
Topic 5

▶ Obtaining Information and Measuring Market Demands

LEARNING OUTCOMES

By the end of this topic, you should be able to:

1. Explain the mechanism of marketing information systems;
2. Describe the marketing research process; and
3. Discuss the steps involved in market forecasting/prediction.

▶ INTRODUCTION

The development of the marketing strategic planning process requires marketers to obtain information comprehensively and systematically. Obtaining information is the most important step in the marketing strategic planning process. Other than employing several environmental analysis methods that have been discussed in Topic 4, marketers also need to come up with a system of information management that is known as Marketing Information Systems (MIS).

There are four important components in marketing information systems, and they are the internal record, marketing intelligence, marketing research and marketing decision support system. Other than discussing the marketing information system, the topic also discusses the important items related to the marketing information system which is market prediction. Market prediction is an important step to determine market size and market potential for each marketing strategy that has been developed by marketers.

5.1 MARKETING INFORMATION SYSTEM

Marketing information system is a system of information management developed based on the management information system. Marketing information system is a method to obtain, screen and distribute information to formulate marketing decision. There are four main components in the marketing information system, and they are the internal records, intelligence, research and marketing decision support system. In general, marketing information system is defined as follows:

Marketing information system encompasses human, tools and procedures to obtain, arrange, analyse and distribute information required and fulfil the requirement in the aspect of time and content in order to comply with the marketing decision (Kotler, 2003).

Based on the definition given, the marketing information system encompasses all the resources and procedures owned by the organisation to obtain information from the marketing environment. Subsequent to gaining information, the components in the marketing information system will arrange, analyse, evaluate and screen the marketing information. Figure 5.1 may assist you to understand the concept of marketing information system and the benefit of the system to marketers and marketing managers.

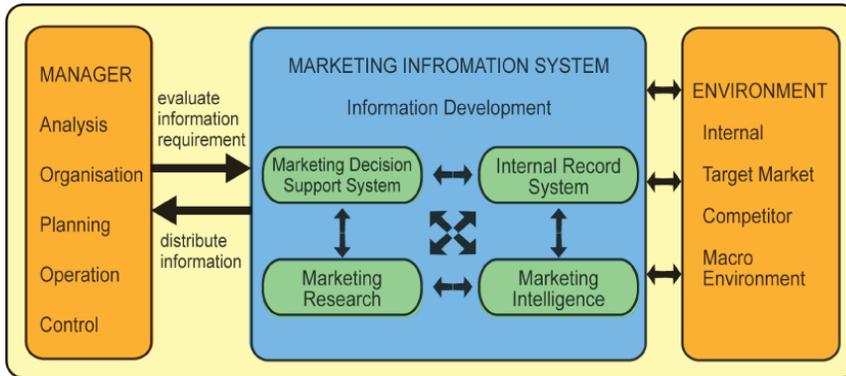


Figure 5.1: Marketing information system
Source: Adapted form Kotler & Armstrong (2005)

Based on Figure 5.1, to perform the management process (marketing strategic planning) requires information. Therefore, marketers need to evaluate whether the information type and requirement level is suitable for the level and requirements of market decision making that is being performed. Market information can be obtained from the information system.

There are four main sources of information provided by four components of marketing information systems, which are **internal records, marketing intelligence, marketing research** and **marketing decision support system**.

The information provided in the information system is obtained from the marketing environment, which are the internal environment, consumer, competitors and other macro environment. The explanation of the four components of marketing information system will be discussed in the next section of the topic.



ACTIVITY 5.1

How far does marketing information system differ from management information system?

5.1.1 Internal Record

Internal record refers to information or database that has been kept or recorded by the organisation. Since it already exists in the organisation, it is easily accessible and hence it is the most used marketing information system by the organisation and marketing managers to make a decision.

The information contained in the internal record is known by many names such as financial record (ledgers, profit loss statement, income statement), sales record (unit and RM), human resource record (staff numbers, staff background), order report, inventory level and others.

Internal record can be classified according to the period of time they are prepared, for example new (current month or year), medium term (more than a year but less than three or five years) and old (more than five years).

5.1.2 Marketing Intelligence



ACTIVITY 5.2

What is meant by the term “intelligence”?

If an internal record system provides past information such as information from yesterday, last month or five years ago, marketing intelligence will provide current information or current trait (daily).

Being current or daily is the most important character that differentiates the level of marketing intelligence information with the existing information in the internal records. For example, if the information regarding the competitors’ price in the period of a month ago may be obtained from the internal records, the price fixed by the competitor in the present day is only available with the marketing intelligence.

