YANGON UNIVERSITY OF ECONOMICS

DEPARTMENT OF MANAGEMENT STUDIES

MBA PROGRAMME

CONSUMER ATTITUDE AND REPURCHASE BEHAVIOR TOWARDS SOLAR MINI GRIDS SERVICE OF TALENT AND TECHNOLOGY CO., LTD

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EMBA II - 88

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ACADEMIC YEAR (2018-2022)

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"This Thesis submitted to the Board of Examiners in partial fulfillment of the requirements for the Degree of Master of Business Administration (MBA)"

Supervised By:

Dr. Nu Nu Lwin

Professor and Head

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EMBA 17th Batch

(2018-2022)

ACCEPTANCE

This is to certify that the thesis entitled "**Consumer Attitude and Repurchase Behavior towards Solar Mini-Grids Service of Talent and Technology Co., Ltd**" has been accepted by the Examination Board for awarding Master of Business Administration (MBA) degree.

Board of Examiners

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March, 2022

ABSTRACT

This study focuses on the influencing factors on consumer attitude and repurchase behavior towards solar mini grid services at Talent and Technology Co., Ltd. The purpose of this study is to examine the influencing factors on consumer attitude and to analyze the effect of consumer attitude on their repurchase behavior towards solar mini-grid service in Talent and Technology Co., Ltd in Bago. In this study, questionnaire survey is used to collect data from the respondents who are using mini grid services of Talent and Technology Co., Ltd in Bago. The results of the study show that marketing factors, service quality and social factors have significantly influenced on consumer attitude. Moreover, consumer attitude also affects their repurchase behavior towards solar mini grid at Talent and Technology Co., Ltd. It highlights that positive attitude of consumer can lead to repurchase behavior on mini grid service of Talent and Technology Co., Ltd. Based on the results, this study recommends that the operators and providers of mini grid service need to emphasize on marketing factors, service quality and social factors to succeed in competitive environment.

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CHAPTER 1
INTRODUCTION

Industrialization to achieve economic growth and population growth have put pressure on energy resource availability and sustainability. Transitioning to a sustainable energy system involves fundamental changes in technology, policy, markets, and institutions. Mini grids are predicted to be vital in achieving the Sustainable Energy for All (SE4All) objective of universal energy access by 2030.

In Myanmar, mini grids using locally engineered technology have played a key role in the provision of electricity for thousands of villages that are outside of the country's limited national grid distribution network. Mini grids have provided an opportunity to supply rural customers with reliable and affordable electricity. To achieve the outcome of increased mini grids solar energy access, we needed to start with the perspective of the existing mini grid consumer's attitude towards the mini grid service, as they ultimately drive the adoption process.

Consumer attitude can be defined as a feeling of favorableness or un-favorableness that an individual has towards a product or service (Krech, Crutchfield & Ballackey, 1962). Attitude, one of the personal influences, is the way one thinks, feels, and acts toward some aspect of his or her environment, such as a retail store, television program, or product. It is considered that attitudes have three components: cognitive (beliefs), affective (feelings), and behavioral (response tendencies). Consumers are constantly exposed to new knowledge, input, experiences, and influences, and attitudes change over time starting in childhood. The formation of an attitude is helped along by direct personal experience and is influenced by the ideas, personality, and experiences of friends, family members, and the media. Buying of any product or service would be accomplished based on how each product/service makes the decision maker feel.

Consumer behavior is influenced by consumer's attitude on many things, including marketing factors, service quality, social factors, etc. Marketing factors can influence on consumer attitude to become favorable or unfavorable outcome as they belief, trust or experience that product quality, perceived value (cost), promotion, accessibility etc. Convenience, reliability, and usability variables of service quality are important to become positive attitudes. Income opportunities, community development, wellbeing, and safety are social factors that affect the attitudes of mini grid consumer. While it is apparent that having

access to electricity benefits such as education, health, employment, and gender equality, there is a need for a reliable method of determining the degree of any social value or effect gained directly from mini-grid energy distribution. Customers develop strong intention to repurchase if they find value (both utilitarian and hedonic) and are satisfied with their previous purchases from the same vendor (Park & Kim, 2003). The understanding of relationship between consumer attitude and repurchase behavior is the key component for the success of the business and at the same time it plays a vital role to expand the market value.

1.1 Rationale of the Study

Rural electrification through Solar Mini Grid Systems is becoming more popular, day by day in Myanmar particularly in remote, inaccessible areas. Mini grids aim to enhance business productivity by replacing generators, lanterns and candles with reliable electricity and improve community security through street lightings. The enthusiasm for solar electricity in the rural areas has been encouraging for the obvious advantage it offers. It is an important factor in scaling up mini-grid energy access as key market enablers, channels of awareness-raising and trust-building among mini-grid communities.

In developing countries with large areas not covered by the national grid, mini-grids are typically not connected to the grid and provide power to off-grid rural communities. Mini-grids might play a critical role as a distributed "grid 2.0" solution, supplying electricity to off-grid regions while the main grid is being expanded. Therefore mini-grids systems have been implementing in off-grid areas in many developing countries. Access to electricity remains an issue in Myanmar with an estimated 58% of the population, approximately 30 million people, not connected to the main power grid.

Attitude towards the behavior is defined as the individual's positive or negative feelings about performing a behavior. It is determined through an assessment of one's beliefs regarding the consequences arising from a behavior and an evaluation of the desirability of these consequences. Salient beliefs on the associated benefits and costs of performing the behavior are the determinants (Ajzen & Fishbein, 1991). It refers to feelings of joy, happiness, pleasure, disgust, hatred or dislike towards a behavior (Triandis, 1979).

Knowing customers and being able to provide what satisfies them is a critical issue for today private service providers and at the core of today’s marketing paradigm. Knowledge of consumer behavior helps in effective segmentation and in creating successful service offers.

However, consumer behavior varies across industries and is considered to be multidimensional (Zeithaml, Berry & Parasuraman, 1996). Understanding consumer behavior is important for any company regardless of product or service they are offering including electrification service industry. Understanding the theories and concepts of consumer behavior helps to market the product or services successfully.

As customers have different needs and expectations when they consider buying products and services, they make decisions based on an evaluation of various factors (Hwang & Won, 2008). This is true for customers of mini grid service as well. Customers may have different preferences and attribute different levels of importance to factors when they choose and taking at mini grid service. Therefore, this study aims to explore the antecedent factors on consumer attitudes and how is it related with repurchase behavior towards the Solar Mini Grid System service at Talent and Technology Co., Ltd. The result of this study is expected to shed light on the consumer attitude and repurchase behavior towards the mini grid service.

1.2 Objectives of the Study

In this study, it includes two main objectives. They are -

- To examine the influencing factors on consumer attitude towards solar mini-grid service in Talent and Technology Co., Ltd.
- To analyze the effect of consumer attitude on their repurchase behavior towards solar mini-grid service in Talent and Technology Co., Ltd.

1.3 Scope and Methods of the Study

This study focuses on the factors influencing on consumer attitude and repurchase behavior towards mini grid service at Talent and Technology Co., Ltd. In this study, consumer survey is conducted using structured questionnaire designed with five-point Likert scale in order to identify the influencing factors on their attitude. The study applies two stage random sampling method. At first stage, among five villages that use solar mini grid service sites of Talent and Technology Co., Ltd, two villages are chosen by using simple random sampling method. In second stage, among 230 households that use solar mini grid service of the company, 171 households are selected by using simple random sampling method. Data collection period is first week of March 2022. Both descriptive and analytical methods are applied. A regression analysis is conducted to find out the influencing factors on consumer

attitude and the effect of consumer attitude on their repurchase behavior towards mini grid service of Talent and Technology Co., Ltd.

Both primary data and secondary data were used in which primary data were collected from the sample respondents by using structured questionnaire. Secondary data is obtained from the international research paper, journals, articles, reference textbooks, internet websites and other related information resources. This study is limited only to mini grid sites of Talent and Technology Co., Ltd and it may imply that the result of this study cannot cover the whole solar mini grid services in Myanmar.

1.4 Organization of the Study

This study is organized into five chapters. Chapter (1) is introductory which involves rationale of the study, objectives of the study, scope and method of the study and organization of the study. The theoretical background of consumer attitude, influencing factors and its effects on repurchase behaviour are presented in chapter (2). Chapter (3) presents industry overview of the mini grid sites in Bago and consumer perceptions on antecedent factors of consumer attitude towards mini grid sites service. Chapter (4) discusses the analysis on the influencing factors on consumer attitudes and the effect of consumer attitudes on their repurchase behaviour. Finally, chapter (5) involves the conclusion with the findings, discussions, suggestions, and recommendations and needs for further research.

CHAPTER 2

THEORETICAL BACKGROUND

This chapter provides significant literature related to the variables under consideration. This chapter involves theoretical reviews on key concepts such as consumer attitudes, influencing factors on consumer attitudes and buying behaviors of consumers. Formal definitions as well as empirical assumptions about the proposed relationship between these variables are also provided. Finally, conceptual framework is developed on the basis of theories and previous studies.

2.1 Theories of Consumer Attitude

Consumer attitude is an important aspect in determining the consumer buying behaviour. Consumers consider various attributes like quality, trust, commitment, and satisfaction while buying a product (Siddik & Kabiraj, 2018). Moreover, the behaviour of the consumer also depends upon the past buying behaviour. Thus, in order to find out the consumers attitude towards solar mini grid service, the meaning of attitude must be understood first.

Attitude has been defined as a mental and neural state of consumer readiness, which is organised through experience, individual's response to all objects, and situations in a favourable or unfavourable way (Katz, 1960; Allport, 1935). In addition, attitude is the main constituent of human character which affects the way in perceiving everything around them. According to Ajzen and Fishbein (1980), attitude is a relationship between beliefs, behaviour intentions, and human behaviour. More specifically, attitude refers to knowledge and positive or negative feelings about an object or activity (Pride & Ferrell, 1991). Two main theories of consumer attitude are tricomponent component attitude model and multi-attributes attitude model.

The Tricomponent Attitude Model includes three elements which are cognitive element (knowledge and beliefs), affective element (feelings and emotions) and behavioural (or conative) (predisposition in the act of purchase).

The multi-attributes attitudes model substantiates the interest of consumers on a specific object and likes and dislikes of consumer towards a product or a brand. This model is divided in to two types namely- Attitude towards the Object Model and Attitude towards the Behavior model. While Attitude towards Behavior Model focuses on the changing Behavior of consumers, Attitude towards Object Model focuses on the object related aspects of purchase.

