DESIGN OF ACCOUNTING INFORMATION SYSTEM FOR PRODUCTION CYCLE USING ACCURATE ACCOUNTING SOFTWARE TO INCREASE INTERNAL CONTROL IN "X" FIRM

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Abstract **–** This research has purpose to design accounting information system for production cycle in small manufacturing firm that does not run computerized system. As small firm is the starting point of a bigger firm, the design of accounting information system needs to be considered, especially for the internal control. In manufacturing firm, when the internal control has been properly conducted, the production operation effectiveness and efficiency can be achieved. In designing new accounting information system, qualitative approach is used for this research. Besides, accounting software that supports manufacturing module is very helful to design the accounting information system. As the result, design of accounting information system for production cycle in "X" firm uses Accurate accounting software.
Keywords **:** *Accounting Information System, Accounting Software, Internal Control, Production Cycle, Manufacturing Firm*

INTRODUCTION

Small Medium Enterprise (SME) for industrial sector in East Java has a potential growth for the future. Based on data from BPS (2012), the production growth of micro and small manufacturing industries in East Java in the first quarter of 2012 increases 13.89%. This growth rate of East Java is higher than national growth rate which increases 7.22%. Considering the potential production growth of SME manufacturing firms, there will be needs of proper information system to help SMEs in better planning the production and control the inventory.

Establishing enterprise system in SME is still seldom to be considered as SME is running small scale business. However, establishing enterprise system in SME is not a mission impossible as long as there are commitments from the owner and the employees. SME, especially manufacturing firm, can adopt the concept of enterprise resource planning (ERP) system for their accounting information systems of revenue cycle, expenditure cycle, and production cycle.

The concept of ERP software systems integrates the main businesses and management processes within and beyond a firm's boundary (Hitt et al., 2002). They support most commercial activities, including purchasing, sales, finance, human resources and manufacturing resource planning (MRP) in the enterprise (Shiau et al., 2009). As SME manufacturing firm is different with large scale manufacturing firm, the design of the enterprise system will be different as well.

The use of ERP systems may force a more rigid structure on SMEs and impacts to the weaken of competitive advantage (Olsen and Sætre, 2007). Thus, this research tries to adopt the concept of ERP system in accounting software that can conform to the needs of the SME manufacturing firm. The aim is to help them strengthen their competitiveness while increasing their operational process effectiveness. In this way, the SMEs will be able to utilize the use of computer.

To adopt the concept of ERP system for the design of SME manufacturing firm's accounting information system, at first we need to understand the condition of the business and business processes of the firm. Banker et al. (2001) pointed out that organizations operating in environments characterized by extremely unstable product and service prices are more likely to adopt ERP systems than those operating in environments where prices are stable. On the other hand, production planning uncertainty does not seem to be a factor in encouraging firms to adopt ERP systems. Furthermore, in United States as one of the biggest PVC producers in the world, there is change in price index of PVC products that the producers face unstable product prices as shown in Figure 1.1. It shows such a trend like a peak and a low season.

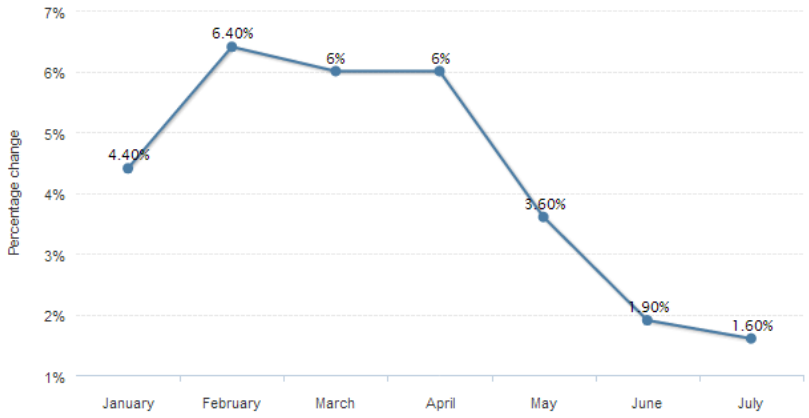

Figure 1. Change of PVC Products Price Index
Source: Bureau of Labor Statistics; McGraw-Hill (2012)