5.1.3 Marketing Research

Marketing research is the most crucial component in the marketing information system. Even though the other two components, internal records and market intelligence, may facilitate in developing effective marketing research, the dependency of both components (internal records and marketing intelligence) against the marketing research is higher compared to the dependency of the marketing research to the two components.

Before executing marketing research, marketers need to understand precisely the meaning and processes of marketing research. The following is the definition of marketing research to help you understand the concept of marketing research.

Marketing research is a systematic process of information obtained from the market environment, beginning from the effort to design, gather, analyse and report the information and findings related to the particular information (Kotler, 2003).

Based on the definition, it can be concluded that marketing research is a process of obtaining and analysing information. It means that marketers and marketing managers have to perform several steps to develop the research process. The steps of marketing research process are discussed in detail in the next section of the topic.

5.1.4 Marketing Decision Support System

Marketing decision support system is a systematic collection to manage data, decision systems, method and technique through the use of information technology in order to assist the organisation to obtain and interpret the information.

Marketing decision support system actually is an information component that exists or is needed in the other three components of information system. Specific software is used to store data (database) in the internal records or daily records conveyed through the online communication system (marketing intelligence). This means, the component of decision support system is an important system for the marketing information system to ensure marketers are able to develop efficient and effective information system components.

Some examples of marketing decision support system are Statistical Package for the Social Science (SPSS) and Statistical Analysis System (SAS).

5.2 IMPLEMENTATION OF MARKETING RESEARCH

Other than the need to understand and implement all the measures in the marketing research process, marketers and marketing managers also need to understand several matters related to marketing research, such as the responsible group that should perform the research process and the criteria of the best marketing research.

5.2.1 Implementation of Marketing Research Process

The sources of research are generally divided into three main methods:

- Implemented by marketers;
- By appointing outsiders; or
- A combination of both.

(a) Implemented by Marketers

Marketers may implement by themselves all the steps in the marketing research process. They may use all the internal resources of the organisation to obtain, arrange, analyse and report the information. This indirectly means the marketers have to cover all the costs and risks of the research usability. Normally, only big companies with specific specialisation will be able to implement all the steps of the marketing research by themselves.

(b) Appointing Outsiders

Marketers hire outsiders to carry out marketing research. Normally, marketers only determine a certain problem and all the steps in the process will be implemented by the outsider. This approach is cheaper compared to the first approach. However, the marketer may find himself facing the risk of the outsider not implementing a systematic and accurate marketing research process. This method is more popular among small and medium business organisations.

In general, there are four groups that can be hired by organisations to implement all or part of the marketing research process, and they are:

(i) Higher Learning Institutions

Higher learning institutions in Malaysia, particularly public higher learning institutions, are ready to provide staff for certain organisations, especially small and medium organisations, to implement part or all the marketing research process while charging a relatively low fee. Other than that, the organisation also may hire staff or students to help them implement the marketing research process.

(ii) Research Institutions

Marketers hire a business organisation which specialises in the marketing research field. In Malaysia, such an organisation can be classified into two categories, namely, private and government research agencies.

Government research agencies are research agencies founded by the government such as the Department of Statistics Malaysia, PORIM (palm oil research industry), MARDI (general agriculture), TPM (biotechnology) and others. There are a few private companies that act as marketing research agencies. Among the well-known agencies is Nielsen Media Research (previously known as Survey Research Malaysia – SRM).

(iii) **Custom Marketing Research Firms**

Custom marketing research firms implement marketing research based on customers' scope or demand. For example, the agency only needs to focus on distributing information on the number of *Berita Harian* newspaper readers in the city area.

(iv) **Specialised Research Agencies**

Specialised research agencies refer to research organisations that focus on certain marketing research fields only, such as advertising research agencies, cross-cultural research agencies and others.

(c) **A Combination of Both**

Other than self-implementation of hiring outsiders to implement the measure of marketing research process, the marketer may use a combination of methods to develop marketing research. However, this method is the least popular compared to the other two methods as there may be some problems in the ability of both sides to give a high commitment in their co-operation. In Malaysia, this method is more popular in the agricultural sector where the organisation works with the outsider (government research agencies) to implement the marketing research process together.

5.2.2 Criteria of Best Research

Other than the need to pay attention to the responsible group to implement the marketing research process, marketers should also pay attention to the criteria of the best marketing research needed by the organisations. The criteria of the best research are as follows:

(a) **Using the Scientific Method**

Researchers have to comply with the important principles of research such as a thorough observation, designing hypothesis, inference and others.

