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EXPORTATION OF SOLAR ENERGY FROM FRANCE TO NIGERIA

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Summary

This thesis studies the exportation of solar energy from France to Nigeria.

In this thesis, the author gives an overview on how solar power generation companies from France could export their products to Nigeria.

The thesis is focused on Nigerian market, using marketing mix as the marketing tool to overview Nigeria market, which should help in identifying the right strategies to gain entry into the market. Also, the thesis examines the solar energy market in Nigeria, viewing its general characteristics and giving an overview of its needs for importing solar products.

In order to characterize the nature of the Nigerian solar market, a SWOT analysis was used to enumerate the internal resources of Nigeria thereby identifying the strengths, weaknesses, opportunities and threats in importing to Nigeria for proper evaluation.

As a theoretical framework, the author uses the theory of marketing mix. With the marketing mix tools, one will understand the position of the solar energy product in Nigeria, the prices in the current market, the channels of distribution and means of promotions that will attract clients toward solar energy product.

The research methods of this thesis are both qualitative research method and quantitative research method. The data for this study was collected by interviews, questionnaires, website search, journals, articles and books.

The result derived from the findings highlights the differences in the electrical needs and usage of Nigeria consumers initiating the need for adaptation before considering importing solar panels and accessories to Nigeria. Suggestions were also given on distribution channel, pricing and promotional strategy that will help in a successful exportation from France to Nigeria.

KEYWORDS: French company, solar product, 4PS, solar energy, Nigeria, product, exporting, renewable energy, marketing and Nigeria market.

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List of Abbreviations

4PS	Marketing mix consisting of (Product, price, place, promotion) which are used in making managerial decisions.(Palmer, 2004)
EU	European Union
B2B	Business-to business, commerce transactions between businesses
PV	Photovoltaics is the direct conversion of sun light into electricity with the use of some material that absorbs the sun light and release electrons which are captured and used as electricity. (Knier, 2008)

1 INTRODUCTION

1.1 Background

The primary purpose of this thesis is to study the exportation of solar panels and accessories by manufacturers from France to Nigeria understanding their needs of alternative electricity sources.

Nigeria is yet to have a stable electrical energy supply due to inconsistency in power supply and negligence in finding solution to the electrical problem in the country, which has resulted to people seeking alternative solution in deriving stable and reliable electricity supply. This gives solar importation a chance in Nigeria.

This thesis will not only allow France companies to sell their product in Nigeria, but it will also provide availability of electricity to the few Nigerians who could afford it.

“Marketing mix is not a scientific theory, but merely a conceptual framework that identifies the principal decision-making managers make in configuring their offerings to suit consumers’ needs” (Palmer, 2004.) “The tools can be used to develop both long-term strategies and short-term tactical programs” (Palmer, 2004). Implementation of the 4PS to Nigeria market will give a clear insight with details needed by managers to successfully market their product in Nigeria.

4PS are very important in business and with the utilization of the 4ps, detail suggestion will be derived on pricing, promote, product and it will all companies to put the “right product in the right place, at the right price, at the right time” (Martin, 2014.)

With the right application of the marketing mix, one could succeed easily on an unfamiliar market. "A mature, intelligent and innovative marketing manager needs to be at the helm of the marketing mix. This pivotal role means that this manager is responsible for achieving desired results through the skill manipulation of these variables" (Martins, 2014.)

With the implementation the marketing mix on this research, one will understand the market the competition, the price and final, the kind of chance your product has in a given market. With this research, French solar companies will understand Nigeria solar market and how solar product can be sold in Nigeria. By finding, questionnaire, interview and result evaluation, importer will be able to know what they could offer the market and what the market can also offer them in return.

1.2 Limitations

Focusing on exportation to the Nigerian market, several variables need to be carefully studied such as need for a product/services, availability of quality and quantity specification of the product in view, logistics and transportation, costing, government policies of countries involved, economic importance of the product in the receiving nation, market forces and lots of variables to be assessed before embarking on exportation to other nations. However, considering the dynamic qualities of the market of the receiving nation, that is Nigeria, more of the research exercises will be done on Nigeria market and briefly on exporting country, France. As a result of the dynamism of the market of the countries involved all theories relating to marketing cannot be exhausted due to time, logistics and financial constraint, this study cannot go through every possible aspect and theory related to marketing in Nigeria, and so the study shall focus on the relevant aspect of marketing mix need to making a new market entry decision in to the Nigeria market and will be examined by questions and knowledge of the research variables. The technical matters of solar energy generation is not largely discussed rather more focus is concentrated on the business aspect with concern for trading of solar energy generation panels and equipment's amongst countries, specifically France and Nigeria.

1.3 Motivation behind the project

The primary motivation behind this research is to stimulate manufacturing solar panels and accessories in France, marketing and selling them in Nigeria after quantifying the need of Nigerians for a perfect solar energy as solution to lack of electricity in Nigeria.

“Despite the huge investments made in the energy sector since the privatization of the Power Holding Company of Nigeria, PHCN, about 75 percent of the Nigerian population still live without access to regular electricity supply” (Obasi, 2015.) This shows that there is a lot of Nigerians that lack stable electrical supply. There are still few people willing to pay extra in order to have permanent electricity, which can be remedied by solar energy usage of essential housing amenities.

“Good Governance Initiative, GGI, has called on the Federal Government to commence sensitization on the dangers of generator fumes, lamenting that the rate at which people die as a result of generator fumes was becoming alarming in Nigeria” (Iruomah, 2017.)

Showing that an alternative solution has to be provided, exporting solar power to Nigeria might be very interesting and also lucrative. The concern for the environment well-being/ human well-being has to lead the EU parliament to encourage more usage of green technology in generating power.

“The effects of renewable energy resources on the environment are less problematic than those from other power sources. In 2009, a major policy package was adopted and had become binding legislation known as the 20-20-20 targets. This ‘climate and energy package’ includes the following targets for 2020” (Eurostat, N.D. 2008.)

Using product has been encouraged by the EU parliament; more people are switching to the use of environmental technology.

This policy has allowed many people to switch from the use of coal and petroleum to the use of solar power or wind turbine, producing renewable

energy, with less damage for the environment. Furthermore, in case the sales of every green technology such as solar power and also create more jobs for installers of such product.

1.4 Research Question

1. How can solar energy manufacturers in France market their solar products and thrive in Nigeria?
2. Can Solar panel and accessories from France adequately meet the demand of the Nigerian market?
3. What is the most suitable channel of distribution of solar energy in the Nigerian market?

1.5 Research review

On the research, we are to analyse and document the marketing process in Nigeria market, understand the factors affecting the growth of solar market in Nigeria, the pricing, competitors and addressing the problem of insufficient power supply in Nigeria. Within the scope of this thesis, we will identify and categorize the factors influencing customer behaviour in purchasing solar energy in their homes and how it could be used to the advantaged of French solar energy manufacturing importing solar to Nigeria or a factor that needs improvement before entering Nigeria market.

This factor will be identified by:

- a. Research
- b. Interviews with some Solar energy installers
- c. Interview with Co-founder of a French solar Company
- d. Interview with Nigerians on knowledge of Solar energy and need for it

This literature review will provide the historical background for this research while identifying the potential of the market and the difficulties that might occur when importing to Nigeria. The findings from this hypothesis will be evaluated with respect to the result derived from the questionnaires and interview with the

French company. This chapter covers extensive review and analysis of literatures to make sure that knowledge from previous studies is gained to enable the identification of advantages and difficulties that one might face in Nigeria solar market.

For clearer identification of this factors and detailed marketing analysis, marketing mix will be used as framework in quantify customer needs.

According to Palmer (2004) “Marketing mix is not a theory of management that has been derived from scientific analysis, but a conceptual framework which highlights the principal decisions that marketing managers makes in configuring their offering to suit customer needs. The tools can be used to develop both long-term strategies and short-term tactical programmers”.

This marketing strategy will create a clear direction to follow and also suggesting the market expectation in Nigeria.

Swot analysis will be used in understanding the challenges and opportunities of marketing solar in Nigeria.

2 LITERATURE REVIEW

SWOT is derived from the words strengths, weaknesses, opportunities and threats. The SWOT analysis provides a summary of a company's overall position. It takes the company's internal strengths and weaknesses into account, by assessing the company's resources, structure, culture and their business functions such as marketing, finance etc. The company's external opportunities and threats are assessed too, and they on one hand have an impact on which strengths the company chooses to improve and which weaknesses it tries to mitigate (Capon, 2004.)

Using SWOT to analyse the possibilities in marketing Solar energy in Nigeria will provide the tools in analysing Nigeria market comprehensively, clearly and will help to view the marketing potential in the Nigeria Market.

Moreover, SWOT analysis can be obtained with interviews, and some responses derived from question have created a SWOT analysis shown below.



Figure 1. SWOT analysis of the Nigerian market.

SWOT analysis about the Nigerian market in Fig.1 shows that the strength, weakness, opportunity and threats related to the marketing solar product from France to Nigeria.

This gives both internal as external overview of key information before deciding to enter Nigeria market. Solution to the weakness and threat will help in making business dealing in Nigeria less risky and might increase the rate in success. Find in the table below the detail information on the SWOT analysis.

