



BUSINESS PROCESS ANALYSIS OF MSMEs TO SUPPORT DIGITAL ACCOUNTING SYSTEM

Hedy Desiree Rumambi^{1*}, Revleen Mariana Kaparang², Arief Perdana Kumaat³, Andreuw Kristian Pantow⁴,
Sintia Nurani Korompis⁵

^{1,2,4,5}Accounting Department, Manado State Polytechnic

³Business Administration Department, Manado State Polytechnic
Manado, Indonesia

*hedydr@yahoo.com

Abstract— This study aimed to identify the business process of furniture MSMEs to support a digital accounting system. In general, furniture MSMEs in Leilem Village do not keep financial records. This study used a qualitative method with a descriptive approach. The objects were furniture MSMEs in Leilem Village, North Sulawesi. Data were collected by interview, literature study, and document study. The data were then reduced, presented, and concluded. This study showed the business process of furniture MSMEs and the accounting system design to support digital accounting systems. The accounting system includes an income system, an expense system, a production system, and a reporting system

Keyword-MSMEs, business process, accounting system

I. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) have great potential in supporting the people's economy. MSMEs play an important role in absorbing the workforce and improving people's welfare. Therefore, the government continues to develop MSMEs [1]. The development of MSMEs is important to encourage the national economy, especially with the influence of information technology on business processes. Information technology is expected to greatly benefit a highly competitive business [2]. A good system in a business process can help in achieving business goals.

The accounting information system is a computer-based system to ensure the quality of accounting information by increasing control and cooperation within an organization. This system helps in supporting the control, planning, and analysis of organizational activities [3]. Previous studies found that the accounting information system can improve organizational performance [4], [5], [6], [7], [8], [9], and [10].

Leilem 2 Village, North Sulawesi Province is the location for the furniture MSMEs selling semi-finished and finished goods to be marketed in the North Sulawesi region and outside the region. They do not have a good accounting information system during their business activities. Intention to use an accounting system is determined by perceived benefits [11]

and [12] Based on interviews, production, and financial activities are still controlled by business owners, so there are no restrictions on the business process.

Business processes affect the accounting information system where the implementation of business processes in recent years has made changes to the accounting information system so that accounting must be able to accommodate business processes [13]. An accounting information system consists of several interrelated cycles. Business process analysis on the furniture MSMEs needs to be done to support the digital accounting system to achieve business goals.

II. METHOD

This qualitative descriptive study aims to explain the characteristics of the subject under study, investigate various aspects of a particular phenomenon, and provide ideas for the problem to be tested or investigated [14].

Data were collected through interviews with business owners, literature studies, and document studies. The data collected is in the form of an overview, business activities, and business transactions. Population refers to the whole group of people, events, or things of interest that the researcher wants to investigate [15]. The population in this study is 50 MSMEs furniture in North Sulawesi. The judgment sampling method was used for sampling in this study. Judgment sampling is sampling based on a certain consideration based on the characteristics or characteristics of the population that have been previously known [16]. The research sample criteria are furniture, individual businesses, trading businesses, and partnerships. The sample in this study was 15 MSMEs. Data were analyzed through data reduction, presentation, and concluding [17]. Data reduction was carried out by summarizing, selecting, and focusing on business processes, activities, and transactions. The data presentation was focused on the MSME furniture business processes and accounting systems designed to support digital accounting. The conclusion showed the business process and accounting system of furniture MSMEs.

III. RESULTS AND DISCUSSION

A. Business Process of MSMEs

The first stage is identifying the business process of the furniture MSMEs. Researchers conducted interviews and document studies on business owners to obtain data and an overview of the ongoing business processes. Then, researchers conducted system requirements analysis to support business progress run by MSMEs. System requirement analysis is needed to support the system to be built [2]. The business process is a series of interrelated activities to achieve certain business goals sequentially or in parallel, by humans or systems, both inside and outside the organization [18]. These interrelated activities are carried out to produce a product or service for consumers.