(b) **Research Creativity**

Researchers are required to be creative in developing questions (measurement) and selecting communication methods to obtain information. For example, the researchers use a structured interview method since it is difficult to get co-operation from respondents through mail.

(c) **Variety of Techniques**

Researchers may face a problem in obtaining information through certain communication methods. Therefore, they need to use a few methods to approach respondents such as through the mail, followed by a phone call, sending SMS (short messages system) using mobile phones or arranging a face-to-face meeting.

(d) **Dependency of Research Model and Data**

Researchers must ensure that the data obtained fulfils the research model requirement (research methodology), particularly in terms of the connection of the variables and the invariables.

(e) **Information Cost and Value**

Researchers should only focus on the information suitable for the research scope and aims. The information accuracy and the cost of obtaining information should also be considered. This is to prevent the marketer from having to cover a huge cost and obtaining less useful or useless information.

(f) **Overall Conclusion**

The conclusion should be overall in character and free from narrow-minded perception resulting from a narrow research scope that was determined at the beginning.

(g) **Complying with Etiquette**

Researchers and their assistants should obtain the correct information from all the respondents of the identified sample at the early stages of the research. Etiquette violation mostly occurs when the researchers or their assistants ignored certain steps of the research or act as respondents themselves.



EXERCISE 5.1

1. The component _____ in the marketing information systems provide information that is up to date and daily.
2. The information from which component in the marketing information system is able to assist the marketer to obtain information of the company sales from five years ago?
3. How far can you differentiate information in the market intelligence system and the information in the internal records?
4. List three criteria of an effective research.

5.3 RESEARCH PROCESS



SELF-CHECK 5.1

What is it meant by quantitative and qualitative research?

The most important section in the discussion of marketing research is the process. As stated before, the marketing research process involves several steps. Refer to Figure 5.2 to see what the steps are.

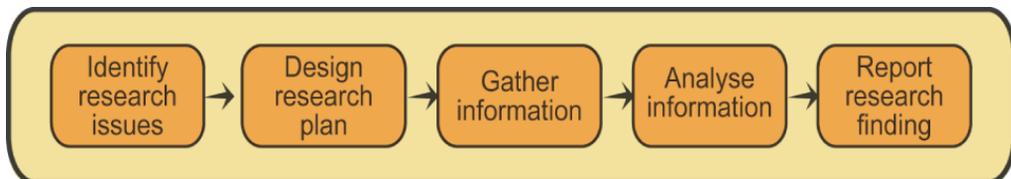


Figure 5.2: Marketing research process

Every step must be implemented by marketers and marketing managers thoroughly and systematically. The next part will explain the steps involved in the marketing research process.

5.3.1 Identifying Issues and Setting Research Objectives

The first step in the research process requires marketers to identify exactly what are the problems or issues to be solved. Marketers need to avoid defining the issues too generally or specifically. For example, the marketer cannot set or study every factor that influences consumer taste, such as the influence of black colour on women clothes purchasing in Malaysia. This action must be avoided so that marketers will avoid obtaining useless information or ignoring other important or required information.

Marketing research methods can be classified into two categories, quantitative and qualitative.

Quantitative research is a research approach that uses many mathematical methods and statistics. For instance, the use of numbers "1, 2, 3, 4 and 5" to represent consumer satisfaction level, where number 5 represents the level of "highly satisfied".

Qualitative research is more general than quantitative approach which is more objective. Both research approaches can be categorised into three categories of research, which are:

(a) **Exploration Research**

Marketing research meant to gain initial opinion to solve a problem or suggest a hypothesis.

(b) **Descriptive Research**

Marketing research that characterises an issue, situation or other matters in detail and more comprehensively.

(c) **Causal Research**

A type of research to study cause-and-effect relationships.

5.3.2 Designing Research Plan

There are two important decisions to be made by marketers in designing the market research plan, which are expenditure allocation and implementation of research plan. The decision on research expenditure is made based on the consideration whether the implementation of a marketing research is profitable. If marketers find that the implementation of the marketing research gives positive results, then the next step is to measure how much allocation should be provided to implement all the steps in the research plan.

The general approach frequently used is the prediction of research influence on the comparison of the total sales revenue that will be generated. It means marketers need to predict the total income that will be generated with and without the marketing research. The difference between total sales income without the marketing research and total sales income after the research should be the highest allocation sum for the research process implementation. For instance, if the marketer finds that by implementing research, sales income increases from RM60,000 to RM110,000, then, the highest allocation sum for the research is RM50,000.

