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Website to SME with sustainable business

A case study for a LED lighting company

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ABSTRACT

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Governments and citizens are demanding more sustainable business practices from companies. Aligning a business with green practices is a great selling point for small businesses. The purpose of this thesis is to develop a website and an E-commerce for a SME called CompanyX. A new website, which allows customers to purchase and review products and a website, which allows the case company to achieve new customer groups, advertise its products and differentiate from competitors. CompanyX is a small-sized company located in Kempele, Finland. The company's primary business area is within LED lightning products and services. Customers range from large and medium-sized industrial businesses and organizations to public sector and private customers. Along with the main objective the purpose of this thesis is to increase understanding of how the company can create a competitive advantage through its green marketing and marketing mix (place, price, promotion and product), as well as to understand what environmental information should be communicated and how it should be presented.

This bachelor thesis consists of theoretical and practical sections. The theoretical section briefly covers what green marketing, marketing mix and E-commerce marketing are. The practical section covers the main findings of a business plan (product, place, promotion and price) and a questionnaire, which were used to survey the company's green marketing focus and competitive advantages. They were also used to support the renewing project of the web pages, which were developed and implemented on the basis of the instructions and guidelines provided by the case company over several online discussions.

The outcome of this thesis was a website for the case company. The results from the interviews and SWOT analysis show that CompanyX is able to increase revenues and competitive advantage by improving its marketing strategy and greenness in business activities. The marketing strategy can be improved, for instance, through personalized promotional newsletters, which are tailored for distinct customer groups and include customized solutions to meet customers' specifications. Furthermore, it seems that by greening the marketing mix (product, promotion, price, place) CompanyX is able to improve the customers' perception of the company. The findings of this thesis can be used as advice to the case company in choosing a suitable green and e-commerce marketing strategy.

Keywords: website design, e-commerce, marketing mix, green marketing, green business

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1 INTRODUCTION

Corporations are increasingly recognizing the benefits of environmentally friendly or green marketing. Governments and citizens are demanding more sustainable business practices from companies. Aligning a business with green practices is a great selling point for small businesses. Effective marketing provides the information about the benefits of the product or service to the customer. Communication plays a vital role in any sustainability strategy. It is important for any company to recognize how to plan its marketing strategy, to emphasize its environmental friendly business practices in its marketing and to differentiate themselves from competitors. When advertising company's green products, the marketing should stress only relevant information regarding the environmental impact of a product. The Consumer Ombudsman (kilpailu- ja kuluttajavirasto, 2017, cited 13.8.2017) in Finland provides guidelines on the use of environmentally oriented claims in marketing.

This Bachelor's thesis is about planning and implementing a new dynamic website to a small-to-medium-sized enterprise (SME) called CompanyX. The company aims to expand its green energy saving solutions and LED lighting business to private customers. Therefore they not only need a fully implemented website and E-commerce for their products, but also a new green marketing strategy comprising a company online presentation addressed to a larger audience. The main objective was to design a completely new, visually attractive, responsive website, which supports company's brand and helps the company to improve its competitive position nationally. Along with the main objective the purpose of this thesis is to increase the understanding of how the company can create a competitive advantage through its green marketing and marketing mix (place, price, promotion and product), as well as to understand what environmental information should be communicated and how it should be presented.

The advantage of an online business is that a complete selection of products can be sold with no limits on space. "Online marketing is highly targeted and ultimately E-commerce overhead costs are lower. However, if not managed well E-commerce costs can skyrocket and sink your business" according to Daniel (2011).

This thesis consists of theoretical and practical sections. The theoretical section briefly covers what green marketing, marketing mix and E-commerce marketing are. The practical section

covers the main findings of a business plan (product, place, promotion and price) and a questionnaire, which were used to survey the company's green marketing focus and competitive advantages. They were also used to support the renewing project of the web pages, which were developed and implemented on the basis of the instructions and guidelines provided by the case company over several online discussions.

WordPress, a Content Management System (CMS), was used to create a dynamic website for the case company. CMS is a software to power, manage and modify the website's contents. WordPress is an open source CMS widely used by small to large organizations. WordPress also manages the general security of the website.

2 GREEN MARKETING

2.1 Green or environmental marketing

The term green marketing came into prominence in the late 1980s and early 1990s. Green or environmental marketing consists of “all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, so that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment” (Polonsky 1994, cited 19.10.2017). The public opinion polls have shown consistently that a significant percentage of consumers profess a strong willingness to favor environmentally conscious products. Environmentally considerate behavior is becoming the norm (Ottman 2011, 2 and 7). The terms “green” or “sustainable” often refer to products, services or practices that allow for economic development while conserving for future generations. A green product is described as one that has less environmental impact or is less detrimental to human health than the traditional product equivalent. (Spear, 2011, cited 20.7.2017.)

Thanks to advances in materials and technology, today’s greener and more sustainable products now likely work better and more efficiently than their “brownier” counterparts. However, one of the green marketing’s challenges is the lack of standards or public consensus about what constitutes “green”. There is no definition of “how good is good enough” and what it comes to a product or a company making green marketing claims. “It can be argued that there is not such thing as a truly green product, because every product, no matter how thoughtfully designed, uses resources and creates waste. Therefore “green” is a relative term with some products being greener for certain reasons or in certain circumstances”. (Ottman, 2011, 57.)

About half of European consumers think it is not easy to differentiate between environmentally friendly and other products and only about half of them trust producer’s claims about environmental performance. This influences their readiness to make green purchases (European Commission, Environment, Single market for green products initiative, cited 10.7.2017). According to Ottman (2011), environmental considerations should be integrated into all aspects of marketing including new product development and communications. According to Polonsky (1994, cited 19.10.2017), if companies are using green marketing, they must ensure that their

activities are not misleading to consumers or industry, and do not break any of the regulations or laws dealing with environmental marketing. Green marketing claims must:

- Clearly state environmental benefits;
- Explain environmental characteristics;
- Explain how benefits are achieved;
- Ensure comparative differences are justified;
- Ensure negative factors are taken into consideration; and
- Only use meaningful terms and pictures.

(Polonsky, 1994, cited 19.10.2017).

2.2 Sustainability as a choice for SME

Consumer demand for greener products and services creates opportunities for businesses to promote their greener offerings and introduce profitable new ones, all while building their topline sales and enhancing their image. Companies are launching advertising and web campaigns, publishing extensively documented sustainability reports, cooperating with external sources to communicate transparently. Communicating a company's embrace of sustainability can enhance corporate equity since investors seek to reduce risk and many "social responsible" investors want to align their values with their savings. (Ottman 2011, 15-18.)

A sustainable business is any organization that participates in environmentally friendly or green activities to ensure that all processes, products, and manufacturing activities adequately address current environmental concerns while maintaining a profit (Miryala et al. 2016, cited 20.10.2017). Sustainability is a good choice for companies, the environment, and society. These strategies have numerous benefits for everyone. However, sustainability strategies may not be feasible for a number of companies according to Miller (2010). Small and medium sized companies face a number of challenges at start-up and throughout the life of the company. These challenges include barriers to entry, high operating costs, and small customer base. All of the challenges affect a company's ability to spend money. With tight budgets, it can be difficult to convince

managers to pursue an often costly move towards an environmental focus or social concern strategy. (Miller 2010, cited 15.6.2017.)

2.3 Green consumerism – ecolabels, standards and trustmarks

When yesterday's consumers cared mostly about a product's performance and price, today's greener consumers want to know about more specifics such as where raw materials were produced, how a product was manufactured, how much energy is required during use and whether a product and its packaging can be safely disposed of. Manufacturer and retailer reputations for environmental and social responsibility are also critical to consumers' purchasing decisions. Greener consumers seek out trusted ecolabels such as Energy Star. However, only a small percentage of greener products actually carry eco-labels and if they do, there's no guarantee that consumers will recognize or understand it. (Ottman 2011, 36-37.) What comes to European consumers, 59 percent of them think that product labels do not provide enough information, and 48 percent think that labels are not clear (European Commission, Environment, Single market for green products initiative, cited 10.7.2017).

Ecolabels identify products or services proven environmentally preferable overall within a specific product or service category (Global Ecolabelling Network 2017, cited 17.7.2017). The European Union has developed legislation for ecolabelling and has created its own ecolabels. Energy Star is an international standard for energy efficient consumer products. For example different LED lighting products must pass a variety of tests to prove that the products will display all the characteristics to qualify for Energy Star certification. In Finland there are corresponding ecolabels for energy such as EKOenergia (Ekoenergy 2017, cited 20.8.2017).