This research will explore the "X" manufacturing firm that still runs the manual system without any use of computer. As it is a PVC rain boots manufacturing firm, it deals with unstable product price and the product itself is a seasonal product. The production process depends on the customers' demand and actually the demand can be estimated based on the season. However, as it runs manual system, the production planning and inventory control process cannot be well conducted. Thus, this leads to the need of enterprise system that can help to minimize the risk and facilitate the owner in planning the production and controlling the inventory.

The purpose of this research is to design a proper accounting information system for production operation in small manufacturing firm that still uses manual system for the accounting information system. The chosen research purpose is qualitative explanatory research which is research that has purpose to find the cause and reason behind the phenomenon. In this research, the purpose of the research can be maintained from main research question and mini research question.

Benefit of this research is applied research which the research is conducted in order to find solutions to solve daily problems. Small manufacturing firms can start to apply enterprise system by adopting the accounting information system design for "X" manufacturing firm, which uses the help of accounting software. Thus, they will be more update with nowadays technology and will not be left behind by their related parties in conducting business.

The accounting information system which consists of cycles such as revenue, expenditure, and production, will explain and provide general concept in determining appropriate flow of accounting information system in "X" manufacturing firm. Accurate accounting software will be used for the new accounting information system as it adopts the enterprise system, especially enterprise resource planning system that integrates departments in a firm. Refer to the steps needed to design the new accounting information system, flowcharts and system development life cycle will be used as the guideline. Finally, the COSO model will be analyzed to increase internal control so that operational effectiveness and efficiency in production operation can be achieved.

RESEARCH METHODOLOGY

This qualitative design of study consists of resources and data collection method, practical aspects, justification, and schedule of study. The first mini research question is "What are the problems refer to the current accounting information system of production cycle in "X" manufacturing firm?". Dealing with this question, methods of interview, observation, and documentary analysis will be applied. Researcher will interview the owner, head of production, and packaging staff, and each interview will be held three times, the first is for discussing problems in job description, the second is for discussing problems in production operation, and the third is for discussing problems in production documentation, each will take approximately an hour. Activity of planning and scheduling for production, activity of acquiring material from warehouse to production by the employees, activity of production, and activity of stock opname will also be observed every day during one week with 2 hours duration for each activity. Documentary analysis of production documents is conducted to verify and find out any problem refer to current flow of information system in production process.

The second mini research question is "How is the conceptual design of accounting information system to increase production operational internal control in "X" manufacturing firm?". For answering this question, researcher will make a design of production information system for "X" manufacturing firm which can be integrated with the other cycles of revenue and expenditure, as well as the inventory management, using Accurate accounting software. The new accounting information system design is conducted by using the result of observation and documentary analysis in first and second mini research questions. This analysis will take approximately 30 hours. Besides, researcher will also do interview to the owner, head of production, raw material selection staff, machine operator, and packing staff to know whether the recommendation has been appropriate and can increase the production operational effectiveness and efficiency. Interview will take approximately an hour for each resource person.

The third mini research question is "How is the implication of the new design of accounting information system using Accurate accounting software for

"X" manufacturing firm?". To answer this question, interview to the owner, head of production, raw material selection staff, machine operator, and packing staff will be done as all employees are involved in the change of accounting information system. Furthermore, researcher will also observe outside the company to get more information related to the cost that will be spent by the company to implement the new design of accounting information system. Researcher will also reanalysis the internal control components.

"X" FIRM'S CURRENT PRODUCTION CYCLE ACCOUNTING INFORMATION SYSTEM

As "X" firm is a small factory and the production activity is not very complicated, there is no document such as bill of material and material requisitions. If the material selection employees need to take raw materials from the warehouse, they just directly go to warehouse, weight the materials, note the amount weighted, and bring the materials to the production area to be selected. After the selection is done, the materials are ready to be grinded and then be mixed in the mixer. Mixing the materials will take a few hours then after it is finished, the mixed materials are ready to be used for producing the boots.