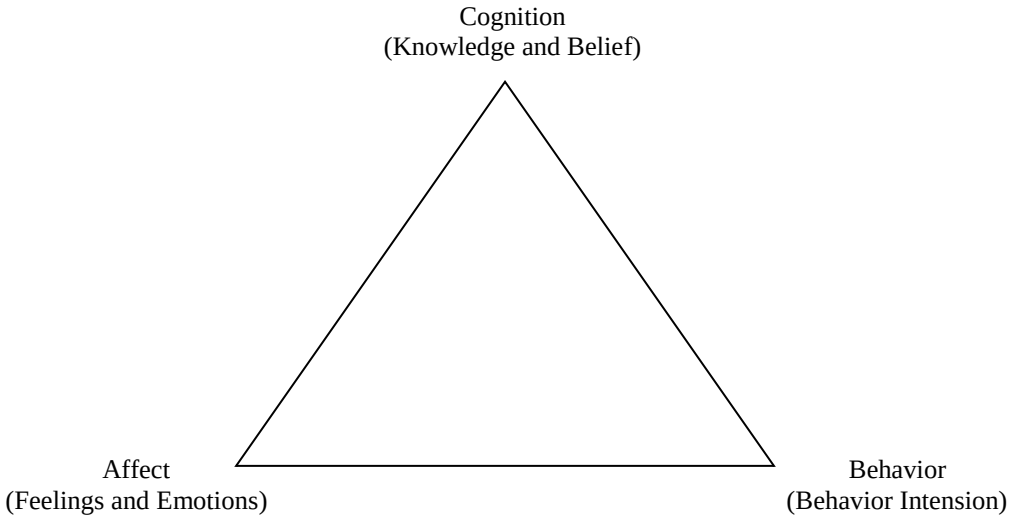
The attitude-toward-object model declares that a consumer's attitudes towards a product/service offering or a brand, is a function of the presence or absence of certain attributes, and the corresponding evaluation. The attitude-toward-object model recommends that three key factors must be evaluated to understand or expect consumers' attitudes. The three factors that it uses are salient believes, strength of the belief, and evaluation of the attribute. The Fishbein model is especially suitable for measuring attributes towards a product category or specific brands. According to this model, the consumer's attitude towards a product is a function of the presence (or absence) and evaluation of certain product-specific beliefs and/or attribute. Consumers generally have favorable attitudes towards the brands that they believe have an adequate level of attributes that they evaluate as positive.

The attitude-toward-behavior model focuses on the individual's acts of behavior towards the attitude object rather than mere influence or feeling towards the object. The basic idea is that a consumer might have a positive attitude towards various attributes that a product houses but have a negative attitude towards subscribing to the product. For example, iPhone is one of the best phones available in the market with great features and quality support. The individual may form an overall positive attitude towards iPhone while negative attitude towards paying for an expensive smartphone that affects the outcome.

2.2 Tri Component Attitude Model

This study used Tri Component Attitude Model to examine the influencing factors on consumer attitudes and analyze the effect of consumer attitude on their repurchase behavior towards solar mini-grid service. Attitudes are formed by three main components according to Rosenberg and Hovland (1960). They are cognitive, affective, and conative components. Cognitive component is related to the consumer's beliefs about a product, which can be generally evaluated. Affective component is related to the feelings or emotional reactions to an object. Behaviour component is the tendency to respond in a certain manner toward an object or service. All the three components of attitude are relevant, but they might vary in the degree of importance according to the motivation regard to an attitude object. Tri-component Model − According to tri-component model, attitude consists of the following three components.

Figure (2.1) Tri-Components Attitude Model



Source: Rosenberg and Hovland (1960)

Cognitive Component − The first component is cognitive component which consists of an individual's knowledge or perception towards few products or services through personal experience or related information from various sources. This knowledge usually results in beliefs, which a consumer has, and specific behavior.

Affective Component − The second part is the affective component which consists of a person's feelings, sentiments, and emotions for a particular brand or product. They give them as the primary criteria for the purpose of evaluation. The state of mind also performs a major role, like the sadness, happiness, anger, or stress, which also affects the attitude of a consumer. This component has the potential to lead behavior outcomes.

Conative Component − The last component is conative component, which consists of a person's intention or likelihood towards a particular product. It usually means the actual behavior of the person or his intention. Conative component of attitude is connected with the effect of various condition or situations that lead to person behavior based on cognitive and affective components.

The Tri-component Model approaches to explain the relative impact of three components on a sequence of steps to form attitude (Solomon, 2004). When affect comes before behaviour and cognition, a mainly hedonistic purchase occurs, because consumers bought a product (behaviour) based only on their feelings(affect) about the product.

2.3 Antecedents of Consumer Attitude

Consumer's attitude can be influenced by marketing factors, quality of service and social factors of the consumers. Marketing factors consist of product quality, perceived value (cost), promotion and accessories variables. Service quality is measured with convenience, reliability, and usability variables. Social factors' variables are income opportunities, community development, wellbeing, and safety to mini grid consumer.

Marketing Factors

Marketing factors are elements of consumer behavior and economic trends that can affect a particular sales market. Marketing factors can also change over time, especially as the demographic makeup of a particular location or consumer base fluctuates in response to external events. It can make more accurate predictions about consumer behavior and potential future sales. The concept of marketing mix was first suggested by Neil Borden in 1949. However, marketing mix of most common variables such as product, price, distribution and promotion were set up by Mccarthy and were known as 4Ps.

Product is the thing or service of an industry creates on a large scale in a specific volume of units. Product can be tangible and intangible. All of the products need to meet demand of customers. The key for product is to know the problem or put the feature of goods or service and unique point of product for consumers. Product is defined the goods and / or services offered by a company to its customers. Product's own tools are features, design, quality, brand name, packaging, services and variety.

Price as a marketing tool is a key factor in selling product to customers. Price is the amount or cost of the good. Product or service's price is decided by all factors that an organization puts in during the preparation of the product. One of the most important marketing mix items is price and many scientists regard the price as one of the most important elements of the market, which increases not only profits but also market share. Therefore, it is the price is perceived as the only element of the marketing mix, generating revenue and the most important customer favorable attitude and loyalty factor.

Place represents the location where the customers can get this product or service. It is potential that the product is not available in all locations but only in a certain selection of locations. Customers and users benefit from distribution since it enables them to locate and acquire items from manufacturers / suppliers when they need them. The part of the marketing

mix is distribution or place, which be full of decisions and actions related to the movement of goods from the producer

Promotion refers to create relationships with customers to inform them or affect their attitude or behavior. Promotion is used to enlighten people about items and to give customers in a target market the confidence to acquire certain brands. Promotion draws people's attention and, in certain cases, attracts their interest. Promotional strategies like as prize draws, price stimulation, free samples, and so on have a significant influence on persuading people to purchase by enticing them to try a brand. The foundation of promotion is communication and then consists of all the communicative tools that pass on a particular message to the consumer.

Service Quality

It is hard to define what the service is. It is getting complicating and the ways of different companies serving with the different design. Service quality has been the subject of considerable interest by both practioners and researchers in recent years. Service quality can also be defined as “a judgement about a service’s overall excellence or superiority” (Schneider & White, 2004,).

Services have four unique characteristics which distinguish them from tangible goods: intangible, perishable, variable, and inseparable (McDaniel, Hair, & Lamb, 2012). However, service quality is intangible and is specific to each encounter with the service firm. Because of this, service quality is a key tool for a firm to achieve a competitive advantage and create customer loyalty and customer retention behavior. For decades, service quality has gained a significant amount of attention in the academic literature as well as within the service industries. Good service quality makes customer satisfaction which leads to positive future behavioral intentions, such as repurchase intention, positive word-of-mouth intention, and a willingness to recommend.

Measuring service quality is a more accurate technique to determine if a service is excellent or terrible, and whether or not clients will be happy. There is no broad consensus on the nature or content of the dimensions, hence service quality is dependent on numerous dimensions. Because service quality has a distinct construct and distinguished features for different services. The seven main types- Reliability, Responsiveness, Assurance, Empathy, Tangibility, technology, and Image of PO- that have been empirically tested used as the main focus in previous research (are incorporated in the proposed theoretical model of this thesis.

Fivefold dimensions of reliability, responsiveness, assurance, empathy and tangibles were taken as constructs from SERVQUAL model (Parasuraman, Zeithaml & Berry, 1988) and two additional constructs named as technology and image of PO was adopted from Grönroos (1984) model. To measure service quality dimensions, the 39 items scale has been used in the analysis. Here, the author used five-point Likert scale, ranging from 1= strongly disagree to 5=strongly agree.

Social Factors

Religion, income, and family are examples of social elements that influence one's lifestyle. Businesses must be aware of these elements as they change since they are an essential component of effective marketing. Marketers must adapt their marketing strategy on a regular basis as societal conditions change. Many towns, for example, are multicultural, which implies that people of all races and religions contribute to the social atmosphere. People are also going to different nations and being exposed to ideas that are different from their own. Finally, better transportation networks have made society's reliance on local or seasonal markets less stable.

Social factors affect consumer behavior significantly. Every person has someone around affecting their buying decisions. Changes in social factors can impact a firm in many ways. Lifestyles, Buying habits, Education level, Emphasis on safety, Religion and beliefs, Health consciousness, Sex distribution, Average disposable income level, Social classes, Family size and structure, Minorities are some of social factors which impact customer needs and the size of markets. The social component is concerned with the factors that exist within society. Social elements include family, friends, coworkers, neighbors, and the media. These influences have the potential to influence our attitudes, ideas, and passions. So, it can influence the sales of products and revenues earned. Products take advantage of social factors.

Nowadays, most of organizations offer products and services which aim to benefit people's lifestyle. The offerings complement customers' behavior. For example, some product or service can provide the consumer to create more income opportunities, community development and wellbeing of their lifestyle by using their product and service. Income Opportunities are the ability to undertake entrepreneurship beyond the normal occupation in the area. Community development is the improvement of services or soft and hard infrastructure for the benefit of a collective group or people. Wellbeing is the ability to have a

good or satisfying living condition. Safety (people) is able to remain free from danger and threats posed by other people.

2.4 Repurchase Behaviour

Repurchase behavior has been defined as the consumer's behavior through the context of purchasing the same product or services repeatedly, for more than one time. The majority of purchases made by customers are likely to be repeated. Customers buy comparable things from similar suppliers on a regular basis, and most transactions are part of a chain rather than a single transaction. Retention is another common term for repurchase (Lee, 2020), which is one of the most important variables in relationship marketing.

