

Accounting Information System for Gold Jewelry Merchandising Business

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Abstract- Many people agree that gold is an investment product that able to anticipate inflation. Statistically, the gold price will be higher when inflation rate rises. Sometimes the increasing gold price is higher than the inflation increasing rate. In most gold jewelry merchandisers in Indonesia, the selling price system is depending on the gold exchange rate on the day of transaction, level of gold content on the jewelry, and the cost of production or marketing.

However, gold is available in many forms and vary from large to very tiny sizes. Gold jewelry business has its own uniqueness and complexity; one is the transaction system which resembles barter system. The merchandisers also must recognize their inventory when customers sell back the jewelry. Therefore, a computer system is needed by those merchandisers.

This paper will focus on the development of integrated accounting information for the Gold merchandisers. Based on the collection of those facts, the system should able to handle the complexity on the gold jewelry business and able to produce the trustworthy information of accounting.

Keywords- accounting information system, gold exchange rate, merchandise inventory, trustworthy information of accounting.

I. INTRODUCTION

Many people agree that gold is an investment product that able to anticipate inflation. Statistically, the gold price will be higher when inflation rate rises. Sometimes the increasing of gold price is higher than the inflation increasing rate.

No woman who does not familiar with gold jewelry. In investing, mostly women want a product that is tangible, can be held and seen, therefore they choose to invest whether in savings, deposits, gold or property. Some women even choose gold in form of jewelry not just for making them beautiful but also for investment [1].

Entrepreneur in gold jewelry business is the one who delivers the gold jewelry to consumers based on order and has characteristics as retail merchants. Business activities done by the entrepreneur are: producing and/or selling gold jewelry; producing gold jewelry based on order; ordering gold jewelry to supplier; buying back gold jewelry from customers; fixing

and modifying gold jewelry; receiving gold jewelry as mortgage from customers; and other services related to gold jewelry [2].

Money circulation in gold jewelry business is relatively high and in big numbers. Therefore, since beginning, the entrepreneurs should maintain themselves with the thoroughness, accuracy and speed in processing the business information. Information is a valuable resource in both operational and business decisions making. Adequate information system can help the small and medium entrepreneurs to increase their competitiveness [3]. The objectives of this paper are to develop and design an accounting information systems for general gold jewelry merchandiser, especially in inventory cycles, those are purchasing from suppliers, selling to consumers, receiving pawn from customers, and the circulation of gold bullions as the cash.

II. INFORMATION SYSTEM IN GLOBAL TRADE

E-Business through Internet make worldwide range activities, business communication, trade challenging and its intangible thought became true and tangible in the global economy trading. International Technology System (ITS & ICT) International Communication Technology, Computerization has changes the way of creative and innovative in marketing, purchasing and selling all sorts of businesses behaviors such as productivities or services trading within just a few second. Where people located in different parts of the world conducting transactional business even jewelry with each other. E- Business made all of international business activities including manufacturing, transportation, customs and excise matters, port operation, shipping, purchasing, communicating, and selling etc. Traditional trading and business system transactions, was required a large number of documents, people, long time, capital capacity, securities, etc., hundreds of man-hours would be lost in repetitive

operation, innovations in IT have been revolutionized international businesses for productive and services; the use of ICT technology in managing and processing information make easier for all businesses. Especially in jewelry merchandises helps save time, bring down costs, and reduce manpower, manual data input, process, output, transfer and trading has now become not only obsolete confidence, but also irrational [4].

III. ACCOUNTING INFORMATION SYSTEM (AIS)

As part of information system, AIS integrates accounting with design, implementation and monitoring of information system. There are six important components in establishing AIS. First is person, as the user to operate the systems. Second is procedures and instructions about collect, manage and store the data. Third is the data which is related to the company and its business processes. Fourth is software as the application to process the data. Fifth are technology physical infrastructures that will make the AIS operate and perform its functions. Sixth are internal controls and security measures implemented to safeguard the data [5].

IV. GOLD CLASSIFICATIONS

All gold jewelry shops have gold bullion as a medium of exchange (money) which will be used to buy gold jewelry as their inventory. Classifications of inventories that apply in general are type of gold; gold jewelry group; range of gold jewelry weight. The types of gold are divided into three, namely old gold, half old gold and young gold. Gold jewelry groups are divided into six groups, namely piercings, necklaces, bracelets, rings, earrings, and pendants. Meanwhile, the weight ranges are grouped according to the weight of jewelry in each gold group [6].

V. PURCHASING SYSTEMS

In order to have gold bullions, merchandisers should buy them from gold bullion suppliers by using cash money. Gold bullion contains 100% gold content, and the purchased value is in accordance with the prevailing market exchange rate. The exchange rate system is same as the currency exchange rate system that its rate can go up and down every time. The journal entry for this transaction is Gold Bullions (Dr) to Cash (Cr). The classification of gold bullion that will be used as exchange tool is as Cash Group at Current Assets in Balance Sheets.