There are also several international standards on environmental labelling that need to be taken into consideration. Numerous organisations have adopted standards for environmental labelling. Most notably the International Organization for Standardization (ISO) has set international standards for labelling of the environmental performance of products or services. In detail, there are different ISO standards for three types of labels:

- ISO 14024 - Third Party - (Type I environmental labelling),
- ISO 14021 - Self-declared environmental claims (Type II environmental labelling),

- ISO 14025 - Environmental Product declarations - (Type III environmental declarations). (Global Ecolabelling Network 2017, cited 17.7.2017).

For the E-commerce merchants in Finland, E-commerce Finland (Verkkoteollisuus) has a trustmark called “Luotettavaa toimintaa” to foster customer trust in online purchases. (Verkkoteollisuus, 2017, cited 8.9.2017). There is also an European trustmark “The Ecommerce Europe Trustmark”, which has more than 25 000 online shops represented. The trustmark protects customers when they make a purchase through an online shop in another EU country and a complaint arises. The company signed-up to the trustmark has made a commitment to work in compliance with the Ecommerce Europe Code of Conduct, guaranteeing ethical standards in the digital marketplace (Ecommerce Europe, 2017a, cited 14.9.2017).

2.4 Marketing mix in green business and E-commerce

When planning a marketing strategy to sell products, it is important for every company to construct a good marketing mix, which usually consists of four “P’s” (product, promotion, price, place). The marketing mix is a foundation model in marketing. Marketer E. Jerome McCarthy came up with the first of the theories for marketing mixes in the late 1940s. Marketing mix has been defined as “a marketing tool that combines a number of components in order to strengthen and solidify a product’s brand and to help sell the product or service” (Marketing mix, Marketing mix definition of the 4P’s and 7P’s 2017, cited 3.8.2017).

There is not much research done on how companies can green their marketing mix. Bradley (2007, cited 30.11.2017) first introduced the concept green marketing mix in the late 1980s, but has modified it since then. The marketing mix can be also used in E-commerce business as a method, for example, in assessing the customer information support (Pogorelova et al. 2016). The E-commerce marketing or digital marketing is an iterative process of continuous improvement and refinement. When planning a digital marketing strategy, it is important to set realistic goals and define the business goals that should be achieved through the digital marketing efforts (Ryan, 2014, 37).

2.4.1 Product

A product refers to an item that satisfies the consumer's needs or wants. Companies have to take time to develop a quality product that is "responsive to the needs of its desired target market. It also has to be relevant, accessible and affordable to their market" (Marketing mix, product, 2017, cited 16.10.2017).

According to Spear (2011, cited 20.7.2017) green products are:

1. Energy efficient, durable and often have low maintenance requirements.
2. Free of ozone depleting chemicals, toxic compounds and don't produce toxic by-products.
3. Often made of recycled materials or content or from renewable and sustainable sources.
4. Obtained from local manufacturers or resources.
5. Biodegradable or easily reused either in part or as a whole.

According to Ottman (2011, 110), companies who want to communicate green benefits to consumers should take into account the following conditions:

1. Consumers will not give up quality or performance in order to secure a greener product. Greener products must perform their intended function first. Environmental benefits are viewed as an added value.
2. Premium pricing needs to be justified through superior performance or another benefit.
3. Claims related to sustainability can be backed up by data or other evidence.
4. The consumer feels that he or she can make a difference by using your product or service.

Prakash (2002) is suggesting six ways that describe how products can be made greener. Products can be considered more environmentally friendly if they are manufactured in the way that they can be

1. Repaired: extend the life of a product by repairing its parts
2. Reconditioned: extend the life of a product by significantly overhauling it
3. Remanufactured: the new product is based on old ones
4. Recycled: products can be reprocessed and converted into raw material to be used in another or the same product

5. Reused: design a product so that it can be used multiple times
6. Reduced: even though the product uses less raw material or generates less disposable waste, it delivers benefits comparable to its former versions or to competing products

(Prakash, 2002)

A good product is the cornerstone of all successful marketing in the digital area, according to Ryan (2014, 34). A sound product is the foundation of a sustainable online business. “A product that delivers tangible benefits and fills a real need in the marketplace – something that leaves the customer with a genuine perception of value – gives marketers the scope they need to do their job effectively”, Ryan says.

2.4.2 Promotion

Promotion as a marketing tool refers to marketing communications. According to Polonsky and Rosenberger (2001), one of the most difficult questions to address within green marketing is: What environmental information should be communicated and how should it be communicated? When providing detailed information to consumers, it is important to find the balance between providing sufficient information to respond consumer needs, without the quantity of information becoming overwhelming. The design and physical appearance of the information can also play a key role in terms of influencing the purchasing decision of consumers. “Labels that present the performance of the product on a comparative scale such as stars, letters or numbers are vastly preferred and are more easily understood and motivating than those that present technical information only”, according to Bio Intelligent Service (2012, cited 30.9.2017). For example the use of scaling system to display environmental information and performance can help consumers to rank and compare environmental performance between products. A scaling system can also facilitate the understanding of environmental impacts. (Bio Intelligent Service, 2012, cited 30.9.2017.)

According to Ottman (2011, 157), companies looking to ensure their credibility for their green marketing claims should ask themselves:

- Are the green marketing claims consistent with the corporate actions (i.e. is our company making claims that are true)

- Is there a transparency about the pollution of products represented as well as their environmental benefits?
- Do consumers know how to use and dispose the products responsibly? In what ways our company can make it easier for consumers to practice responsible consumption and packages.

In the digital marketing, promotion is “everything you do, online and offline, to get your product in front of your prospects, acquire new customers and retain existing ones”, according to Ryan (2014, 35). According to Pogorelova et al. (2016), in E-commerce promotion includes a system of tools, including a website, search engine optimization (SEO), pay per click search advertising (PPC), mobile advertising, social media marketing, customer relationship management and content marketing. The use of these tools aims to involve consumers in the process of communication and promotion to broadcast the messages of the brand. The main elements of digital promotion are presented in the chapter 3 (E-commerce marketing).

Daniel (2011, 81-82) suggests that E-commerce websites should follow a hierarchy. Good E-commerce websites guide their visitors from the home page to a category page, in which all products with a specific category are laid out on the page using a thumbnail view. It is like a preview of all the products in one category using a small thumbnail image per product. “When you click the thumbnail products link or image, you enter into the main product page for that particular product. On the product page the customers will add product to cart before entering the checkout”, says Daniel (2011). The product page will display main product images, description, features, price, add to cart-button etc.

2.4.3 Price

Price refers to the amount a customer pays for a product. According to Victoria Elisabeth (2017, cited 1.9.2017) there are number of factors to consider in pricing the products online. “Once you have researched what your competitor’s prices are for the same products or categories, then you can make an overall assessment to raise, lower or match the prices of your competitors in your store”, says Victoria Elisabeth (2017, cited 1.9.2017). Penetration pricing can be used when entering new markets, where the company can set lower prices than their competitors to attract a market share, and then raise them slowly once they are established.

If the company prefers to use consumer-oriented pricing, it is important to define who are the customers, why would they visit the store and what motivation they have to buy the company products. Performing a competitor analysis and segmenting the customers into behavioural groups will allow the company to see a broader picture of the merchandise and pricing. The pricing strategy should reflect company's product positioning in the market and should be based on the product itself, competitive environment, customer demand and other products that company offers. (Victoria Elisabeth, 2017, cited 1.9.2017.) According to Pogorelova et al. (2016), the price in E-business is highly dynamic and depends on market conditions.

According to Polonsky and Rosenberger (2001) consumers are willing to pay only a small premium for the green goods and expect them to perform just as well as other affordable alternatives.

2.4.4 Place

Place refers to providing customer access including transport, warehousing and logistics. It is the process of moving products from the producer to the intended user. A combination of intermediaries such as distributors, wholesalers and retailers can be involved in the movement. The objective in getting a correct placement is to reach the right target audience at the right time. It should focus on where the business is located, where the target market is placed and how to best connect both of these, as well as how to store the goods in the interim and how to eventually transport them (Cleverism, 2014, Marketing mix, place in Four P's, cited 18.10.2017). According to Pogorelova et al. (2016), the place of sale in E-commerce is a set of interconnected virtual sales channels including a website, a trading platform in the social network and a mobile application.

2.5 LED lighting market – key trends

The LED lightning industry has changed significantly over recent years due to rapid development of LED technologies. The high efficiency and directional nature of LEDs makes them ideal for many industrial uses (U.S. Department of Energy, Energy Saver, Led Lightning, cited 19.10.2017). The light-emitting diode (LED) is one of today's most energy-efficient and rapidly-developing lighting technologies. Quality LED light bulbs are more durable and last longer, and

offer better light quality than other types of lightning. LED lighting is currently available in a wide variety of home and industrial products. The rapid development of LED technology leads to more products and improved manufacturing efficiency, but this also results in lower prices. (U.S. Department of Energy, cited 19.10.2017.)

