

Design and Implementation of Odoo ERP Application as a Solution to Requirement of ULVA-Q MSME Business Information Systems Pangandaran

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Abstract: ULVA-Q is an MSME engaged in the food & beverage industry that sells products the form of seaweed. The purpose of this research is to find out what information systems are needed by ULVA-Q SMEs. The method used in this study is a qualitative method with data collection in the form of primary and secondary. Primary data was obtained through the interview process, while secondary data was obtained through information on similar existing research or literature studies and conducted previously so that we can compare it with the research we have just done. The result of this research is the implementation of the Odoo application on ULVA-Q by using the website and social marketing modules.

Abstrak: ULVA-Q merupakan UMKM yang bergerak dalam bidang *food & beverage* yang menjual produk berupa rumput laut. Tujuan dilakukannya penelitian ini adalah untuk mengetahui sistem informasi apa saja yang sekiranya dibutuhkan oleh UMKM ULVA-Q, selain itu penelitian ini mencoba merancang sistem informasi yang dibutuhkan itu menjadi sebuah sistem yang dapat diimplementasikan langsung ke dalam proses kegiatan bisnis UMKM ULVA-Q. Metode yang digunakan dalam penelitian ini adalah metode kualitatif dengan pengumpulan data berupa primer dan sekunder. Data primer didapatkan melalui proses wawancara, sementara untuk data sekunder didapatkan melalui informasi-informasi penelitian sejenis yang telah ada atau studi literatur dan dilakukan sebelumnya sehingga dapat kami bandingkan dengan penelitian yang baru kami lakukan ini. Hasil dari penelitian ini adalah pengimplentasian aplikasi Odoo pada ULVA-Q dengan menggunakan modul *website* dan *social marketing*.

INTRODUCTION

Discussing about business, MSMEs, or Micro, Small and Medium Enterprises, are a type of commercial activity that can be carried out by either individuals or by entities under their management. Large firms differ from smaller ones in a number of ways, such as how much money they make from sales or how much net worth they have. MSMEs mostly have net worths of no more than 50 million dollars



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each month and other assets like buildings are not counted since they are typically owned by the MSMEs themselves. Despite the fact that they are little company, MSMEs provide a sizable contribution that has a significant impact on the economic development of a nation, particularly our own, Indonesia. MSMEs are mentioned as well. Even MSMEs are considered as the industry that contributes the most to the Indonesian economy. According to information from the Ministry of Cooperatives and Small and Medium Enterprises (Kemenkop UKM), there were 64 million MSMEs in the nation, with a GDP of 61.07%, or Rp. 8,573.89 trillion. Based on information on the growth of MSMEs in 2018-2019, Kemenkop UKM also stated that MSMEs contributed about 1.98% per year to the nation's economy.

A total of 60,293 MSMEs are registered in Pangandaran Regency, according to information posted on the West Java Provincial Government's open data website. In addition to its size, Pangandaran's MSME sector boosts the local economy. The West Java data contains registrations for various MSMEs, including those in the fields of food, drink, fashion, agribusiness, accessories, batik, doors, decoration, furniture, industry, services, and medical. Ulva-Q MSMEs are one of the MSMEs that Pangandaran Regency has listed.

However, the existence of effectively disseminated information between business players and consumers and the performance of MSMEs cannot be separated. In order to effectively communicate information to the public, it must be clear and well-structured. Any automated piece of information is referred to as a system, regardless of whether it is operated manually or is instantaneously accessible and used. Delivering information that has been linked to the system will undoubtedly be more effective and efficient. The system will work to gather information, process it, store it, and then make it available to people who require it so they can more easily decide what to do and monitor how that choice has been implemented in an organization. As a result, everyone is aware of how crucial this information system is to operating

a business or business, particularly for MSME players and generally for all parties who undoubtedly need information for each and every one of their actions.

One of the SMEs in Pangandaran Regency that is registered is ULVA-Q. located in Kalipucang District, Pangandaran Regency's Bagolo Village. ULVA-Q is an MSME-style snack prepared from local seaweed in the Pangandaran region. Herni Hernawati, owner of the ULVA-Q MSME, employs a source of raw materials that can be easily found near Pangandaran beach and have very good quality. The type of seaweed utilized is the seaweed *Ulva Lactuca* because Pangandaran is a region recognized for being a maritime location. Since the establishment of the MSME firm in 2017, this ULVA-Q product has evolved into one of the iconic mementos of Pangandaran and has started to proliferate in many of the region's gift shops. It also expand the market along with the creation of media for selling ULVA-Q products.