Machine operators will pour the materials into the machine and take out the boots from the moulds, check them, and put them at the rack. Once the rack is full or at least there have been several pairs of boots, the packing employee will drag it to the packing area. The quality of the boots will be rechecked during the packing activity. If there is a problem with one or more boots, they will be returned to the material selection area and the defect product itself will be regrinded to be reused. However, the more the defect products means the lower the production quantity that leads to the possibility to uncover the order from customers. Thus, the owner will always check from the material selection process until the packing process to make sure that the employees do work with responsibility, not just working as their wish.

There is no moving document from one division to other division. The only documentation is note made by the employees who take the raw materials from the warehouse to record the weight of material used for production. Besides,

there is also note, that acts as stock card, prepared by the packing employee or the owner herself to count the quantity of boots produced every day.

Analysis of Problems in "X" Firm Production Cycle Accounting Information System

Based on current accounting information system and procedure for production cycle in "X" firm, researcher finds significant weakness in internal control aspect, which is lack of documentation that is important for the accuracy of firm's production operation. This leads the production division cannot verify that the responsibility has been well conducted. Besides, without proper documentation in production cycle, the firm will find difficulties in identifying the problems in production operation. Researcher's analysis about the weaknesses in "X" firm documentation for production cycle are as follows:

1. Control Environment

From control environment side, "X" firm has already set the production goal that every boots produced has to be free from fault. The production process is always monitored so that it can produce good products. However, the employees work only if there is instruction from the owner. This leads to the lack of initiatives from the employees. Besides, there is also less communication of the policy such as no smoking and no cell phones allowed.

Head of production has concentrated well enough for the internal control. Each division's employees have done their work responsibly through the instruction from the head of production. However, their understandings towards production goal is still lack thus it leads to the high degree of boredom and lack of sense of belonging towards the company.

"X" firm does not have any formal organization structure and it causes the responsibilities are biased, no framework of planning, directing, and controlling. Besides, there is no accounting department for preparing the financial statements. There is only bookkeeping that is prepared by the owner. Therefore there is no performance evaluation, especially for the production, because there is no standard such as budgeting and production planning. The possibility of high