	France solar product	In Nigeria market
Strength	<p>Based on the quality of the solar product manufactured in France, the technology, electronic and specification have to be verified and pass by Association Francaise de Normalization (AFNOR) before certifying such electronic. This control is also done to ensure that your product is safe for human usage.</p> <p>Most company in France are quality driven, which increase the chances of innovations.</p>	<p>This guarantees quality, safety and the made in France identity create an automatic branding to the product.</p> <p>Nigerian can benefit from such innovation.</p>
Weakness	<p>Most of the solar panel used in France come also from China and will be hard to compete with the Chinese company on solar sales.</p>	<p>Nigerians are prices diving.</p> <p>They are familiar with the Chinese product.</p>

	<p>Due to quality, French products are expensive compared to Chinese products.</p> <p>France solar company are yet to be in Nigeria</p>	<p>Know convincing in considering French product.</p>
Opportunity	<p>Access to Nigeria with almost 200 million populations will create new opportunity for French companies to increase their market reach in Nigeria, outrageously increase their sale and income.</p> <p>Production/ adaption of few products to meet the Nigeria market reach will also create a new range of product that can be sold in France and other countries as well.</p>	<p>Once the product suits the market need, there is a possibility for success.</p>
Weakness	<p>Transportation to Nigeria might be challenging and might come with significant amount of cost.</p> <p>Corrupting make it difficult to import to Nigeria mostly for a foreigner.</p> <p>Adapting product to an uncertain market might require second thought</p>	<p>Extra cost on transportation might be discouraging.</p> <p>Uncertain reaction on adapted product.</p>

Table 1. Swot analysis explanation.

Note: weakness in price might be remedied with better service and weakness in transportation cost and corruption can be solved by having a local partner with a better market understand. Further details will be state in the conclusion.

3 MARKETING MIX THEORY

3.1 Marketing with 4PS in Nigeria

Marketing is simply defined as 'putting the right product in the right place, at the right price.' Though this sounds like an easy proposition, a lot of hard work and research needs to go into setting this simple definition up. And if even one element is off the mark, a promising product or service can fail entirely and end up costing the company substantially (Martin, 2014.)

Using a marketing mix is an excellent way to ensure "the right product is in the right place at the right time". A marketing mix is a valuable tool to help you understand what a product or service can deliver and how to plan for a successful outcome in a particular market. Marketing 4PS usually do the marketing mix: price, product, promotion, and location.

With this element, one will fully understand how best to operate and what are the critical determinant of such product.

The market mix has evolved through the years adding more P's to the initial 4ps in other to further their studies on the market. Now, there are even 4cs in market research.

We are focusing on the 4ps "which are a tried-and-true formula for an effective marketing plan. The reason the 4 P's were developed decades ago was to determine a specific recipe or "marketing mix" that will satisfy both the needs of the customer and the retailer's needs. This recipe has proven to be successful when properly determined and utilized" (Bisk, N.D. 2018.)



Figure 2. The segmentation of the 4PS (Quora, N.D. 2018)

The image in Figure 2 above shows the segmentation of 4ps in marketing mix.

3.2 Product Dimension in 4ps

The product is either a tangible good or an intangible service that seems to meet a specific customer need or demand. All products follow a logical product lifecycle, and it is vital for marketers to understand and plan for the various stages and their unique challenges. It is crucial to understand those problems that the product is attempting to solve. The benefits offered by the product and all its features need to be understood, and the unique selling proposition of the product need to be studied. Besides, the potential buyers of the product need to be identified and understood. (Martin, 2014.)

Uniteck solar product consists of:

- solar panel (converting the Sun energy in Volts and amperes)
- solar charge regulators (use the voltage converted by the solar panel to charge batteries)
- Inverter (converts the charged energy into electrical energy for home usage)
- Fixations (for fixing the panels). Etc.

The list of the product above illustrates the fundamental product need in the provision of solar energy.

From personal observation, in Nigeria, the solar energy usage is increasing in Nigeria due to the shortage of electrical supply.

Most schools, homes, hospitals, companies and other facilities in Nigeria are powered by national generated electricity, but most companies still have a backup generator which are noisy, produce fumes and are not environmentally friendly.

Aside from the noisiness, fumes, and not been environmentally friendly, the generator needs frequent maintenance and daily fuel cost which are expensive as well.

“An estimated 60 million Nigerians now own power generating sets for their electricity, while the same number of people spend a staggering N1.56 trillion (\$13.35 billion) per annum in purchasing and continuously fuelling their generators yearly which was reported of 2007 and would have surely increase by now” (Vanguard, 2009.)

The usage of a generator can systematically replace generation usage due to fulfilling the electrical needs of Nigeria households and providing the citizens of Nigeria a stable electricity means that requires less maintenance and cost effective after few years.

The current market in Nigeria has been flooded with product from China, making the Nigerian market very competitive due to prices of solar equipment from China.

Currently, solar products in Nigeria are sold with misinformation in order to offer a cheaper price to the product due to the price orientation of the end-users. Some electrical energy sells solar inverter with the power of 1500watt for the client as an inverter of 2000watt which later result in damage due to output capacity or usage of the low-quality product. In some case, it might not be the fault of the seller. The manufacturer in China might offer a better price with one

product but the standard of the product is mostly low due to the cheap pricing and might likely result to malfunction or complaints from end users.

Nigeria and most developing countries consider the product imported from Europe to have met the EU producing regulations, which guarantees quality and it is mostly rated among the best in the world.

With this reputation, France companies that are exporting solar product in Nigeria can easily market their products by stating its qualities and listing the additional advantages that the product could offer to the market.

- E.g increase in products performance, reducing energy wastage, maximizing the potential outputs, protecting client electronics for damages and ensure the people that your product is safe to use might comply them towards your product.

For instance, “Uniteck, solar charge manufacturer in France, Produced a Revolutionary solar charge regulator/controller, with a unique 6-step charging algorithm called ALGOTECK 6, which tests your battery, 100% charging, disulphate, destratifies it, maintains its charge and improves its life while consideration the sounding temperature to adjust its voltage thresholds according to battery manufacturers' recommendations (integrated temperature sensor)” (Uniteck, N.D. 2017.)

Most solar charger always charges your battery at 100% with a continuous supply of current to the cell reduces the lifespan of your battery you might end up buying a new battery within 2years.

Information like that can be considered as promotion in the Marketing Mix. This will increase one’s chance of proving an added quality that will reduce the cost of constant purchase of batteries.

Modern marketing involves the integration of various activities involved in the marketing process (Hundekar, 2009.)

This day, people have an idea of what they want, and they are ready to find it where ever they could, which is why the products produced now are fabricated with the extensive knowledge of what the customer wants.

According to the research done in Nigeria by questioning a solar panel installer presenting a French product to him then asking if it could be sold in Nigeria:

He responds with certainty that it will work, but there are other products that are currently preferred in Nigeria.

In Nigeria, electricity is not stable, and it limits the daily electrical energy required by the people. That is why most people look for backup means of electrical supply to fulfil their needs. Due to the constant need of electricity, Solar companies selling their product in Nigeria adapted their solar charges from basic solar charging function (charging batteries with the energy derived from solar panels) into a robust charge with an extra possibility of charging with unstable national electricity which increases the charging output and prove the users and few more hours of electricity.

This provides a perfect innovation solution to the users in Nigeria since the products are well adapted to the market. The solar power company in Nigeria have provided Nigerians with the ingenious solution to their electrical power and also maximizing the daily supply of electricity and increase customer interest in their product by allowing their chargers to charge using solar and heat.

According to Kotler, “the best way to get and keep the customer is to figure out how to give them more for less constantly” (Kotler, 2003.)

In Nigeria or anywhere in the world people will always want to get the best for less, and your quality is well enough, a customer is more likely to be loyal to your product and also attract more customer along the way.

As a result of product quality and reliability, such action can create good reputation to a product allowing people to acknowledge the brand which could live for the decade or as long as you continue meeting their expectations.

3.3 Pricing

"Price is the one element of the marketing mix that produces revenue; the other items produce costs. Price is the most straightforward marketing mix element which focuses on the product features, channels, and even promotion take more time (Kotler 2003.)

Prices also communicate to the market the company's intended value positioning of the product or brand" (Kotler 2003.)

Since the solar product is already being sold in Nigeria market, French solar producers should compare the prices to existing competitor's in the market which will then determine the best pricing approach.

3.3.1 Setting price

In new market, a company has to decide the position its product based on product quality and price (Kotler, 2003.) Various kind of pricing are likely to work in new market depending on the position you want to place your product.

They can either sell high quality on high price, average quality on average price and low quality on low pricing (Kotler, 2003.) They can all co-exist due to various buying groups. Some client quality driven, some are price driven why other are in between the two (making sure the quality and price is reasonable).

Current Nigeria market is swapped with low pricing which create a price an opportunity for France companies importing to Nigeria.

3.3.2 Step to follow in selecting pricing

- Select pricing objective: Before entering a new market, one has to set a pricing object. In other words, you have to know what you are expecting before setting a price (is it for survival, for profit, to increase market share or to build a quality brand) once you have an answer to these questions, then a pricing objective has been set.
- Estimate the potential sales you could make in using the various pricing strategies: Once you set an objective it does not confirm success, as a

marketer, one has to consider ever options moving to a new market for certainty and in making a right choice.