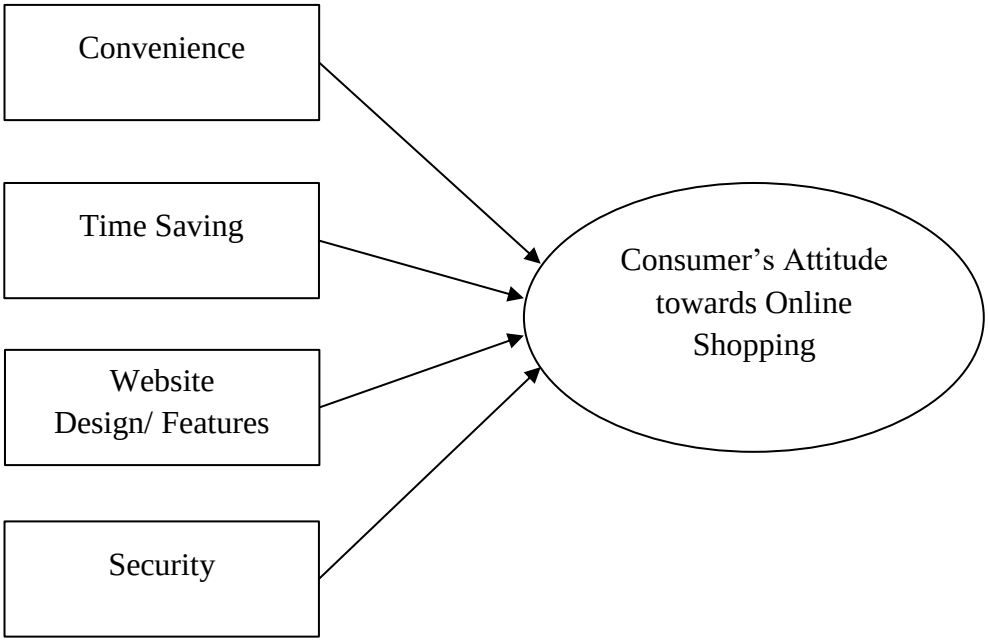
Two forms of repurchase are identified: the intention to re-buy (repurchase), and the intention to engage in positive word-of-mouth and recommendation (referral) (Zeithaml & Parasuraman, 1996). Word-of-Mouth (WOM) is a way to communicate between customers about their feeling or experience toward products or services. There are various forms of WOM including both offline communication (traditional WOM) and online or Internet facilitated communication or Electronic Word-of-Mouth (eWOM). Marketers have realized the potential of WOM in influencing evaluation and purchase intention. Naturally, positive WOM could enhance the perceived quality of a product and result in a more positive attitude and higher purchase intention, while negative WOM could lead to a less positive attitude (Liu 2006).

Recommendations and behaviors of other people in a social network can influence consumer decision-making process and consumption behavior. Each person in a social network possesses a different degree of influential power based on different factors, such as the strength of a relationship, similarity between individuals, how individuals psychologically identify themselves, and so forth.

2.5 Previous Studies

The research model is constructed by Sultan & Uddin (2011) on the basis of number of researches done in the area of consumer attitudes towards online shopping behavior. The diagram shown in Figure (2.2) depicts the factors influencing consumer to shop online.

Figure (2.2) Conceptual Model of Sultan and Uddin

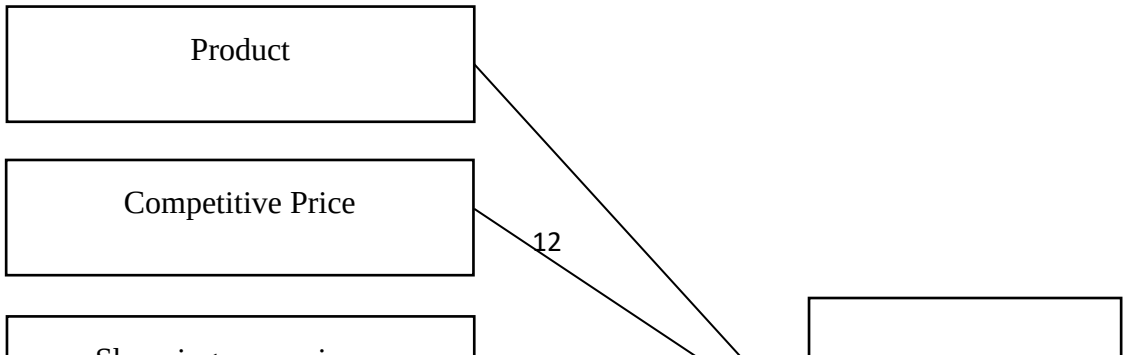


Source: Sultan & Uddin (2011)

According to the findings of this survey, out of four variables, Website Design/Features is the most appealing and influential factor for online buyers, with convenience coming in second and time savings coming in third. Results have showed that security is also important concern among online shoppers. The research has also found that there are some other factors which influence online shoppers are low price, discount, feedback from precious shoppers, quality of product and information.

Based on prior research, Nguyen, Phan, and Vu (2015) studied the influence of marketing mix factors on food purchase behavior. Given that food purchasing behavior. The diagram shown in Figure (2.3) focus on the impact of marketing mix on purchase of frozen food.

Figure (2.3) Conceptual Model of Nguyen, Phan and Vu

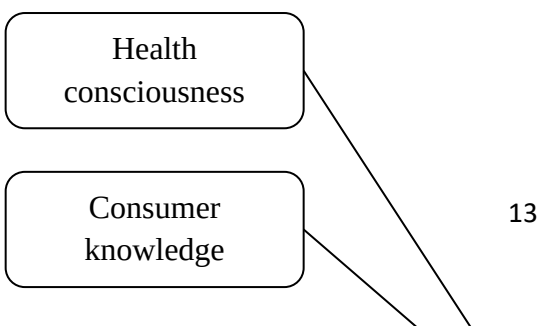


Source: Nguyen, Phan & Vu (2015)

The results of the study show that product is the most important factor that affects consumer purchase decision towards the frozen food purchase followed by shopping convenience, atmosphere, competitive price, promotion, and personnel respectively.

The study of Yang, Shaaban & Nguyen (2014) is to investigate the influential factors on consumer attitude and behavior intention/purchase intention in the context of organic food consumption. The diagram shown in Figure (2.4) illustrates the influence of different factors on consumer attitude and the correlation between attitude and purchase intention towards organic food.

Figure (2.4) Research Model of Yang, Shaaban and Nguyen

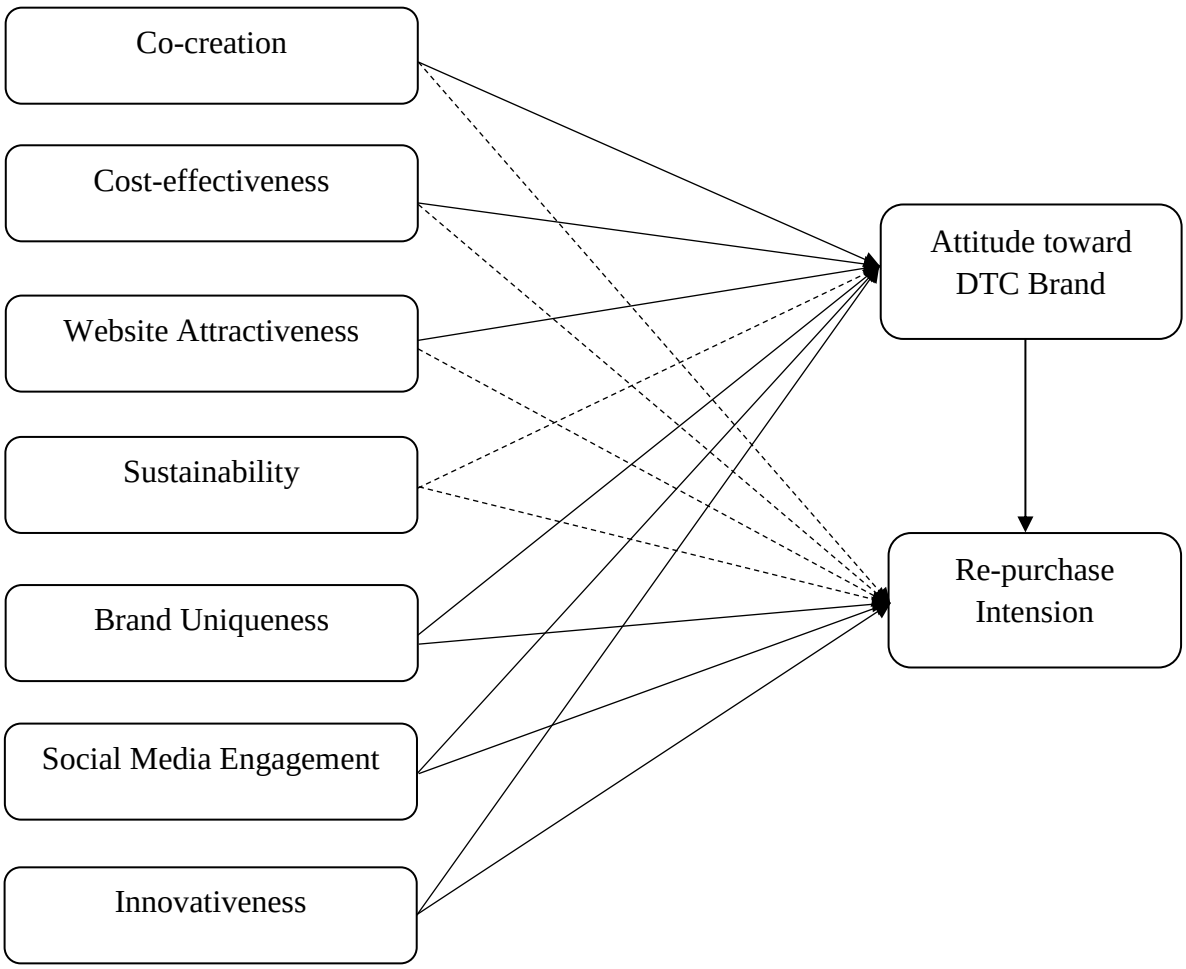


Source: Yang, Shaaban & Nguyen (2014)

In this study, a survey was carried out among Chinese consumers in China. The result revealed that the value between consumer attitude and purchase intention is accepted in high significance. The more positive attitude Chinese consumers have towards organic food, the more likely they are to purchase organic food. This result is aligned with the finding of Fishbein and Ajzen (1975) that individual's attitude towards behavior will determine his/her intention to perform a behavior.

The study of Kim, Shin & Kim (2021) reveals the role of various determinants in explaining consumers' attitude and re-purchase intentions for DTC fashion brands. First, all variables (e.g., co-creation, cost-effectiveness, website attractiveness, brand distinctiveness, social media participation, and brand innovativeness) were found to have a favorable influence on attitudes toward DTC companies, with the exception of sustainability.

