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**ORGANIZING MANAGEMENT ACCOUNTING FOR INVENTORY in tHE VIETNAMESE PApER manufacturing enterprises**

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**LIST OF PUBLISHED WORKS IN THE TIME OF PROGRESS OF CREATIVE RESEARCH RELATED TO THE THESIS**

[1] Phan Huong Thao, Tran Ngoc Trang (2015), Positive Accounting – An effective trend for The Vietnamese accounting in the new era, International Research and Practice Conference, Shefield, England, 2015, pp. 62- 65.

[2] Phan Huong Thao (2016), The role of MAI in corporate governance, Journal of Industry and Trade, 2016, pp.144- 148.

[3] Phan Huong Thao (2017), MAI in Japan and America - Lessons learned for The Vietnamese manufacturing enterprises, Journal of Industry and Trade, 2017, pp.324-328.

[4] Phan Huong Thao (2018), The role of MAI with corporate governance, Journal of Accounting and Auditing, 2018, pp 58-60.

[5] Phan Huong Thao (2018), The role of MAI with corporate governance in digital age, International Conference on finance, accounting, auditing in the digital age, ICFAA – NEU, 2018, pp. 36 -40.

[6] Phan Huong Thao (2019), Organizing inventory budget in manufacturing enterprises, Journal of Accounting and Auditing, 2019, pp 24 - 28.

[7] Phan Huong Thao (2019), Experience of Inventory management accounting in a number of countries in the world - Lessons learned for the Vietnamese manufacturing enterprises in integration period, International Conference for Young Researchers in economics and business, 2019.

**CHAPTER 1: OVERVIEW OF THE RESEARCH THESIS**

* 1. **Background**

In enterprises, inventory (INV) always plays an important role in the process of production and sale. Inventory is idle resources stored for future use. Another view is that inventory is the number of goods and products created to meet a future demand. This can be manufactured products or supply materials during the manufacturing process. If the company has an optimistic viewpoint and is not worried about inventory costs, it will increase the inventory level to meet the business demand. Therefore, during the recession period, the enterprise will reduce its inventory. In order to better manage INV, there must be an effective cooperation of functional departments within the enterprise, in which accounting is an indispensable management tool for managements. INV in enterprises exists under a physical form, including many different objects, types, characteristics, storage conditions and formed from many sources. Determining its quality, condition, as well as the value of INV, is a difficult and complex task, which is not only reflected in the perspective of financial accounting but also management accounting. However, management accounting in general and management accounting for inventory (MAI) in particular in the manufacturing enterprises in Vietnam is still a relatively new concept, so the implementation process is still inadequate. Subsequently, there is not enough or updated information to meet the management requirements for this important asset division of the Enterprise.

From the research perspective, the published works of MAI in Vietnam are still quite limited, and there is no in-depth study of MAI applying to paper manufacturing enterprises. Meanwhile, the paper industry is one of the most important industries of the national economy and social life. Managements constantly need updated information on management accounting in general and INV in particular. Starting from the above problems, the author chooses the topic "***Organizing*** ***Management accounting for inventory in the Vietnamese paper manufacturing enterprises***" for doctoral thesis research.

* 1. **Overview**

The author has gathered several domestic and foreign projects from 2002 to 2018 related to the research based on three segments:

(1) The research on management accounting for inventory is determined by four (4) approaches: advisory information to support the decision-making process in enterprises, functions of management accounting, implementation and functions of corporate governance

(2) Research related to MAI such as the role of MAI in enterprises, costing methods in MAI, INV budget analysis, factors affecting MAI

(3) Research related to management accounting for inventory with case studies by Pham Thi Bich Chi (2005) and Le Thi Thanh Hai (2006). The content of the research mainly focuses on the perspective of financial accounting, and only touches MAI at a simple level.

Thereby, the author realized three (3) existed unexplained gaps:

* There is no research about MAI in manufacturing enterprises, including the Vietnamese paper manufacturing enterprises.
* There is no research about MAI using a qualitative research method combined with a quantitative method, accordingly the proposed solutions are still theoretical, not specific.
* There are no studies on the factors affecting MAI in manufacturing enterprises.
  1. **Objectives**

The basic objective of the thesis is to research and propose solutions to help implement MAI, in order to provide useful information to management in terms of controlling INV in the supply chain and making effective business decisions and improving the efficiency of managing INV for The Vietnamese paper manufacturing enterprises.