- Estimate product cost: Identifying the total cost spent on a product for you to determine the selling price of such product.
- Analyze competitor: know your competitor and their prices for you to find a solution in defeating them.
- • Select a pricing method: Based on your findings and analysis on the market you will be able to identify a suitable pricing for you in a given market.
- Select final price: Then you can select your price.

Following these steps will provide you the details needed in selecting a price.

3.3.3 Pricing strategy applicable to Nigerian market

Market Penetration Pricing

Market Penetration pricing is the pricing technique of setting a relatively low initial entry price, usually lower than the intended established price, to attract new customers. The strategy aims to encourage customers to switch to the new product because of the lower price (Poddar et el, 2014.)

"Market penetration strategies aim to attract buyers by offering lower prices on goods and services. While many new companies use this technique to draw attention away from their competition, penetration pricing does tend to result in an initial loss of income for the business" (Maguire, 2017.)

Using this strategy will also grant French solar exporter the ability to create awareness in Nigeria and allow the Nigerian customers to secure access in testing and verifying their product and it will give them away through in the market, and it will grant that a substantial amount of sales which will supplement the decrease in price and increase their market share.

In some situations where the value of the product is seen to be worth more than the cost of the price, they are high tendency of client been loyal to such product.

Premium Pricing

Classifying their product as a luxury (Premium pricing) might be an alternative in capturing the market where by on highlight is innovation, strength and added features in other to attract client toward their product while just the price (Kotler 2003.)

- E.g: iPhone is less powerful than Samsung Galaxy (in terms of performance and graphic). Yet pricier due to the prestige prices that make people feel special, extraordinary and valued which what most clients wants to feel when is purchasing a product. (White, N.D., 2018.)
- E.g: Gucci and Zara are both producing clothes, but the pricing is different due to branding and quality. It is likely that if Gucci tries to compete with Zara on pricing, they might likely be out of business due to lack of profit.

Root (1994) defines price as “the exchange ratio between a product and money.” Cost consists of the sum of money the purchasing party needs to disburse to acquire the product (Armstrong, G., Kotler, P., 2000.) Price is also a critical part of the fundamental business equation: Profit = Price - Cost (Magretta, 2012.)

Irrespective of your pricing strategy, whether low pricing or premium pricing, the reason for stating a price is to make a profit, which is verified by the business equation above.

Both pricing method can easily be adapted to the Market but it is left to imports of solar product to choose either one of the choices.

Note, the key driver of the Nigeria people is Price which is quite important to finally your study before decided the pricing strategy you are willing to implement in Nigeria.

Examples of successful pricing strategy used in Nigeria.

- Nigeria continues to grow in the area of real estate; one item that is increasingly favoured is cement, given its indispensability in building construction from the foundation to the finishing. There are two main competitors which are Elephant Cement and Dangote cement. Though elephant has been in existence before Dangote became the favourite due to the fact that clients, dealers, and construction engineers believe strongly that Elephant Cement is more laborious and better when dried, the fact that it takes time to dry gives its rival Dangote Cement the advantage of selling faster, especially during the rainy season (Ejere, 2018.)

Dangote cement gained entry into the Nigerian construction market by offering a bag of cement much lesser than the existing Elephant cement and as well with expected quality by the consumers. Dangote cement was able to play up with the competition by making its cement very affordable to average Nigerian builder and working also on special specification of quick-dryness when used. Whereas at the moment, more cement are also making waves in the industry as they give offer reduced price for the market also. The act of selling cheap was used in complying client and as a market entry strategy now, Dangote is not considered leader amongst other cement manufacturers in Nigeria.

Hence, pricing is a deciding factor of the Nigerian market irrespective of the level of competition in the sector or industry of focus. In other words, pricing could also have enormous impact on exporting solar panels and other materials to Nigeria from France.

3.3.4 International Trade Payment Terms

This is important in discussing exportation of goods from one country to another as it could hinder the progress of any international transaction or completely end it if not properly understood and adhered to.

The method of payment relevant here is that which is made from the buyer to the seller. It can be by cash, transfer, instalments, wire transfer, part payment and many more. According to Hinkelman (2008), there are four commonly used terms of payment, each of which offers different levels of risk and stability for buyers and sellers.

1. Cash in advance: With cash in advance payment, an importer or seller avoid credit risk because payment is received before the ownership of the goods is transferred. For international sales, wire transfers and credit cards are the most commonly used cash in advance options used in an international market (export.gov, 2016.) Cash in advance is often applied in Nigeria business dealing due to flaws in the countries credit system. It minimizes the risk of non-payment but can also give an edge to competitors that give credit.

2. Letters of credit (LCs) are one of the most secure instruments available to international traders. A LC is a commitment by a bank on behalf of the buyer that payment will be made to the exporter, provided that the terms and conditions stated in the LC have been met, as verified through the presentation of all required documents (export.gov, 2016.) The letter from the bank serves as a payment protection to the seller. Knowing that bank will be held a responsible (Pay) if the buyer fails to pay as agreed. This method of payment can be used in Nigeria, but it rarely used in Nigeria because of the poor banking system.

3. Documentary collection: Security and almost equal risk for buyer and seller importers; less costly and easier to use than a documentary letter of credit. A documentary collection is similar to international cash on delivery (COD). The seller ships goods to the buyer but sends the documents, including the bill of lading (title document), through the banks with instructions to release them to the buyer only upon payment. When the buyer obtains the title documents, he has the right to take ownership of the shipment (Hinkelman, 2008.) This method is risky mostly for sellers/importers coming to Nigeria due to corruption rate, not all bank/ bank personnel are trust. They are few credible banks, identify them before considering using this payment terms.

4. OPEN ACCOUNT: This Provides the least risk for the buyer, and the greatest risk for the seller the buyer agrees to pay for the goods within a designated time after the shipment, usually in 30, 60, or 90 days. The seller is thus totally reliant on the buyer's ability and willingness to pay for goods already shipped (Hinkelman, 2008.) Do the lack of social security and credit systems, credit in business dealing in Nigeria are only practised by trusted partners.

Better still, research instalment can be useful for winning clients over whereby granting instalment payment, which might be paid weekly or monthly, which can increase France importer market reaches in Nigeria.

3.4 Promotion

Promotion is communication between the manufacturer or seller and the customer. It covers everything from the company's side aimed at creating sales or excellent product and company image. Promotion can be, e.g., public relations, advertising, sales promotion and personal selling (Root, 1994.)

"Promotion is the process of marketing communication involving information, persuasion, and influence" (Hundekar, 2009.)

With promotion such as packing, flyers, email, newsletter, address mailing, etc., one can quickly compel the client to buy one's product just by seeing your promotional tool.

Promotion has three specific purposes.

1. Promotion persuades and convinces the buyer and enters this consumer behaviour (Hundekar, 2009.)

Due to the knowledge of how client behaves in a given market, product promotion can help to state out what they are expecting to have in the product to add value that makes them stand out among others.

2. Promotional efforts act as powerful tools of competition providing the cutting edge of its entire marketing program.

Promotion help distinguishes a product from the competitor; by systematically state the reasons one should consider buying the product.

3. A promotion has been defined as "the coordinated self-initiated efforts to establish channels of information and persuasion to facilitate or foster the sale of goods or services; or the acceptance of ideas or point of view." It is a form of non-price competition.

Exhibition as a means of Promotion

"An exhibition stand, or state is a form of a showroom, but it is a very distinctive form of the showroom. It provides a volatile marketplace in which buyers and sellers meet. There are various types of exhibitions, international trade fairs, national and local fairs and exhibitions (usually sponsored by a chamber of commerce or trade association) (Hundekar, 2009.)

An exhibition can be either indoor or outdoor depending on the event and the season.

This method of promotion, open new access to meeting principal actor of various related product, which helps increase the possibility of making new business and also evaluation a market.

This method is mainly used in targeting B2B sales, but it also allows visiting end users to overview your product, which might be the key to triggering a good market entry or create a better awareness in the market.

Name, logo, symbols, design, packaging, image and powerful promotional tools use in promotion. This is used is capturing clients attends just was a glance. Which psychologically attract client towards a particular product (Hundekar, 2009.)

Promotion is essential in every business, and it is the best way of compelling clients toward a particular product.

3.5 Place

Place, or distribution, consists of the activities that bring the product to the reach of customers (Armstrong & Kotler 2000, 55). Distributing is a massive challenge in international business whether direct or indirect, having a breakthrough give

you a competitive advantage in the market. Which consistency and well-organized distribution, it can also influence your cost positively.

The placement strategy will help assess what channel is the most suited to a product. How the end user accesses a product also needs to complement the rest of the product strategies (Martin, 2014.)

With place (distribution) you will allow identifying who and how your product should be made available to the people/ clients. It also helps in determining what role retailer/ wholesales play and how best to attract them toward your product (Help in identifying product target for promotional strategies) e.g. Exhibitions, sending of samples and presentation to companies.

Marketing will not just help one in understanding what a product offers to client, the cost of product nor the best way to promote the product; but it ensures that the brand message reaches the right people at the right time in the right direction. Given be the best possible overview of the potential success of your product.

According to Arnold (2000),” wanting to control their business expansion at a strategic level; partnering with local distributors, at least for the first years, to benefit from the locals’ expertise; and minimizing costs and risks in these new ventures”.