According to Frost & Sullivan (2015, cited 20.9.2017) “the LED revolution” is driven by Europe, North America and China. LED replacement lamps are already at a price point that challenge the traditional technologies and will take over that market completely by 2020. New markets for services and solution designs are opening up, but require good contacts and customer knowledge, which might favor local companies above global ones. The LED replacement lamp is the winner in the medium term, but in the longer term “the entire market for replacement lamps is doomed as next-generation fixtures will not have a lamp socket”, according to Frost & Sullivan. (2015, cited 20.9.2017.) The Lightning as a Service (LaaS) on cloud-based networks for efficient and personalized management of applications will pave the way for connected lightning and living, and it will also improve the energy and facility management. Other service models, which will evolve around LaaS are financing, leasing and maintenance. Future trends in terms of business models include leasing-type models and ‘pay-as-you-use’ services. Uptake for lease-type services is expected to be faster in the industrial and public sectors. (Frost & Sullivan, 2015, cited 20.9.2017.)

Nowadays there is a growing need for energy-efficient, sustainable lightning and smart control solutions. Due to significant development and innovation in wireless technologies such as Bluetooth, Wi-Fi, Li-Fi, etc., majority of upcoming smart lighting systems are expected to be wireless controlled, hence the market for wireless smart systems lighting market is anticipated to grow at the compound annual growth rate of 23%. (Led Professional, cited 25.10.2017.) The wireless smart lighting market is expected to expand its presence in residential buildings, owing to the growing demand of wireless smart lighting systems for home automation and building automation.

Environmental benefits of LEDs

The U.S. Energy Department funded study reveal that LED’s have less negative environmental impacts than incandescent bulbs and a slight edge over CFL’s (compact fluorescent). The study evaluated not only the use of lamps but also the manufacturing, transport and disposal of LED,

CFL, and incandescent lamps throughout each product lifecycle. LEDs use less energy than CFL's, which is a primary factor in determining the overall environmental impact. (U.S. Department of Energy, Office of Energy efficiency & Renewable energy, 2013, cited 19.10.2018.) LED lights are anticipated to remain in trend for a long time and there is nearly zero probability of a phase out or ban on this lighting technology since the amount of hazardous chemicals in it are negligible (Led Professional, cited 25.10.2017).

3 E-COMMERCE MARKETING

Electronic commerce (E-commerce) is the marketing, buying and selling of merchandise or services over the Internet (Technopedia, 2017, cited 14.12.2017). According to Daniel (2010, 1) a website needs traffic (customers) and conversions (sales). It is essential to first determine the target audience and build a relationship by communicating and offering customers valuable information by the means of front-end (acquisition) and back-end (after the sale is made) marketing. Front-end marketing is the process of acquiring new customers by employing different strategies and tools such as social media marketing (through sites such as Facebook, Twitter, Pinterest and so on), email marketing (newsletters), SEO (Search Engine Optimization), Pay per click search advertising (PPC offers a paid way to the search results pages for chosen keywords or key phrases), customer relationship marketing, content marketing and Google product search etc. (Daniel, 2010, 172.) Back-end marketing is important for long-term business growth and for the success of E-commerce sales (Daniel, 2010, 190). Back-end marketing strategies may include personalized email newsletters to new and existing customers or Real Simple Syndication (RSS), which is a way of delivering different site content such as blog posts, best selling products and new arrivals to customers via a RSS reader. When the new content is added, it is automatically sent to RSS subscribers.

According to Ryan (2014) the process of defining a digital marketing strategy is about researching, analyzing and understanding business, competition and customers. In Finland the E-commerce sales reached 7.2 billion euros in 2015, which means that there has been a 9.6% E-commerce growth (Ecommerce Europe, 2017b, cited 13.12.2017). More and more Finnish online customers use their mobile phone or tablet in their online shopping. In 2017 more than one third (40 percent) of Finns have purchased goods or services via smartphone or tablet within past three months. This requires from businesses that they must be able to deliver “a web shop optimized for users of mobile devices” (Paytrail, 2017, cited 13.12.2017). In regard to Finnish online purchasing habits, payment through online banking is by far the most popular choice. This is because online banking is still perceived as the fastest and easiest payment method.

E-commerce benefits and risks

E-commerce allows any business to customize its marketing messages to different customer groups. By capturing customer's contact information from emails and contact forms, businesses can easily send out automated and customized emails. E-commerce also allows businesses to sell their products across the world, increase their sells through client reviews and product ratings, attract new customers with search engine visibility, track logistics and in general decrease different costs (advertising and marketing, personnel and travel costs). When conventional physical retail is focused on stocking fast-moving goods, E-commerce permits slow-moving products to be included in the catalogue.

E-commerce has its disadvantages as well. Perhaps the greatest concerns involve security, privacy and legal issues, such as lack of adequate security for online-transactions, sensitive information leaking, hacking or credit card frauds. Ensuring the security of data is of crucial importance to customers and to the credibility of the business. There are multiple ways for protecting E-commerce business and sensitive customer data. A secure connection for online checkout and for entire site, Secure Sockets Layer (SSL certifications) authentication for Web and data protection, prevents from fraudulent transactions by comparing addresses with the credit card company. SSL creates an encrypted connection between the server and a user's browser. A SSL is highly recommended even if the site has an off-site payment processor such as PayPal. Sensitive customer data (credit card numbers, expiration dates) should not be stored in the database. An address verification system (AVS) and card verification system (CVV) for credit card transactions are important tools for reducing fraudulent charges. WordPress and WooCommerce have their own inbuilt security measures. WooCommerce is an open source e-commerce platform and plugin for WordPress. However, there are additional measures, which are good to be taken into account:

- WordPress hosting should be chosen on the basis of the security measures it has to offer, such as up-to-date server software using the most recent versions of PHP and reviews of different security threats (WordPress bugs, plugin exploits etc.)
- WordPress plugins and themes should always be kept updated
- WordPress security plugin, such as iThemes Security Pro, prevents WordPress hacks and malware by offering strong password enforcement, file change detection, database backups and email notifications

4 METHODOLOGY

The purpose of this thesis is to understand and explore how the case company can create a competitive advantage through its green marketing and marketing mix (place, price, promotion and product), as well as to understand what environmental information should be communicated and how it should be presented. To fulfill such a purpose and to support the designing of new company website, it is necessary to have detailed knowledge about the company. To go deeper with the company's customer targeting, green marketing focus and competitive advantage, the questionnaire was used to collect relevant data. In order to gather more in-depth answers from the company, open-ended questions were used to allow the respondents to express what they think in their own words. The strength of this method is that the research can obtain more details and discussion about the questions and find out why a respondent holds a certain attitude or opinion.

For designing and implementing a new website and web shop for the case company, a website benchmarking was performed on competitors' sites that have similar kind of features from a marketing and design perspectives, and are targeting products or services to similar markets. Regarding the marketing, the author tried to identify different marketing strategies (i.e. sales and customer support, social media marketing, personalization). Regarding the design and usability, attention was paid to websites' web shop elements, for example, if there are any particular features that are likely to be valued by their users and understand how their site facilitates the buying process. Regarding the design elements, the author observed the use of graphics, color schemes and layouts appropriate to their brand and positioning.

4.1 Case-company background

CompanyX is a Finnish SME company, which was founded in 2014 and is located in Kempele, Finland. The company's primary business area is within LED lighting products and services. Customers range from large and medium-sized industrial businesses and organizations to public sector and private consumers located in different areas of Finland, but mainly in the Ostrobothnia region in Western Finland. CompanyX is specialized in energy-efficient and eco-friendly LED-lightning products and turn-key lightning solutions for industry, road and other outdoor area lightning purposes. In future, the company aims to reach more customers and expand its business activities to country level by increasing its product sales through online E-commerce business to private customers and expanding its operating environment and product sales towards heating systems and smart control solutions for intelligent LED-lightning. Getting an own E-commerce platform enables them also to have direct interaction with customers. As the company's marketing strategy must be planned to include a large target audience, it is important to understand who are the target customers and what are their needs.

4.2 Data collection and analysis

Questionnaire was used in order to get in-depth questions answered. Furthermore, to get the overview of the case company's current business activities, products, customers and market situation, the author conducted a business plan including SWOT analysis about the case company. When searching for general information about the company and LED lightning industry, market and competition conditions in Finland, secondary data was collected mainly with the help of the Internet. The overview of the company background and product groups is collected from the current website of CompanyX.