Identification of business processes is an important part of building an accounting system. Business processes should be considered when planning a new accounting information system [19]. The quality of the accounting information system is influenced by the business process. The quality of the accounting information system can be improved through the implementation of a good business process [20]. Business process analysis on the furniture MSMEs aimed to obtain an overview of business activities to support the digital accounting system. Business processes involve several interconnected business functions. The business process of MSMEs furniture is presented in Figure 1.

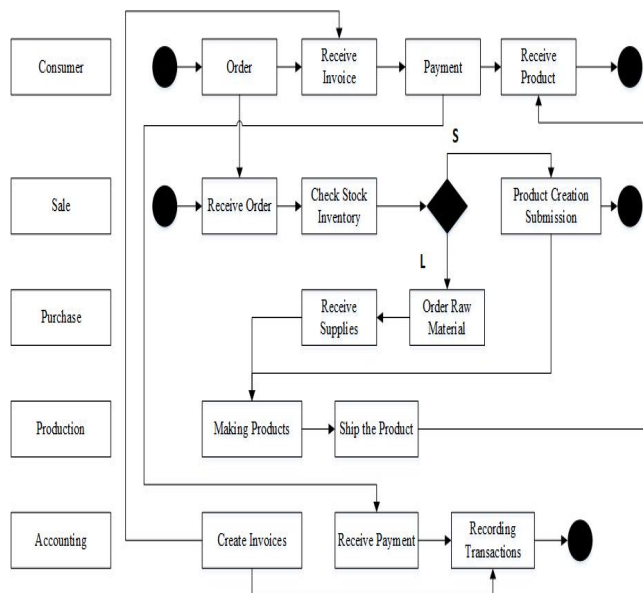


Fig. 1. The Business Process of MSMEs Furniture

The business process starts from ordering furniture conventionally by consumers via telephone, social media (FB or Whatsapp), and direct visits to locations. Consumers convey the type and number of products ordered. Consumers can also

design the furniture they want to order from the seller. The seller will calculate the selling price based on demand from consumers. Then, the accounting department creates an invoice. Invoices are then given to consumers as proof of payment after the product is finished by MSMEs.

The seller will check the remaining raw material stock. If the raw material still has stock, then production will start immediately. However, if the raw material is not available or insufficient, the seller will place an order for the raw material. Then, the production process will run as follows wood drying, cutting logs into planks, measurement and pattern making, assembly, product checking, and finishing.

After the product is finished, the product will be sent to the consumer. Payment in cash or transfer is made by the consumer when the product has been received. The transaction will then be recorded by the business owner and will be stored as proof of the sales transaction.

B. Identification of Accounting Information System

The development of information technology has an impact on digital business activities. The business process is generally regarded as an important factor affecting the success of the accounting information system [21]. Technology has become a necessity in operational activities. The digital accounting system is used to collect and process financial data and information so that it can be used by decision-makers to improve organizational performance [22] [23]. Accounting digitization helps business owners to obtain accounting information quickly and minimizes the occurrence of errors in the business process.

Automation in the accounting information system can simplify accounting records so that they become faster and more efficient [24], [25]. The information generated by the accounting information system includes information on the number of orders, sales, cash receipts, material receipts, payments, and payroll [26], [27]. Based on the business process analysis of MSMEs, the accounting information system consists of several interrelated systems namely the income system, expense system, production system, and reporting system.

1. Income System

An income system manages business activity to provide goods to customers and collect cash according to the sale. MSMEs usually only keep proof of transactions and do not record sales transaction activities. There are several procedures for establishing an income system for MSMEs furniture, namely purchase orders, delivery, and cash collection. The first stage is a purchase order. The purchase order process begins with receiving orders from customers, approving product designs according to customer demands, checking inventory, and providing answers to customer demands. MSMEs take orders in person or via social media and telephone. Product sales are made in cash and credit. The sales department will check the stock of goods in the warehouse to be notified to the customer.

The second stage is delivery to the customer by the purchase order letter. The third stage is to collect cash from customers. At this stage, the billing department will send a sales invoice to the customer.