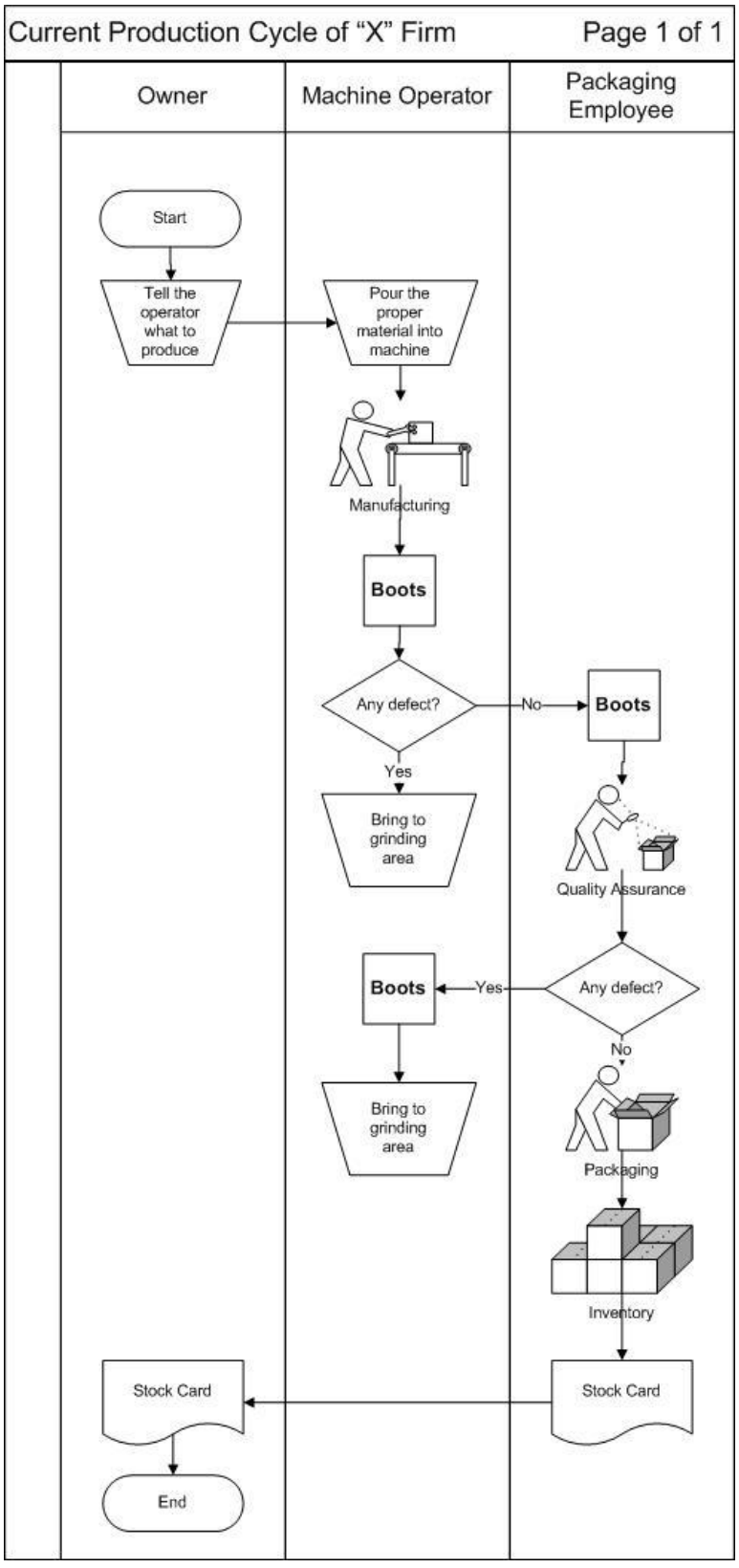

Figure 2. "X" Firm's Current Production Cycle Flowchart

degree of waste in production operation also becomes higher thus the effectiveness and efficiency are difficult to meet. Besides, compliance towards standards or regulations is difficult to be evaluated and external party influence such as GAAP is also neglected.

In defining authority and responsibility, "X" firm does not have formal and written job description. Job description is only informed orally to the employees when they are hired. Training is also not available as the new employee directly does the work as the seniors. In this case, the potency of employee cannot be maximized and bias in responsibility becomes bigger. Production planning, scheduling, and budgeting are also not available. This is shown from the production process that is conducted every day, whether there is sales order or not, thus the products can be overstock.

2. Risk Assessment

Main problem that happens in production cycle is mistakes in material selection and machine setting that make the products do not meet production goal. Besides, the accurate number of production cannot be counted and the production material usage cannot be controlled. This can lead to the wrong estimation for the delivery time to meet the customers' demands.

As there is still lack of control in production process, when there is problem with the boots, the employees do not pay attention and just pack it into the box although they are not qualified to be packed. This can lead to the high sales return quantity or loss of confidence towards products quality from the customers.

The bigger risk is located at the lack of recording and authorization in each transaction and operation performed in production process. Here, the firm might lose more assets due to fraud from internal parties. The fraud can trigger the firm's bankrupt in the future.

3. Control Activities

There is no proper authorization during the operation process as all instructions are done orally and there is no written document that state the operation has been authorized by the authorities. Sometimes, this makes the

employees get instructions from different parties such as the owner, head of production, and other employees.

From the beginning until finishing process of production, there is no document to state what activities should be performed, what materials should be used, what products should be produced, and when the products have to be ready. The employees work based on their daily duties, only the machine operators who are informed orally to produce what type of boots. This leads to unreliable of accuracy and completeness in recording.