The purpose of the author is to retrieve information from the questionnaire and SWOT analysis in order to answer to the research questions, how the company can create a competitive advantage through its green marketing and marketing mix, what environmental information should be communicated and how it should be communicated. The data was collected also to help the

author to understand which aspects of the marketing mix are green. From the results the author can suggest different ways to green the marketing mix. Furthermore the author is able to harness the ideas and requirements of the company stakeholders and translate them into a dynamic website designed to meet the needs of CompanyX.

5 WEBSITE

The aim of this thesis is to design and implement a website with a business-to-consumer (B2C) type of E-commerce online store for the case company. A website which allows customers to purchase and review products and a website which allows the case company to achieve its targets for achieving new customer groups, advertise its green products and differentiate from competitors through business adapted marketing mix. Another objective is to create a website using a content management system WordPress so that the case company owners can update the site and product pages themselves. The website project is executed in three different phases. In the first phase, company requirements are gathered to get an idea what the case company wants as a final deliverable. In the second phase the key elements of an E-commerce website are identified and the web shop pages are designed and created accordingly. In the final phase the website page structure, the navigation menu, content and pages are implemented according to the company requirements, SWOT-analysis and website benchmarking results.

5.1 First phase – planning and requirement

For properly defining the design goals of a website, it is essential to know the wishes and desires of the project stakeholders. The main features of the proposed website as requested by the case company of this thesis were the following:

- a) Simplicity and professional design: clarity in design, appropriate color scheme (yellow and green) to company's eco-friendly brand and accessibility to main features from front-page menu including to web shop pages
- b) Easy navigation and product menus: a simple search box that scans products for matching keywords. The header navigation bar with a "Shop" link to a page with all product categories listed on one page.
- c) Product promotions on the product page left hand column, for example, new arrivals, sale items etc.
- d) Footer Links providing access to contact details, sales conditions, search box and newsletter.
- e) Fixed number of pages: the company required six pages:

- A home page featuring a company logo, header navigation bar with a drop down menu and main advertisement area with product categories and access to webshop products (figures 1 and 2)
- A products page containing the web shop and presenting each product category with short description placed underneath the product name and price
- A gallery page presenting pictures from company business activities and customer references (an image slider will be introduced later).
- An information page containing files about LED-lights, product buying and customer support, shipping, logistics and returns. Information page could also include security, privacy policy, technical guides and FAQ (Frequently asked questions)
- A current affairs page with information about company news and newsletters
- A contact page including a contact form for feedback and location of the company

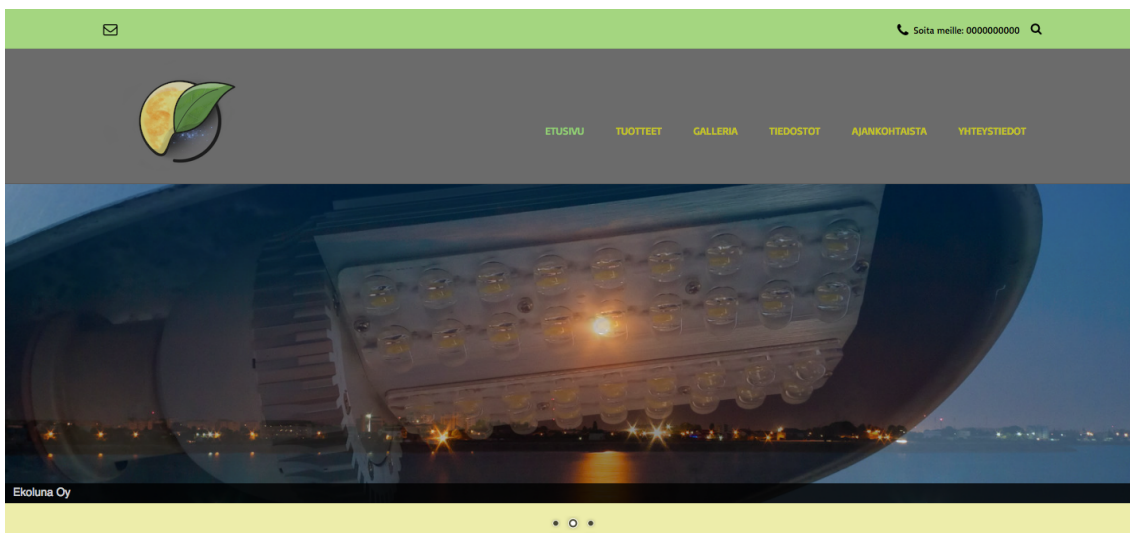


FIGURE 1. A home page with main menu and image slider

✉
☎ Soita meille: 0000000000 🔍

ETUSIVU
TUOTTEET
GALLERIA
TIEDOSTOT
AJANKOHTAISTA
YHTEYSTIEDOT

• • • ○

CompanyX on älykkäiden valaistusratkaisujen kehittäjä ja toteuttaja

CompanyX räätälöi led-valaistustuotteita ja -ratkaisuja sekä ammattilaisille että kuluttajille. Tarjoamme asiakkaillemme käyttötarkoitukseen sopivia tuotteita (LED-lamput ja valaisimet) ja asennuspalveluja. Asiakkaitamme ovat suuret ja keski- ja pienyritykset...

Hyvä asiakaspalvelumme perustuu vankkaan LED-valaistuksen ja kestäväin suunnittelun osaamiseen....

Tarjoamme energiatehokkaita ratkaisuja:

Laajan tuotevalikoiman

Asiakaan käyttötarkoitukseen sopivia tuotteita

Asennuspalveluja ilman ylläpitokustannuksia

Kestäviä ratkaisuja eri käyttökohteisiin

Tuoteryhmät

LED-polttimot

I am text block. Click edit button to change this text. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ut elit tellus, luctus nec ullamcorper mattis, pulvinar dapibus leo. More

Lisätietoa

Valaisimet

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Lisätietoa

Muut tuotteet

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Lisätietoa

Palvelut

COMPANYX

Osoite:
Puhelin:
Sähköposti:

KÄYTTÖEHDOT

Käyttöehdot
Yksityisyyden suoja

ANNA HAKUSANA TAI TUOTENUMERO...

Search & hit enter...

UUTISKIRJE

Tilaa uutiskirjeemme

Vogue theme, by Käira
✉

FIGURE 2. A home page with main advertisement area and product categories linked to webshop

f) Webshop mandatory features:

- A shop home page with main and featured products categories
- A category product page: all products within this specific category are laid out on the page using a thumbnail view. This is like a preview of all of the products with a short description, price and “add to cart” or “view more” –button. When clicking the thumbnail products link or image, a visitor enters into the main product page for the particular product. Medium sized images (so called Catalog images, 300 x 300 px) are used on the product category page.
- A product page with a general description of product features, variations and a link to “add product to cart” before entering the checkout.