In addition to being accessible offline, ULVA-Q also leverages social media as a marketing and sales channel. The owner of ULVA-Q, however, encountered various issues with his marketing and products after we spoke with him. As a result, we want to aid and solve problems for ULVA-Q MSMEs by conducting study on them. The purpose of this study is to determine what system requirements ULVA-Q SMEs would require. After that, the information system for ULVA-Q SMEs will be designed as part of this research.

Information Systems for Businesses Systems for storing, retrieving, changing, and disseminating information within an organization are referred to as information systems (IS). IS can be any organized mix of employees, hardware, software, communication networks, data sources, and strategies and processes. Various physical equipment (hardware), information processing instructions and processes (software), communication channels (networks), and stored data are used by people to operate modern information systems so that they can interact with one another (data sources). We have used information systems since the dawn of

civilization, despite the widespread misconception that they are connected to computers nowadays. Today, however, we continue to frequently use non-computerized information systems. The use of information technology in today's corporate environment can be conceptually categorized in a number of different ways.

System planning, according to Mheda (2009), is the first phase of selecting the system up to this point. It is used to assess the viability of a project and to establish the preliminary costs, profits, and variables that enhance management performance. According to Ladjamudin (2005:39), information system planning is an activity with the objective of developing a new system that can address the issues the organization is now experiencing, as determined by the selection of the best alternative system. Bodnar and Hopwood (2010:385) contend that development should pay attention to systems planning involving subsystems.

A systems planning is a long-term assessment of the strategic objectives and priorities of IT systems to help firms achieve their objectives. As part of system planning, IT systems are also planned, monitored, implemented, and used (Turner and Weickgenannt, 2009). The planning process that assesses the internal and external environments of information systems and creates mechanisms to assist planning, according to Zviran (1990, in Pontoh and Indriantoro, 1998), is the foundation of information system planning. The system planning personnel often does system planning, according to Jogiyanto (2005:73). (planning staff). If there is no system staff, the system development department can plan the system instead.

Based on Odoo, OpenERP, or more often known as Odoo, is a python-based management software system that provides a variety of business applications to fulfill all corporate demands. launched as open source software with the format. With partners and contributors from all around the world, OpenERP is available in 18 different languages. Projects to develop the OpenERP system have involved about 1500 developers, and about 500 additional businesses have joined OpenERP as formal partners. More than 4000

applications can currently be used with OpenERP. Applications are divided into six main categories. (1) *Front-end apps: website builder, blog, e-commerce*; (2) *Sales management apps: CRM, point of sales, quotation builder*; (3) *Business operations apps projects management, inventory*; (4) *Manufacturing, accounting and purchase*; (5) *Marketing apps: mass mailing, lead automation, events, surveys*; (6) *Forum, live chat*; (7) *Human Resources apps: employee directory, enterprise social*; (8) *Network, leaves management, timesheet, fleet management*; (9) *Productivity apps: business intelligence, instant messaging, notes*.

Open ERP can be applied to various sectors, such as sectors. Trade, textiles, agriculture, and others. These differences illustrate the very high level of flexibility of OpenERP so that it can reach all types of existing companies. OpenERP is built using a modular architecture and open source technologies, but still pays attention to the quality of the products produced.

RESEARCH METHODS

The following methods were employed in this paper: (1) Problem Recognition, at this point, the writers directly examine the Ulva-Q business flow to determine the issues that exist in its business processes; (2) Analysis of Module Requirements at this point, a needs analysis for modules that are appropriate and meet Ulva-requirements Q's is conducted; (3) The Implementation of Information Systems at this point, access privileges will be granted in line with the demands of the modules that have been installed and verified to be compatible with ULVA-business Q's requirements.

RESULTS OF RESEARCH AND DISCUSSION

The small and medium-sized business of Abon and Snack Seaweed in Bagolo, Pangandaran, will receive solutions as a result of the various procedures we take in this study to examine the problem. starting with system planning, system analysis, system design, and ERP Odoo to put the system into practice.

System Planning System

The planning that will be used for ULVA-Q is to develop an information system

in accordance with ULVA-requirements. Q's The ULVA-Q business process flow in this instance is as follows.