In order to achieve the above general objective, the author identifies specific objectives as follows:

* Systematizing and clarifying basic theoretical issues about MAI in manufacturing enterprises
* Researching of implementing experience of MAI in enterprises in some countries to have lessons learned for applying MAI in The Vietnamese paper manufacturing enterprises
* Conducting detailed survey of MAI in paper manufacturing enterprises, showing the advantages and disadvantages of MAI at these enterprises, studying factors affecting MAI in the Vietnamese paper manufacturing enterprises
* Proposing cost-benefit solutions to implement MAI in the Vietnamese paper manufacturing enterprises
  1. **Object and scope**
* Research object: The thesis researches about MAI in The Vietnamese paper manufacturing enterprises.
* Research scope:
* Content: the thesis studies the implementation of MAI in enterprises (raw materials, work-in-process, and finished products in the supply chain). The thesis does not study other types of inventory such as tools, delivery, or goods on consignment.
* Size: researching at forty-one (41) medium and large size paper manufacturing enterprises that have different types of ownership in Vietnam
* Timeline: the thesis was conducted in the period from 2016 to 2018.
  1. **Research questions**

*Question 1*: What is a theory of implementing MAI according to the functions of Management Accounting and the administrator? Which factors are affecting MAI in enterprises?

*Question 2*: What is the actual implementation of MAI in the Vietnamese paper manufacturing enterprises? Which factors are affecting organizing MAI in the Vietnamese paper manufacturing enterprises?

*Question 3*: Which solutions should be applied to improve MAI to enhance the efficiency of managing INV?

* 1. **Research process and method**
     1. ***Research process***

The research process of the thesis is carried out in four (4) steps: (1) Identify research issues, (2) Summarize the relevant studies, (3) Survey the current situation of MAI in the Vietnamese Paper Manufacturing Enterprise, (4) Proposing solutions.

* + 1. ***Research method***

The thesis uses a combination of qualitative and quantitative research methods. In particular, the qualitative method is used to systematize the theoretical basis and understand the current status of MAI in paper manufacturing enterprises. The quantitative method is used to survey and assess the factors affecting MAI in the Vietnamese paper manufacturing enterprises.

* 1. **Scientific findings and limitation**
     1. ***Scientific findings***

- Systematizing theories to set up a theoretical framework of management accounting for inventory in manufacturing enterprises

- Having lessons learned to improve MAI in The Vietnamese paper manufacturing enterprises based on the experience of implementation of MAI in enterprises in some countries

- Surveying and evaluating the current status of MAI in The Vietnamese paper manufacturing enterprises to identify its successes and limitations of applying MAI in enterprises

- By applying qualitative methods and analyzing relevant data, factors affecting MAI in the the Vietnamese paper manufacturing enterprises have been identified including inventory plans, information needs by managements, qualifications of accountants, and business size

- Proposing feasible solutions to implement MAI in The Vietnamese paper manufacturing enterprises to provide useful information to improve the quality of inventory management

- The research results of the thesis also contribute a useful reference system for relevant scientific researches.

* + 1. ***Limitations***

Research has not focused on the impact of other factors such as the production process, decentralized management in enterprises, customer needs, etc. in MAI.

* 1. **Structure of the thesis**

The thesis is structured into 4 chapters.

**CHAPTER 2**

**THEORETICAL FRAMEWORK OF ORGANIZING MANAGEMENT ACCOUNTING FOR INVENTORY IN MANUFACTURING ENTERPRISES**

**2.1. Overview of inventory and management accounting for inventory in manufacturing enterprises**

***2.1.1. Inventory and mission of an inventory system in manufacturing enterprises***

*2.1.1.1. Concept and characteristics of inventory*

Inventory is an important and fairly complex asset in manufacturing enterprises, so far, many studies have mentioned the concept of inventory according to different approaches.

Through analysis of the concepts of inventory, the thesis proposes the concept that “*inventories are short-term assets under the ownership and control of enterprises, existed in material form, including materials, semi-finished products in production and finished products before reaching consumers. These are the resources to meet the needs of supply, production, and consumption of current and future products of the enterprise*”.