After the research expenditure has been allocated, marketers need to decide the implementation plan of the research. There are five decisions to be made by marketers in this step, which are:

(a) **Data Source**

Data source can be divided into two: primary and secondary. Primary data are obtained by marketers, while secondary data are obtained from secondary sources such as newspapers, books, Statistics Department reports and others.

(b) **Research Approach**

Primary data can be obtained in five ways: observation, survey, experiment, focus group and behavioural data.

(i) **Observation**

Refers to the action of observing customer behaviour and variables of certain environment.

(ii) **Survey**

The most popular approach and requires the use of survey forms. It is used to study the level of customer 's knowledge, trust, inclination and satisfaction.

(iii) **Experiment**

Refers to the action of measuring cause-and-effect. Marketers need to form two groups, which are the study group and the control group (group in the normal situation).

(iv) **Focus Group**

Marketers can select several specialised individuals to represent the groups to develop brainstorming to come to a particular finding.

(v) **Behavioural Data**

The approach measures individual reaction to a situation, specifically related to customer 's acceptance and rejection.

(c) **Research Instrument**

Marketing research instruments are divided into two categories, which are the survey and the mechanical method.

(i) **Survey**

The survey includes a few sets of questions or measurement items. The method is the most popular instrument as it is easy to use and quite flexible. The survey can be divided into three stages, which are designing the questions, conducting pilot study and finding inter-relation (significance).

The pilot study is conducted to ensure the questions are suitable and do not confuse the respondents. The results of the pilot test will suggest modifications to improve the approach and questions.

The questions used in the survey can be categorised into two forms, open and closed. Through open questions (Table 5.1), the researcher invites respondents to give their own answers, while through closed questions (Table 5.2), the researcher provides a few alternative answers for respondents.

Table 5.1: Open Questions

Type	Detail
Non-structured	<p>Ask the respondent to answer based on their opinion on certain subjects.</p> <p>Example: Was your purchasing decision influenced by the quality of the product?</p>
Word match	<p>Expose the respondent to a few words and ask to state the first word.</p> <p>Example: What is the word on your mind when you hear:</p> <p>(i) Quality _____ (ii) Brand _____</p>
Completing a sentence	<p>An incomplete sentence is prepared and the respondent is required to finish it.</p> <p>Example: I buy AVON products because _____ is cheap and _____ is high.</p>
Completing a story	<p>An incomplete story is prepared and the respondent is required to finish the story.</p> <p>Example: Badrul went to an interview for a sales position. During the interview, the interviewer gave him two types of detergent brand: one is in powder form and the other in liquid form. Without mentioning a particular brand, the interviewer then asked him to identify which product has more quality.</p>

<p>Completing a picture</p>	<p>A picture of people having a conversation is shown and the respondent is asked to fill the conversation bubble (callout).</p> <p>Example: Please fill in the blank dialogue.</p> 
<p>Themed storytelling test</p>	<p>The respondent is given a picture and asked to come up with the story based on the picture.</p> <p>Example: Write a short story based on the photograph that you see.</p> 

Table 5.2: Closed Questions

Type	Detail
Dichotomous	<p>Questions that have only two choices of answer such as yes or no only.</p> <p>Example: Does quality affect your purchasing decision?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
Multiple Choice	<p>The question has several options (more than two).</p> <p>Example: Quality is _____</p> <p>(a) product, price and brand (b) evaluation result and the comparison between current result and past result (c) both (a) and (b)</p>
Likert Scale	<p>The question statement about the agreement is provided answer choice according to certain level.</p> <p>Example: Every Nestlé product has the same level of quality.</p> <p><input type="checkbox"/> 1 Highly Disagree <input type="checkbox"/> 2 Disagree <input type="checkbox"/> 3 Not Sure <input type="checkbox"/> 4 Agree <input type="checkbox"/> 5 Highly Agree</p>
Semantic difference	<p>A scale that incorporates two words that are the opposite to be matched with the questions.</p> <p>Example: Give you opinion about the K Powder. Mark X in the appropriate space.</p> <p>Foamy _____: _____: _____: _____: _____: Not Foamy Clean _____: _____: _____: _____: _____: Not Clean Smells good ____: ____: ____: ____: ____: Smells Bad</p>

Interest scale	<p>Almost similar to Likert scale but refers to question that provides answer according to interest level.</p> <p>Example:</p> <p>1 _____ Very Important 2 _____ Important 3 _____ Least Important 4 _____ Not Important</p>
Improvement Scale	<p>The approach is similar to Likert scale and interest scale but is more general in character. It refers to quality, performance, satisfaction and others.</p> <p>Example: The quality of the K powder is:</p> <p>1 Excellent 2 Good 3 Average 4 Not Satisfactory</p>
Behaviour inclination Scale	<p>Question to measure inclination level for certain behaviours such as purchasing inclination.</p> <p>Example: You are given a free pack of 500g detergent powder if you purchase two packs of 1.5kg detergent powder. You will:</p> <p>1 _____ Definitely buy 2 _____ Maybe buy 3 _____ Not buy</p>

(ii) **Mechanical Instrument**

The method uses a mechanical tool such as the Galvanometer (tool to measure interest or feeling), eyes camera (tool to detect point in the eyes that focuses to certain objects), audiometer and many more to study consumer behaviour.