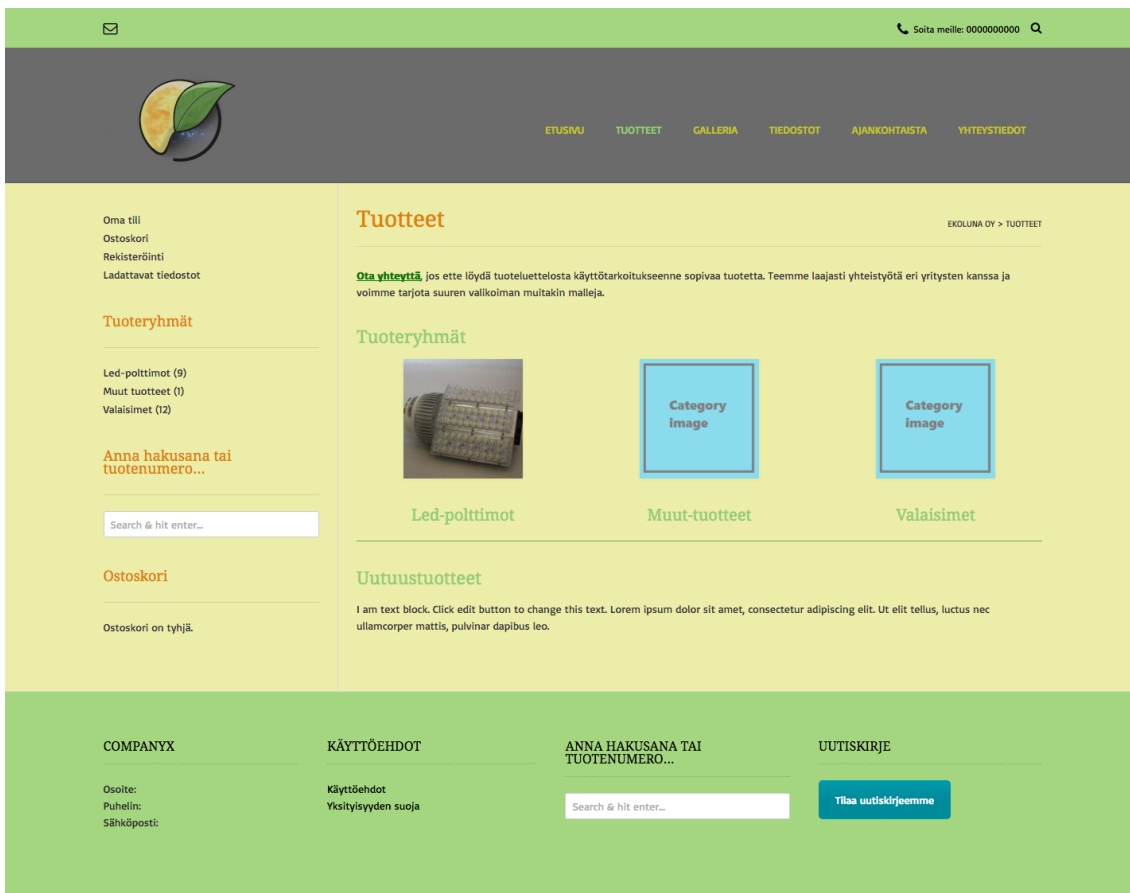


FIGURE 3. A shop home page with main product categories

5.2 Second phase – key elements of E-commerce

To build and launch a successful E-commerce website there are many elements and skills that have to be taken into account. Daniel (2011, 16-17) has defined 3F-strategy (fast, functional, familiar) for a successful E-commerce site design. According to this strategy the website should have fast and reliable hosting, fast site load speed (maximum 5 seconds per page), compressed and fast images, fast and efficient ordering, fast checkout with as few steps as possible and fast security (SSL Certificate). Secondly, the website should have functional features such as clean and easy to read text, graphics and navigational buttons. Thirdly, it is important for customers to feel comfortable on the website, which has to do with the chosen layout, structure and usability. To get a clear and user-friendly site, at least the following elements were included and applied to the design of the case company webshop:

- Easy to use design and customer-friendly layout and structure. Webshop follows a tier product hierarchy (home page, category page and product page). The case company has three main product categories always visible on the primary menu and seven sub-categories displayed beneath them as drop-down menu. The product information on the product page is detailed and yet concisely displayed using WEN Responsive Columns - WordPress plugin. The most important product features are listed first and a drop-down selection is used to display the variable products with three different attributes. Each product includes a short and general description.
- Common navigation bar and obvious buttons. All pages on the website are connected by button, graphic or text links. The shape, color and wording on the links are chosen to blend with the website ecofriendly design elements.
- Product sort and bulk discount feature through WooCommerce Bulk Discount –plugin. WooCommerce has flexible options to handle not only products, but also stock and accounting.
- Stock keeping units (SKU) for each product and product variations. SKU is also linked with WooCommerce product settings
- Left product menu on the product pages
- Header and footer: the Vogue theme offers five possible footer layouts and four header layouts. The advanced custom footer layout is used to optimize the footer color settings and column widths, and the footer has four different content themes (company contact details, terms and conditions agreement, search box and newsletter subscription). There

are two different headers supported in the theme customization. Header standard layout is used with the top bar, which contains a search box and an email button.

- Clear text with headlines and sub-headlines
- Individual customer account log-in area for checking orders, arranging returns, updating personal details, leaving product reviews and managing subscriptions.

5.2.1 WordPress

WordPress is open-source software originally used for online blogging, but later it has developed to be a full content management system based on PHP and MySQL (About WordPress, 2017). WordPress provides two different services. WordPress.org website provides a software package, which supports WordPress software download and installation to a local computer and gives user unlimited power of customization including a plugin architecture and a template system. Wordpress.com website provides also domain name, hosting service and WordPress-based blog. According to W3Techs' survey (Web Technology Surveys, 2017), WordPress was used by 29,2% of all websites in 2017, up from 5,6 % eight years ago. In this thesis, WordPress is used as web software and not as a service provider.

5.2.2 Selecting a WordPress theme

The next phase after WordPress installation was to find a suitable WordPress theme for defining the layout and appearance of the website. There are many free and paid Premium themes available for WordPress, which are provided by various companies and web developers. Themes are available on wordpress.org website. It is important to choose a right theme to complement the content and style of the website. "The theme is the face of your WordPress site and plays an important role in how users as well as search engines perceive it" (WPbeginner, 2017, cited 30.11.2017). At the beginning of this project a free version of the theme called Vogue by Kaira was selected for the case company website, because its design layout was well corresponding to the company design and functional requirements. Vogue is a multipurpose WordPress theme, which integrates perfectly with different E-commerce platforms like WooCommerce, and it is fully responsive, fast loading and ready for all devices.

After the theme installation and activation, the theme settings were adapted to requirements using the theme customizer under the appearance panel. The Vogue theme allows user to choose between multiple header and footer layouts. Yet, as some of the free version configurations do not allow change settings, for example, to site layout, header, home page slider, footer and social links, the case company decided to purchase the premium version of Vogue with multiple extra layout customization settings and paid services (support and documentation).

The author first customized the Vogue theme via built-in options, for instance by using theme settings for site layout, (header, adding widgets and using drop-down menus), layout colors, font settings, and by adding widgets to sidebar and shortcodes through My Own CSS. After that the theme was further personalized by using a website builder called Visual Composer. The Visual Composer files were added to the plugins folder via FTP (File Transfer Protocol) access on the website.

5.2.3 Choosing E-commerce software

When selecting E-commerce software for the online business, there are three important things that should be first considered:

- What is the budget for the webshop?
- What are the products?
- What features are requested from an online store?

Businesses have different needs for E-commerce software based on their budget, products and other factors (BusinessNewsDaily, 2017, cited 2017). In this project WooCommerce was used as self-hosted E-commerce platform, because it is completely compatible with WordPress and can convert any theme, free or premium (paid) to E-commerce platform. WooCommerce is completely free to download and install, and it is highly customizable in look, feel and function. It is a good choice for any small E-commerce entity, because it offers both basic and advanced features to help companies to launch, manage and grow the E-commerce business. The extensions and widgets offered by WordPress offer a wide range of customization options, such as personalized

deliveries, PDF invoices, custom product and order numbers, Google Analytics, and the ability to incorporate affiliate programs into the platform.

5.2.4 Product pages

The product presentation is crucial for a successful E-commerce website. The author has to decide how many products will be laid out on the product page and what fields, attributes and options are needed per product. The product description should be laid out on the page in a structured and clear way so that the items can be found quickly and intuitively (Daniel, 2011, 106). In this project the following elements of product layout template are used in single product page (Figure 4):

- High quality images are used for the main and supplementary product images
- The main single product image is placed to the left side with the ability to view more related images. Product thumbnail images (180 x 180 px) are used underneath the main single product image (600 x 600 px), which is the largest image on the individual product details page. These supplementary images enhance the main product description and attributes.
- Product name, image, price and attributes are placed to right of image
- Short description is placed underneath the product name and price
- Alt-text (alternative text) is used on all images. In WooCommerce Alt-text information can be automatically extracted from the product name field and display the text with each image.
- Add to Cart (Add to Basket) box is placed to right of image
- The main product description with heading is positioned underneath the main image and “Add to Cart” box using WEN Responsive Column -WordPress plugin
- Details regarding the shipping (total cost or bulk discount), price, availability etc. supplementary but essential information is placed below the image and above the main description
- Every shop page is displayed with a sidebar on the right side of the main content. There are many sidebar widgets offered by WooCommerce and WordPress, but only the most important widgets are used, such as product categories list, products on sale, search box and “Add to Cart” –box.

Soita meille: 000000000

ETUSIVU TUOTTEET GALLERIA TIEDOSTOT AJANKOHTAISTA YHTEYSTIEDOT

ETUSIVU / LED-POLTTIMOT / HALLIVALOT / KW-LA-A

KW-LA-A

100,00 €

Wattimäärä VALITSE

Valon väri VALITSE

Kanta VALITSE

1 + - Lisää ostoskoriin

tuotenummus (SKU) 0024 Osasto: Hallivalot

Kuvaus

Lisätiedot

Arviot (0)

Kuvaus

Typpi: KW-LA-A
 Hyötysuhde: >87 %
 Käyttöjännite: AC100-240V/DC12V/24V
 Taajuus: 50Hz-60Hz
 Tehokerroin: >0.95
 Materiaali: Aluminiseos
 Valon väri: lämmin, neutraali tai kylmä
 Valon määrä: 2400-2640 lm
 Värintoistokyky: ≥ 80
 Käyttöikä: ≥ 50,000 h
 Mitat: 265*105mm
 Valokeila: 360°
 IP luokka: IP60
 Käyttölämpötila: -40°C - 50°C
 Paino: 1.35kg

Tutustu myös

CLD

Lue Lisää

KW-LC

Lue Lisää

CLC

Lue Lisää

CLE

Lue Lisää

COMPANYX

Osoite:
Puhelin:
Sähköposti:

KÄYTTÖEHDOT

Käyttöehdot
Yksityisyyden suoja

ANNA HAKUSANA TAI TUOTENUMERO...