These are all good objectives but finding the correct balance among them at any particular time is tricky. In the beginning of market entry, partnerships with local distributors make good sense: distributors know the distinctive characteristics of their markets, and most customers prefer to do business with local partners (Arnold, 2000.)

Make sure you identify the kind of distributor you are willing to work with and be sure that has what it takes in promoting your brand. They have to be capable of developing markets, motivated and treat the local distributors as long-term partners, not temporary market-entry vehicles. This will increase commitment in market and increase such company product reach Nigeria.

4 MARKET STUDY

4.1 Information on Solar Energy and the benefits

Solar power, “also known as photovoltaic (PV), captures the sun's energy using photovoltaic cells. These cells don't need direct sunlight to work – they can still generate some electricity on a cloudy day. The cells convert the sunlight into electricity, which can be used to run household appliances and lighting (Conway et al, 2017.)

“On a cloudy day (not night), typical solar panels can produce 10-25% of their rated capacity. The exact amount will vary depending on the density of the clouds and may also vary by the type of solar panel; some kinds of panels are better at receiving diffuse light” (Llorens, N.D. 2018.)

The energy absorbed from the sun is then stored in a battery with the uses of a solar charger and finally convert it into power in the cell to electricity by the use of an inverter. Thus, exposing solar (PV) to sunlight can still generate electricity that can be readily used or can be pumped into main utility grid (after inversion) (this doesn't require battery). This is cost efficient, but lack of storage gives zero possibility of using such installing in the night. E.g. a television without electricity wouldn't work, whereas if you disconnect your mobile phone from the charge, it still works due it in-build battery (Joshi, 2016.)

Most people using solar power prefer using it all day long which makes people prefer using it with battery, in saving energy emitted by the sun during the day. Most solar owners use electricity even when the sun is absent or mostly at night. Solar energy is now used for lighting road, traffic light, parking meters, boating and homes, business, cook, even caravan's owners. Etc. Solar energy is encouraged by various countries in the European Union because of its eco-friendly attribute, allowing people to use a natural way to produce electricity. The encouragement of the use of solar panel by the European Union has influenced the will of countries around the world to also promote the usage of natural electricity such as solar energy.

After the solar technology has been installed together at a particular place, solar energy does not need fuel to work. With clean energy, solar also provides safe and cheap electricity. Installation price might be high on the first installation, but on a long-term, it will be the cheapest, clean and safe means of deriving energy compared to gas, petroleum, oil, etc.

According to Richardson (2018), “how much you save depends on a number of factors. Direct hours of daily sunlight and size and angle of roof are both important, but local electricity rates play the biggest role in determining how much solar can save you”.

Such factors will help in determine the number of years required in enjoying a free electrical usage.

4.2 How solar could save End-users money

For instance; in USA, the average annual electricity use required for a U.S. household is 11,000 kilowatt-hours (kWh) and the national cost of electricity is (\$0.1301 per kWh) as of November 2018 resulting to \$1,430 spent yearly on electricity (Richardson, 2018.) With solar installation, there will be around \$11,000 investment and more is estimated to be recovered in Arizona rejoin in USA within 7years.

Image shown below was extracted from the quotation result on energysage.com

Congratulations!
Solar can save you up to \$27,000
Payback in about 7 years. \$0-down financing options available.

Your roof is great for solar!
Arizona Mills, Tempe, AZ, USA

Meet 100% or more
of your annual electricity needs

Save 30% or more
with Federal & State Incentives

Increased property value
Home values rise 3% or more

Figure 3. Solar quotation sample (Energysage, 2018).

The image above helps individuals in calculation how much they could save on solar and what are other added benefits that could derive from using solar energy. For them to look past the huge investment they are making on solar which could be very helpful to the people in Nigeria and could serve as strategic advantage for an exporter offering such quoting medium to the people in Nigeria.

Diagram of a Solar installation

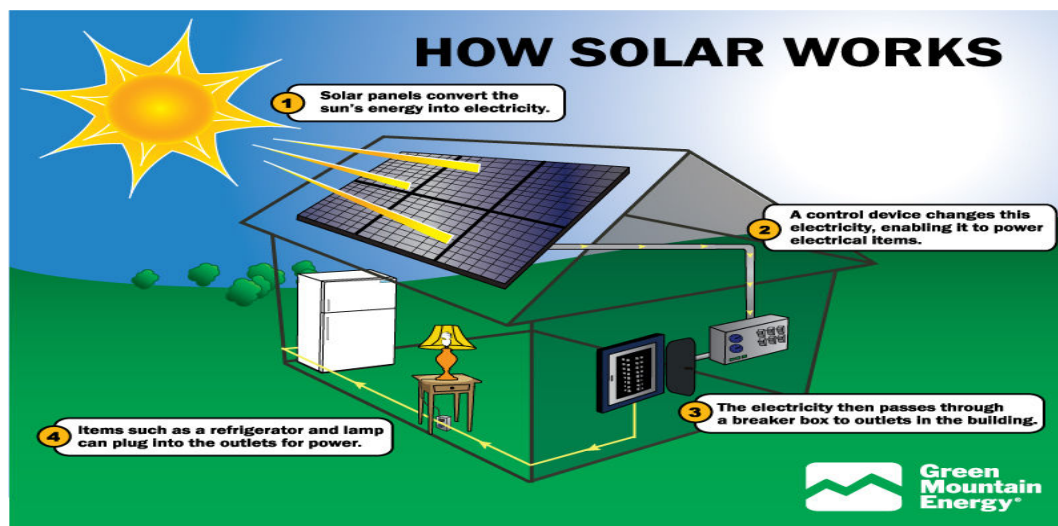


Figure 4. Solar installation outlook (Greencyclopedia, 2012).

The image above defines how solar is used in houses and how it supplies electricity.

Nigeria is lacking in steady supply of electrical, and since the electrical market is monopolized, they don't have the adequate resources to quantify the constant demand of electricity in the country.

“Power generation in Nigeria is nothing to write well about in the sense that sometimes no generation is being experienced. The total installed generating plants capacity of the country is about 12,000 MW, while the current electricity

demand in the country is about 40,000 MW. Most of the generation stations in the country are over 25 years old, and the average daily power generation is below 4,000 MW resulting in severe load shedding” (Dioha, 2017.)

With this research, solar energy solution will be provided as an alternate source of power that might be embraced by people who could afford the cost of solar in Nigeria. The project will not only help in researching with not only help solar exportation to Nigeria, but I will also assist in creating job and providing clean / less noisy electrician energy for the people.

4.3 Electricity in Nigeria

Access to clean and sustainable electricity has become a major problem facing Nigeria. Nigeria is a nation with a vast majority of abundant energy potential, with access to sun and other means of electrical supply. Electricity is the life-line of any nation’s development and support for developmental features of a country like communication, manufacturing, industry, agriculture, defence, transport, telecommunication among others. Every man uses electricity in one form or the other each day from standard lighting in homes and offices, powering of both electrical and mechanical gadgets to prominent industrial, medical, educational, social, and political uses (Odenike, 2010.)

In Nigeria, there are over 100 million people lacking electricity, because the electricity supply provided by the government has been monopolized, restricting the amount and due to the demand been more significant than the electricity provision supply be the PHCN(Power Holding company of Nigeria). The service supplied to the people is extremely low by the amount of the energy provided in Nigeria by the PHCN is insufficient.

According to Turban (2002), “customer service (PHCN) is a series of activities designed to enhance the level of customer satisfaction. That is the feeling that a product or service has met the customer expectation.” Excellent customer service could also be defined as the ability of an organization to regularly and consistently exceed the customer’s expectation. The minimum goal is to exceed the customer’s expectation every time. In these days of competitive markets,

the business that excels at customer service is the one that will not only maintain their position but also innovate in providing quality and with the sole goal of always fulfilling people's electrical needs.

In this case, the electrical need was not fulfilled, resulting in the use of generators as an alternate means of generating electricity which is meant to be used for an emergency. But now, generators are used on a daily basis by big companies in order to ensure stable electric supply for their businesses.

The use of a generator and the daily usage of fuel has added to companies' production cost, causing an increase in the prices they sell their product, polluting the environment both by sound and air. The use of solar will rectify cost and pollution, which might be considered, if it is well presented to the market, to create an opportunity for solar energy importation to Nigeria.

4.4 Nigeria Solar Potential

"Nigeria has enormous solar energy potential, with fairly distributed solar radiation averaging 19.8 MJm²/day and average sunshine hours of 6h/day" (Africa-eu-renewables, 2018.)

This has allowed the increment of solar sales and usage in Nigeria since it give the people in Nigeria and alternate way of having a stable electricity once they could afford the cost of a solar installation.