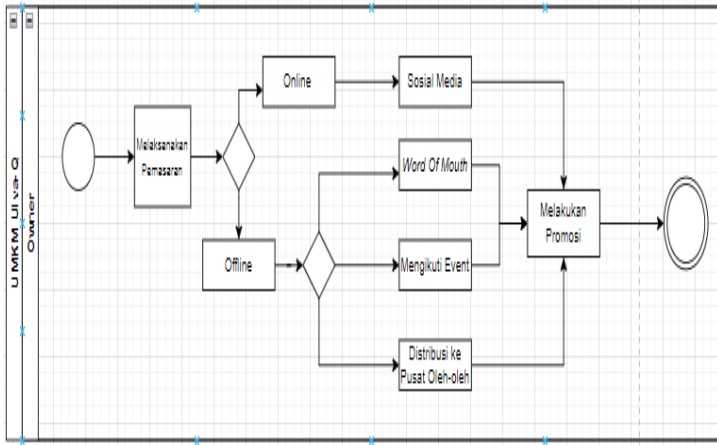


Figure 1. BPMN marketing business process that is currently running

As a result, the recommended course of action is to optimize the ERP software, specifically Odoo, whose module was created in accordance with the findings of the study and design of the ULVA-Q business system.

Analyzing systems

To determine what kind of information system needs are required and appropriate for ULVA-Q, three analyses are used: problem analysis, requirements analysis, and system feasibility study.

a. Problem-solving

The management and business procedures of the ULVA-Q MSME are plagued by issues, such as: (a) Issues with marketing in general, where this company has not yet optimized online marketing. It has only ever relied on offline marketing techniques including word-of-mouth, attending events or bazaars, and using gift shops as marketing distribution suggestions. (b) Branding issues; as "a characteristic Pangandaran souvenir," ULVA-Q still needs to broaden its understanding of numerous other prospective buyers.

According to ULVA-requirements, Q's the following table assesses the issue and its remedies.

Table 1. Problem Analysis

Identification of	Alternative Solutions
Problems <i>Digital</i>	Application <i>Marketing Manager</i>
Problems related to <i>Branding</i>	Creation <i>Website</i>
	Viral Marketing Content Creation
	<i>Endorsement</i>

Data: Author, 2022

b. Needs assessment

When analyzing system requirements, it is important to determine the needs of both the Odoo application module and system user entities. (a) User entity specifications; User and owner are necessary ULVA-Q user entity requirements. (b) Needs for Odoo module; The social media marketing module and the website module are two modules that can be produced and adapted to ULVA-Q needs based on the priority issues ULVA-Q has with the modules provided by the Odoo application.

c. System Feasibility Analysis

When it comes to creating its own information system, ULVA-Q has significant technical limitations. The majority of ULVA-human Q's resources lack a working knowledge of even the most fundamental technologies, which is especially problematic if they are expected to develop an integrated corporate information system. As a result, ULVA-Q, especially users or users themselves, must find it simple to utilize the system that has been developed.

Operational Eligibility; Performance, Information, Economy, Control, Efficiency, and Service (PIECES) study is used in the operational feasibility analysis of the information system that will be designed on ULVA-Q.

Table 2. PIECES

Identification of	Means
Performance	Analysis Technology-based ULVA-Q management improves work performance due to easy access to
Information	Creation <i>Website</i> Information will be more easily accessed in <i>real-time</i>
Economy	Minimizes digital marketing development costs because it is cheaper
Control	Gives ULVA-Q business owners full control in managing
Efficiency	Maximizing online is more efficient than offline marketing
Service	Can provide the best service for customers, especially customers who can't access products directly from stores

Data: Author, 2022

Software called Odoo is used to handle issues with MSME business information

system requirements. Pangandaran ULVA-Q Seaweed.

Research Discussion

Odoo Application Use System for MSMEs aims to make marketing easier. Owners should organize marketing routinely every month so that brand recognition can reach target customers and sales increase. The suggested business process is as follows:

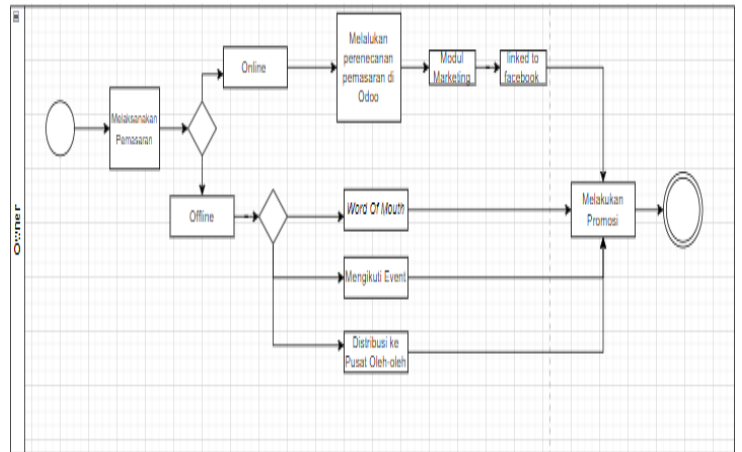


Figure 2. BPMN proposed marketing business process

Odoo Application System Integration Module for Social Marketing

A planned and simple method of conducting marketing in a firm is provided by the social marketing module. According to the established targets, ULVA-Q SMEs can create planned marketing goals on a weekly or monthly basis and automatically publish them to social media accounts held by ULVA-Q. This allows MSMEs to run frequent promotions that will raise brand recognition and increase sales.