Search & hit enter...

UUTISKIRJE

Tilaa uutiskirjeemme

Vogue theme, by Kaina
✉

FIGURE 4. A single product page (CompanyX)

30

5.3 Third phase – implementation

The main idea in this phase is to implement the website according to the company requirements and to the results of website benchmarking (competitor analysis), which the author performed mainly from marketing and design perspectives on competitors' sites, which are targeting products or services to similar markets.

5.3.1 Identify customers and competitors (SWOT analysis)

Before starting an E-commerce website, it is crucial to obtain information about important competitors of the market and to use that information to predict the competitor behavior. The goal of the competitor analysis is to understand which competitors to compete against and to go head-to-head with (Daniel, 2011). Through this analysis it is possible to determine the strengths and weaknesses of the competitors and their strategies. In comparing the competitor's websites, the author used the following questions among others:

- How are the competitor websites from design and marketing perspectives?
- What products, features and services do they offer?
- What is that competitive edge or Unique Selling Proposition (USP), where the case company can excel compared to its competitors?

By conducting a SWOT analysis of the case company as a part of the business plan, the author is able to get an overview of its current business activities, products, customers and market situation. The SWOT is a technique, which business owners can use to analyze their businesses in relation to their competitors and the marketplace as a whole. SWOT stands for Strengths, Weaknesses, Opportunities and Threats.

TABLE 1. a SWOT analysis on LED-lightning business (CompanyX)

<p>Strengths</p> <ul style="list-style-type: none"> • Personalization of LED-lightning products. CompanyX tailors and customizes its products and services to meet the needs and desires of each customer group and individual customer. • Ecology. CompanyX emphasizes sustainable principles and ecological products in its business. Information on the product life cycle product materials, waste and recycling is provided on the company website. • Safety. Products are approved and manufactured according to standards. • CompanyX also offers its own safety control with measuring instruments. • Turn-key solutions • Easy navigation (online store) • Simple design (online store) 	<p>Weaknesses</p> <ul style="list-style-type: none"> • No existing customer database • No web-design expertise • No product eco-labelling • Limited marketing resources
<p>Opportunities</p> <ul style="list-style-type: none"> • Growing LED-market • New customer groups through new products and online sales. With new product groups such as household lightning control systems, it is possible to reach new customer groups and increase product supply by combining heating and lighting solutions. • It is also possible to speed up sales by using different target market strategies to different target groups. 	<p>Threats</p> <ul style="list-style-type: none"> • Supply of product in regard to rapid technological development and change in market demand for LED-products (lightning control systems) • Significant competitors are entering the niche market • Google is ranking the top brands for all searches

5.3.2 Website benchmarking

The website benchmarking was performed on competitors' sites, which are targeting products or services to similar markets from marketing and design perspectives. Regarding the design elements, the author observed the use of graphics, color schemes and layouts appropriate to their brand and positioning. Selling eco-friendly products like LED-lamps, companies tend to use dark green, red or black, and white background as a foundation to dark colors on their websites. It is apparent that they also prefer a clean, almost neutral design, with one or two accent colors. An important feature of graphics is that it blends nicely with the website design and text. High-quality images are more used for the home page images and thumbnails (smaller preview type images) for the product category pages, detailing the products in this particular category.

From a marketing perspective, the author observed the use of following marketing strategies on competitors' websites:

- Sales and customer support is usually offered to customer before and after the sale by email, phone and contact form
- Money back guarantees are generally highlighted and product warranty period is established for each product to build customer trust
- Product return and refund (process and policies): timelines, logistics and return costs are defined and included in the terms and conditions agreement. It usually specifies how many days the customer has to return a product, how will the customer receive the refund and who pays for shipping to return the product.
- Shipping options: shipping companies and price tariffs are listed on the instruction page and/or in the terms and conditions agreement
- Shipping costs: most of the companies offer free costs of orders above a specific price and/or use bulk shipping discounts
- Payment methods are displayed at the bottom of footer and are visible on all webshop pages.
- Email newsletter is used to stay in contact with new and existing customers and keep them informed about new products, services and special offers. A subscription box or a

sign-up form is usually positioned on the home page either on the sidebar or by displaying a link in the footer.

- Existing customer loyalty discount code: companies offer this kind of codes by enclosing them in the customer order
- Social media marketing: Facebook, LinkedIn and Instagram are the most used social network accounts for marketing purposes. Posted comments are related to everyday business events, new offers and products and giving links to other interesting and related things. Pictures are related to new customer references and new LED-lightning solutions etc. The majority of the companies post comments in multiple languages. The most common languages are Finnish, English and Swedish.
- Personalization: companies use promotional emails, which are tailored for distinct customer groups, and offer customized solutions and free of charge lightning plans to meet customer's specifications.
- Trust logos and ecolabels are used on most competitor's E-commerce sites, such as "Luotettavaa toimintaa", "Luotettava kumppani", "Made in Finland", (Finnish trustmarks) and "Ecommerce Europe" (European trustmark), to build customers credibility.
- Areas for marketing and promotional elements are usually positioned on the main navigation bars as regular links or in the center container on the homepage. The promotional information is generally short and small in height and positioned in square edge boxes, and clean and not too overpowering colors are more used. The commercial messages are such as: "Order a free lightning plan", "Uploaded new arrivals to website, many with 30% discounts" or "Get free delivery" etc.

6 RESULTS

This chapter examines the outcomes of the research obtained through questionnaire and company business plan. Both results are analysed together first by identifying what are the customer groups and what green marketing strategy (objectives) CompanyX is currently using. Thereafter the author presents the findings of how CompanyX wants to green its marketing mix, how to emphasize its environmental friendly business practices in its marketing and how to differentiate themselves from competitors.

Customers and market trends

The main customers groups are mainly domestic industrial companies and public sector, but also private customers, businesses and different organizations. Physical product sales account is currently about 90 percent of total sales, but in future the CompanyX wants to increase its sales revenues through the E-commerce. Different factors influence to customers' buying behavior. Private customers tend to find more information about suitable products for their homes and buy more individual products for smart energy-efficient lightning and control systems. Public sector and industrial companies are more schematic in terms of price and product content. As an added value they are looking for time saving solutions and more complementary products (industrial Led lights, street lights for public lightning etc.) and efficient services (installation, complementary and customized products or services). For them also the image, ethics and environmental policy of a company (ecological principles and product LCA) are important factors in the final purchase decision. According to Frost & Sullivan (2015, cited 20.9.2017), an uptake for lease-type services is expected to be faster in the industrial and public sectors.

The general trend in the lighting industry is that the proportion of LED lighting is increasing. The lighting industry has been quite unchanged for decades, but an unprecedented change is taking place, as a result of which the proportion of lamps is decreasing and the proportion of luminaires in the market is increasing. The new luminaires are almost invariably selected with LED light sources that last for years and many times do not need to be replaced before the entire luminaire is replaced. With the new trend, attention needs to be paid to changes in demand (intelligent

lightning technology through connected devices such as smart phones and remote controls) and to further develop tailor-made products such as modern LED bulbs for old luminaires.

Environmental objectives

Environmental objectives are the overall aims that any business sets itself to improve its environmental performance. The CompanyX owners were asked if they are taking into account the following aspects as part of their environmental objectives:

- products' environmental impacts in materials manufacture, product distribution, use and disposal phases
- products' energy efficiency and green packaging
- communication with stakeholders and manufacturer

Regarding the environmental impacts CompanyX answered that their products are energy-efficient, recyclable and many of them have a longer product life cycle, because they do not have to be replaced as often. This is good for the environment because it decreases the amount of transports and overall energy consumption. The products have eco-friendly packaging made from recyclable materials safe for individuals and the environment. The products are generally ordered in bigger quantities at a time from the manufacturer. CompanyX finds it important to communicate and collaborate with different stakeholders and product manufacturers in order to gain information about the product development.