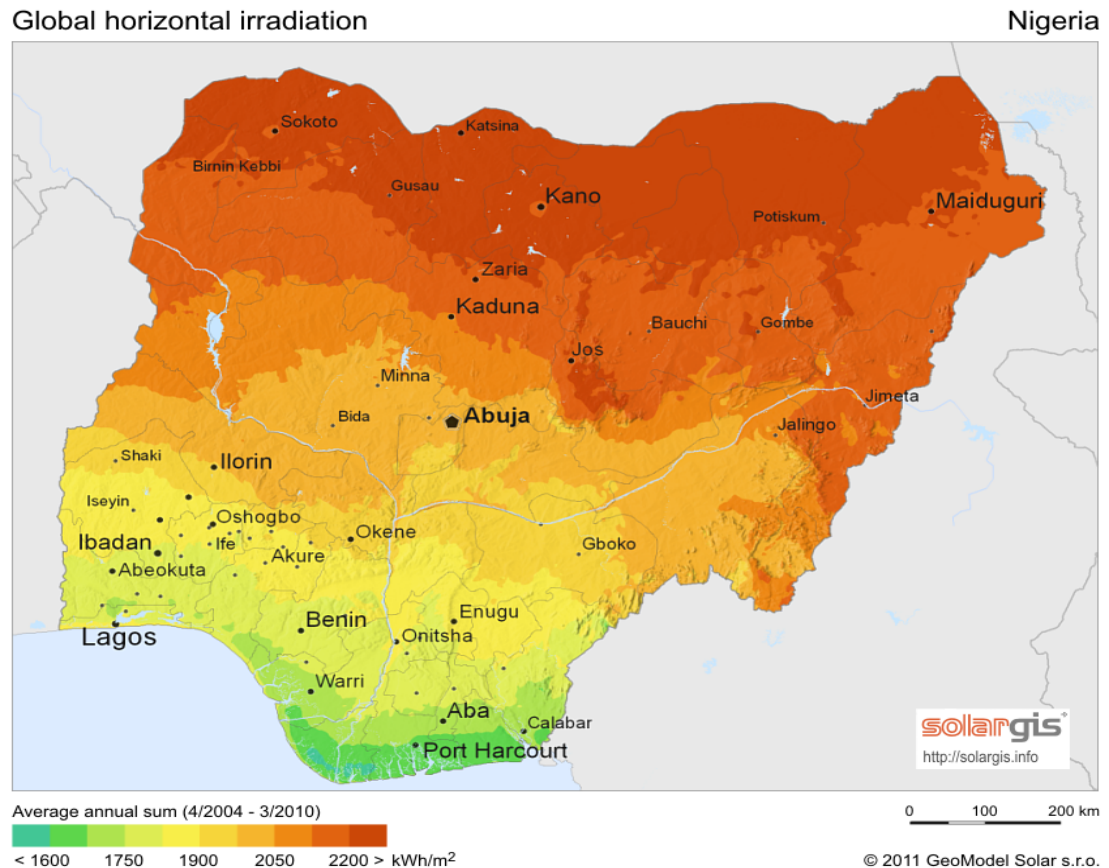


Figure 5. Geographical map of sun intensity in Nigeria (Solargis, N.D.)

The image above shows the intensity of sun light in Nigeria and it is measures in KWH/m.

4.5 Medium of Payment in Nigeria

Open account, letter of credit, cash in advance and documentary collections are all used in Nigeria, but one must be careful on which and very alert while accepting any other terms rather than Cash in advance.

According to export.gov (2016), company from the USA warned about the fraudulent business dealing involving bogus financial documents, Independent verification of the legitimacy of transactions is recommended. This warning is extended to every company abroad and if you are willing to my exception, contact your consulate/ embassy, seek advice from your bank or finalize your business dealing in person.

The most common payment term in Nigeria is Cash in advance aside from been safe, according to a new report The Credit Crunch, published by IFC and the Central Bank of Nigeria (2018). Most Nigerian lack the assets/collateral required to access formal loans, such as land or fixed property, making them risky clients in the eyes of the financial sector. Business without finance is difficult which affects having or getting credit in Nigeria, limiting business investment and sales in the country.

5 RESEARCH METHODOLOGY

According to Akinosun (2017), "several attempts made by the government to stabilize electricity in Nigeria, Solar initiatives seem to have made much bettering headways. In July 2017, two communities in Kaduna, Gnamo and Pakau celebrated 2 years of uninterrupted power from the 90-kilowatt solar Photovoltaic (PV) off-grid system installed in the areas — as the villages are far from the reach of the national power grid".

Such news has impacted directly and indirectly, the life of the people in this community as well as the people in Nigeria assuring them of a better way of getting stable electricity.

Long before solar, Nigerian has never fully depended on the National electrical supply due to the lack of consistency in supply. With the arrival of solar energy, National electrical usage can be remedied by using solar energy.

The figure below shows how less Nigeria population have relieved on National electricity.

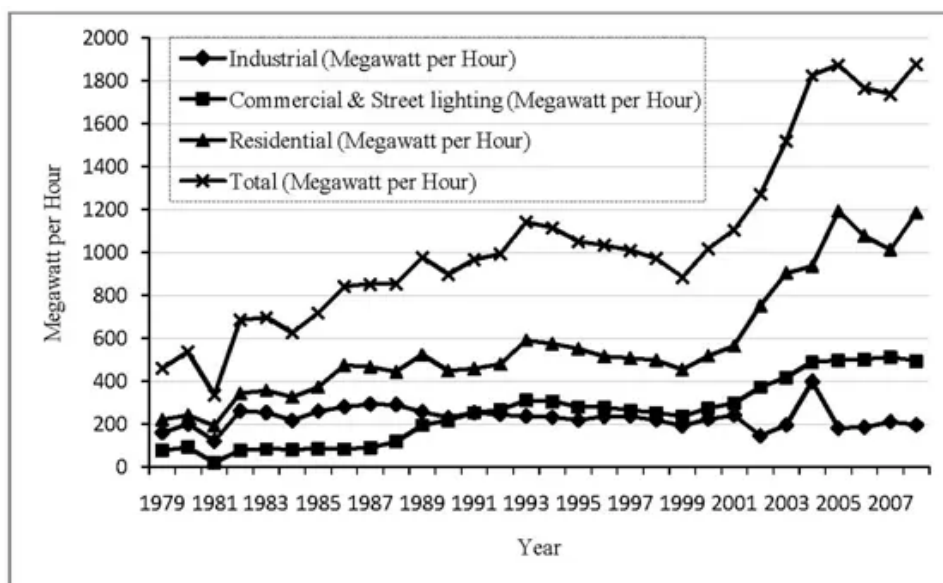


Figure 6. Statistical representation of electricity usage from 1979 –2007 (Akinosun, 2017)

“This section of the search statement will provide you with information about steps to follow in implement the project. This is one of the most important parts of the project, mistake in research or research not well done can render the whole research inefficient and unreliable” (Hospitality, 2008.) This is the reason for using mixed method in deriving information on this report.

Combining research questions will give you a wide detail on the Nigeria market which can be handy in importing solar product to Nigeria. The result derived from interview and questioning is documented below.

5.1 Interview of French manufacturer of Solar Equipment

After meeting with, Mr Arnaud Olliver, the co-founder of UNITECK SARL who specialized in the product of solar energy basically for marine, industries and camper cars energy supply, the below are the outcome of the session:

1. Establishment of the company

He responded, that both founder of the company was working for a battery charging company before decided to start their own company. with the knowledge gain at the company they were, the decided to convert they idea in to solar charging and the improving in adding full installations such as cabling, solar panel, mounting brackets (for fixing the panels) and few other accessories need in installing a small solar connection.

2. Are all your products produced in France?

He replies, not all our product but most of the products are produced here in France apart from our inverters and solar panel which is hardly produced in Europe.

3. What makes clients interested in your product rather than your competitors?

Arnaud said, most of our competitors focuses on producing or reselling solar few solar products require in making a complete solar installation, which mean their retailer or installer will have to find other brand supply them the missing product. This makes installation less uniform, they might be issues with compatibility and they might be energy lost due to cabling.

Aside from provision of full range of solar installation he stated, the quality of Uniteck products is among the best in the market due technology and design. The product is produce in France unlike most in the market that are produced in Asia and it is also governed by Europe regulations.

Finally, our innovation of creating a mounting bracket for fixing solar panel makes it easy for attracting new clients towards buying Uniteck product; as well, solving clients' space and mobility problems with Uniteck mounting brackets.

4. How are your products been distributed across France?

Arnaud told me they work with retailer, distributor, retailing groups, industrial companies and battery specialist, which then finally resells to the end users.

Various channels of distribution have direct or indirect link with Uniteck product ranging between marinas, industries and battery seller; Weather reselling basically Uniteck products or using them to complement their existing product.

He continued, it can be hard getting information's on the key distributors/ headquarters contact personal but contacting retailers working with such distributors could get you more information about such distributor and most likely get you the direct contact of the purchasing personal in the distributing company.

Allowing you to start a conversation with decision make and also you can also give reference to the retailer that provided you with such contact with will further increase the trust he will have in working with you.

5. Have you faced any problem in selling your product in France?

Yes, we have at the beginning; no one is willing to associate themselves with an experiment product or new supplier until they can test one's brand, which makes it difficult getting growing.

According to Summer (1979), "An equally important for investigation success versus failure is the potential for developing prescriptive guides for the new product process. Many of the variables which might separate the winners from the losers are within the control of the firm. Knowledge of these variables is, and the relative importance would lead to corrective action to improve the way the firm develops and launches new products".

This is why Uniteck focus of provision of full kits; modify their previous product, creating an innovative fixation due to the feedback gotten from retailers and client. This has helped in capturing the attention of the local market.

As of now, Uniteck is one of the leading suppliers of solar in the marine market and are looking to expand to other European countries.