2. Expense System

The expense system manages business activities related to purchasing inventory or other expenses required by the company. Similar to the income system, MSMEs also only keep proof of transactions and do not record expenditure activities. General expenses such as electricity, telephone, and shipping costs are not taken into account. The expense system aims to streamline inventory acquisition costs, general expenses, and workforce. Business activities in the expense system are related to suppliers. There are several procedures for establishing an expense system for MSMEs furniture, namely ordering goods, receiving goods, and paying for goods.

The first stage is to purchase supplies and equipment. In this case, MSMEs need to plan suppliers and the amount of raw material purchased. In addition, identification is required on the type and quantity of inventory ordered. The next stage is receiving goods from suppliers. At this stage, the receiving department must ensure the quality and quantity of goods ordered. This needs to be performed to ensure MSMEs only pay for quality goods. The last stage is to pay for materials to suppliers.

3. Production System

The production system manages a series of interrelated activities in the business process to create or add value to goods. Based on the results, the constraint in the production system is the lack of raw materials used during production. This happens because MSMEs will buy raw materials when consumers have paid in advance. In addition, if consumers order on a large scale, MSMEs also face obstacles such as the lack of tools to produce furniture. To deal with these obstacles, MSMEs borrow raw materials and equipment or machines from fellow MSMEs.

Production starts when the raw material is available and then it will be produced to order. In the production cycle, information related to finished products is continued in the income system. Information related to the demand for raw materials and workforce is forwarded to the expense system. Information regarding the cost of goods sold will be provided to the reporting system. Activities in the production cycle will produce a list of raw materials and other information to support the calculation of the cost of goods sold.

4) Reporting System

This system plays a crucial role in the accounting information system. Reporting systems collect all data from each source and provide information about economic decisions. The reporting system is designed to produce financial statements related to the business processes being carried out. Financial statements should be produced regularly

and published periodically. The financial statement is based on real-time data recorded by the company.

Furniture MSMEs do not make financial statements to make economic decisions. The proof of the transaction is collected and forwarded to the accounting firm to be processed for tax reporting so that the recording is not performed in real-time. The reporting period is once a year. The reporting system begins with collecting proof of transactions, then journalizing based on proof of transactions in the form of special journals and general journals. The journal entries are then posted to the ledger and then added with adjusting journal entries, financial statements, and tax reports.

C. Business Process Analysis to Support Digital Accounting System

Based on the business process analysis of MSME furniture, the required accounting information system includes an income system, an expense system, a production system, and a reporting system.

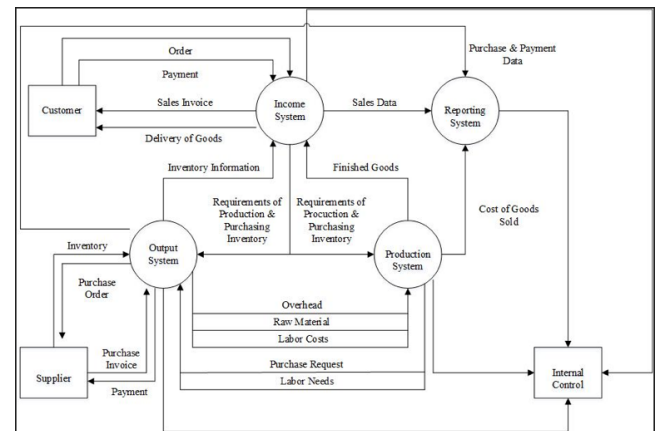


Fig. 2. The Accounting Information System Design

This design is different from the general business accounting system which includes the revenue cycle, expense cycle, production cycle, payroll cycle, and reporting cycle [28]. The different business processes of each entity have an impact on the accounting system that is built. The business process is an important factor that affects the success of an accounting information system [21]. With the accounting information system, organizational performance can be improved [10], [4], [5], [6], [7], [8], [9], and [10]. Accounting information systems have an important role in advancing a company and the output of this system can be useful for management to make business decisions and can also be a source of information for outsiders who need it [29].