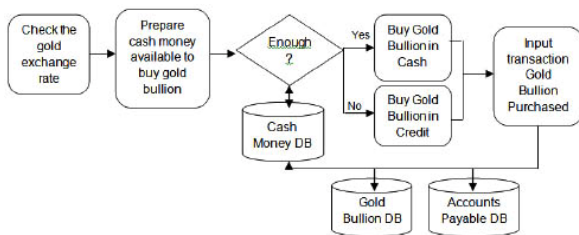


Fig. 1 Gold Bullion Purchased

For gold jewelry businesses, the merchandisers buy their inventory from distributors not by using cash money; the exchange tool is gold bullion. They will buy the inventories in many types; also vary in size and model. In case, a merchandiser has 1kg gold bullion, so he just can buy items in total 1kg. The total weight of 1 item is included the accessories in the gold jewelry which is possible not a gold. One item also can contain less than 100% of gold content, while the gold bar is 100% gold content. There must be many additional costs related to each item and total purchasing price will be valued in gold bars based on the gold exchange rate on the transaction day. The journal entry will be: Inventory (Dr) and Cash – Gold bars (Cr). Each item of inventory will be recorded on the system specifically, with information of supplier, the total weight, gold content, value of accessories which are more valuable than gold and additional costs.

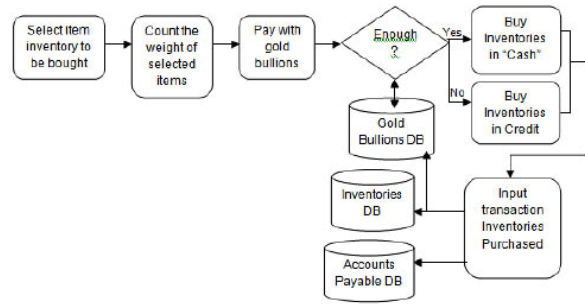


Fig. 2 Inventory Purchased

If inventories purchased by credit, the credit payment also by gold bullions. Therefore the merchandiser must buy gold bullions to pay his inventories purchased payable.

VI. SELLING SYSTEMS

The merchandisers will sell the inventory to end consumers. The selling price will be counted based on the exchange rate of 1gram gold in the market, percentage of gold content in each particular item, and additional costs. For example, one necklace, 70%, 3grams, and the exchange rate of 1gram gold is IDR 400,000; the additional costs are IDR 30,000 per gram. Thus the total price is $(70\% \times \text{IDR } 400,000 \times 3\text{grams}) + (\text{IDR } 30,000 \times 3\text{grams}) = \text{IDR } 930,000$. The cost of good sold (CGS) for this item is based on the total cost of purchased and the pure gold part will be adjusted by the gold exchange rate on the selling date. The journal entries are: Cash (Dr) to Sales revenue (Cr) for the selling price; Merchandise Inventory (Dr) to Gain for different exchange rate (Cr) or Loss for different exchange rate (Dr) to Inventory (Cr); and CGS (Dr) to Inventory (Cr) for the cost. Customers will get certificates which can be used when they want to pawn the jewelry or even selling back to the merchandiser.

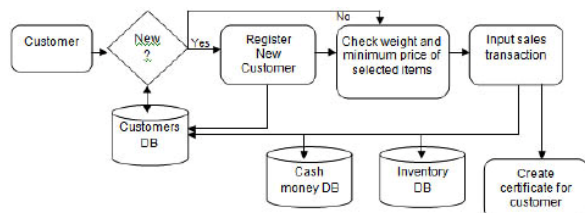


Fig. 3 Selling Workflow

VII. PAWN SYSTEMS

Some customers who face financial problem can pawn their gold jewelry by bring it to the previous shop or other gold jewelry shop and show the purchased certificate. In pawn system, customers borrow money from the gold jewelry shop by pawn their gold jewelry. The customers named pawnor. They will have limited time to pay or install their loan. When the pawn transaction occurred, the journal entries are: Pawn Receivable (Dr) to Cash (Cr) to record the cash disbursement; Cash (Dr) to Pawn Receivable (Cr) to record the installment received; and Pawn Inventory (Dr) to Pawn Receivable (Cr) to record the un-payment pawn if customers (pawnors) do not pay their pawn. The pawn inventory can be merchandise inventory after it is serviced. The journal entries are: Pawn Inventory (Dr) to Cash (Cr) to record the service costs; Merchandise Inventory (Dr) to Pawn Inventory (Cr) and Gain (loss) of exchange adjustment (Cr). There is some gain or (loss) because management must adjust between pawn value plus the service and the value of the gold jewelry based on its weight and the gold exchange rate.

