

APPROVAL

I hereby declare that I have checked this project and in my opinion, this project is adequate in terms of scope and quality for the award of the degree of Bachelor of Technology Management (Innovation Technology)

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Date : 25th June 2014

CUSTOMER ACCEPTANCE ON ESPRING WATER TREATMENT SYSTEM
IN SOUTHERN MALAYSIA

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DECLARATION

“I hereby declare that the work of this exercise is mine except for the quotations and summarize that have been duly acknowledge”

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DEDICATION

To my one and only ibu, ayah, along, bangah and adik who always kiss and hug me.
And also to my die-hard-fan. May Allah let us live
together with all sweet moment.

Thank you.

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ABSTRACT

Water treatment system should be one of the basic necessities of human life to get clean water resource that is free of any contaminants to lead healthier lives. For the best water treatment system can provide all the requirements without hesitation. There are four objectives in this research report. This research used quantitative research methods. Data were collected through a questionnaire form the user of eSpring in Southern Malaysia.

Keywords: eSpring water treatment system, activated solid carbon block filter, ultraviolet light technology, smart chip monitoring technology, contaminated water

ABSTRAK

System rawatan air harus dijadikan salah satu keperluan asas dalam kehidupan manusia untuk mendapatkan sumber air yang bersih yang bebas daripada sebarang bahan cemar agar dapat menjalani kehidupan yang lebih sihat. Sebagai sistem rawatan air yang terbaik, system rawatan air eSpring dapat menyediakan segala keperluan tersebut tanpa ragu-ragu. Terdapat empat objektif yang terdapat di dalam laporan kajian ini. Kajian ini menggunakan kaedah penyelidikan kuantitatif. Data dikumpulkan melalui soal selidik daripada pengguna eSpring di bahagian Selatan Malaysia.

Kata Kunci: system rawatan air eSpring, teknologi penapis mampatan blok karbon yang diaktifkan, teknologi lampu ultra ungu, teknologi pemantau cip pintar, air yang tercemar

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LIST OF ABBREVIATIONS

ANSI	=	American National Standards Institute
CDC	=	Centres for Diseases Control and Prevention
C _{L2}	=	Chlorine
DV	=	Dependent Variable
EPA	=	Environmental Protection Agency
IV	=	Independent Variable
MLM	=	Multilevel Marketing
NSF	=	National Sanitation Foundation
PVC	=	Polyvinyl Chloride
RO	=	Reverse Osmosis
TTHMs	=	Total Trihalomethanes
USA	=	United State of America
UV	=	Ultraviolet
WHO	=	World Health Organization
WTS	=	Water Treatment System
WWF	=	World Wildlife Fund

LIST OF SYMBOLS

%	=	Percentage
<	=	Less-than sign
>	=	Greater-than sign

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CHAPTER 1

INTRODUCTION

1.1 Background of Study

Multilevel Marketing or MLM is a system for selling goods or services through a wide network of distributors, each of whom, is responsible and compensated for recruiting new members to the multi level marketing system. Most MLM programs grow through recruitment. Each person recruited becomes part of the “downline” for the person who recruited them. While MLM programs have been successful for years, including some of the most noteworthy like Tupperware, Mary Kay Cosmetics and Amway, there are many more MLM failures than successes and the MLM industry is, unfortunately rife with scams. MLM scams include “pyramid schemes” where the investor is promised huge returns for a single investment. Pyramid schemes are illegal because there are no products or services involved that have any value. Datuk Dr Awang Adek Hussin state that not all direct sales business (MLM) is not good and give trouble to the public. He added, such businesses that would benefit the consumers in terms of cost saving.

Amway was founded in 1959 based in Ada, Michigan, USA by Rich DeVos and Jay Van Andel. Amway is a global direct selling company that has expanded over more than 80 countries and territories. Amway has 450 diverse products for nutrition, beauty, home care, personal care and durable. Amway Company has owned organic farms over

6400 acres in California, Washington State, Mexico and Brazil. Amway has entered the Malaysia's market since 1976 and became the first direct selling company that listed on the Main Board of Kuala Lumpur Stock Exchange.