For the security system, "X" firm has no security guard from the main gate until the warehouse. This makes the firm can be easily penetrated and accessed by all people. Besides, the documents are archived in one place and there is no back up. Anytime emergency, the firm's important information can be lost and it can influence the business continuity process.

Performance evaluation is seldom conducted. "X" firm does not concern in working procedures thus the evaluation is difficult to do. It happens as well in checking the record of actual raw materials and finished goods quantity. Due to the unavailability of documents, as the result, the recording is not accurate and not relevant.

4. Information and Communication

Refer to the fourth component, "X" firm's production cycle cannot meet this component as there is no accountant. Therefore, "X" firm cannot initiate transaction in production process, production information is not update, data is difficult to be processed into information, and accurate and relevant information of production process cannot be delivered to both internal and external parties. Besides, lack of recording and documentation in production process leads to difficulties to indentify and classify transactions, recording value is not accurate, period of recording is ruined, and no financial statements prepared.

5. Monitoring

In "X" firm, training is seldom held, even it is never held. Employees' performances are likely to be evaluated based on the production result, mistakes are difficult to be corrected as there is no certain standard, and access to assets is not restricted. There are also no budgeting, standard costing, and production

quality standard. Besides, recording is bad performed and evaluation of production operation effectiveness and efficiency is difficult to do.

Table 1. Table Findings From COSO Analysis

No.	Findings	Threats	Impact	COSO Component of
1.	Less communication of the policy	Employees have unclear understandings towards company's policy	Harm the production process that can lead to increase in defect products	Control Environment
2.	No organization structure and job description	Unclear responsibility and job description of each employee in each division	Production goal cannot be met	Control Environment
3.	No training for new employees	New employees cannot perform well as expected and their potency cannot be maximized	Poor performance from employee that makes production process is inefficient	Monitoring
4.	No financial statements prepared	Unclear information about company's business performance	Company cannot determine how much profit or loss they make	Control Environment, Control Activities, Information and Communication
5.	No documentation for production operation	Production process is always continued whether there is sales or not	If there is no sales, the inventory can be overstock; Unreliable of accuracy and completeness in recording	Risk Assessment, Control Activities, Information and Communication
6.	Production planning, scheduling, and budgeting are not available	Overplanning, overscheduling, and overbudgeting for the production process	High degree of waste in production operation	Control Environment, Information and Communication, Monitoring
7.	Bad security system	Theft of assets	Firm suffers loss	Control Activities
8.	No standard cost, standard quality, and standard for performance evaluation	Company cannot compare the actual cost, actual quality, and actual performance with the standards	There might be unfavourable variance for the cost, quality, and performance	Control Environment, Control Activities
9.	No proper authorization during the	Employees can get instructions from different parties such	Mistake in producing goods due to bias in	Risk Assessment, Control

	transaction process	as the owner, head of production, and other employees.	instruction which might ruin the schedule of delivery to the customer	Activities
10.	Owners always stay to control every activity in the firm	Lack of delegation of job, time is consumed more for operational process	Decision making process cannot be well conducted	Control Environment

RESULT AND DISCUSSION

Refer to the analysis of current production information system, the new design will help "X" firm to overcome the problems of internal control, especially for the control activities which is lack of documentation.

New Organization Structure

The new organization structure is prepared so that there will be clear job description and responsibility of each employee. Additional staff for production planning and inventory control (PPIC) and information system (IS) is needed due to the implementation of computerized system using accounting software. Job description will be stated so that the employees get clear understanding for what they have to do and be responsible at.