(d) **Sampling Plan**

Sampling plan refers to the method to approach research group or population to obtain information about a subject. However, in most marketing research cases, it is impossible for researchers to approach all members in the population to be studied. Therefore, the sampling approach must be taken.

Sampling is a statistical method to assist researchers in finding part of a population that can represent the population. Based on the results, which are anything gained from the study on the sample, researchers can make an overall conclusion about the whole population. Sampling plan is categorised into three groups, which are sampling unit, size and procedure.

(i) **Sampling Unit**

Refers to the target group in the population to be the sample like based on gender, age, etc.

(ii) **Sample Size**

Size is selected based on normal distribution, which are the minimum number or size sample of 28 respondents. Selection of the sample is decided by the sampling procedure.

(iii) **Sampling Procedure**

There are two procedures, namely, probability and non-probability samplings. Probability sampling is divided into three: simple random, stratified random and clustered sample. Non-probability sampling includes the easy sample method, consideration sample and quota sample. Please refer to Table 5.3 to identify the types of sampling.

Table 5.3: Sampling Types

Probability Sample	
Simple Random Sample	Every population member has the same chance of being selected.
Clustered Random Sample	Population is divided into a few completely different groups (according to gender, age) that are easy to use for sampling.
Stratified Random Sample	Population is divided into several completely different groups (according to location or block) and sample is taken from each group.
Non-probability Sample	
Convenience Sample	Researcher selects individuals who are the easiest to be approached.
Consideration Sample	Researcher chooses a respondent according to certain considerations, such as those who easily give cooperation or are trustworthy.
Quota Sample	Researcher only approaches certain respondents in the pre-determined group.

(e) Communication Method

The method to approach the respondents must be determined. Researchers need to determine the ideal method to approach respondents to ensure that all or most of them cooperate. There are five methods of communication (Table 5.4) that can be selected by researchers, which are mail, telephone, face-to-face (structured interview), online or a combination of any of the above.

Table 5.4: Communication Method

Method	Particulars
Mail	The cheapest method but has the lowest level of respondent cooperation and the highest respondent error rate compared to other methods.
Telephone or the Internet	The method that is gaining popularity among researchers. However, this approach also has a high rate of respondent error.
Short Message Service (SMS)	The use of short message services (SMS) through mobile phones can be used by researchers. However, this method is believed to have a high respondent error compared to the online method as respondents have to cover a high cost to reply to the message.
Face-to-face Approach (Structured Interview)	The most expensive method and consumes a relatively longer time compared to other methods. However, this method is the most popular since it has the lowest respondent error compared to the other methods.
Combination	The combination approach at present is practised more often as it is able to produce research that has a low respondent error compared to the structured interview method that is still the preferred method in the method combination.

5.3.3 Information Gathering

This step requires researchers to perform field work, which is to approach respondents and gather the required information from each respondent. This is the most difficult method. Also it is time consuming and requires a considerably high cost.

Among the costs that researchers have to bear are the wages of research assistants, transportation claim, preparing survey forms and other miscellaneous items. Besides that, researchers or research assistants have to face a range of respondents' characters that may sometimes be boring and test their patience.

5.3.4 Information Analysis

Researchers need to report all the data they gathered. However, to report “raw data” as initially obtained in the implementation of information gathering will only bring to misinterpretation or they will not be understood by the readers. Therefore, researchers need to process the data so that it can be understood.

The course of processing data is known as information analysis. Information analysis allows researchers to interpret and formulate raw data into a form that will be easily understood by readers. Currently, there are many computer applications that can be used by researchers to analyse research data. Some of the popular software includes the Statistical Package for Social Sciences (SPSS) and Statistical Analysis System (SAS). SPSS software is more popular among marketing researchers.

5.3.5 Reporting Research Results

After completing information analysis, researchers are required to report it to the higher level (usually the board of directors) or for internal records purposes. Hence, researchers need to use certain formats so that the report prepared is easily read and systematic. The marketing plan format as previously suggested in Topic 4 can be the base for the marketing research report preparation.