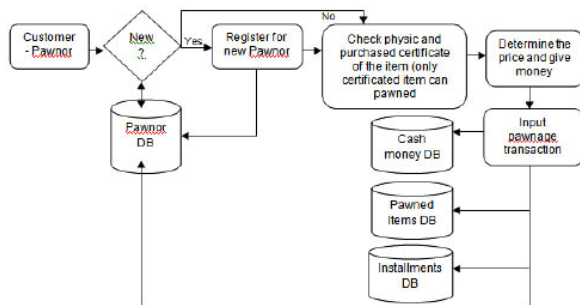


Fig. 4 Pawn Workflow

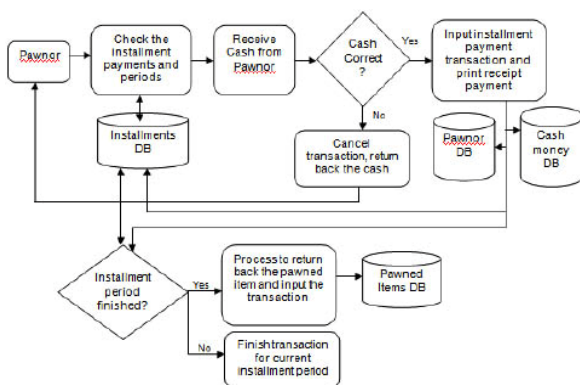


Fig. 5 Pawn Installment Workflow

VIII. REPURCHASED SYSTEM

Besides pawn, customers can sell back the gold jewelry that will be valued by weight of gold and gold exchange rate on the transaction date. The weight counted without the accessories inside the jewelry. The jewelry will be serviced and modified to be merchandise inventory. Those additional costs will be added to inventory. Any difference will record as gain or (loss) on the transaction. The journal entries are: Repurchased Item (Dr) to Cash (Cr); and Merchandise Inventory (Dr) to Repurchased Item (Cr) and Gain (Loss) on transaction (Cr).

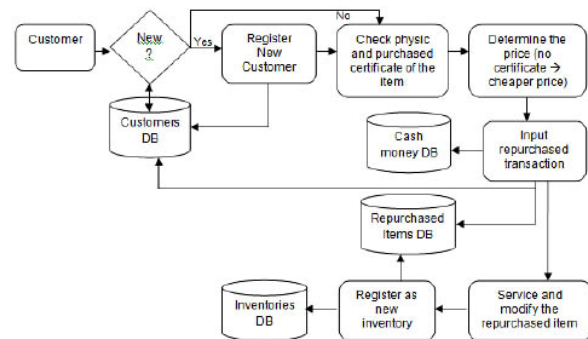


Fig. 6 Repurchased Workflow

IX. WEB-BASED APPLICATION

The web-based application will be created to implement the design of this information system. The benefits of using the web-based application are light, hardware independent, real-time data updating, and real-time data monitoring.

This application can be light because it does not consume a lot of hardware resource on the user's computer. Almost all the works of the application will be done in the server. By using web browser, the user will work and send the data to the server via network.

The above situation will create the independency from the hardware. The user can use any computer with different specification to access the information system on the server, because the application does not work on the client's computer but on the server by using web browser.

The most important factor is real-time data updating. The price of gold can be updated real-time from the trusted source via internet. It will make the information produced by the information system more reliable for the accounting.

The owner is able to monitor the information directly from the server. The report can be produced anytime to audit the transaction on each shop. If there are some mistakes on the transaction, it can be detected in detail anytime because the information is polled on one computer connected to the shop via network. The owner does not need to wait the data even though he/she has many shops.

X. CONCLUSION

Business, trading jewelry in modern competitive and global standard each enterprise seeks to hold an edge over the market, remaining in international standard with customer satisfaction and competitiveness. IT helps and makes possible jewelry traders and provide the competitive advantage through its various tools in the world. By adapting these tools in various areas of ITS of jewelry business can circumstances, has high advantages in terms of access to a customer or supplier in any part of the world, fast speed of operations, sharing ideas, reducing in man power, reducing wasting capital, etc. due to the reach of the internet e- Business it is possible to conduct buying and selling transactions irrespective of all relationship around the world. For example, Internet banking helps in the speedy execution of purchasing and selling transaction payments and settlement of accounts in safety. A website can be a virtual showroom, where all jewelry designed products can be displayed, demonstrated, and sold while the customer getting accesses from website all counties around the world. Such a website can also provide various after- sales service tips and suggestions, launch discussions forums, ask for customer feedback for long term

relationship, and educate the customer for using e-based trading and communicating. ITS and ICT application such as electronic data interchange (EDI) has also enabled logistics operations to be paperless and timeless and with low cost.

REFERENCES

- [1] _____ <http://bisnisukm.com/keuntungan-investasi-emas.html>. Accessed April 21, 2011
- [2] _____ <http://www.pajakonline.com/engine/learning/view.php?id=793>. Accessed April 21, 2011
- [3] _____ <http://accountingininformationsystem.net/>. Accessed May 2, 2011
- [4] _____ <http://www.articlesbase.com/international-business-articles/information-technology-and-international-business-1039954.html#ixzz1MWUWUQC4>. Accessed May 1, 2011
- [5] Romney, Marshall B., and Paul John. Steinbart. *Accounting Information Systems*. Upper Saddle River, NJ: Pearson Prentice Hall, 2009.
- [6] Sriyanto, Bambang Purwanggono, Pramudityo Imam Nugroho. *Perancangan Sistem Informasi Toko Emas (Gold Jewelry Shop Information System Design)*. J@TI Undip, Vol V, No 1, January 2010.