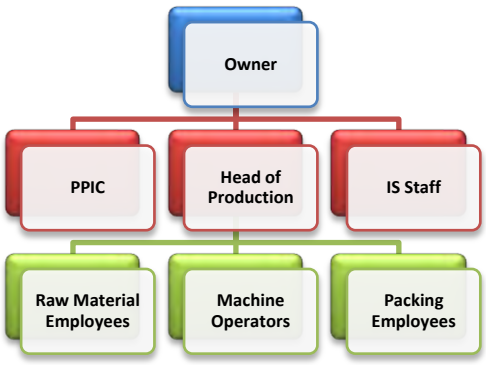

Figure 3. New Organization Structure

Table 2. Job Description and Responsibility

Owner	**Job description:** 1. Short-term and long-term planning to reach company's goals 2. Coordinate with PPIC and head of production in running the operational process so that it can in line with the goals 3. Approve Bill of Material prepared by PPIC 4. Review and approve Work Order made by PPIC 5. Do the monitoring and business performance evaluation

	in general 6. Handle transactions with external parties (suppliers and customers) 7. Observe company's growth in market competition
	Responsibility: Responsible for company's business and future continuity
	Authority: 1. Hire and fire employees 2. Give authorization for decision making regarding important issue of the company such as acquiring additional machines
PPIC	**Job description:** 1. Prepare production planning and scheduling as well as the production budgeting 2. Make work order based on production planning and scheduling that have been made in BOM 3. Check the availability of inventory 4. Compare the quantity in inventory stock card with actual inventory stock
	Responsibility: 1. Responsible for the production operation planning 2. Responsible for the inventory control
	Authority: 1. Estimate and prepare Bill of Material (BOM) 2. Give instruction for producing by preparing work order
Information System Staff	**Job description:** 1. Monitor the implemented information system 2. Control the condition of implemented information technology (IT) infrastructure
	Responsibility: Maintain the information system and technology of the accounting software used by the company
	Authority: Planning for design and development of information system as well as the used of IT
Head of Production	**Job description:** 1. Monitor production process and operation 2. Monitor production employees performance 3. Make daily production result report
	Responsibility: 1. Responsible for production process and all things related to production 2. Responsible for production quality
	Authority: 1. Give authorization for material release to production from material release form made by production employees
Raw Materials Selection Employees	**Job description:** 1. Do selection for rework raw material 2. Make sure there is no defect material that will be used in production

	Responsibility: 1. Responsible for defect in finished goods due to careless in material selection 2. Responsible to meet the quantity of raw materials needed for production
	Authority: Prepare material release form to take raw materials from the warehouse
Machine Operators	**Job description:** 1. Fill in the materials into the machine when it is about to run out 2. Pull out the boots from the moulds 3. Tide the socks on the moulds 4. Check whether there is problem with the boots
	Responsibility: 1. Take care of the machine 2. Keep the machine's temperature and pressure stable 3. Tell the head of production if there many defect boots so that the materials can be changed
	Authority: 1. Change the material if there are many defect boots 2. Adjust the machine's temperature and pressure
Packing Employees	**Job description:** 1. Drag the boots from the machine area to packing area to be finished 2. Do the finishing of the boots as well as rechecking whether there is problem that is not detected by machine operators 3. Pack the finished boots and put them into boxes 4. Mark the attached packing slip on the box
	Responsibility: 1. Count the number of boxes produced each day and record it in product and material result form 2. Responsible for the quantity of finished boots packed 3. Recheck the boots from the machine area
	Authority: 1. Fill the production and material result form

New Production Cycle Design

Using the Accurate software, there is feature to record person in charge, production departments, conversion costs, standard items costs, and standard conversions costs that is set in the beginning of manufacturing module. Production planning will be done by PPIC staff based on sales order or sales estimation. This planning will be used for determining what order to be produced and how much materials and work hours needed that will be filled in the Bill of Material (BOM) form in the software. After the BOM is approved by the owner,

PPIC can prepare the work order (WO) form to give instruction to start the production. It will be reviewed and approved by owner. Next, the raw material selection employee prepares material release form based on WO and BOM to take materials from the warehouse. Material release form should be approved by head of production.

Next, the production operation is conducted as usual. Raw material selection employees, machine operators, and packing employees do their work as described in the job description and each of them have their own responsibility and authority. Every end of the work day, packing employee will count the quantity of boxes sealed as well as the number of unfinished boots (WIP) and record it in production and material result from. The form will be received by the head of production and approved by PPIC.