Amway started launching their first Water Treatment System (WTS) in 1984 in U.S and Canada. This product uses the pressed carbon filter. And after years' time passed, Amway has improved this product by adding a new system to help consumers sensitive to long-term use of filters in order to ensure that it stay at a great level of performance. In 1992, Amway started introducing the first design of water treatment system in Southeast Asia. This design was added the disinfecting power of ultraviolet (UV) light for a carbon filtration system. And the latest design was improved by combining the UV lamp and pressed carbon block filter into a single all-in-one cartridge used in the eSpring Water Treatment System in 2002. The new design makes cartridge replacement easier and reduces waste.

There are 3 advanced technologies that applied in eSpring product. Categorized as primary protector, eSpring has Activated Solid Carbon Block Filter Technology. It has effectively reduced more than 140 potential health-effect substances that may be present in drinking water. Moreover, the eSpring has been equipped with UV Technology. The UV light helps to destroy microorganisms in drinking water without the use of chemicals. Ultimately, the value-added technology in these latest models of water treatment systems is Smart Chip Monitoring Technology. This technology offers to facilitate the customer to monitoring the use of eSpring. It functions to alert the consumer when the time to replace the filter or UV light comes.

Thus, not all MLM companies are committing fraud because Amway have proved that they are the best. And the researcher is sure that the technology used in eSpring can meet customer requirements to have quality of drinking water.

1.2 Problem Statement

Practice a healthy lifestyle is very important to reduce the risk of getting a disease or dying early. Illness and disease may be barred with this method. A healthy lifestyle is not only beneficial to the practitioners, but also those surrounding practitioners also had a positive effect. One of the ways to have a healthy lifestyle is through drinking. About 70% in human body contains of water. People use water for many things. In fact, we can't live without water. Water is needed to regulate body temperature, to compensate for the loss of water in our body due to sweat and to bring food to digest other parts of our body.

Based on Dr. Maddalena, if a person is lack of water, the body will easily feel tired. Besides, lack of water can also cause frequent headaches or migraines, constipation, muscle tension, blood pressure imbalance, kidney problems, dry skin, and most critical of all, it can also be a risk of death.

Over the years, the rivers are the main source of water supply. Unfortunately, the levels of water quality become increasingly severe. It no longer can drink directly from the source. According to World Wildlife Fund Malaysia (WWF), the rivers contaminated by sewage contain high levels of organic pollutants, and they become breeding grounds for harmful bacteria and viruses that may cause either mass die-offs or reduced resistance to diseases and loss of reproductive ability of fish and other aquatic organisms sewage pollution also causes outbreak of water borne diseases such as cholera, typhoid and hepatitis A that are detrimental to human.

According to the online newspaper, The Star, state that most of the rivers in Selangor are a major source of water supply was found to have contaminated and potentially serious threat and it become worse when one of the river has entered the Class 3 and Class 4 categories of being polluted and if the quality worsens, it can be considered a dead river.

Water pollution is not the local issue. It has been attacked globally. Brian Handwerk reported In the National Geographic Daily News, they have estimated that the water pollution will be more and more prevalent until become the world's water pollution disaster and there is the potential for huge amounts of toxic waste to move into a river system.

Thus, the main issues are to live healthy with best quality of water. There are few companies that concern of this situation has produced a product to make sure everyone can get the best quality of water and safer.

1.3 Research Questions

The research questions of the research are as follows:

- a. What is the relationship between the perceived usefulness to the intention of the customer to buy eSpring?
- b. What is the relationship between perceived quality to the intention of the customer to buy eSpring?
- c. What is the relationship between benefit-to-self to the intention of the customer to buy eSpring?
- d. What is the most significant factor that contributes to the intention of the customer to buy eSpring?