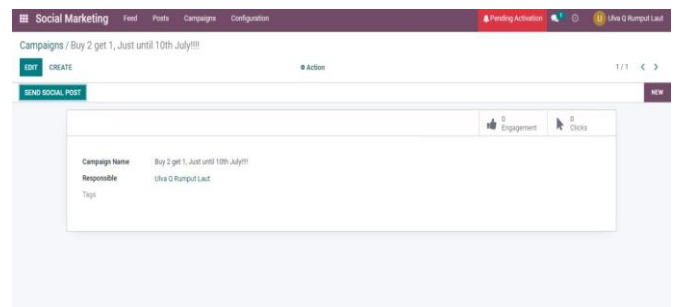


Figure 3. Odoo Implementation

There are several ways to inform visitors or consumers about new campaigns using the Ulva-q Social Marketing Module. Social media, text messages, and push notifications are all options for distributing campaigns. This company will furthermore have access to all campaign related information. In this instance, posts like the quantity of clicks on the executed campaigns can provide insights to ulva-q.

Website

One of the modules provided by Odoo for the building of free websites, including blogs, e-commerce websites, and commercial websites, is the website module. The purpose of ULVA-application Q's is to build a website for branding. Therefore, ULVA-Q is appropriate for a commercial website. This website module provides a home page that includes a product introduction, contact information, and a menu for purchasing the product. The first display features the Pangandaran-specific snack ULVA-Q. A seaweed background is also used in this presentation, apparently to describe the primary raw material used in ULVA-Q goods.



Figure 4. Website Display

The ULVA-Q terminology, "ULVA-Q, Cemilan-Q," is displayed at the bottom of the page along with a photo. Due to the usage of Ulva Lactuca seaweed, this display persuades clients that ULVA-Q is the ideal snack. A button labeled "Learn More" is present next to this concise description of the product.

Next is a presentation of the products that ULVA-Q has to offer. This view includes two photos as well as the flavors that each product offers. The Seaweed Snack product comes in a range of tastes, including original, spicy, balado, chicken onion, grilled corn, and roast beef, whilst ULVA-Q delivers real

seaweed with the traditional jambal roti fish flavor. The "Buy Now" button is then provided for each item.

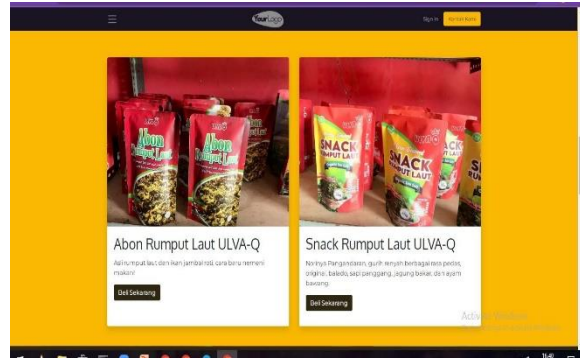


Figure 5. Website Display

Then show a carousel to display further product information and spark consumer interest in ULVA-Q products. Next, the procedures for purchasing ULVA-Q goods are displayed: choose the item, order, pay, and dispatch. The flow of buying ULVA-Q items online is made clearer for customers by this display. Icons are used to help convey this information; they make it seem easy.

The next step is the presentation of customer reviews, images, ratings, and comments. A tried-and-true tactic for improving branding and consumer trust in ULVA-Q products is to use customer testimonials.



Figure 6. Website Display

The final website view includes a list of ULVA-Q contacts, starting with social network icons for contacting ULVA-Q on those platforms, the entire firm address, ULVA-Q contact information, and Google Maps. This is done to increase consumer confidence in ULVA-operations. Q's With a strong business foundation, this ULVA-Q product is no longer just an average item.

CONCLUSION

One of the SMEs in Pangandaran Regency is called ULVA-Q. Marketing is one of the issues that SMEs face. MSMEs still have limited access to marketing, particularly online marketing. so that the general public is unaware of the product. Therefore, these SMEs must enhance their marketing. Using an ERP solution, such as Odoo, whose module was created in accordance with the findings of the analysis and business design of ULVA-Q, is one option to address this issue. This program can assist a business in scheduling marketing planning so that it can be done frequently and enhance the number of promotions run. The website and the social media marketing modules are the modules used in this application.

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