IV. CONCLUSION

The business process for MSMEs furniture begins with ordering goods or products from the seller and is paid for with a down payment. After the seller receives the down payment,

the seller will buy raw materials from suppliers. Then the production process will be carried out based on available raw materials. After the goods are produced, the seller will send the product to the buyer. Payment is made after the goods are received.

The process business of MSME furniture forms an accounting system. The accounting system is designed to support digital accounting, consisting of an income system, an expense system, a production system, and a reporting system. The implication of this research is to enrich the concept of a digital-based accounting system that is by the MSME business process model.

ACKNOWLEDGMENT

Gratitude is expressed to the Directorate of Vocational Education of the Ministry of Education and Culture assisting in funds for this study.

REFERENCES

- [1] K. Sedyastuti, "Analisis Pemberdayaan UMKM Dan Peningkatan Daya Saing Dalam Kancah Pasar Global." *INOBIJIS J. Inov. Bisnis dan Manaj. Indones.*, vol. 2, no. 1, 2018, doi: 10.31842/jurnal-inobis.v2i1.65.
- [2] Wirawan, I. M. S, Bima., and S. Suardikha, "Faktor-Faktor Yang Mempengaruhi Kinerja Individual Pada Bank Perkreditan Rakyat Di Kabupaten Badung," *E-Jurnal Akunt. Univ. Udayana*, vol. 17, no. 3, 2016.
- [3] S. P. Teru, I. Idoku, and J. T. Ndeyati, "A Review of the Impact of Accounting Information System for Effective Internal Control on Firm Performance," *Indian J. Financ. Bank.*, vol. 1, no. 2, 2017, doi: 10.46281/ijfb.v1i2.89.
- [4] A. J. Al-Waeli, R. Hanoon, H. geeb, and H. hairidan, "Impact of Accounting Information System on Financial Performance with the Moderating Role of Internal Control in Iraqi Industrial Companies: An Analytical Study," *J. Adv. Res. Dyn. Control Syst.*, vol. 12, no. 8, 2020, doi: 10.5373/jardcs/v12i8/20202471.
- [5] P. A. Y. Putri and I. D. M. Endiana, "Pengaruh Sistem Informasi Akuntansi Dan Sistem Pengendalian Internal Terhadap Kinerja Perusahaan (Studi Kasus Pada Koperasi Di Kecamatan Payangan)," *KRISNA Kumpul. Ris. Akunt.*, vol. 11, no. 2, 2020, doi: 10.22225/kr.11.2.1433.179-189.
- [6] M. A. Ahmad and S. O. Al-Shbiel, "The Effect of Accounting Information System on Organizational Performance in Jordanian Industrial SMEs: The Mediating Role of Knowledge Management," *Int. J. Bus. Soc. Sci.*, vol. 10, no. 3, 2019, doi: 10.30845/ijbss.v10n3p9.
- [7] M. S. Hosain, "The Impact of Accounting Information System on Organizational Performance: Evidence from Bangladeshi Small & Medium Enterprises," *J. Asian Bus. Strateg.* (, 2019.
- [8] R. U. Trabulsi, "The Impact of Accounting Information Systems on Organizational Performance : The Context of Saudi ' s SMEs," *Int. Rev. Manag. Mark.*, vol. 8, no. 2, 2018.
- [9] A. Khan, "Impact of accounting information system on the organizational performance: A case study of Procter and Gamble," *Star Int. J.*, vol. 5, no. 12, 2017.
- [10] B. Ali, W. A. Omar, and R. Bakar, "Accounting Information System (AIS) and Organizational Performance: Moderating Effect of Organizational Culture," *Int. J. Econ. Commer. Manag.* , vol. 4, no. 4, 2016.
- [11] A. K. Pantow, B. Sungkowo, E. A. N. Limpeleh, and A. A. Tandil, "Penerimaan Mahasiswa Akuntansi atas Aplikasi Myob Accounting dengan Pendekatan Technology Acceptance Model," *Owner*, vol. 5, no. 1, 2021, doi: 10.33395/owner.v5i1.314.
- [12] R. N. Rahmawati and I. M. Narsa, "Intention to Use e-Learning: Aplikasi Technology Acceptance Model (TAM)," *Owner*, vol. 3, no. 2, p. 260, 2019, doi: 10.33395/owner.v3i2.151.
- [13] A. Trigo, F. Belfo, and R. P. Estébanez, "Accounting Information Systems: Evolving towards a Business Process Oriented Accounting," in *Procedia Computer Science*, 2016, vol. 100, doi: 10.1016/j.procs.2016.09.264.
- [14] N. Indriantoro and B. Supomo, "Metode Penelitian Bisnis untuk Akuntansi & Manajemen," in *EKONOMI*, 2016.
- [15] U. Sekaran and R. Bougie, *Business Research Methods: A skill-building approach*. 2011.
- [16] U. Sekaran, *Research Methods for Business (Metodologi Penelitian Untuk Bisnis)*. 2011.
- [17] M. B. Miles, A. Huberman, and J. Saldana, "Qualitative data analysis: A method source book," *Qual. data Anal. A method source B.*, 2014.
- [18] J. Maleyeff, *Service Science: Analysis and Improvement of Business Processes*. 2020.
- [19] K. C. Laudon and J. P. Laudon, *Manajemen Information System: Managing the Digital Firm*. 2010.
- [20] M. M. Syaifullah, "Influence Business Strategy On The Quality Of Accounting Information System," *Int. J. Sci. Technol. Res.*, vol. 4, no. 1, 2015.
- [21] F. J. D. V. R. L, *Accounting Information Systems. International Student Edition*. 2006.
- [22] P. Q. Huy and V. K. Phuc, "The impact of public sector scorecard adoption on the effectiveness of accounting information systems towards the sustainable performance in public sector," *Cogent Bus. Manag.*, vol. 7, no. 1, 2020, doi: 10.1080/23311975.2020.1717718.
- [23] L. Dagiliene and Kristina Štutienė, "Corporate sustainability accounting information systems: a contingencybased approach," *Sustain. Accounting, Manag. Policy J.*, vol. 10, 2019.