5.2. Questionnaire Presentation

After questioning twenty -one (21) installers in Nigeria with the goal of deriving structured and quality information from them, I decided to use direct questioning to source more information from them.

All the result gotten from this session is documented below and useful for details needed before entering the Nigerian markets.

1. Who are your key consumers?
 - a. Industry
 - b. Home usage
 - c. Road Lightning
 - d. Private usage.

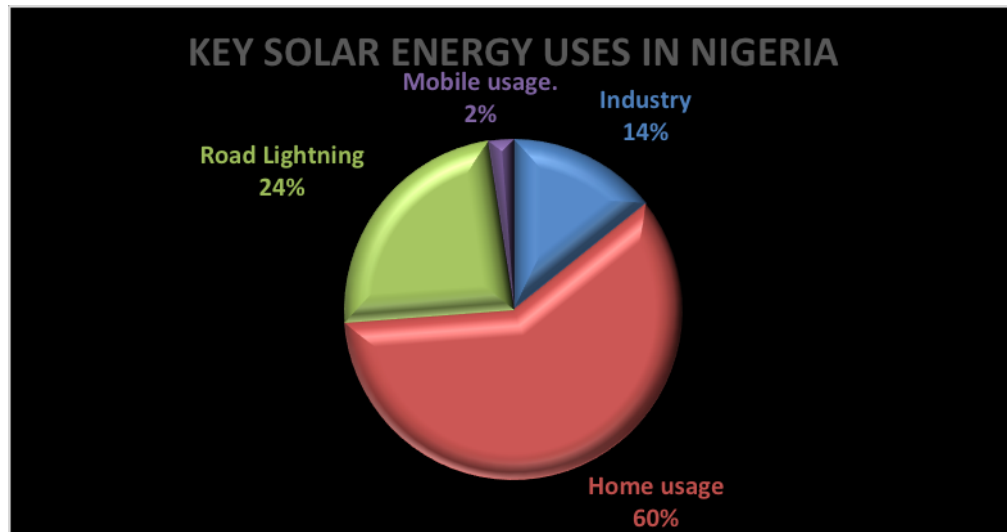


Figure 7. Key solar energy user (field survey, 2018.)

The statistic above recorded after intense discussion with installer, stating the increase in the growth of solar usage amongst home user which have drastically increase the sales of solar in Nigeria.

Road lighting is also to be considered due to the rate the second customer, that have adopted the use of solar in lighting road at night. Majority of road lighting product are held by the government and can be a very interesting market to further study.

2. What do your customer need solar energy for?
 - a. Basic needs
 - b. Machineries
 - c. Back up energy
 - d. Others.

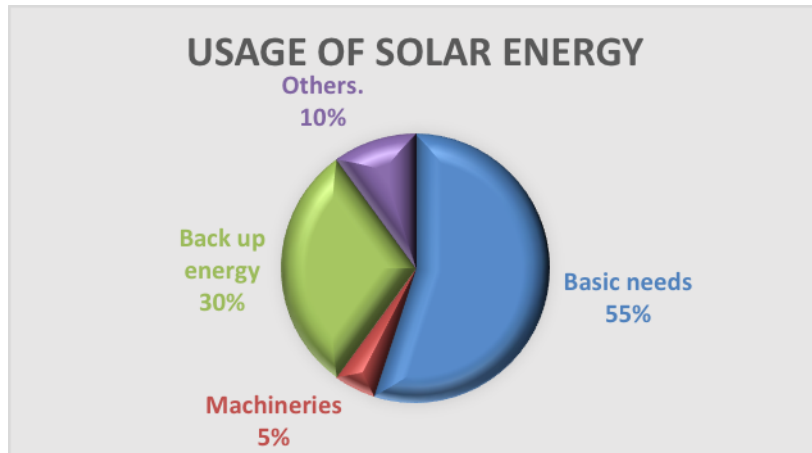


Figure 8. Usage of electricity in Nigeria (field survey, 2018.)

In most countries outside Africa, solar energy is mostly used as backup source of electricity.

According to Royal (2017) “costs are technically going down for solar and wind, but can that truly be translated onto a larger scale? While costs for manufacturing and kilowatts per hour are dropping, the final costs when it comes to large-scale renewable are more nuanced. For this reason, despite the need for clean fuel in both emerging and developed economies, renewable market share remains well below that of conventional forms of energy”. As most people in developed country already have stable electricity, it is hard investing money on solar energy, irrespective of the drop-in price.

Due to the constant availability of electricity in these regions, solar are mostly used as back up. Whereas in Nigeria, solar energy is highly required for basic electrical needs.

Since the national electricity supply in Nigeria is unstable, everyone is trying to find other means of electricity to satisfy their electrical needs in (lighting, watching TV, AC, fans, listening radio, charging cell-phone, charging a laptop, fridges etc.) since they cannot rely on the national electricity.

Though few people still use it as a backup means of electricity because they considered it expensive, all other consumption is on a machine, schools, transport, boating etc.

3. What is the bestselling solar energy range?

- a. 100watts - 500watts
- b. 600watts - 1500watts
- c. 1600watts - 5000watts
- d. 5000 watts and above

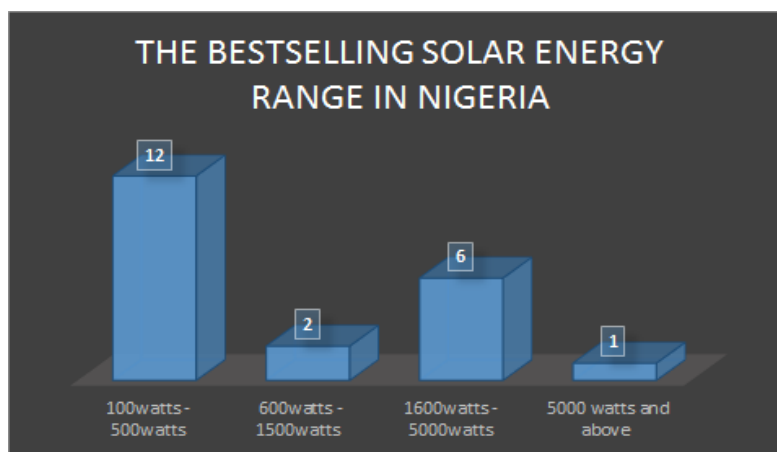


Figure 9. Ranges of solar product sold in Nigeria (field survey, 2018..)

The best-selling solar range is from 100watt – 500watts. According to the question installer, this selection is mainly based on cost as most houses that require more than this range prefer using generator which they believe guarantees a constant supply of electricity.

The other range that is appreciated by the Nigeria people is the 1600watts to 5000watts. This range is bought main by the rich with more power electrical usage/needs.

Most people using the 600watts range to 1500watts electrical power and over 5000watts electrical power, prefer the use of generator and plants

4. What are the renewable energy products that Nigerians uses?
- Solar
 - Wind
 - Waste recycling
 - Others

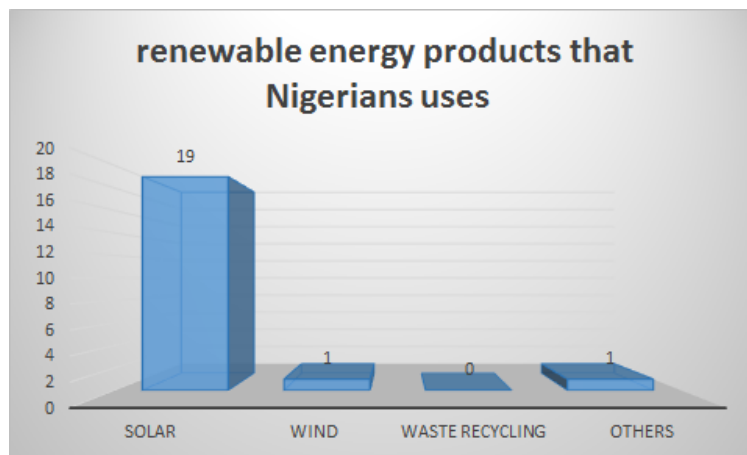


Figure 10. List of renewable energy product in Nigeria (field survey, 2018.)

Solar energy is the most used renewable energy source In Nigeria. According to installer, the demand for solar is sporadically increasing and the demand for in solar energy is incomparable with other types of renewable energy, which makes solar energy competitive.

5. What kind of electrical energy sources are used in Nigeria Market?
- Generators
 - Plants
 - Solar
 - Others

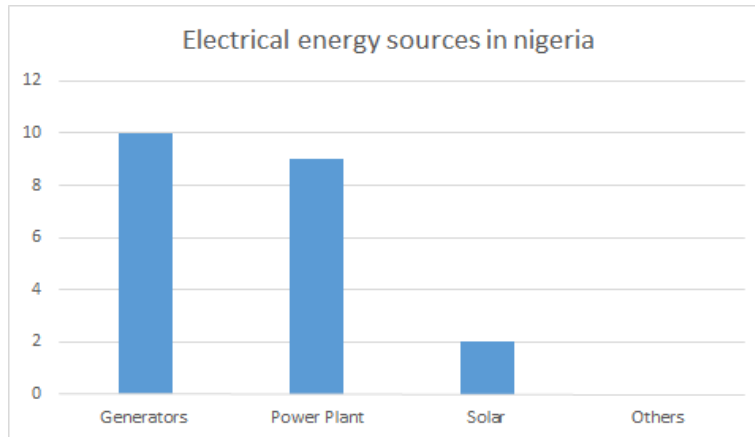


Figure 11. Source of energy in Nigeria (field survey, 2018).