To make it easier for you to understand the mechanism of execution for the marketing research process, refer to Figure 5.2.



EXERCISE 5.2

1. Ranking scale of agreement level for the respondents is prepared for questions that use the _____ scale.
2. Explain the steps involved in the marketing research process.
3. Why can't marketers set the research goal or scope to be too specific or general?

5.4 MARKET FORECASTING

Market forecasting is the major result from information system, particularly if it is generated from marketing intelligence and marketing research. Marketers need to understand and detect the environment or potential environment in order to create competitive marketing strategies and tactics while also maximising customer satisfaction.

The need to predict the market is crucial, particularly when marketers implement the segmentation strategy. If you refer to the discussion on market segmentation strategy in Topic 10, marketers need to evaluate the attraction of each segment. The evaluation on the segment is made in the market targeting phase. It requires marketers to evaluate a few subjects such as the measurement of the current market size and its potential, growth rate and profitability potential.

Based on the statement, we may conclude that market forecast is not a simple effort. It involves several steps and specific skills, particularly in terms of mathematic and statistics skills. The implementation of market forecasting involves five steps, which are:

- (a) Identifying demand measurement;
- (b) Defining the market;
- (c) Demand forecasting;
- (d) Current demand estimation; and
- (e) Potential demand estimation.

5.4.1 Market Demand Measurement

Market demand can be measured based on three dimensions, which are product, space and time (Kotler, 2003).

- (a) **Product Stage**
This dimension can be classified into six perspectives based on sales activities, which are overall stages, industry, company, product line, product form and product item.
- (b) **Space Stage**
The dimension is divided into five perspectives: world, country, state, zone and consumer.

(c) Time Stage

The dimension is seen based on three perspectives: short term, medium term and long term.

If you look at the dimension and perspective of all the three demand measurement dimensions, marketers may use 90 types of market demand measurements.

The numbers formulated are timed with every perspective as explained in the six parts mentioned, which is six (product dimension) X five (space dimension) X three (time dimension). For example, marketers may use the demand measurement in five years period in the future (time stage), against passenger transportation (product form) in ASEAN countries (international).

5.4.2 Defining the Market

According to Kotler (2003), the market includes all real and potential buyer groups. This means, the market depends on the number of existing and potential consumers. Consumer or customer potential refers to the consumer or the consumer group that has an inclination or clear interest in marketers' offer (marketing mix strategy). However, the consumer interest cannot be the sole basis to define the market. Marketers have to also consider the consumer's ability to pay (interest supported by buying power).

For certain products, there are certain limitations presented by the market. For example, Mitsubishi sedan cars such as Lancer (Evolution VII) are not allowed to enter the Malaysian market. Therefore, Mitsubishi should eliminate Malaysia from its list of available markets.

After recognising the achievable market size, marketers have to measure the qualified available market size. The qualified available market refers to markets that have no limitation to obtain the products. For example, individuals below 18 years old are non-qualified available market for tobacco products (cigarettes).

After identifying the qualified available market, marketers have to decide on the strategy of market targeting, which are the market segment to be approached. There are four choices of market targeting they can choose from. Marketers may approach:

- (a) All the segments in the market;
- (b) One segment;

- (c) A combination of segments; or
- (d) Look at all individuals as one market segment.

The action whether to look at all or part of the segments is made based on the segment attraction, the ability of marketers to approach the segment and based on strategic consideration. For example, Matsushita approaches every segment in the market while Zaiton Industries only approaches the Muslim consumer market segment. This stage, which is the market target determination, is known as the served market in the stage of defining the market.

Not all the consumers in a segment will be the customer of the marketers because the consumer can choose whether to buy the marketer's product or his competitor's product. Therefore, only part of the consumer in the market will be the buyer of the marketer. The market size that includes every consumer that buys the marketer's product is known as the penetrated market.