Competitors

It is crucial to know the competitors, their products and their way of working in order to understand what segment of the marketplace they are targeting and what type of customers they are looking to attract. An entrepreneur should be able to focus on a specific area of the marketplace that is not being served by any other competitor. By finding a specific product to a specified target market, an entrepreneur can gain more pricing freedom and get better results. It is also useful to track competitors' advertising and sales promotion to understand how much and how often they advertise, as well as what and how they advertise.

When it comes to the question how are the competitors' products and services in comparison to those of CompanyX, it seems from the marketing perspective that there is an increasing focus on web-based intelligent lightning and control systems. Lightning solutions are sold to customers as monthly service packages, which include design, delivery and maintenance. Different products have several quality marks, ecolabels or trust logos. They are used on most competitor's E-commerce sites, such as "Luotettavaa toimintaa", "Made in Finland"- key flag symbol and "Ecommerce Europe" (European trustmark). One of the most common certification marks on the competitors' websites is the CE mark, which ensures that the products have met the EU consumer safety, the health and the environmental requirements set by the European Union.

Marketing mix (product, promotion, price, place)

As the theory suggests, company's marketing strategy must be planned to include a large target audience. Therefore it is important to understand who are the target customers, what do they want and what are their needs. At the same time, if a company wants to green its business, it should be able to adjust its products to address customers' environmental concerns. Furthermore, a company should develop green products that give the company a competitive advantage. Prakash (2002) suggest six ways that describe how products can be made greener. The products should be able to be repaired, reconditioned, remanufactured, reused, recycled and reduced. The case of CompanyX shows that its products do not have all of these characteristics (repaired, reused or reconditioned), but they can still be considered green products. CompanyX's primary business area is within LED lightning (Led bulbs, luminaires, security measurements with Secutest instruments, Led bulbs for old luminaires etc.), but in future the company aims to reach more customers and expand its business activities to country level by increasing its product sales and competitive advantage through online E-commerce to private customers and by expanding its operating environment and product sales towards eco-friendly heating control systems and smart home lightning solutions.

Promotion as a marketing tool refers to marketing communications. According to Ottman (2011, 157), companies looking to ensure their credibility for their green marketing claims should ask themselves whether their green marketing claims are consistent with the corporate actions (i.e. if all the claims are true). They should ask also if they are being transparent about the pollution of the products as well as their environmental benefits. And do consumers know how to use and

dispose the products responsibly? The case of CompanyX shows that the new website will be used as a primary platform to promote products and publish all the activities including green initiatives and achievements, as well as product information. In order to reach new business and personal customers, CompanyX will focus on promoting through the Internet (e-mail campaigns, homepage advertising). Promoting through the Internet is also perceived as more environmental friendly than print media advertising.

According to Victoria Elisabeth (2017, cited 1.9.2017) the pricing strategy should reflect company's product positioning in the market and should be based on the product itself, competitive environment, customer demand and other products that company offers. Regarding the product pricing strategy, CompanyX was asked what value or benefit does it offer to different customer groups, and how is their pricing policy. Based on the responses it seems that CompanyX wants to provide extra value in the form of high-quality, improved performance and energy-saving products, and create savings for all customer groups. Their pricing strategy is based on the size of order and in some cases package prices are used for different combinations.

The case company of this thesis, CompanyX, is located in Kempele, which is a municipality situated next to the city of Oulu in Northern Finland. The city of Oulu has one of the largest universities in Finland and is known for its intelligence in information and communication technology. As there are plenty of companies providing Led lightning solutions and latest technology in intelligent lightning and home control systems in the area of Oulu, it is important for a SME like CompanyX to find not only the correct products and pricing strategies for different customer groups, but also to access the right distribution channels in order to create competitive advantage. Regarding the placement as a marketing tool and the question about what product distribution channels the company is using, CompanyX answered that they are selling directly to customers without distributors, retailers or wholesalers. According to Hopwood (2016) one of the benefits of the direct-to-consumer sales model is that it gives companies an opportunity to build their brand relationship with customers and acquire customer behavior data. When selling directly to customers, it is also easier to tailor personalized shopping experiences to them.

7 CONCLUSION

The case company of this thesis, CompanyX, has ever since its foundation in 2014 been seeking new business opportunities in the area of industrial LED-lighting and is currently expanding its operation to heating systems and smart control solutions for lightning. There is a growing need for energy-efficient, sustainable intelligent lightning and smart control solutions in the LED lightning market. Physical product sales account is currently about 90 percent of total sales, but in future CompanyX wants to increase its sales revenues through the E-commerce. Online sales will be directed at domestic markets, but orders will also be delivered abroad. For this purpose, CompanyX should translate its WordPress site in multiple languages, at least into English and Swedish. The most popular tool for creating a multilingual WordPress site is the WPML (The WordPress Multilingual plugin). Customers are mostly large and medium-sized industrial companies and the public sector, but also private consumers.

As the theory suggests, a sustainable business is “any organization that participates in environmentally friendly or green activities to ensure that all processes, products, and manufacturing activities adequately address current environmental concerns while maintaining a profit” (Miryala et al. 2016, cited 20.10.2017). The key for improving company’s green image and building consumers’ trust is to increase transparency about the pollution of the products as well as their environmental benefits. According to Ottman (2011) “there is not such thing as a truly green product, because every product, no matter how thoughtfully designed, uses resources and creates waste. Therefore green is a relative term with some products being greener for certain reasons or in certain circumstances” (Ottman, 2011, 57).

The results from the interviews and SWOT analysis show that CompanyX is able to increase revenues and competitive advantage by improving its marketing strategy and greenness in business activities. The marketing strategy can be improved, for instance, through personalized promotional newsletters, which are tailored for distinct customer groups and include customized solutions to meet customers’ specifications. Furthermore, it seems that by greening the marketing mix (product, promotion, price, place) CompanyX is able to improve the customers’ perception of the company. The interest for doing this is that there are other actors in the LED lightning industry, which are also highly competitive green companies. The company believes that it is capable of competing with its competitors by developing a service model, which tailors products

and services to customers without maintenance or monthly fees. Through this service model the company is also able to increase its competitive advantage.

When assessing the products' environmental impacts and communicating those impacts to customers, eco-labeling is one of the tools for helping consumers to make more sustainable choices. Eco-labels identify products or services proven environmentally preferable overall within a specific product or service category (Global Ecolabelling Network 2017, cited 17.7.2017). Different eco-labels and energy-efficiency labels for energy-using products can give customers precise information on the energy consumption of the product. Another way for improving products' transparency and reliability is to perform a LCA (Life cycle assessment). LCA is a factual analysis of a product's entire life cycle in terms of sustainability and products' environmental impacts. The results from the website benchmarking show that trust logos and ecolabels are used on most competitor's E-commerce sites, such as "Luotettavaa toimintaa", "Luotettava kumppani", "Made in Finland", (Finnish trustmarks) and "Ecommerce Europe" (European trustmark), to build customers credibility.

The website project was executed in three different phases. In the first phase, company requirements were gathered to get an idea what the case company wants as a final deliverable. In the second phase the key elements of an E-commerce website were identified and the web shop pages were designed and created accordingly. In the final phase the website page structure, the navigation menu, content and pages were implemented according to the company requirements, SWOT-analysis and website benchmarking results. As a conclusion it can be stated that the gathering of requirements has a very important role in the successful implementation of the website developing project. The requirements were continuously collected and refined throughout the project through regular online meetings with CompanyX members during the 2016-2017.

8 DISCUSSION

The main objective of this thesis is to design a completely new, visually attractive, responsive website, which supports company's brand and helps the company to improve its competitive position nationally. Along with the main objective the purpose of this thesis is to increase the understanding and provide guidelines of how the company can create a competitive advantage through its green marketing and marketing mix (place, price, promotion and product), as well as to understand what environmental information should be communicated and how it should be presented. To get an overview of the case company's current business activities, products, customers and market situation, a questionnaire was used and a business plan was conducted including a SWOT analysis on company's LED-lightning business. When searching for general information about the competing companies and LED lightning industry, market and competition conditions in Finland, also secondary data was collected from the Internet.

The results to the questions on the environmental objectives and environment impact of products show that CompanyX has the understanding of what it means to be green in the LED lightning industry. However, the fact that most of the empirical findings are collected from the case company owners, it is difficult to assess how accurate their claims are. Therefore, a similar or comparative research on a different company or a competitor might provide more suggestions to the issues of this thesis. It would also enable to get a wider picture of how to achieve a competitive advantage by greening the marketing mix.

The findings of this thesis can be used as advice to the case company in choosing a suitable green and e-commerce marketing strategy. For enhancing the public image as a company with green business, it is recommended that CompanyX creates a tailored marketing strategy to its different customer groups and allocates resources for further developing its E-commerce business, website and marketing. One of the efficient ways to get new customers and keep old customers visiting the website, is to offer opening discounts and to send tailored newsletters to current customers. Social media marketing is also a cost-effective way for reaching new customers, for posting product recommendations and distributing environmental information.