- [24] P. Carey, "External Accountants' Business Advice and SME Performance.," *Pacific Account. Rev.*, vol. 27, no. 2, 2015, [Online]. Available: <https://doi.org/10.1108/PAR-04-2013-0020>.
- [25] Y. Xie, C. J. Allen, and M. Ali, "An integrated decision support system for ERP implementation in small and medium sized enterprises," *J. Enterp. Inf. Manag.*, 2014, doi: 10.1108/JEIM-10-2012-0077.
- [26] A. T. Prastowo, D. Darwis, and N. B. Pamungkas, "Aplikasi Web Pemetaan Wilayah Kelayakan Tanam Jagung Berdasarkan Hasil Panen di Kabupaten Lampung Selatan," *J. Komputasi*, vol. 8, no. 1, 2020, doi: 10.23960/komputasi.v8i1.2531.
- [27] A. I. Rahmansyah and D. Darwis, "Sistem Informasi Akuntansi Pengendalian Internal Terhadap Penjualan (Studi Kasus : Cv. Anugrah Ps)," *J. Teknol. dan Sist. Inf.*, vol. 1, no. 2, 2020.
- [28] M. Mudjahidin, "Perencanaan Bisnis; Organisasi, Lingkungan Bisnis, Manajemen, Dan Sumber Daya Manusia," *JUTI J. Ilm. Teknol. Inf.*, vol. 4, no. 2, 2005, doi: 10.12962/j24068535.v4i2.a258.
- [29] T. Dharmawati and N. Safitri, "The Role Of Accounting Information Systems In Improving Business On Some Micro, Small And Medium Enterprises (Msmes) In Kendari, Indonesia," *Pjaje*, vol. 18, no. 4, 2021.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