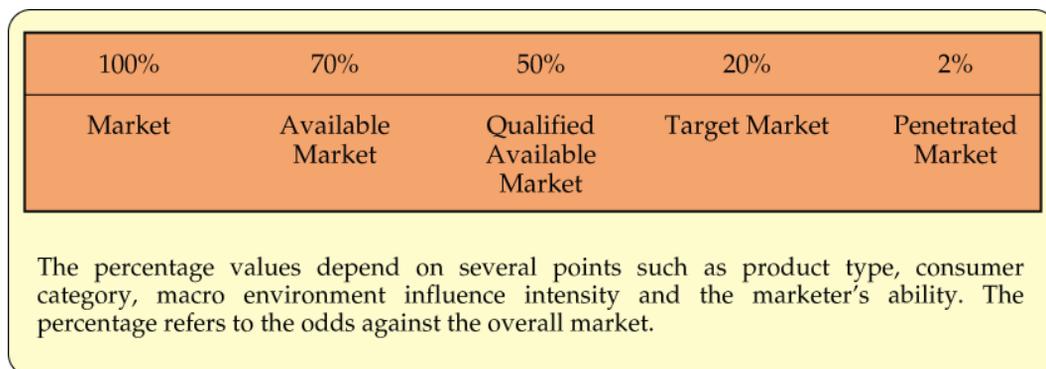


Figure 5.3: Market definition

In short, the explanation of the entire concept related to market definition may be explained through Figure 5.3.

After identifying the target market, the next thing the marketer should do is understand the three concepts that relate to the definition of the market. All the three concepts are:

(a) **Market Demand**

Market demand is the total sales made by a specific consumer group, in specific geographical area, in a specific time based on a specific marketing environment, which requires specific marketing mix strategy. For example, the demand for passenger cars with horse power less than 1,000 cc in Peninsular Malaysia in 2002. Based on the statement, the specific marketing

environment is the year 2002. Since year 2002, marketing environment is definitely different from the previous year, marketers need to produce a marketing strategy that is suitable to the environment polar in the year 2002.

(b) **Market Forecast**

It is a concept of market demand that refers to a stage of industrial expenses only.

(c) **Market Potential**

Market prediction is only able to give an indication to the market demand estimation. The concept fails to paint the real picture about the maximum market demand.

Marketers have to refer to the market potential concept, which depicts the maximum possibility of the current market demand abreast with the movement of the market expenses nearing the infinity point for a specific environment (Kotler, 2003). It means the market potential during economic growth will differ from the potential market during economic recession.



ACTIVITY 5.3

1. What is the relation between the market demand and the segmentation strategy?
2. How is the value 90 (total) of the market demand measurement achieved?

5.4.3 Demand Measurement and Estimation

There are three concepts that marketers need to understand in order to measure and predict the market:

- (a) Company demand;
- (b) Company sales prediction; and
- (c) Company potential sales.

The following are brief explanations on all three concepts:

(a) **Company Demand**

It refers to the estimation value of the market share domination by marketers based on their ability and market opportunities. The value can be calculated using the following formula:

$$Q_i = S_i Q$$

Where:

Q_i = Company demand number-i

S_i = Company market share number-i

Q = Market demand total

For example, say the market demand total is 1,000,000 units. The maximum market share prediction that the company can dominate is 20 percent from the total market. Therefore, the market demand is 200,000 units.

(b) **Company Sales Prediction**

It refers to the value of company sales targeted by marketers based on their ability and opportunities. There are two supporting concepts of this particular prediction effort, which are sales quota and sales expenditure. Sales quota is the sales target determined by the organisation, while sales expenditure is the limitation faced by the organisation unit to achieve its targeted sales quota.

(c) **Company Potential Sales**

This refers to the sales limit targeted by marketers based on the real ability of marketers and competitors' influence. It means marketers will not be able to dominate all the sales value predicted in part (b) unless they enjoy perfect monopoly.

5.4.4 Current Demand Estimation

After the estimation of market demand, marketers need to obtain estimated value of the current demand. There are two important aspects to be estimated by marketers in these steps: **total market potential** and **area market potential estimation**.

The following are detailed description on both the aspects:

(a) **Total Market Potential**

It refers to the total maximum sales achievable by all marketers in the industry for a specific period based on industrial activity level and a specific marketing environment. Total market potential can be calculated using the following formula:

$$Q = npq$$

Where:

Q = Total market potential

n = The number of consumer for a specific product/market based on certain assumption

q = Average purchase value of each consumer

p = Average price for every unit

For example, there are 1,000,000 new unit television buyers in Malaysia a year. The average purchase for each consumer is two units and the average price for a new television set is RM1,000. Therefore, the total market potential for new television in Malaysia is RM2 billion a year ($1,000,000 \times 2 \times \text{RM}1,000$).

(b) **Market Area Potential**

Marketers normally face problems in acquiring the exact and detailed value in every segment using the general method. Therefore, they need to estimate the potential of each block or segment in the market for each city, district, state, zone and country. They need to make estimation on the potential of each space or market segment.

There are three methods that can be used by marketers to make the estimation. The three methods are:

(i) **Market-buildup Method**

Market-buildup method is the most popular formula among the marketers to calculate the market area potential. Through this method, marketers identify all the potential buyers in every market segment and estimate the value of each buyer in each of the segments.