At every end of month, period end will be conducted to know whether there is variance or not. Besides, several journals will be automatically made by Accurate for some adjustments. Manufacturing reports can also be displayed and printed based on the needs. There are several manufacturing reports available but if the owner wants another report to be displayed, there is feature of customized report so that the user can make their own report.

Documentation Using Accurate Accounting Software

1. Sales Order Form

Sales Order is an internal document of the company, thus it is generated by the company. It can contain many customer purchase orders under it. In a manufacturing environment, a sales order can be converted into a work order to show that work is about to begin to manufacture the products the customer wants. Sales Order contains information about item numbers, quantities, prices, and other terms of the sale.

2. Bill of Material Form

Bill of Material is the summary of products formula that lists the raw materials and costs needed to make the products. It specifies the item number, description, and quantity of each component used in a finished product.

3. Work Order Form

Work Order is prepared by PPIC. It can contain more than one product or can be the process from sales order (SO). If there is a special order that is not listed in BOM, the order can be made directly in this form by clicking Select SO, in Sales Order box. Bill of Material of the Sales Order can be made directly in Work Order form.

4. Material Release Form

Material Release form is used to record the raw materials released during production process. This form is made by the raw material selection employees based on Work Order. Material Release form can also do the record for material release of additional material.

5. Product and Material Result Form

This form is used to record production result to warehouse. Products listed in Work Order form that has finished being produced, are moved into warehouse through this form. Recorded product quantity depends on how many products being finished produced. Besides, this form can also be used to record the return of raw materials whose the production is cancelled, and to record the excess of raw materials used in in a production process.

Manufacturing Reports

Manufacturing reports can be displayed through Report menu or List menu. Reports available on Report menu are production request schedule, material resource schedule, standard and actual cost, release and result by work order, bill of material detail, work order detail, material release list detail, product result list detail, WIP by work order, WIP by work order detail, WIP inventory by work order, variant production by work order, WIP inventory, cost of good manufactured, and variance of production.

Analysis of Internal Control Components on Accounting Information System Design Using Accurate Accounting Software

1. Environment Control

There will be organization structure that states the job description and responsibility of each employee clearly thus there will be no more bias in

responsibility. The company's policy will also be written so that employees are clear about the policy. Framework from planning, directing, and controlling is available through the implementation of Accurate software which the activity from planning until controlling are recorded. Preparation of financial statement is also done easily as the feature is provided in the software and it complies with the accounting standard or regulation. As standard cost is set at the beginning of production process, production planning and budgeting are done as well. The possibility of high degree of waste will be lower as the release of material will depend on budgeted material. This makes the production operation is more effective and efficient.

2. Risk Assessment

Mistake in producing products that not meet production goal can be reduced as the head of production will monitor the products quality and it forces the employees to be aware of the products. The accurate number of production can be counted and the production material usage can be controlled. This will lead to the more reliable estimation for the delivery time to meet the customers' demands.

As the control in production process is increased, when there is problem with the boots, the employees will pay attention and only pack it into the box when the boots are qualified to be packed. This will lead to the low sales return quantity and increase confidence towards products quality from the customers.

Refer to the risk of lack of recording and authorization in each transaction and operation performed in production process, the owners do not need to worry anymore as all transactions are recorded and there is proper authorization. Thus, lose of assets due to fraud from internal parties can be minimized.

3. Control Activities

The need of authorization from the authorities for all transactions in production process makes the employees get instructions only from the one who has authority. For the new information system design, from the beginning until finishing process of production, there are documents to state what activities should be performed, what materials should be used, what products should be produced, and when the products have to be ready. The employees will work

based on their job and responsibility thus the accuracy and completeness in recording will be reliable.

For the security system, the documents are archived physically and in the software's server. Anytime emergency, the firm's important information is safe as there is double documents keeper. Performance evaluation is now easily conducted. It happens as well in checking the record of actual raw materials and finished goods quantity because there are reports to show the raw materials and product status. Refer to the availability of documents, the recording is now accurate and relevant.