1.4 Research Objectives

The research objectives of the research are as follows:

- a. To investigate the relationship between the perceived usefulness to the intention of the customer to buy eSpring
- b. To investigate the relationship between perceived quality to the intention of the customer to buy eSpring
- c. To investigate the relationship between benefit-to-self to the intention of the customer to buy eSpring
- d. To identify the most significant factor that contributes to the intention of the customer to buy eSpring

1.5 Scope of Study

The focus of this research is on the customer acceptance of eSpring technologies to live healthy. In Chapter 1, the researcher focused on the background of the study. It covers a brief overview about Amway Company and a number of information about eSpring history and technology. Based on Chapter 2, it covered the literature review of this research. While in Chapter 3, explained about theoretical framework, research design, data analysis and collection of this research. In Chapter 4, the data gained from the survey has been collected and analyzed. Last but not least, Chapter 5 concludes and summarizes the findings of the research questions in order to fulfill the purpose of this study.

1.6 Significant of Study

This research is beneficial for Amway Company and their distributors as a reference to study on what does the view of the customer towards eSpring. To study what the customer needs and wants is one of the important perspective for one's company to sustain their business to suit the market niche. Furthermore, the future customers can take advantage form this research to know well about the eSpring water treatment system as well.

This research has provided a data to relate the importance of having an eSpring as part of customer life and the relationship between the customer behaviors towards the eSpring water treatment system.

1.7 Summary

This chapter includes background of the study, problem statement, research questions, research objectives, scope of study and the limitation and significant of this study. The further chapter, chapter 2, is discussed about literature review.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter discusses about the literature review of this research. This study used to gain a better understanding of research. Technology used in the eSpring designed to ensure that customers obtain a better quality of drinking water in terms of taste, smell and clarity lead healthier lives.

2.2 Water

Shakhashiri. B (2011) state that generally water covers about 70% of earth's surface likewise, the human body also contains approximately 60% to 70% of water. Water is the only substances that exist naturally in three types of elements of solid, liquid and gas. Because the water content is two-thirds of human body weight, then, all the parts of the human body are also produced from water. Pure water is colorless, odorless and tasteless and so common that we never think about how unique it is and how essential to life. Most plants and animals contain more than 60% water by volume. Without water, life would not have evolved on Earth.

Water makes up more than two thirds of the weight of the human body, and without it, we would die in a few days. A mere 2% drop in our body's water supply can trigger signs of dehydration such as fuzzy short-term memory. Water is important to the mechanics of the human body. The body cannot work without it and in fact, all the cell and organ functions made up in our entire anatomy and physiology depend on water for their functioning. For example, 95% of the brain is made up from water, as well as blood, 82% and lungs, 90%. Water serves as lubricant water forms the base for saliva water forms the fluids that surround the joints. Water regulates the body temperature, as the cooling and heating is distributed through perspiration. Water helps to alleviate constipation by moving food through the intestinal tract and thereby eliminating waste as the best detox agent (Meddalena, 2009).

The human body may lose water via urine, feces, respiration and evaporation which we cannot control those activities. In addition, increased physical activity also caused the body to lose water. The minimal amount of fluid loss that can occur is referred to as the obligatory water loss. However, a variety of factors can affect the obligatory loss. For example, the obligatory urine loss occurs because of the need to remove various salts from the body. The minimum water required for urine is dependent on the daily solute excretory load, primarily determined by diet and the maximum urinary concentration achievable (Grandjean, A.C, 2007).

Rivers in Selangor are one of the main sources of water that provided to the people of Malaysia. The Star Newspaper has reported that it has been contaminated and likely causes that dangerous threat to the people. In an interview in the newspaper, Dr Hafizan Juahir which an Environmental Forensics Research Centre unit head of UPM said that the clean water sections of the rivers were getting shorter due to development, particularly for housing usage. He added, the river has entered the 3rd and 4th in the category of pollution and the quality is getting worse.

The National Geographic Daily News also reported that water pollution will be a world disaster. Handwerk. B said that there is the potential for huge amounts of toxic