Figure (2.5) Conceptual Model of Kim, Shin and Kim



Source: Kim, Shin & Kim (2021)

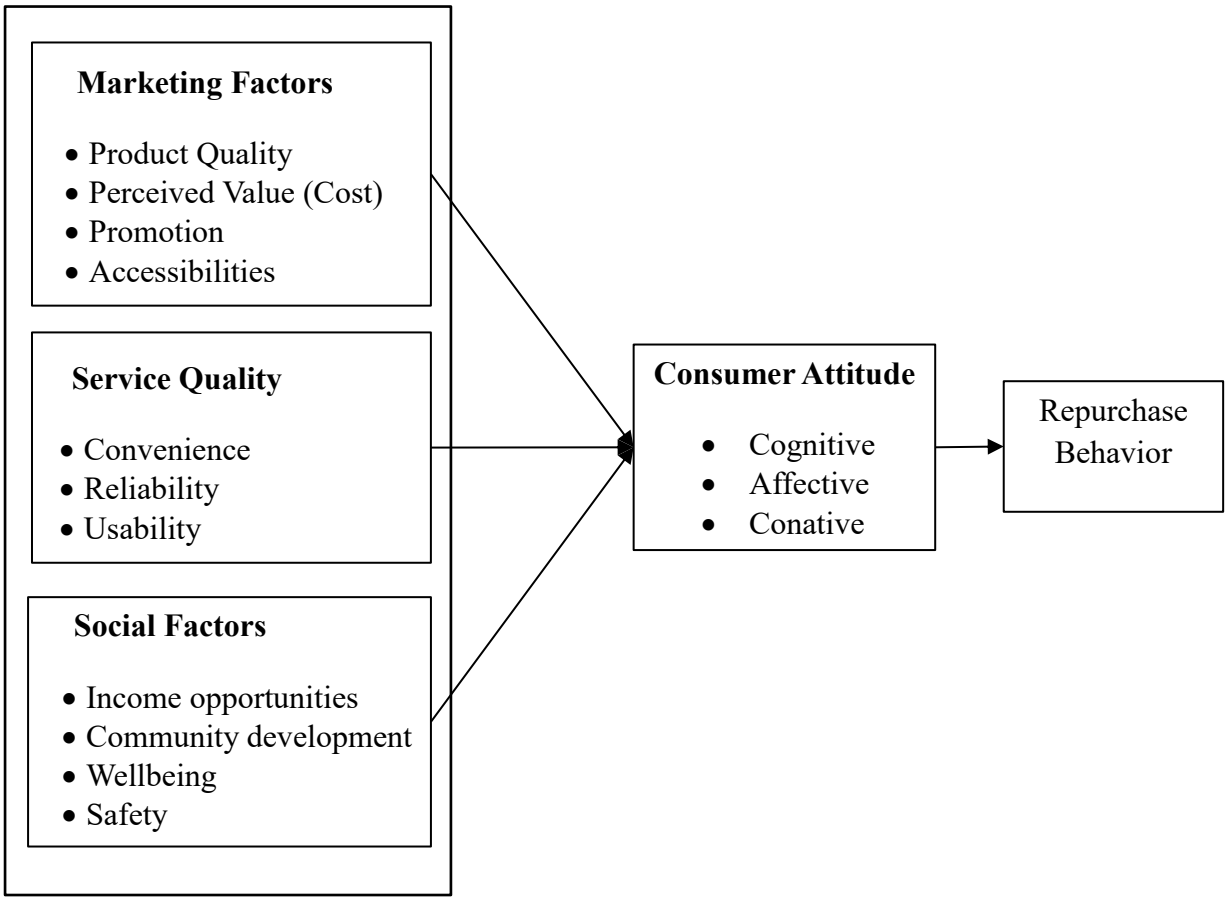
To begin, all factors (i.e., co-creation, cost-effectiveness, website attractiveness, brand distinctiveness, social media participation, and brand innovativeness) were shown to have a favorable influence on attitudes toward DTC companies, with the exception of sustainability. Because sustainability has such a little impact, customers who are drawn to DTC businesses aren't drawn to them because of their sustainability initiatives. Website attractiveness and social media participation had a higher influence on attitude than other variables after cost-effectiveness.

This finding suggests that consumers' behavioral intentions are mainly influenced by the DTC brands' branding efforts to innovate and differentiate. In addition, cost-effectiveness was shown to indirectly influence re-purchase intentions through attitudes, confirming prior research on the role of cost-effectiveness on purchase decisions.

2.6 Conceptual Framework of the Study

The conceptual framework of the study is developed based on literature and findings from different researchers. The study aims to analyse the influencing factors on consumer attitude and the effect of consumer attitude on their repurchase behaviour towards mini grid service is also considered. This conceptual framework is presented in Figure (2.6).

Figure (2.6) Conceptual Model of Consumer attitude and Repurchase Behavior Towards Mini Grid Service



Source: Own compilation based on literature review (2022)

The model is developed based on theory of tri-component attitude model. Consumer attitudes are measured with cognitive component, affective component, and conative component. In this study, other attributes model and consumer decision-making process are excluded. According to this conceptual framework, marketing factors, service quality and social factors are supposed to have effect on customer attitude and in turn, consumer attitude is supposed to influence on their repurchase behavior.

CHAPTER 3

PROFILE AND SOLAR MINI-GRID SERVICES OF TALENT AND TECHNOLOGY CO., LTD

This chapter consists of three parts. The first part is the profile of Talent and Technology Co., Ltd. The second part consists of the Solar mini grid services provided by Talent and Technology Co., Ltd. And the third part is the profile of respondents.

3.1 Profile of Talent and Technology Co., Ltd

Talent and Technology Co., Ltd, known as "T&T", is a local women led impact driven energy access company in Myanmar. T&T is established in May 2013, with the primary objective of supporting Green Energy Technology Solutions in Myanmar such as hybrid solar mini-grid systems, solar home systems, solar water pumping system, solar drinking water purification system, energy saving grid-tie solar power plants. T&T's vision is "to provide affordable and reliable electricity supply for all the people in Myanmar". Its mission is "to reduce poverty and improve quality of life through smart solar energy solutions".

T&T's businesses includes, but not limited to, Project developer for Hybrid solar mini-grid systems, Solar system integrator and emergency power back-up supplier, Consulting services such as solar verification and inspection agent for World bank projects, EPC contractor in electrical infrastructure and solar power plants, Drinking Water purification system solution provider, Solar water pumping System for community. The major clients are government departments such as Department of Rural Development, ministry of Education, ministry of construction, etc. Even though head office is located at Yangon, most of the projects are community-based projects throughout the whole country, Myanmar.

Started from 2015, World Bank had initiated National Electrification Program (NEP) with Myanmar Government to electrify more areas in Myanmar. Off-grid and grid-extension programs were introduced. Off-grid electrification, SHS and mini-grid programs, was handled by Department of Rural Development (DRD) under ministry of cooperatives and rural development to benefit villagers in rural areas. By competing with international consultants, T&T won the job of physical inspection and verification of Solar PV installation.

T&T is a pioneer of solar mini-grid developer in Myanmar. There are five solar mini-grid sites implemented in Bago Division. Call for proposal (CFP) method was used for mini-

grid systems in the villages where there is no potential to receive national power grid within next 10 years.

3.2 Solar Mini Grid Services provided by Talent and Technology Co., Ltd

Solar mini-grid is a community-based solar power generation and distribution system. 60% of the project value was supported by NEP. 20% is from community contribution. The rest of 20% is from developer's contribution. Developer will propose a certain contract year with the community. During the contract period, developer has the responsibility to maintain the system and also collect the meter bill in order to cover the cost of maintenance as well as the investment of 20% from developer.

For each community, a Village Electrification Committee (VEC) is established. VEC is a representative for communication with villagers. The Advantages of solar mini grids are that the village can receive 24 hours of electricity supply. Photo sensor Streetlights are ON throughout the whole night. This benefits villagers to stay safe at night. The consumers can not only use lighting and phone charging but also can Commercial loads such as computer and photo copiers shops, grinding machine, water pumping system, etc can be used. This will improve village's SME businesses in the villages.

In mini-grid sites, the difference of usage of electricity between urban area and rural area is "prepaid-meters". In urban area where ministry of energy is implemented, post-paid meters were used. In mini-grid system, prepaid meters are benefit villagers to know the remaining credit balance, Instantaneous power used, Voltage, Current, Frequency, Power factor, Date & Time. The information is helpful to determine what type of equipment villagers can be used and how long they are able to use before topping up the credit. This will allow user to control their usage of electricity.

3.3 Research Design

This study aims to examine the influencing factors on consumer attitude and to analyze the relationship between consumer attitude and repurchase behavior at Talent and Technology in Yangon. Analytical research method is used in this study. To achieve these objectives, both primary and secondary data are used in this study. Secondary data are obtained from textbooks, previous research papers and internet websites. The sample size was determined by using Taro Yamane's sampling size formula.

According to Yamane Formula:

Sample Size $n = \frac{N}{1+N(e)^2}$

When n= sample size, N= population size and e= acceptable sampling error at

$n=\frac{230}{1+230*(0.0387)^2}$

n=171.041=171

96 % confidence level:

This study applies two-stage random sampling method. At first stage, two villages are chosen from five villages to be sampling. The sample size was calculated based on the total population of mini grid users in Kok-Kine and Byet-Ka-Lay villages (230). In second stage, 171 households are selected among 230 households by using simple random sampling method. Primary data are collected from 171 respondents by using structured questionnaire to examine whether the antecedents' factors are influencing on their attitude and to analyze the relation of consumer attitude on their purchase behavior. After the survey data were collected, these results were entered in SPSS to examine the results and test the reliability analysis. The survey question is applied for this study consists of two main sections. Section (A) includes the questions for profile of demographic factors. Section (B) involves questions for the influencing factors on consumer attitude and repurchase behavior towards solar mini grid service at Talent and Technology Co., Ltd. The questions in section (A) are closed questions. The questions in section (B) are measured with a five-point Likert scale. In this chapter, all parts of the profile of the respondents will be discussed by descriptive research method.

3.4 Reliability Test

In this study, each factor includes different number of items, and each item is measured on five-point Likert scale. A scale consists of more than one item. Only when items within the scale are internally consistent, they can be reliable. Cronbach's alpha can be viewed as the expected correlation of two tests that measure the same construct. The reliability of scales is measured with Cronbach's alpha values, which can range from zero to one. Cronbach's alpha values near to zero indicate low reliability while the values close to one indicate high reliability. Although there is no cut-off value for how close to one is high reliability, it is commonly accepted, especially for academic purpose, that Cronbach's alpha value above 0.7 is acceptable.

Table (3.1) Calculated Cronbach's Alpha Values for Consumer Attitude and Repurchase Behavior towards solar mini grid service

Sr	Scale	Cronbach's Alpha	No. of Items
1	Marketing Factors	0.919	16
2	Service Quality	0.927	12
3	Social Factors	0.924	16
4	Cognitive	0.905	15
5	Affective	0.907	15
6	Conative	0.900	15
7	Repurchase Behavior	0.896	15

Source: Survey Data (2017)

By Table (3.1) it is found that the Cronbach's alpha values for all scales are higher than the cut-off value of 0.7, indicating high reliability and thus it can be expected that the scales used in this study will produce reliable data.

CHAPTER 4

ANALYSIS ON CONSUMER ATTITUDE AND REPURCHASE BEHAVIOR TOWARDS SOLAR MINI-GRID SERVICES OF TALENT AND TECHNOLOGY CO., LTD.

In this chapter, it describes the profile of respondents, antecedent factors of consumers attitude and repurchase behavior towards solar mini grid service. This chapter comprised of two analyses. In the first part, the influencing factors on Consumer Attitude at Solar Mini-Grid Services is examined. In the second part, the Effect of Consumer Attitude on their Repurchase Behaviors towards Solar Mini Grid Services are analyzed.

4.1 Profile of Respondents

Respondents are those individuals who complete a survey or interview for the researcher, or who provide data to be analyzed for the research study. There have two survey tables provided about General Information and Demographic factors of Respondents.

General information

Background information of respondents in using solar mini grid service is presented in Table (4.1). It included about the watt load type of mini grid user usage, years lived in community and role in household as below.