Almost every household in Nigeria uses generator as a reliable source of electricity and most companies has power plant. These are the two main reliable sources of energy in Nigeria.

Solar energy is increasing in sales but not anyway close to the usage of power plant and generator in Nigeria.

6. What are the geographical areas where wind and solar electricity will be most suitable In Nigeria?
- Cities
 - Villages
 - Campers (Mobile Homes)
 - On sea (mariners)

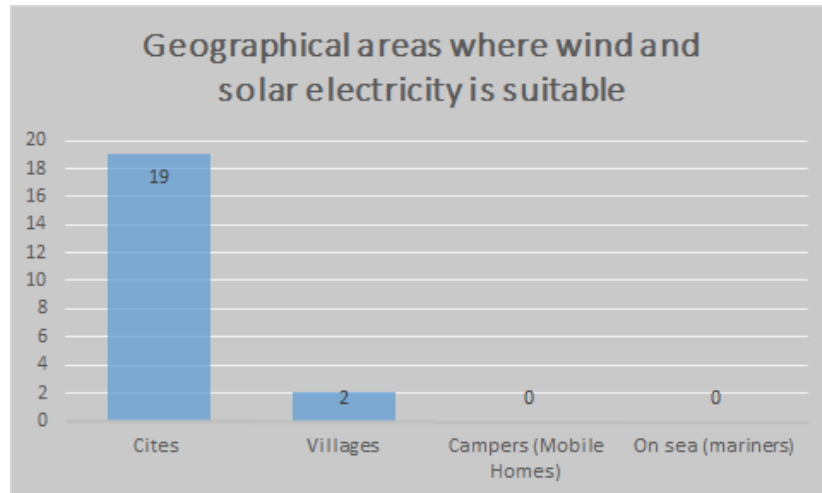


Figure 12. Geographical areas that use wind and solar energy (field survey, 2018.)

In Nigeria, the city consumes more electricity than country side (Villages). This is due to population density and companies depending on electricity for their business to function, why others need electricity for comfort and entertainment. e.g Charging phone and laptops, watching television, browsing internet, lighting home etc. While non-governmental associations help village to have access to electricity.

7. How would you rate demand of renewable energy solutions in Nigeria?

	1	2	3	4	
No demand	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	High demand

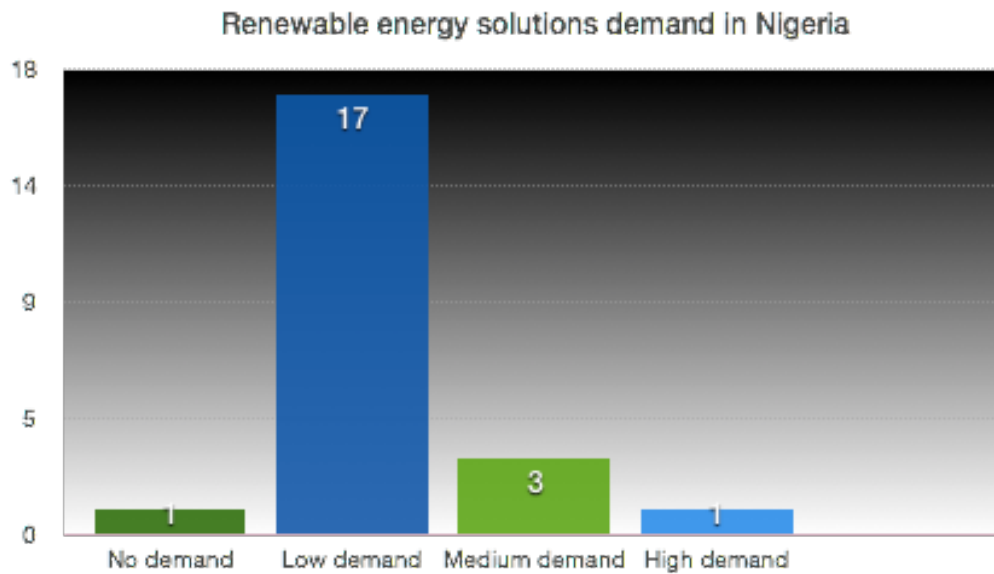


Figure 13. Demand for renewable energy (field survey, 2018.)

The fig 13 above shows that the demand in Nigeria is still low due to 17 out of 21 questioned installer indication that the demand for renewable energy is still low but growing gradually due to the awareness and the understanding rate in Nigeria. Some installer still thinks it already in the medium stage and it is well accepted by the people. The reason for the demand been low is because of the high acceptance of generators in Nigeria. There is hardly a household in Nigeria without a generator, which make the demand for solar energy low.

8. What are the tax reductions, subsidies and incentives that the local and foreign investors can gain in starting a renewable energy business in Nigeria?
- a. Low taxes
 - b. Higher taxes
 - c. Normal taxes
 - d. No taxes

All questioned personnel had the same response which is C (Normal tax). In Nigeria, there is no advantage in using renewable energy unlike other countries E.g. Europe that actually support the usage of environmental friendly equipment.

9. Does the government facilitate organizations to do business in renewable energy business either in import or manufacture?

- a. Yes
- b. No

No, all respondents said and highlighted that all renewable energy usage in Nigeria is promoted by entrepreneurs in Nigeria due to Nigeria being a fossil fuel-based economy. The government are pleased to benefit more from generator usage rather than promotion solar which eradicates the usage of fossil fuel.

10. How is the competition in the Renewable energy market in Nigeria?

- a. Very competitive.
- b. Competitive
- c. Low competition
- d. Lack competition

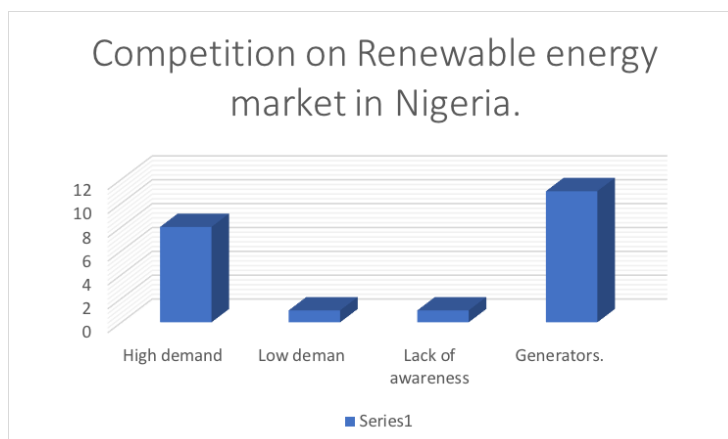


Figure 14. Competition on renewable energy in Nigeria (field survey, 2018.)

Competition in renewable energy in Nigeria is quite high and majority of the respondents states that solar is the most used renewable energy in Nigeria.

11. What are the risks in establishing the business in solar energy sector in Nigeria?

- a. Cost
- b. National electricity
- c. Lack of awareness
- d. Generators.

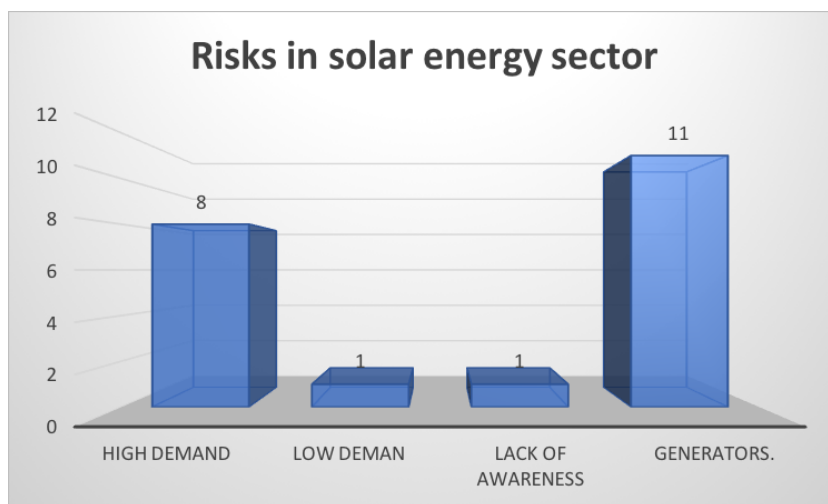


Figure 15. Risk in solar sector in Nigeria (field survey, 2018.)

According to the response derived from this question, most installer thinks the cost might discourage people and the replacement of generators will be very difficult due to the cheap cost and also its position in the country.