*2.1.1.2. Inventory management objectives*

Traditional INV management in enterprises only has two basic issues: how much to reserve (determine the order size) and when to reserve (determine the reserve point). However, in the current market economy, when the scale and the market coverage of enterprises are increasing with long-lasting supply chains, the problem of stockpiling the type of INV and the reserve position are the challenges that businesses face. The management objectives of INV are changing both in terms of views and methods to meet the requirements of effective management with the lowest cost for enterprises. Therefore, managing INV aims at two objectives which are creating optimal service level (availability of INV) and reducing reasonable reserve costs.

***2.1.2. Inventory management in enterprises***

In order to manage INV effectively, enterprises must find ways to determine the balance between the investment level for INV and the benefits gained by meeting production and consumption needs with the lowest cost. Management of INV in enterprises includes three (3) basic points which are economical INV management, physical INV management, and accounting INV management.

***2.1.3. Management accounting for inventory in manufacturing enterprises***

*2.1.3.1. Concept of management accounting and MAI*

From the perspective of using accounting information to serve the managements, according to the author "*Management Accounting is a science of acquiring, processing and providing economic information that can be used to determine the volume of business and production activities for managers in planning, operating, implementing and managing economic and financial activities within the enterprise* ”.

Currently, there is no official concept of MAI, but based on the concepts established on INV and Management Accounting, the author has come up with a concept of MAI as “*MAI is a part of the Management Accounting to receive, process, and provide specific inventory information for internal governance purposes in the Enterprise. MAI not only provides historical data but also provides directions to help managers evaluate and make appropriate decisions*”.

*2.1.3.2. The role of management accounting with inventory management*

The ultimate goal of managing INV is to cut costs, minimize INV and bad debts, and increase efficiency in the supply chain. Managements can use various sources of information to manage INV, including Management Accounting. Management accounting plays an important role in managing INV to support managements to perform their management roles, expressed in terms of management functions and the authority of managers.

**2.2. Management accounting for inventory in manufacturing enterprises**

***2.2.1. MAI***

*2.2.1.1. Concepts*

Management accounting for inventory is not only a management department in an Enterprise but also includes the art in establishing the factors and conditions as well as the interaction and cooperation directly or indirectly to accounting activities. Therefore, "*management accounting for inventory is the process of establishing and maintaining the reciprocal relationship between management accounting personnel and accountants to collect, process, and provide information to managers for managing and operating businesses*”.

MAI is part of the accounting system in general and enterprises in particular.

*2.2.1.2. The nature of management accounting for inventory*

MAI is the process of collecting, processing, interpreting, and providing inventory information to assist managers in planning, monitoring, making decisions, and evaluating their implementation results. The nature of MAI is reflected in the following aspects: the purposes and parties of using information, information requirements, and implementation.

***2.2.2. MAI in enterprises***

*2.2.2.1. Personnel to implement MAI in enterprises*

The goal of implementing MAI is to arrange and assign work appropriately in Management Accounting personnel so that each person can excel their strengths and at the same time make positive impacts to the relevant departments or people in the enterprise.

*2.2.2.2. Identify and classify inventory*

INV classification is a technical method to identify the types of INV arising in each unit. Each INV classification criteria provides information about INV in different aspects, meeting the information needs of managements. Enterprises can organize the classification of INV according to these criteria: sources, usage requirements, reserve and production and consumption plans, preservation locations, ABC analysis techniques, Quadrant techniques, movements of INV in the supply chain. From the author's point of view, when classifying INV, enterprises should pay attention to the classification criteria of INV in the movement of INV in the supply chain to better meet the information needs of managers in Production and business process of the unit.

*2.2.2.3. Inventory systems and budgets*

* INV systems:

A raw material system is an effective tool to manage the cost of INV based on the elimination of the irrational and inefficiency of production and business activities. The system is designed to reflect the level of future activities but the past, which is the basis for creating department reports and evaluating the performance of relevant parties.

* INV budgets:

INV budgets will help enterprises be proactive in production and business, anticipate difficulties when implementing missions, limit costs of capital backlog and warehousing and personnel. INV budget is one of the production and business assessments of the enterprise and is governed by consumption assessment to determine the amount of stock at the end of the period to help make decision of production and consumption. At the same time, the INV budget is also dominant and related to the production budget.

*2.2.2.4. Information about MAI in enterprises*

* Collecting information in MAI:

Enterprises collect information based on three (3) working stages including a system of documents, accounts, and books for MAI.