Table (4.1) General information of Respondents

Description		Total = 171	
		Number	Percentage(%)
Type of Watt	□ 1000 W	103	60.23
	□ 2000 W	22	12.87
	□ 4000 W	35	20.47
	□ 6000 W	11	6.43
Years lived in community	□ Less than 3 years	1	0.01
	□ 3-6 years	3	0.02
	□ 6-9 years	1	0.01
	□ More than 9 years	166	99.96
Role in household	□ father	92	53.80
	□ mother	59	34.50
	□ other	20	11.70

Source: Survey Data (2022)

According to general information, 60.23 percent of the respondents are using 1000watt load type of mini grid service and it is normal using for lightings, watching TV, phone charging and cooking purpose. The most second using type is 4000 watt and 20.47 percent of the respondents. They are using them for small business load such as water pumping, welding, ironing, and copier shop. six percent of the respondents are using 6000watt for chicken farm, beauty salon and carpenter workshop. 99.96 percent of the respondents are lived more than 9 years in this village. The role in household 53.80 percent is father, 34.50 percent is mother, and the other family members are 11.70 percent of the respondents. The others role in household are son, daughter, sister, brother, grandfather and etc.

Demographic Factors of Respondents

Demographic information of respondents has very significant role to play in expressing and giving the responses about the problem. Hence, a set of demographic information of the respondents have been examined and presented in Table (4.2). According to the survey data, the respondent's personal (demographic) factors are classified into five categories such as gender, marital status, age, education, and employment status.

Table (4.2) Summary of Demographic Characteristics of Respondents

Description		Total = 171	
		Number	Percentage(%)
Gender	□ female	76	44.00
	□ male	95	56.00
Marital status	□ married	165	96.00
	□ single	6	4.00
Age	□ 18–30 years	15	87.72
	□ 30–45 years	41	23.98
	□ 45–60 years	73	42.69
	□ 60 years & above	42	24.56
Education	□ primary	128	75.00
	□ secondary	35	20.00
	□ university	8	5.00
Employment status	□ employee	17	10.00
	□ self-employed, agriculture	63	37.00
	□ self-employed, nonagricultural	29	17.00
	□ businessperson	20	12.00
	□ commercial farmer	14	8.00
	□ subsistence farmer	19	11.00
	□ government officer	4	2.00
	□ other	5	3.00

Source: Survey Data (2022)

As shown in Table (4.2), there is no gender bias in selecting the respondents for the research. In this study, the number of male respondents is more than female. As a result, it may assume that the male respondents are more interested to the system than the female regardless of other factors. The different between male and female percentage is 12 only because the female respondents are familiar the service and using it in their daily life. In the married status, 90 percent of respondents are married, and it means that all family members can get and share the benefit of the mini grid service.

The four different types of age group are surveyed for this research. The largest distribution of the respondents is the group of respondents who are between 45 and 60 years old. The smallest respondent's group is age between 18 and 30 years old who are working away from the village. The education level of the respondents is divided into four groups such as primary, secondary, university and other. The majority of education level of the respondents is primary school, and it is 75 percent. According to lower level of education, the training and maintenance guidelines are provided with the aids of video and cartoon poster to recognize it clearly.

The result finds that 37 percent of respondents are self-employed in agriculture, 19 percent are subsistence farmer and 14 percent are commercial farmer. It means 70 percent are working in agriculture. There has government officer 2 percent only. The rest 30 percent are self-employed non agriculture, employees, businessperson and other. According to this information, most of customers are using the mini grid service in nighttime more than daytime because they are farmer and working in the farm during daytime. It assumes that the consumption energy load in nighttime may be higher than daytime's one. The other of employment status are retire, dependent and etc.

4.2 Analysis of Influencing Factors on Consumer Attitude at Solar Mini-Grid Services

In this part, it describes what are the Antecedents of Consumer Attitude and how to influence towards Solar Mini-Grid Services and analyze the most influencing factors on Consumer Attitude. Each factor includes different number of statements, and each statement is measured with five-point Likert scale (1: strongly disagree, 2: disagree, 3: neutral, 4: agree, and 5: strongly agree). Thus, the mean score of each statement can range between 1 and 5.

4.2.1 Antecedents of Consumer Attitude

In this topic, marketing factors, service quality and social factors are selected as antecedents of Consumer Attitude according to the conceptual framework in chapter (2) however there are many antecedents on Consumer Attitude.

4.2.1.1 Marketing Factors

In this study, marketing factors consists of four variables such as product quality, perceived value, promotion and accessibilities and each variable has four questions and altogether sixteen questions to analyze. The overall mean values of four parts are shown in Table (4.3) and detailed analysis on each variable are presented in Appendix (B-1).

Table (4.3) Marketing Factors on Consumer Attitude

	Marketing Factors	Mean
●	Product Quality	4.04
●	Perceived Value (Cost)	3.94
●	Promotion	4.05
●	Accessibilities	3.98

Source: Survey Data (2022)

As shown in Table (4.3), most of the respondents agree with the four categories and their overall mean value is nearly four. The overall mean value of promotion is the highest mean score. It indicates that the respondents use the service at mini grid service because Talent and Technology Co., Ltd provides the attractive promotion to consumer. Among the promotion items, the government subsidize program is highest mean value because most of consumer are farmer and their income are low and middle class. The second highest overall mean value is product quality, and it means that the products that Talent and Technology Co., Ltd is good. Especially the lighting and switching are good quality and working well after installation. The result of overall mean values is nearly 4 and it is concluded that consumer attitude can be assumed that positive favorable.

4.2.1.2 Service Quality

The following Table (4.4) shows that the mean value of Service Quality. In this study, dimension of service quality are convenience, reliability, and usability. Each part has four questions and altogether twelve questions to analyze. The overall mean values of three parts are shown in Table (4.4) and detailed analysis on each variable are presented in Appendix (B-2).

Table (4.4) Service Quality on Consumer Attitude

	Service Quality	Mean
●	Convenience	3.95
●	Reliability	3.98
●	Usability	3.98

Source: Survey Data (2022)

As shown in Table (4.4), most of the respondents agree with the three categories and their overall mean value is nearly four. The overall mean value of reliability and usability are the same and the highest mean score. In reliability part, mini grid service provides the quality of being trustworthy or of performing consistently well. Convenience is the state of being able to proceed with something without difficulty. Usability is a quality attribute that assesses how easy user interfaces are to use.

The system service is very user-friendly to customer. The convenience overall mean score is 3.95. In energy service, the reliability, convenience, and usability are important parts to consumer. According to the result, the most the consumer like is about the staffs have knowledgeable to assist, user-friendly system and provide the information in time, etc. It can be concluded that the service quality of Talent and Technology Co., Ltd is high based on above facts.

4.2.1.3 Social Factors

In this study, social factors include income opportunities, community development, wellbeing, and safety. Each part has four questions and altogether sixteen questions to analyze. The overall mean values of four parts are shown in Table (4.5) and detailed analysis on each variable are presented in Appendix (B-3).

Table (4.5) Social Factors on Consumer Attitude

	Social Factors	Mean
●	Income opportunities	4.03
●	Community development	4.08
●	Wellbeing	4.28
●	Safety	4.12

Source: Survey Data (2022)

As shown in Table (4.5), most of the respondents agree with the four categories and their overall mean value is more than four. Mini grid's business model is Public-private partnerships. In this area, social factors are important to be considered for successful and sustainable mini grid service because its involvement in public sector.

According to the result, the highest overall mean is wellbeing, 4.28 and is followed by Safety mean, 4.12. It indicates that Talent and Technology Co., Ltd.'s solar mini grid service can influence the consumer's daily lifestyle experience in positive way. Especially, systems enjoy relative advantage over kerosene because they facilitate income generation, provide better light and are more versatile. Electric lighting also provides approximately 100 times brighter than a kerosene lamp without the resulting indoor air pollution, soot, and noxious odors This generates health benefits of the rural people especially the women and children more who spend more time at house. Moreover, the risks of accidents from kerosene lamps like burns, fire etc. is considerably reduced.

4.2.2 Consumer Attitude towards Solar Mini-Grid Services

In this study, three components of consumer attitude are used. These are cognitive, affective, and conative. Each part has five questions and altogether total fifteen questions to analyze. The mean values and standard deviation are shown in Table (4.6) and detailed analysis on each variable are presented in Appendix (B-4).

Table (4.6) Consumer Attitude towards Solar Mini Grid Service

	Consumer Attitude towards Solar mini grid service	Mean
•	Cognitive	4.07
•	Affective	4.17
•	Conative	4.10

Source: Survey Data (2022)

As shown in Table (4.6), most of the respondents agree with the three parts and their overall mean value is more than four. The overall mean value of affective is the highest mean score, 4.17. It indicates that the respondents use the service at mini grid service because they are fully satisfied while using this mini-grid service at Talent and Technology Co., Ltd. The result finds about mini grid users are proud of being pioneer customer to the service. The mean value of cognitive is 4.07 and it means that consumers are acceptable to all statements with positive feedback. The mean value of conative is 4.10 and it is the second highest mean value. It indicates the consumer attitude are affected by antecedent factors in favorable status.

4.2.3 Influencing Factors on Consumer Attitude

In this section, the influencing factors of consumer attitude are identified by using multilinear regression analysis. Three analyses are conducted for cognitive attitude, affected attitude and conative attitude components of consumer attitude.

Influencing Factors on Cognitive Attitude

To identify the influencing factors on cognitive attitude, the mean value of cognitive attitude is regressed with the mean values of marketing factors, service quality and social factors. The results of the analysis are presented in Table (4.7).

Table (4.7) Influencing Factors on Cognitive Attitude

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	-0.682	0.396		-1.721	0.087	
Marketing Factors	0.261**	0.116	0.183	2.241	0.026	2.126
Service Quality	0.417***	0.118	0.265	3.522	0.001	1.799
Social Factors	0.498***	0.082	0.396	6.072	0.000	1.354
R	0.689					
R Square	0.475					
Adjusted R Square	0.465					
F Value	50.287***					

Source: Survey Data (2022)

*** Significant at 1% level, ** Significant at 5% level, * Significant at 10%level

As presented in Table (4.7) give the value of R. square is 0.475, this model can explain the 47.5% of the variation of cognitive attitude which is predicted by three variables: marketing factors, service quality and social factors. Since the overall significance of the model, F-value, is highly significant at 1% level, this model can be said valid. All variance inflation factors (VIF) are less than 5 (acceptable limit), that indicates the clearance of multi-collinearity problem.

As shown in Table (4.7), service quality and social factors have positively affected the cognitive component of consumer attitude at 1% level while marketing factor has positively affected at 5% level.

The positive effect of marketing factors indicates that the increase in marketing factors will enhance the cognitive attitude of consumers. By using solar mini grid service, consumer can pay affordable price not more than other power supply of off-grid and get subsidies from the government's fund to use this service. Those facilities of marketing factors bring to enhance the cognitive attitude.

Service quality has significant positive effect on consumer cognitive attitude. By using solar mini grid service, consumer can get the prompt service as and required and enjoy the consistent power supply in every time. Those experiences of service quality bring to impact on cognitive attitude.

The positive effect of social factors indicates that the increase in social factors will promote the cognitive attitude of consumers. By using solar mini grid service, consumers feel safe to use the electrical appliances and safe from fire and explosion. Those facilities of social factors increase the cognitive attitude to become positive.