4. Information and Communication

Refer to the fourth component, "X" firm's production cycle can now meet this component as there is accounting information provided by the Accurate accounting software. Therefore, "X" firm can initiate transaction in production process, production information becomes update, data is easy to be processed into information, and accurate and relevant information of production process can be delivered to both internal and external parties. Besides, recording and documentation in production process make the identification and classification of transactions easier, recording value is more accurate, period of recording is well defined, and financial statements are prepared easily.

5. Monitoring

In the new design, employees' performances are likely to be evaluated not only based on the production result and mistakes can be corrected as there is standard set. There are also budgeting, standard costing, and production quality standard. Besides, recording is well performed and evaluation of production operation effectiveness and efficiency is easier to do.

Table 3. Table Summary of Analysis

No.	Threats	Solution	Impact	COSO Component of
1.	Employees have unclear understandings towards company's policy	Written company's policy	Employees understand what they are allowed or not allowed to do	Control Environment
2.	Unclear responsibility and job description of each employee in each	Formal organization structure as well as	Employees have clear understanding of	Control Environment

	division	written job description, responsibility, and authority	what they should perform and be responsible at	
3.	New employees cannot perform well as expected and their potency cannot be maximized	Standard for performance evaluation	Poor performance from employee can be evaluated and corected	Monitoring
4.	Unclear information about company's business performance	Used of the Accurate accounting software in preparing financial information in form of financial reports	Company can determine how much profit or loss they make	Control Environment, Control Activities, Information and Communication
5.	Production process is always continued whether there is sales or not	Proper production planning and sales estimation; Proper recording of inventory stock by the software usage	Inventory will not be overstock; Reliable of accuracy and completeness in recording	Risk Assessment, Control Activities, Information and Communication
6.	Overplanning, overscheduling, and overbudgeting for the production process	Proper production planning, scheduling, and budgeting	Lower the degree of waste in production operation	Control Environment, Information and Communication, Monitoring
7.	Theft of assets	Maintain security system especially for data storage	Firm's important information will be safe	Control Activities
8.	Company cannot compare the actual cost, actual quality, and actual performance with the standards	Used of Accurate accounting software to record actual and standard cost, actual and standard quality, and actual and standard performance	Unfavourable variance for the cost, quality, and performance can be minimized	Control Environment, Control Activities
9.	Employees can get instructions from different parties such as the owner, head of production, and other employees.	Only instruction from authorized party is allowed	No more bias in instruction to produce goods	Risk Assessment, Control Activities
10.	Lack of delegation of job, time is consumed more for operational process	Job delegation as written in job description	Can maintain better relationship between internal	Control Environment

			and external parties such as customers and suppliers	

CONCLUSION AND RECOMMENDATION

After analysing the current accounting information system in "X" firm's production cycle, it can be concluded that "X" manufacturing firm does not apply good internal control and accounting information system in production operation. This firm has no organization structure and clear and formal job description. Every activity in production operation is not well conducted as there are data that should be useful to generate information, cannot be captured well. Control towards production activity is still bad thus there happen things that can reduce the operation effectiveness and efficiency, whether intentionally or unintentionally. Furthermore, current accounting information system are ineffective and inefficient as it still uses manual system and it is not systematically.

The recommendations given to "X" firm are: first, to define the organization structure and job description clearly and formally so that employees know their job, responsibility, and to whom they should be responsible. Second, to design new production cycle. Third, to use computerized accounting software in order to increase effectiveness and efficiency in production operation, whether direct or indirectly. For example, in making the manufacturing reports that can be generated from the software, thus the firm can save time, effort, and money as well as reducing human error in data processing. Fourth, to use Accurate accounting software for the documentation so that useful information can be generated in time. Besides, documentation enhancement in production activities by using Accurate accounting software can be also integrated with the other cycles. This helps in setting standard for data input that is needed in activities in production cycle. Thus, data uniformity and completeness can be increased. Fifth, increasing control by standardized operation through the evaluation of manufacturing reports.

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