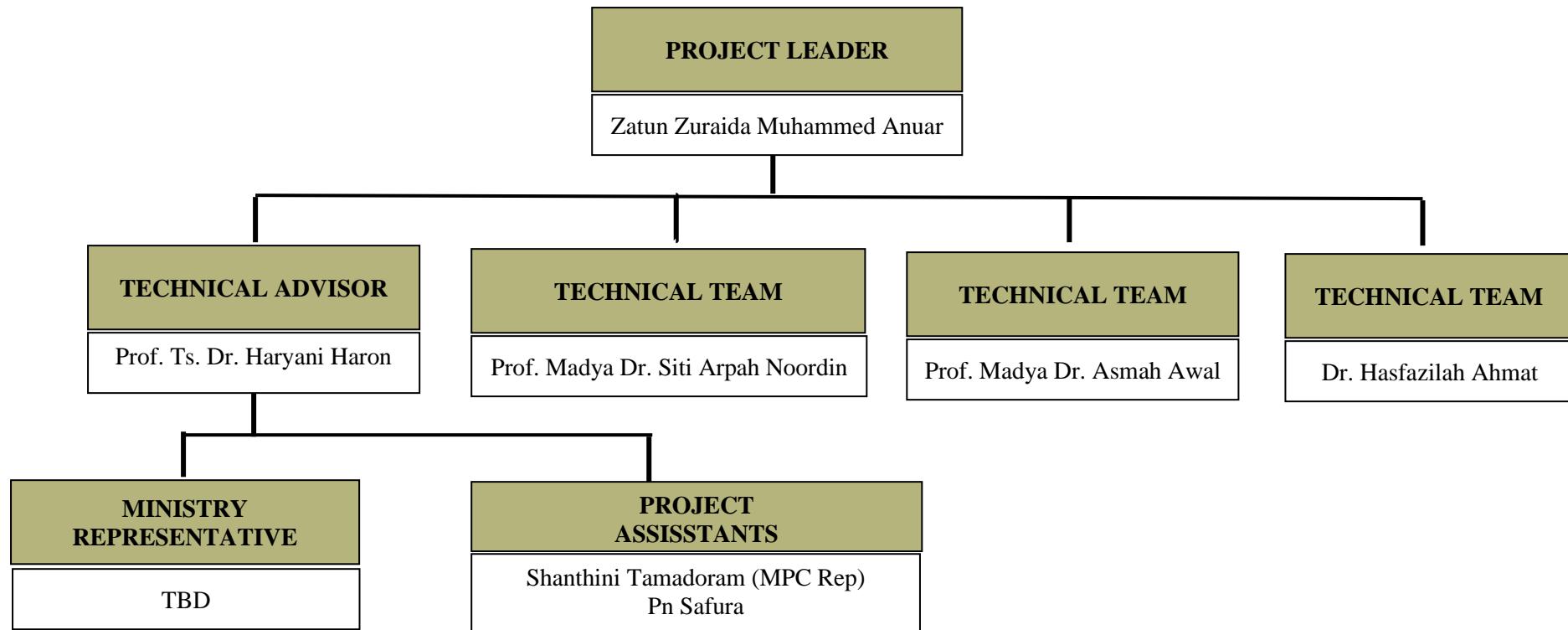
This study will involve a team of researchers from different backgrounds and expertise. The list of team members for this study is shown in the table below:

Table 8.1 Name and role of team members

Bil	Name	Role	Expertise
1.	Zatun Zuraida Muhammed Anuar	Project Leader	Project Management, Behavioural Insights
2.	Prof. Ts. Dr. Haryani Haron	Technical Advisor	Research Method/Design & Analysis, Industrial & Organisational Psychology

Bil	Name	Role	Expertise
3.	Prof. Madya Dr. Siti Arpah Noordin	Technical Team Member	Subject Matter Expert
4.	Prof. Madya Dr Asmah Awal	Technical Team Member	Subject Matter Expert
5.	Dr. Hasfazilah Ahmat	Technical Team Member	Statistical Techniques & Analysis Expert
6.	TBD	Representative from Dept. of Agriculture, MOE	MyGAP
7.	Pn Zulaifah	MPC representative	Project Management
8.	Pn Shanthini	MPC representative/ Project Assistant	Project Management
9.	Pn Azlin	MPC representative/ Project Assistant	Project Management

PROJECT ORGANISATIONAL CHART



9. PROJECT SCHEDULE

	M1				M2				M3				M4				M5				M6				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Intro. Phase	■																								
Prelim discussion	■	■																							
Baseline study		■	■	■																					
Methodology		■	■	■																					
Project Plan proposal (Intervention)			■	■																					
Design experiment	■	■	■	■	■	■	■																		
Pre-Intervention Survey + Data Compilation					■	■	■	■	■	■	■														
Intervention Exercise + Data Analysis									■	■	■	■	■	■	■										
Post-Intervention Survey + Data Analysis																■	■	■	■	■					
Final report																				■	■	■	■	■	

10. PROJECT COST

Project Title : Research to enhance Awareness on MyGAP products utilising the BI approach

Project Duration : 6 months

Reference: Project Cost is Calculated based on Kos Perkhidmatan Perunding MPP2011
(Pekeliling Perbendaharaan MOF)

Team Members	Role	Experience	Mth (RM)	MF	Mth (Input)	Total (RM)
Zatun Zuraida Muhd. Anuar	Project Leader	23	RM10,500.00	2.5	1.2	RM31,500.00
Prof. Ts. Dr. Haryani Haron	Lead Technical Expert (UiTM)	30	RM14,550.00	2.2	1	RM32,010.00
Researcher	Research Assistant (UiTM)	22	RM1,900.00		6	RM11,400.00
TOTAL						RM74,910.00

Please Refer to Appendix A for breakdown of costing by activities