According to the standardized coefficient value (B), among three variables, social factors have the greatest effect on cognitive attitudes followed by service quality and marketing factors. It implies that by using solar mini grid, consumer can participate in social activities and perform socially desirable things happening around them and these factors lead to enhance the cognitive component of consumer attitude towards solar mini grid service.

Influencing Factors on Affective Attitude

To identify the influencing factors on affective attitude, the mean value of affective attitude is regressed with the mean values of marketing factors, service quality and social factors. The results of the analysis are presented in Table (4.8).

Table (4.8) Influencing Factors on Affective Attitude

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	-1.257	0.48		-2.621	0.01	
Marketing Factors	0.572***	0.141	0.339	4.064	0.000	2.126
Service Quality	0.319**	0.143	0.170	2.224	0.028	1.799
Social Factors	0.453***	0.099	0.304	4.566	0.000	1.354
R	0.674					
R Square	0.455					
Adjusted R Square	0.445					
F Value	46.417***					

Source: Survey Data (2022)

*** Significant at 1% level, ** Significant at 5% level, * Significant at 10%level

As presented in Table (4.8) give the value of R. square is 0.455, this model can explain the 45.5% of the variation of affective attitude which is predicted by three variables: marketing factors, service quality and social factors. Since the overall significance of the model, F-value,

is highly significant at 1% level, this model can be said valid. All variance inflation factors (VIF) are less than 5 (acceptable limit), that indicates the clearance of multi-collinearity problem.

As shown in Table (4.8), marketing factors and social factors have positively affected the affective component of consumer attitude at 1% level while service quality has positively affected at 5% level.

The positive effect of marketing factors indicates that the increase in marketing factors will impact the affective attitude of consumers. By using solar mini grid service, consumer can buy more units with benefit package, enjoy with gift voucher and get seasonal promotion. These marketing factors influence on affective attitude.

The positive effect of service quality indicates that the increase in service quality will boost up the affective attitude of consumers. By using solar mini grid service, consumers can enjoy the user-friendly system and get one to one attention from the operator. These service qualities promote the positive effect on affective attitude.

Social factors have the positive significant on affective component of consumer attitude. By using solar mini grid service, consumers have time save in doing domestics works, family can get more entertainment and benefit in health. These social factors promote the positive effect on affective attitude.

According to the standardized coefficient value (B), among three variables, marketing factors have the greatest effect on consumer affective attitudes followed by social factors and service quality. It means that by using solar mini grid, that consumers can enjoy the good quality of products, affordable price, and promotion of solar mini grid service. These experiences will make the consumer keep in trust and belief the solar mini grid service.

Influencing Factors on Conative Attitude

To identify the influencing factors on conative attitude, the mean value of conative attitude is regressed with the mean values of marketing factors, service quality and social factors. The results of the analysis are presented in Table (4.9).

Table (4.9) Influencing Factors on Conative Attitude

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	-1.11	0.379		-2.93	0.004	
Marketing Factors	0.534***	0.111	0.363	4.802	0.000	2.126
Service Quality	0.328***	0.113	0.201	2.893	0.004	1.799
Social Factors	0.430***	0.078	0.331	5.487	0.000	1.354
R	.742					
R Square	0.555					
Adjusted R Square	0.542					
F Value	68.131***					

Source: Survey Data (2022)

*** Significant at 1% level, ** Significant at 5% level, * Significant at 10%level

As presented in Table (4.9) give the value of R. square is 0.55, this model can explain the 55.0% of the variation of conative attitude which is predicted by three variables: marketing factors, service quality and social factors. Since the overall significance of the model, F-value, is highly significant at 1% level, this model can be said valid. All variance inflation factors (VIF) are less than 5 (acceptable limit), that indicates the clearance of multi-collinearity problem.

As shown in Table (4.9), marketing factors, service quality and social factors have positively affected the conative component of consumer attitude at 1% level.

The positive effect of marketing factors indicates that the increase in marketing factors will affect the conative attitude of consumers. By using mini grid service, clear payment terms are available and convenient in any time and enjoy the uninterruptedly power supply thorough the year. These marketing factors implies the positive conative attitude.

The positive effect of service quality indicates that the increase in service quality will promote the conative attitude of consumers. By using mini grid service, more electrical appliances can be used in day and nighttime and receiving regular system maintenance. These service qualities bring the positive conative attitude.

Social factors have the positive significant on conative component of consumer attitude. By using mini grid service, noise pollution and carbon emission are reduced, new income

opportunities are available and improve agriculture activities. These social factors bring the positive conative attitude.

According to the standardized coefficient value (B), among three variables, marketing factors have the greatest effect on conative attitude followed by social factors and service quality. It means that by using solar mini grid, that consumers have easy to access the system, safety to use the electrical products of mini grid service. These experiences will enhance the consumers are enthusiasm to like repeat purchase and enjoy buy new product or service from the solar mini grid.

Influencing Factors on Consumer Attitude

To identify the influencing factors on consumer attitude, the mean value of consumer attitude is regressed with the mean values of marketing factors, service quality and social factors. The results of the analysis are presented in Table (4.10).

Table (4.10) Influencing Factors on Consumer Attitude

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	-1.022	0.355		-2.877	0.005	
Marketing Factors	0.456***	0.104	0.323	4.369	0.000	2.126
Service Quality	0.356***	0.106	0.228	3.355	0.001	1.799
Social Factors	0.460***	0.073	0.369	6.264	0.000	1.354
R	0.756					
R Square	0.572					
Adjusted R Square	0.564					
F Value	74.325***					

Source: Survey Data (2022)

*** Significant at 1% level, ** Significant at 5% level, * Significant at 10%level

As presented in Table (4.10) give the value of R. square is 0.572, this model can explain the 57.2% of the variation of conative attitude which is predicted by three variables: marketing factors, service quality and social factors. Since the overall significance of the model, F-value, is highly significant at 1% level, this model can be said valid. All variance inflation factors (VIF) are less than 5 (acceptable limit), that indicates the clearance of multi-collinearity problem.

As shown in Table (4.10), marketing factors, service quality and social factors have positively affected on consumer attitude at 1% level.

The positive effect of marketing factors indicates that the increase in marketing factors will affect the attitude of consumers. By using mini grid service, consumers have good experience in marketing factors to enhance the positive consumer attitude.

The positive effect of service quality indicates that the increase in service quality will promote the consumer attitude. By using mini grid service, consumers have convenience with the system, reliability, and usability of the service to enhance the positive consumer attitude.

Social factors have the positive significant on consumer attitude. By using mini grid service, consumers have better life quality than the previous times, more connection with the outside world via the entertainment channels and internet. These social factors enhance the consumer attitude.

According to the standardized coefficient value (B), among three variables, social factors have the greatest effect on Consumer Attitudes followed by marketing factors and service quality. Using solar mini grid can bring social and communal benefits by reducing the use of harmful fuels such as kerosene, providing lighting to schools and clinics, and thereby improving health and safety of the villagers. Thus, these benefits lead to enhancing favorable attitude of the villagers towards using solar mini grid service.

4.3 Analysis on the Effect of Consumer Attitude on their Repurchase Behaviors

In this research, linear regression model is used in order to find out the effect of Tri component models (cognitive component, affective component, conative component) on repurchase behavior towards solar mini grid service.

4.3.1 Repurchase Behavior

In this study, repurchase behavior of consumers are analyzed. The mean values and standard deviation of repurchase behavior of respondents are presented in Table (4.11).

Table (4.11) Repurchase Behavior towards Solar mini grid service

●	**Repurchase Behavior**	Mean	Standard Deviation
1	Next purchase plan	4.23	0.48
2	Buying new products and service packages	4.09	0.37
3	Recommendation to take this service to family, friends, and colleagues.	4.11	0.44
4	No plan to switch other source of power supply.	4.06	0.28
5	Intention to use more units to get more benefits	4.39	0.53
	Overall Mean	4.18	

Source: Survey Data (2022)

As shown in Table (4.11), most of the respondents agree with the five questions and their overall mean value is more than four. The overall mean value is 4.18. It indicates that the respondents use the mini grid service because they are fully satisfied with this mini-grid service at Talent and Technology Co., Ltd. The highest mean value is about to get more benefits by buying more units from mini grid service. It means that consumers tend to do repurchase of mini grid service.

4.3.2 The Effect of Consumer Attitude on Repurchase Behavior

To identify the effect of consumer attitude on repurchase behavior, the mean value of repurchase behavior is regressed with the mean values of cognitive attitude, affective attitude, and conative attitude. The results of the analysis are presented in Table (4.12).

Table (4.12) Effect of Consumer Attitude on Repurchase Behavior

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	VIF
	B	Std. Error	Beta			
(Constant)	0.117	0.133		0.876	0.382	
Cognitive	0.263***	0.054	0.246	4.870	0.000	2.981
Affective	0.390***	0.046	0.433	8.459	0.000	3.068
Conative	0.333***	0.058	0.321	5.775	0.000	3.628
R	0.926					
R Square	0.857					
Adjusted R Square	0.855					
F Value	334.911***					

Source: Survey Data (2022)

*** Significant at 1% level, ** Significant at 5% level, * Significant at 10%level

As presented in Table (4.12) give the value of R. square is 0.857, this model can explain the 85.7% of the relation between consumer attitude and repurchase behavior. Since the overall significance of the model, F-value, is highly significant at 1% level, this model can be said valid. All variance inflation factors (VIF) are less than 5 (acceptable limit), that indicates the clearance of multi-collinearity problem.

As shown in Table (4.12), cognitive component, affective component and conative component have positively affected on consumer attitude at 1% level.

The positive effect of cognitive component indicates that the increase in cognitive component effect on repurchase behavior. Cognitive attitude is influenced by social factors with the highest units among three antecedent factors. It highlights that consumer have good experience in their daily lifestyle, income opportunities, community development by using solar mini grid service. Those experience will bring positive cognitive attitude towards repurchase behavior.

The positive effect of affective component indicates that the increase in affective component promote repurchase behavior. Affective attitude is affected by the highest value of marketing factors. It means that consumer is fully satisfied with 4 Ps marketing factors of mini grid service. Moreover, affective attitude is the most impact component towards consumer's repurchase behavior.

Conative component has the positive significant on repurchase behavior. Conative attitude is highly influenced by marketing factors and followed by social factors and service quality. It means that consumer is willingly to use more units (service) by upgrading higher service level and intend to buy new products supplied by mini grid service.

According to the standardized coefficient value (B), among three variables, affective attitude have the greatest effect on repurchase behavior followed by conative and cognitive attitude. In summary, all three components play a part in forming repurchase behavior. In which, affective attitude plays the most critical part to increase positive repurchase behavior.

CHAPTER 5
CONCLUSION

This chapter presents the findings and discussions from analysis, suggestions, and recommendations and need for further research. This study examines the antecedent factors on consumer attitude and analyze the effect of consumer attitude on their repurchase behavior towards solar mini grid service of Talent and Technology Co., Ltd based on the respondents of 171 individual mini grid consumers in two villages of Bago division.