If there is a complete list of consumers who live in a particular segment, marketers can generate an accurate calculation of potential market area. However, the list is usually very difficult to acquire and not up to date.

(ii) **Multiple-factor Index Method**

The mechanism of the method implementation is similar to the market-buildup method. However, through this method, marketers use various markers for the estimation. Just like the situation faced by the marketers when estimating the market potential using the market-buildup method, marketers will have a problem obtaining up-to-date and accurate information for each of the factors employed in the estimation.

(iii) **Industry Sales and Market Share**

Marketers use the industry sales data and the composition of market share domination of each marketer in the market. Based on the data acquired, marketers will estimate the potential market area.

The method is more of a comparison method. The effective mess of this method is lower than that of the other two previous methods. However, this method is easier to implement as there are more organisations (government and non-governmental organisations such as manufacturers association) that produce reports on industry sales and market share domination.

5.4.5 Potential Demand Estimation

Other than the need to estimate the potential of a current market, marketers are also required to estimate the potential market demand for a specific period in the future. Usually, marketers need to predict potential demand for five or ten years in the future. If the prediction of the current market potential demand faces problems, particularly to gain relevant current information, marketers may also have the same problem and probably face more complications when implementing the potential demand estimation.

The problem of estimating potential demand will be more complicated when marketers need to make estimation for a new product and a product that does not have any clear and fixed trend. Even though they are faced with a number of difficulties, marketers do not have a choice but to make the estimation because the results of the effort will help increase marketers' competitive ability and their ability to maximise customer satisfaction.

There are four methods to be selected to calculate potential demand estimation. Among the methods frequently used by marketers to estimate potential demand are:

- (a) Survey of buyer 's intention to buy;
- (b) Composite income of the sale group;
- (c) Expert opinion; and
- (d) Test market method.

The survey of buyers' intention to buy is a market research to measure buyers' inclination or interest on certain product. Composite income sale group refers to the average estimated value achieved by every salesperson. Expert opinion refers to a method where marketers gather a few experts from several fields to provide suggestions in brainstorming sessions. Meanwhile, the test market method is made up of several approaches of market research that can be chosen by marketers to predict and estimate the potential demand.

A detailed discussion of the test market methods can be found in the topic of new product development. Marketers may implement by themselves the estimation of the future market potential or appoint outsiders such as Nielsen Media Research or Technology Park Malaysia.



EXERCISE 5.3

1. The approach is a result of brainstorming by several experts.
2. The demand is a demand that takes into consideration legal limitation in market definition.
3. How is the total market potential calculated?
4. How is the market-buildup method different from the market area potential method?
5. What are the methods that can be used by marketers to implement the demand estimation process?
6. You are in charge of obtaining data on the company's sales potential for the last 18 months. You are also required to get the latest information on the price and promotion strategy implemented by all competitors in the market. Based on the statement, which components in the marketing information system that you will use in order to get information? Give your justification.
7. List and explain all the necessary steps a marketing manager needs to carry out to perform a research on the acceptance of a new product to be launched by a company.
8. You are conducting research on Malaysian customers' perception on imported products. The methodology determined was that the sample is to be taken from every city in the state. Since you are located in Kuala Lumpur, you decide to use mail as the research communication method. Based on the information, give your opinion on the advantages and disadvantages of the mail method. If you find the communication method is not effective, what is the most efficient method you can use to approach all the respondents who are located all over Malaysia? Give your justifications.
9. Explain how Perodua Sendirian Berhad, a well-known car manufacturer in Malaysia, may get the value of its penetrated market.

SUMMARY

- Marketers need to develop an efficient and effective information management system to assist in developing an efficient, systematic and competitive marketing management process.
- To assist marketers and marketing managers to make a good and effective decision, the marketing information system has been developed to fulfil the need.
- The management information system includes human, tools and procedure in order to obtain, screen, analyse and distribute the relevant information based on the suitability of need and time for the managers and the organisations to make effective and efficient marketing management decisions.
- Marketers need to pay special attention in developing and using marketing research, which is one of the four major components in the marketing information system.
- Other than assisting marketers in developing the marketing mix strategy, the information from the marketing information system can also be used to help marketers to understand the market and the market demand better.
- This is because, in order to develop marketing strategy specifically the segmentation strategy, marketers need to calculate market estimation and market potential accurately.

KEY TERMS

Information system

Internal record

Marketing Information Systems (MIS)

Market demand

Marketing intelligence

Marketing research

Market forecasting

Potential demand estimation

Research process

Research plan

Sampling plan

Support system