REFERENCES

BIO Intelligence Service 2012. Study on different options for communicating environmental information for products, Final report prepared for the European Commission –DG Environment, cited 30.9.2017,

http://ec.europa.eu/environment/eussd/pdf/footprint/ProductsCommunication_Final Report.pdf

Bradley N. 2007. The Green Marketing Mix, University of Westminster, cited 30.11.2017, www.wmin.ac.uk/marketingresearch/Marketing/greenmix.htm

BusinessNewsDaily 2017. Best E-commerce software 2017, cited 30.11.2017, <https://www.businessnewsdaily.com/7707-best-ecommerce-software.html>

Cleverism 2014. Marketing mix, place in Four P's, cited 18.10.2017, <https://www.cleverism.com/place-four-ps-marketing-mix/>

Daniel, I. 2011. E-commerce get it right! Neurodigital

Ecommerce Europe 2017. European Cross-Border E-commerce protection for consumers, cited 14.9.2017a, <https://www.ecommercetrustmark.eu>

Ecommerce Europe 2017. Finland, cited 13.12.2017b, <https://www.ecommerce-europe.eu/research-figure/finland/>

Ekoenergy 2017. The Ecolabel for Energy, cited 20.8.2017, <http://www.ekoenergy.org/about-us>

European Commission 2017. Environment, Single market for green products initiative, cited 10.7.2017 <http://ec.europa.eu/environment/eussd/smgp/>

Frost & Sullivan 2015. The Global LED lighting market, key trends and opportunities, presentation to TEKES Finland, cited 20.9.2017, https://tapahtumat.tekes.fi/uploads/26408656/Frost_Tekes_presentation_v2-1096.pdf

Global Ecolabelling Network 2017. What is ecolabelling, cited 17.7.2017, <https://www.globalecolabelling.net/what-is-eco-labelling>

Hopwood, C. 2016. Vision Critical Communications, Why direct-to-consumer is becoming an important retail channel, cited 1.3.2018, <https://www.visioncritical.com/direct-to-consumer-marketing-channel/>

Kilpailu- ja kuluttajavirasto 2017. Factual claims and comparisons in marketing, cited 13.8.2017, <https://www.kkv.fi/en/facts-and-advice/marketing-and-customer-relationships/factual-claims-and-comparisons-in-marketing/>

Led Professional 2017. Smart lightning market and technology trends, cited 25.10.2017, <https://www.led-professional.com/resources-1/articles/smart-lighting-market-and-technology-trends>

Marketing mix. Marketing mix definition of the 4P's and 7P's, cited 3.8.2017, <http://marketingmix.co.uk/definition-marketing-mix/>

Marketing mix. Product, cited 16.10.2017, <http://marketingmix.co.uk/product>

Miller L.J. 2010. Sustainability, is it a good choice for small companies, cited 15.6.2017, <http://www.inquiriesjournal.com/articles/295/sustainability-is-it-a-good-choice-for-small-companies>

Miryala R.K. & Mennakanti J.P. 2016. Responsible marketing for sustainable business. Zenon Academic Publishing, cited 20.10.2017, <http://www.sbmarketingtools.com/green-marketing-ideas-to-promote-eco-friendly-small-businesses/>

Ottman, J.A. 2011. The new rules of green marketing, published in the UK by Greenleaf Publishing Limited.

Paytrail 2017. Finnish E-commerce report, cited 13.12.2017, <https://cdn2.hubspot.net/hubfs/335946/Files/Paytrail-Finnish-ecommerce-report-2017-spreads.pdf>

Pogorelova E.V., Yakhneeva I.V., Agafonova A.N. and Prokubovskaya A.O., 2016. Marketing mix for E-commerce, International Journal of Environmental & Science Education, Vol. 11, No. 14, 6744-6759

Polonsky, M.J. 1994. An Introduction To Green Marketing, Electronic Green Journal, 1(2), cited 19.10.2017, <http://escholarship.org/uc/item/49n325b7>

Polonsky, M.J., & Rosenberger, P.J. 2001. Reevaluating Green Marketing: A Strategic Approach, Business Horizons, 44(5), 21-30

Prakash, A. 2002. Green marketing, public policy and managerial strategies, Business Strategy and the Environment, 11, 285-297

Ryan, D. 2014. Understanding Digital Marketing, Marketing strategies for engaging the digital generation, 3rd edition

Spear, M. 2011. What is a green product, Green products, cited 20.7.2017, <http://www.isustainableearth.com/green-products/what-is-a-green-product>

Technopedia. Technology dictionary, Definition of Electronic commerce, cited 14.12.2017, <https://www.techopedia.com/definition/351/electronic-commerce-e-commerce>

U.S. Department of Energy, Energy Saver, Led Lightning, cited 19.10.2017, <https://energy.gov/energysaver/led-lighting>

U.S. Department of Energy, Office of Energy efficiency & Renewable energy, Study on Environmental benefits of LEDs Greater than CFLs, 2013, cited 19.10.2017, <https://energy.gov/eere/articles/study-environmental-benefits-leds-greater-cfls>

Verkkoteollisuus 2017. Luotettavaa toimintaa –laatu-merkki, cited 8.9.2017, <http://www.verkkoteollisuus.fi/laatu-merkki.html>

Victoria Elisabeth 2017. E-commerce pricing strategy: how to price your products online, cited 1.9.2017, <https://blog.ometria.com/ecommerce-pricing-strategy-how-to-price-your-products-online>

Web Technology Surveys (W3Techs), Web Technologies of the Year 2017, Content Management System of the Year 2017. WordPress, cited 5.1.2018, https://w3techs.com/blog/entry/web_technologies_of_the_year_2017

WordPress. 2017. About WordPress, cited 22.11.2017, <https://wordpress.org/about/>

WPbeginner 2017. Selecting the Perfect WordPress theme – 9 things you should consider, cited 30.11.2017 <http://www.wpbeginner.com/wp-themes/selecting-the-perfect-theme-for-wordpress/>

1. Mille kohderyhmälle yrityksen myymät tuotteet on pääsääntöisesti tarkoitettu?

- Julkiselle sektorille
- Teollisuudelle
- Yksityisille kuluttajille
- Muu, mikä:

2. Onko kaikki tuotteet myytävissä ilman asennuspalvelua (esim. uudentyyppiset polttimot vanhoihin valaisimiin)? Mikä on asennuspalvelun osuus tuotteen toimituksessa ja yrityksen markkinoinnissa?

4. Millä keinoin yritys haluaa korostaa ekologisuutta?

- tuotteiden markkinoinnissa:
- yritystoiminnassa:

5. Millä keinoin yritys haluaa päästä ekologisiin tavoitteisiin?:

- ottamalla huomioon tuotteen ympäristöystävällisyys tuotekehitysvaiheessa. Jos, niin miten:
- ottamalla huomioon tuotteen elinkaari (minkälaiset ovat tuotteen valmistusvaiheen vaikutukset ja kustannukset, ja tuotteen käytön ja hävittämisen aiheuttamat ympäristövaikutukset). Jos, niin miten:
- ottamalla huomioon tuotteen pakkausmateriaali. Jos, niin miten:
- ottamalla huomioon tuotteiden toimitusmäärät ja –kuljetustavat. Jos, niin miten:
- ottamalla huomioon tuotteen energiatehokkuus:
- kommunikoimalla sidosryhmien kanssa:
- kommunikoimalla tuotteen valmistajan kanssa:

6. Miten yritys haluaa hyötyä ekologisuudesta kilpailuvaltina? Toisin sanoen miten halutaan erottautua kilpailijoista?

7. Onko yritys kiinnostunut hakemaan verkkosivustoa varten kansallista laatumerkkiä (esim. Verkkoteollisuuden ”Luotettavaa toimintaa” -laatumerkkiä)?

8. Onko yrityksen toimintajärjestelmä kirjallisesti dokumentoitu?

Jos on, noudatetaanko jotain laatustandardia?

Jos noudatetaan, onko järjestelmä tarkoitus sertifioida?

9. Ovatko yrityksen tarjoamat tuotteet CE merkittyjä?

10. Ovatko tuotteet jonkin hyväksytyin laboratorion testaamia ja selviääkö testauslaboratorio tuotteen tai pakkauksen merkinnöistä?

11. Millä tavoin yritys on varmistanut tuotteidensa turvallisuuden ja turvallisen käytön?

12. Millaista kirjallista materiaalia toimituksiin kuuluu esim. turvallisuusohje, käyttöohje, tekniset tiedot, jne.?