5.1 Findings and Discussion

The main objective of this study is to examine the influencing factors on consumer attitude and analyze the effect of consumer attitude on their repurchase behavior towards solar mini-grid service in Talent and Technology Co., Ltd. Customers' attitude is an important aspect in determining the consumer buying behavior. It is one of the significant concepts in consumer behavior as well as business practice and academic research. It can help the organization to create differentiation from their competitors and modify their provided services in order to retain the customers in the competitive market.

In this study, descriptive analysis and regression analytic are used to comprehend and analyses the effect of marketing factors, service quality and social factors on consumer attitude and repurchase behavior. Four dimension of marketing factors, three variables of service quality and four parts of social factors are used to measure the cognitive, affective, conative components of consumer attitude. The results show that the respondents have highly favorable attitude towards solar mini grid service in Talent and Technology Co., Ltd.

The result of this study indicates that all antecedent factors have impacted on consumer attitude. Among them, social factors have the most significant affect in cognitive attitude and overall attitudes of consumer whereas marketing factors are the most influencing factors on affective and conative components of consumer attitude.

According to the results of this study, social factors can highly influence on consumer attitude to create repurchase behavior towards mini grid services. In general, most of respondents are agreed that they received advantages in their social status provided by mini grid service such as the working hour of rural people increased at night, the facility provides

more time for reading by pleasure readers, people get acquainted with the world and this ensures their socialization by watching TV and internet, increase job opportunities, safety in environmental etc.

In the result of service quality, the customers are satisfied about the staffs have technical knowledge, provide the prompt service and it is a user-friendly system. Then, some other diverse factors are also affected the service quality towards consumer attitude. Therefore, service quality is one of the influence factors on consumer attitude and repurchase behavior towards min grid service in Talent and Technology Co., Ltd.

Marketing factors have also positive influence on consumer attitude. The consumers are delighted with the product quality, low maintenance cost, convenience to buy the meter service and reasonable price. Therefore, the role of marketing factors plays a significant role of consumer positive attitude turn in repurchasing behavior towards solar mini grid service.

According to the mean value of repurchase behavior, respondents intend to continue to mini grid service in Talent and Technology Co., Ltd in future and they want to share about mini grid service's benefit experience to others. These intensions are based on the consumer attitude. Reliability and high quality of energy services and devices, which enable the use of provided services, together with after-sales and maintenance care, are among the main factors that will impact on customer retention and sustained, long-term use of mini grid service.

In the analysis on the effects of consumer attitude on repurchase behavior, it found out that all cognitive, affective, and conative components of attitude have the expected positive sign and highly significant. The result found out that all three components play a part in forming repurchase behavior. In which, affective attitude plays the most critical role to trigger positive repurchase behavior. Mini grid users who have positive feelings and emotions will be more inclined to buying more packages, recommending friends or network to join fitness centers and participating more benefit programs.

5.2 Suggestions and Recommendations

According to the analysis, it can be found that three factors have high significant impact towards consumer attitude and repurchase behavior of Talent and Technology Co., Ltd.'s mini grid service. User experience is shaped predominantly by their interactions with energy services and devices and impacts on future decisions regarding either retention of solar mini grid systems or switching to the grid if/when it arrives. Improvements in energy storage will

continue to influence the day-to-day use of energy and improve the experience as more power becomes available, supporting accompanying system (i.e., energy devices) for a longer time and opening a possibility to expand the appliance range, thus expanding the available energy services.

Detail analysis shows only the wellbeing, safety, community development and promotion variety is the greatest antecedent factors to increase the consumer attitude and repurchase behavior towards mini grid service. Understanding customer's need for mini grid service has become challenge for marketers. Product quality and quality of information are also important factors which influence consumers attitude to do repurchase behavior. So mini grid service provider should be reviewed their other functions such as low price, discount, promotion programs and quality of products to grasp attraction of mini grid consumer.

The service provider should focus on main objective of consumer: to enhance and suggest their personal lifestyle and community development by using this service and supply more good quality products, different promotion package in seasonal time to meet the consumer requirement. Especially, the result finds out the effect of service quality on consumer attitude is lower than marketing factors and social factors. Mini grid service provider should more focus on regular training, prompt assist in time and often site visit, etc. Those activities can increase affective component of attitude such as happiness features of service. In turn, the members will be inclined to buying more packages, recommending friends to use mini grid service, and participating more benefit programs.

Consumers buy products toward which they have positive and favorable feelings; therefore, marketers must ensure that consumer maintain these attitudes following the purchase so that they keep buying same products repeatedly.

5.3 Needs for Further Study

This study is conducted based on the users of solar mini grid service in some areas of Bago Division. Further research can be undertaken taking into consideration in other divisions of Myanmar. A comparative study with other districts of the country is recommended. This will provide a deeper understanding of the solar mini grid service in the countries' context. Future researchers may undertake a similar study in Myanmar with a larger sample size enabling better generalization of results. Studies may also be incorporated regarding customers' willingness to pay extra for solar mini grid service. There is further scope for similar

studies on solar technologies concerning the rooftop photovoltaic (PV) and solar thermal system, etc. The sample of study was selected purposively as the data were not available on the total number of end-users of solar mini grid service in Myanmar.

Another recommendation might be to examine the relative differences of influence among these constructs on different types of customers like retail shop owners, entrepreneurs etc. When such studies confirm, support, and strengthen the findings of this research and offer additional strategic guidance, the service of solar mini grid service could be significantly improved. Further investigation of the training on system use is also needed to understand whether better training results in more efficient and prolonged system use.

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APPENDIX I

Dear Respondents, Dated: 25 – 28 Feb 2021

I'm a student of Yangon University of Economic, Department of Management Studies and conducting this survey as one of the fulfillments for completing my study of Master of Business Administration (EMBA). The purpose of this study is to examine the influencing factors on consumer attitude towards solar mini-grid service in Talent and Technology Co., Ltd. It will take an average of 10-15 minutes to fill it out.

Thank you so much for your time and kind support.

Section-A General Information

Connection unique (ID code):	
Consumer contact:	
Connection type (Capacity Level):	☐ Home connection – 1000Watt ☐ Home/business connection- 3000Watt ☐ Business connection- 6000 Watt ☐ Other connection -Public 4000 Watt
Years lived in community	☐ Less than 3 years ☐ 3-6 years ☐ 6-9 years ☐ More than 9 years
Role in household	☐ father ☐ mother ☐ other

Section-B Demographic

Gender	☐ female ☐ male
Marital status	☐ married ☐ single ☐ other
Age	☐ 18–30 years ☐ 30–45 years ☐ 45–60 years ☐ 60 years & above
Education	☐ primary ☐ secondary ☐ university ☐ other
Employment status	☐ employee ☐ self-employed, agriculture ☐ self-employed, nonagricultural ☐ businessperson ☐ commercial farmer ☐ subsistence farmer ☐ government officer ☐ other

Section-C Influencing Factors

Please describe to what extent you agree with each of the following by using the following

5-point Likert scale where:
1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

No	Influencing Factors	Scale				
		1	2	3	4	5
Marketing Factor						
	Product Quality					
1	House wiring and switches are tidy and protected from physical damage.					
2	All the lights and sockets are working after installation.					
3	Its products have a good and reliable performance.					
4	Capacity of the system is enough for family use or requirement load.					
	Perceived Value (Cost)					
1	Meter bill costs are reasonable.					
2	Maintenance cost is safe by using this mini grid service compared with other energy supply. (e.g., no rechargeable battery, no fuel cost, etc)					
3	Compared to alternative energy supply, this service system is worth of money.					
4	Its pricing and payment terms are clear and have transparency.					
	Promotion					
1	Different package of meter units is available to top up in any time.					
2	Plan for buying extra meter units is attractive. (Credit plan)					
3	Subsidies programs are provided to the mini grid customer by Government. (Consumers can only pay the price of 20% connection fees for this service.)					
4	Gift voucher plans are very attractive for villagers.					
	Accessibilities					
1	Purchasing for meter units top up is convenient.					
2	It is flexible to use of electrical appliances at households in anytime. (e.g., Rice cookers, refrigerators, fan, TV can be used in day and night.)					
3	It is flexible to upgrade to the next level of supply when customer has more demand load.					
4	Power supply is uninterruptedly available throughout the year (e.g., no load shedding during the peak hours and/or during the dry season)					

No	Influencing Factors	Scale				
		1	2	3	4	5
Service Quality						
	Convenience					
1	Staffs give prompt reply within minimum waiting time.					
2	Staffs provide services at the promised time.					
3	Customer services are available when users have any electrification issue					
4	Staffs inform/ provide information prior to temporarily shut down for maintenance. (e.g., inform the customer when will be the system shut down temporarily for maintenance)					
	Reliability					
1	Quality of power supply is consistent throughout all the times.					
2	The system can adequately supply the energy demand.					
3	Staffs are knowledgeable to solve the technical problem.					
4	Staffs are available to provide services in either ways of online or onsite.					
	Usability					
1	One-to-one electrical appliances user training is very useful.					
2	System maintenance of user guidelines are very clear.					
3	It is a user-friendly system.					
4	The more electrical appliances can be used in mini grid system.					
Social Factors						
	Income opportunities					
1.	Mini grids create new income generation and entrepreneurial opportunities. (e.g., copier shop, hair saloon and carpenter shop are opened after taking mini grid service)					
2.	Customers can do more their activities in extra hours because the light are all the time.					
3.	Agriculture activities of the village are improved due to this mini grid service. (e.g., solar water supply)					
4.	The income opportunity is enhanced by converting diesel system to mini grid.					

No	Influencing Factors	Scale				
		1	2	3	4	5
	Community development					
1.	Village committee meetings can be held during nighttime.					
2.	Using this service in village noise pollution and carbon emission is significantly reduced.					
3.	Criminal cases are reduced at nighttime because of the light are available in public area.					
4.	Drinking water supply facilities have been improved. (i.e., electricity is used to lift water)					
	Wellbeing					
1.	Reading is easier with electric lamps compared with kerosene lamps.					
2.	Life quality is better it was 4 years ago.					
3.	Time is safe for doing domestics works.					
4.	Family can have great entertainment by watching TV programs, internet service and other media apps all the time.					
	Safety					
1.	My family feels very secure at night.					
2.	Using mini grid service can prevent the customers from fire and explosion.					
3.	It can be safe in travel at nighttime because mini grid service provides the streetlights.					
4.	I feel safe to use its equipment and service supplied by mini grid.					

Section –D Consumer Attitude

Please describe to what extent you agree with each of the following by using the following 5-point Likert scale where:
1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

No.	Consumer Attitude	Scale				
		1	2	3	4	5
	Cognitive					
1.	I believe that mini grid service add value for my living standard.					
2.	I frequently search the news of mini-grid service.					
3.	I accept that using mini grid service can promote the social status of village.					
4.	I know very well about mini grid service.					
5.	I am optimistic that life will get better in the future.					
	Affective					
1.	I am fully satisfied while using this mini-grid service.					
2.	I have no stress to use this mini grid service.					
3.	I feel that I can rely on this mini-grid service.					
4.	I feel that the mini grid service is better than other power supply.					
5.	I am proud of being pioneer customer of mini-grid service.					
	Conative					
1.	I am interested in upgrading my capacity bigger size if I need to use other business activities.					
2.	I am willing to share my experience in group of mini grid users.					
3.	I intend to use national grid services when mini grid system can be integrated into national grid system.					
4.	I am willing to give suggestions to improve services of this mini grid.					
5.	I am willing to take part in the benefits (promotion) programs of this mini grid service.					