12. What is the future prediction for the renewable energy solutions demand into the Nigeria market?

- a. High demand
- b. Low demand

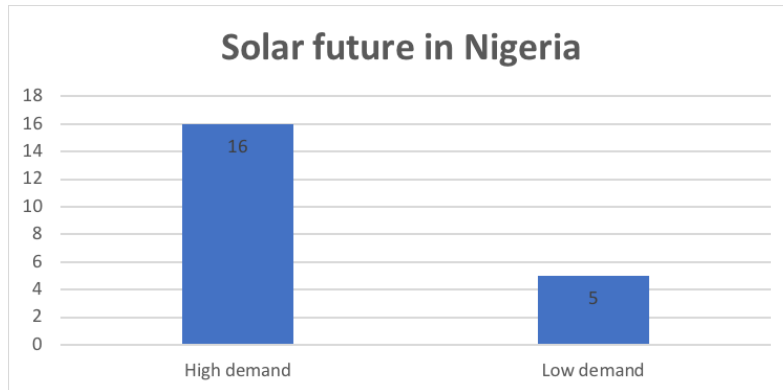


Figure 16. Future of solar in Nigeria (field survey, 2018)

Most Solar installer in Nigeria believe that there will be an increment in the demand of solar due to increase in awareness, while few others think there might be a drop in demand for solar if the national electricity becomes stable.

13. Is the customer in the Nigerian market willing to invest in solar panels?
- Willing
 - Not willing
 - Will but too expensive.
 - Prefer another source.

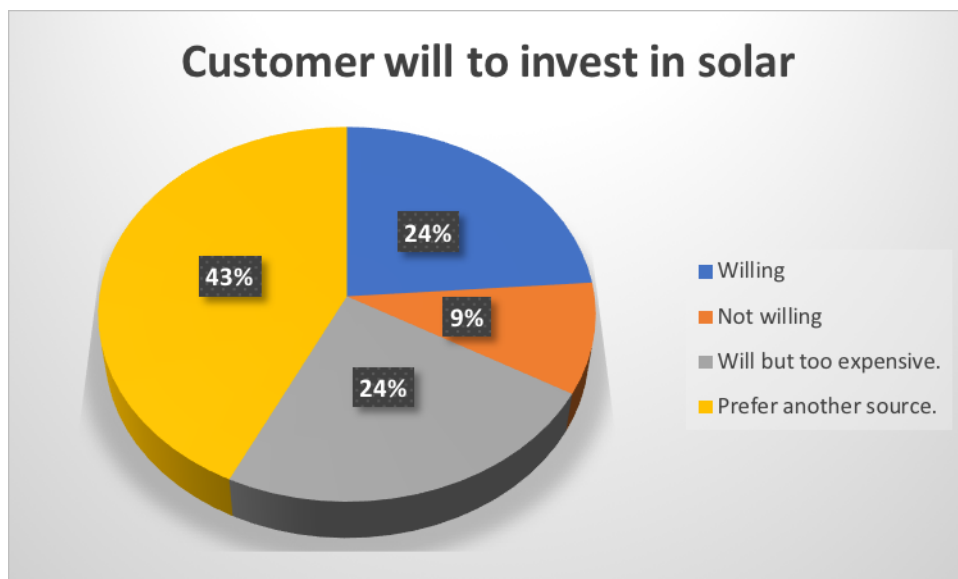


Figure 17. Customers will on investing in solar (field survey, 2018.)

Majority of the people still prefer using generator due to the cost and the investment required in owning one. But people are still willing to buy solar product, some thinks it is too expensive, why few other are not even considering the usage of solar irrespective of the price.

5.3 Research Findings and Conclusion

1. How can solar energy manufacturers in France market their products in Nigeria with the use of 4PS?
2. How does solar energy manufacturer in France adapt to different need in comparison with their existing client?
3. What is the most suitable channel of distribution of solar energy in the Nigerian market?

First question: with the knowledge acquire from this research on Nigeria solar market and the review of the 4PS marketing mix on can easily have an overview on how to market one's product in Nigeria.

In every market, you have to know your customer before knowing what you can offer.

According to Torlini (2015), Building the right customer relationships is essential for any organization. It not only increases trust and loyalty, which will result in more repeat business, but also can lead to customers recommending you to their friends or colleagues.

How is can this be? You just have to know your potential client need which is review in Product in the 4PS. In product in 4PS, Nigeria market varies from the French market making adaptation of the product important. The fluctuations in voltage in the national electricity in Nigeria should also be considered when manufacturing electrical product in other to avoid damages and bad reputation in quality.

In entering the Nigerian market, B2B business are advised. According to findings made, Nigeria economy is corrupt which might result to complication with customs (border controls) or difficulty in importing your product to Nigeria.

Having a retail or wholesale in Nigeria could reduce such risk and make business swifter. Visiting an exhibition as described in section 2.4.1 might be the best way of meeting solar business personal in Nigeria.

According to the agro-food exhibition in Nigeria, the show created 1,554 B2B meeting with 142 exhibitors from 21 countries, showcasing their product and acquiring new contacts (Agrofood-Nigeria, 2018.) If sure trade shows are done by French exporter, it will clearly give them access to business opportunity in Nigeria.

Promotion, Media promotion in Nigeria is quite effective. Millions of Nigerians are connected to one good video post online of your product and functionality increase the interest and awareness of your product In Nigeria. Sales promotion should also be considered.

Second question: Adapting your product to correspond to the Nigerian market needs will create an everlasting business opportunity to importers as well as the people in Nigeria. Apart from producing product that is adaptable to inconsistency in the Nigeria electricity fluctuation, creating a payment/credit system in Nigeria that allows people to pay instalmentally within months give them the capability to have solar energy that they would not be able to afford once. This could create sales as well as loyalty just like Unilever in India. Unilever cost on detergent- Unilever saw an opportunity in low income earner who could not afford their detergent. They eradicated the cost of packaging to reducing the price, which increase their sales in India and made the low-income earner loyal to Unilever brand due to such gesture (Czinkota, 2010.), Which shows the importance of product adaptation in international market.

Finally, as briefly discussed in the first question, working with a local distribution channel is advised due to the knowledge of a local personnel (Nigerian) in the

market, which can facilitate the entry to the Nigerian market because of his/ her understanding of the market.

In addition, Nigerians need for electricity is high and majority of the people might not be capable of buying it outrightly aside from instalment payment. You can also study the important needs and knowing what they precisely need the electricity for and find a want in suiting that need.

E.g., if electricity is needed mostly for charging phone and computer, adaptation can be used by producing smaller panel that are less expensive and might solve electrical need. Just like the adaption of solar into solar water heater which more people are using now to supplement the cost of high bills for electrical water heating.

Solar Importation has a great potential in Nigeria, with future study in the market which give a clear insight on how marketing solar energy in Nigeria will work efficiently. Research on Nigeria law and constitution should be revalidated after 3 months to avoid any unexpected changes due to corruption.

5.4 CONCLUSION AND RECOMMENDATION

5.4.1 CONCLUSION

From the analysis in foregone sections, solar power may become the most preferred alternative electricity source to Nigerians, judging by recent developments. Despite the economic barriers to its growth, Nigeria's solar power market has moved with great impression on electricity consumers who are fast embracing it to overcome the poor supply from the national electricity grid. Nigeria, with a population of about 180 million people, has been unable to provide power to more than 80 millions of its people. Even those connected to the national grid are mostly undersupplied, necessitating their recourse to alternative means, which include expensive fossil fuel generating sets.

Manufacturers in the country said in February that their peak electricity demand had gone up to 14,882 per year megawatts (MW). But the national grid is only able to generate and supply about 4500MW at the most. Even at that, the manufacturers do not get a good amount the meagre 4500MW from the grid, so they rely on self-generated electricity to power their operations (thisdaylive.com, 2018.)

Driven by basic economic assumptions that increased demand would always be a coefficient in increased supply of goods and services, business people and operators in solar power technology have taken advantage of Nigeria's low access to power to step up their commitments to solar energy. THISDAY (2018) observed that Nigeria's solar power market had within the last two years gained significant traction. It is a burgeoning market that could electrify millions of homes in the country.

At the moment, the financial value of the country's off-grid power market, which is driven by solar, is about \$9.2 billion, according to the Rural Electrification Agency (REA). Operators and investors are beginning to change the initial

negative stories associated with solar power in Nigeria with sagacious investments and reliable projects (Thisdaylive.com, 2018.)

Even with the huge business potentials of the market, as well as its rising footprints, operators recently raised the alarm over a government trade policy that could derail the progress of the solar market.

Speaking in Lagos recently, REAN disclosed that an arbitrary customs duty levied on imported solar power components by the Nigerian Customs Services would likely thwart the growth path the market had taken. REAN president, Mr. Segun Adaju, said at the Lagos briefing that the Customs had indiscriminately decided to use a classification code, 85013300 which is actually meant for Direct Current (DC) generators with movable parts that are imported into the country, to place very high import levies on imported solar components. (www.thisdaylive.com 2018)

Hence, French companies with intentions of exporting their products to Nigeria should take cognisance of the government policies in Nigeria, the affordable price that the Nigerian market can afford to buy their products, price of existing solar panel products and strategic distribution of the products.

These are salient for the success of the business benefitting both the producer/supplier and the consumers.

5.4.2 RECOMMENDATION

As much as this study has been able to enumerate the challenges and possible solutions to exportation of solar panels from France to Nigeria, further studies and research work are needed to proffer more solution to the subject matter such as:

1. Quality and specifications of the product to be distributed to Nigeria.
2. Solar consumption rate of the Nigerian market.
3. Health matters and effect of the use of solar panel to generate power in Nigeria; that is, safety matters in solar power usage.

4. Good local partnership with good knowledge of the market.

These topics and more are necessary for the consideration of distributing solar panel to Nigeria by French companies and manufacturers of solar panel from other countries.

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