Section E: Repurchase Behavior

Please describe to what extent you agree with each of the following by using the following 5-point Likert scale where:

1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

No.	**Repurchase Behavior**	**Scale**				
		1	**2**	**3**	**4**	**5**
1	Mini-grid service influences me to try next 12 months purchase.					
2	I am interested to buy new products and service packages from this mini grid.					
3	I would recommend to take this service to my family, friends, and colleagues.					
4	I have no plan to switch other source of power supply.					
5	I have plan to use more units to get more benefits from this service.					

APPENDIX II

SPSS Regression Calculation Results

Influencing Factors on Cognitive Attitude

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.68ccc9[a]	.475	.465	.18946	1.399
a. Predictors: (Constant), Social Factors, Service Quality, Marketing Factors					
b. Dependent Variable: Cognitive					

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.415	3	1.805	50.287	.000[b]
	Residual	5.994	167	.036		
	Total	11.410	170			
a. Dependent Variable: Cognitive						
b. Predictors: (Constant), Social Factors, Service Quality, Marketing Factors						

Coefficients[a]								
		Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
Model		B	Std. Error	Beta	t	Sig.	Tolerance	VIF
1	(Constant)	-.682	.396		-1.721	.087		
	Marketing Factors	.261	.116	.183	2.241	.026	.470	2.126
	Service Quality	.417	.118	.265	3.522	.001	.556	1.799
	Social Factors	.498	.082	.396	6.072	.000	.739	1.354
a. Dependent Variable: COGNITIVE								

Influencing Factors on Affective Attitude

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.674[a]	.455	.445	.22935	.904
a. Predictors: (Constant), Social Factors, Service Quality, Marketing Factors					
b. Dependent Variable: Affective					

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.325	3	2.442	46.417	.000[b]
	Residual	8.785	167	.053		
	Total	16.109	170			
a. Dependent Variable: Affective						
b. Predictors: (Constant), Social Factors, Service Quality, Marketing Factors						

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.257	.480		-2.621	.010		
	Marketing Factors	.572	.141	.339	4.064	.000	.470	2.126
	Service Quality	.319	.143	.170	2.224	.028	.556	1.799
	Social Factors	.453	.099	.304	4.566	.000	.739	1.354
a. Dependent Variable: Affective								

Influencing Factors on Conative Attitude

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.742[a]	.550	.542	.18116	1.357
a. Predictors: (Constant), Social Factors, Service Quality, Marketing Factors					
b. Dependent Variable: Conative					

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.708	3	2.236	68.131	.000[b]
	Residual	5.481	167	.033		
	Total	12.189	170			
a. Dependent Variable: Conative						
b. Predictors: (Constant), Social Factors, Service Quality, Marketing Factors						

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.110	.379		-2.930	.004		
	Marketing Factors	.534	.111	.363	4.802	.000	.470	2.126
	Service Quality	.328	.113	.201	2.893	.004	.556	1.799
	Social Factors	.430	.078	.331	5.487	.000	.739	1.354
a. Dependent Variable: Conative								

Influencing Factors on Consumer Attitude

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.756[a]	.572	.564	.16984	.993
a. Predictors: (Constant), Social Factors, Service Quality, Marketing Factors					
b. Dependent Variable: Consumer Attitude					

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6.432	3	2.144	74.325	.000[b]
	Residual	4.817	167	.029		
	Total	11.249	170			
a. Dependent Variable: Consumer Attitude						
b. Predictors: (Constant), Social Factors, Service Quality, Marketing Factors						

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-1.022	.355		-2.877	.005		
	Marketing Factors	.456	.104	.323	4.369	.000	.470	2.126
	Service Quality	.356	.106	.228	3.355	.001	.556	1.799
	Social Factors	.460	.073	.369	6.264	.000	.739	1.354
a. Dependent Variable: Consumer Attitude								

Effect of Consumer Attitude on Repurchase Behavior

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.926[a]	.857	.855	.10556	1.301
a. Predictors: (Constant), Conative, Cognitive, Affective					
b. Dependent Variable: Repurchase Behavior					

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.196	3	3.732	334.911	.000[b]
	Residual	1.861	167	.011		
	Total	13.057	170			
a. Dependent Variable: Repurchase Behavior						
b. Predictors: (Constant), Conative, Cognitive, Affective						

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.117	.133		.876	.382		
	Cognitive	.263	.054	.246	4.870	.000	.335	2.981
	Affective	.390	.046	.433	8.459	.000	.326	3.068
	Conative	.333	.058	.321	5.775	.000	.276	3.628
a. Dependent Variable: Repurchase Behavior								

APPENDIX III

Appendix (B-1) Marketing Factors on Consumer Attitude

	Antecedents Factors on Consumer Attitude	mean	Standard Deviation
	Marketing Factors		
●	Product Quality		
1	House wiring and switches are tidy and protected from physical damage.	4.05	0.21
2	All the lights and sockets are working after installation.	4.18	0.39
3	Its products have a good and reliable performance.	4.00	0.15
4	Capacity of the system is enough for family use or requirement load.	3.92	0.41
	Overall Mean	4.04	
●	Perceived Value (Cost)		
1	Meter bill costs are reasonable.	3.75	0.49
2	Maintenance cost is safe by using this mini grid service compared with other energy supply. (e.g., no rechargeable battery, no fuel cost, etc)	4.05	0.27
3	Compared to alternative energy supply, this service system is worth of money.	3.94	0.42
4	Its pricing and payment terms are clear and have transparency.	4.04	0.26
	Overall Mean	3.94	
●	Promotion		
1	Different package of meter units is available to top up in any time.	3.99	0.37
2	Plan for buying extra meter units is attractive. (Credit plan)	3.92	0.50
3	Subsidies programs are provided to the mini grid customer by Government. (Consumers can only pay the price of 20% connection fees for this service.)	4.21	0.58
4	Gift voucher plans are very attractive for villagers.	4.06	0.57
	Overall Mean	4.05	
●	Accessibilities		
1	Purchasing for meter units top up is convenient.	4.11	0.39
2	It is flexible to use of electrical appliances at households in anytime. (e.g., Rice cookers, refrigerators, fan, TV can be used in day and night.)	4.18	0.48
3	It is flexible to upgrade to the next level of supply when customer has more demand load.	3.70	0.61
4	Power supply is uninterruptedly available throughout the year (e.g., no load shedding during the peak hours and/or during the dry season)	3.92	0.55
	Overall Mean	3.98	

Source: Survey Data (2022)

Appendix (B-2) Service Quality on Consumer Attitude

	Antecedents Factors on Consumer Attitude	mean	Standard Deviation
	Service Quality		
●	Convenience		
1	Staffs give prompt reply within minimum waiting time.	3.79	0.41
2	Staffs provide services at the promised time.	3.96	0.21
3	Customer services are available when users have any electrification issue.	3.96	0.27
4	Staffs inform/ provide information prior to temporarily shut down for maintenance. (e.g., inform the customer when will be the system shut down temporarily for maintenance)	4.09	0.45
	Overall Mean	3.95	
●	Reliability		
1	Quality of power supply is consistent throughout all the times.	3.97	0.40
2	The system can adequately supply the energy demand.	3.98	0.23
3	Staffs are knowledgeable to solve the technical problem.	3.99	0.23
4	Staffs are available to provide services in either ways of online or onsite.	3.98	0.20
	Overall Mean	3.98	
●	Usability		
1	One-to-one electrical appliances user training is very useful.	3.81	0.53
2	System maintenance of user guidelines are very clear.	3.93	0.38
3	It is a user-friendly system.	4.10	0.35
4	The more electrical appliances can be used in mini grid system.	4.08	0.38
	Overall Mean	3.98	

Source: Survey Data (2022)

Appendix (B-3) Social Factors on Consumer Attitude

	Antecedents Factors on Consumer Attitude	mean	Standard Deviation
	Social Factors		
●	Income opportunities		
1	Mini grids create new income generation and entrepreneurial opportunities. (e.g., copier shop, hair saloon and carpenter shop are opened after taking mini grid service)	4.19	0.50
2	Customers can do more their activities in extra hours because the light are all the time.	4.03	0.31
3	Agriculture activities of the village are improved due to this mini grid service. (e.g., solar water supply)	3.87	0.44
4	The income opportunity is enhanced by converting diesel system to mini grid.	4.01	0.22
	Overall Mean	4.03	
●	Community development		
1	Village committee meetings can be held during nighttime.	4.00	0.29
2	Using this service in village noise pollution and carbon emission is significantly reduced.	4.21	0.42
3	Criminal cases are reduced at nighttime because of the light are available in public area.	4.16	0.37
4	Drinking water supply facilities have been improved. (i.e., electricity is used to lift water)	3.96	0.30
	Overall Mean	4.08	
●	Wellbeing		
1	Reading is easier with electric lamps compared with kerosene lamps.	4.39	0.49
2	Life quality is better it was 4 years ago.	4.30	0.51
3	Time is safe for doing domestics works.	4.17	0.39
4	Family can have great entertainment by watching TV programs, internet service and other media apps all the time.	4.27	0.53
	Overall Mean	4.28	
●	Safety		
1	My family feels very secure at night.	4.18	0.40
2	Using mini grid service can prevent the customers from fire and explosion.	4.19	0.41
3	It can be safe in travel at nighttime because mini grid service provides the streetlights.	4.09	0.36
4	I feel safe to use its equipment and service supplied by mini grid.	4.00	0.38
	Overall Mean	4.12	

Source: Survey Data (2022)

Appendix (B-4) Consumer Attitude towards Solar mini grid service

	Consumer Attitude towards Solar mini grid service	mean	Standard Deviation
●	**Cognitive**		
1	I believe that mini grid service add value for my living standard.	4.19	0.45
2	I frequently search the news of mini-grid service.	3.53	0.57
3	I accept that using mini grid service can promote the social status of village.	4.08	0.34
4	I know very well about mini grid service.	4.12	0.36
5	I am optimistic that life will get better in the future.	4.44	0.51
	Overall Mean	4.07	
●	**Affective**		
1	I am fully satisfied while using this mini-grid service.	4.17	0.45
2	I have no stress to use this mini grid service.	3.93	0.38
3	I feel that I can rely on this mini-grid service.	4.27	0.49
4	I feel that the mini grid service is better than other power supply.	4.14	0.35
5	I am proud of being pioneer customer of mini-grid service.	4.33	0.52
	Overall Mean	4.17	
●	**Conative**		
1	I am interested in upgrading my capacity bigger size if I need to use other business activities.	4.12	0.39
2	I am willing to share my experience in group of mini grid users.	3.92	0.42
3	I intend to use national grid services when mini grid system can be integrated into national grid system.	4.10	0.37
4	I am willing to give suggestions to improve services of this mini grid.	3.99	0.34
5	I am willing to take part in the benefits (promotion) programs of this mini grid service.	4.38	0.53
	Overall Mean	4.10	

Source: Survey Data (2022)