* INV costing in enterprises:

Each INV costing method will give a separate result of production and business costs and the cost of goods sold, resulting in different profit and loss results. INV costing method requires to be implemented honestly, reliably and with a scientific basis, including two (2) parts: the selection of INV costing basis and applying the INV costing method.

* The analysis MAI information

Analyzing useful INV information will help enterprises to choose an optimal plan in business, make wise decisions in managing and controlling INV, and improve business’s effectiveness.

* Providing MAI information

Providing information to managers to grasp the situation and volatility of INV in the Enterprise is reflected by the Management Accountants through INV reports. INV report is the process of identifying reports related to INV provided by the accounting department which is produced from collecting, processing, and storing related data.

*2.2.2.5. Monitoring MAI’s activity*

Monitoring MAI’s activityis to implement and review policies and procedures established by leaders and complied with by the whole enterprise, to identify and reward positive results, as well as to detect and correct improper behaviors. The purpose of monitoring includes verification of the accuracy and reliability of INV information and protection of enterprises.

**2.3. The affecting factors of organizing MAI in manufacturing enterprises**

***2.3.1. The affecting theories of MAI in enterprises***.

In this study, the author selected three (3) basic theories to assess the impact of MAI in the Vietnamese paper manufacturing enterprises. There are contingency theory, cost-benefit theory, and psychology theory.

***2.3.2. Experimental studies***

Based on the aforementioned theories, there are many researches about the actual implementation of MAI in enterprises and surveys on the factors affecting MAI. Summary of all related researches shows that there are four (4) factors affecting MAI in manufacturing enterprises: INV plan, information needs of managers, qualifications of accountants, business size.

***2.3.3. Proposing model of the affecting theories of MAI in enterprises***.

Based on the relevant theories and empirical research presented above, the author proposes a model to study the factors affecting the implementation of MAI in manufacturing enterprises as follows: MAI is a dependent variable, and four (4) independent variables are: INV plan, administrator's information needs, qualifications of accountants, business size.

**2.4. Experience in implementation of MAI in enterprises in other countries**

Researching in USA, France, and Japan shows that if businesses apply it appropriately, MAI will ensure the enterprises increase profits and reduce risks in production and business.

Lessons learned for the Vietnamese businesses:

* Firstly, businesses around the world consider Management Accounting as an important tool to improve its efficiency, aid management processes, and especially provide useful information for the process of decision-making.
* Secondly, MAI focuses on creating budgets, from purchase budgets to storage budgets. The budgets must be elaborated in accordance with the business strategy and technical standards determined by the enterprise.
* Thirdly, the Enterprise Resource Planning (ERP) helps enterprises access reliable, accurate and timely management information.

**CHAPTER 3**

**THE RESEARCH RESULTS ABOUT THE ACTUAL OF ORGANIZING MANAGEMENT ACCOUNTING FOR INVENTORY IN THE VIETNAMESE PAPER MANUFACTURING ENTERPRISES**

**3.1. Overview of the Vietnamese paper manufacturing enterprises**

The thesis presents the process of formation and development of the Vietnamese paper industry, associated with the development of paper manufacturing enterprises, as well as characteristics of production and business activities, technological and raw material characteristics, products and markets, management and accounting of the Vietnamese paper manufacturing enterprises.

**3.2. Organizing MAI in the Vietnamese paper manufacturing enterprises**

***3.2.1. Personnel to implement MAI***

* Professional qualifications of accountants: Accountants at the paper manufacturing enterprises with domestic master's degree accounted for 24.4% (10/41 Enterprises), domestic university qualifications accounted for 75.6% (31/41 Enterprises), colleges and intermediate schools account for 0%. None of these employees receive the international accounting credentials.
* Work assignment of MAI: Management Accounting Department in the paper enterprises was built mainly focusing on collecting, recording, and providing information for Financial Accounting. Each paper enterprise assigns one (1) employee in charge of inventory accounting to perform the task of providing information about INV of the enterprise.

***3.2.2. The identification and classification of inventory***

In the paper manufacturing enterprises, inventories are varies in terms of type, usage, quality, and preservation requirements, so management requirements for each type of INV are also different. Therefore, the classification of INV is an indispensable requirement for the unit to accurately account costs and calculate product costs. 100% of surveyed enterprise conduct a classification of INV according to economic uses.

***3.2.3. Inventory standards budgets***

The establishment of raw material standards is mainly done at medium and large-sized paper companies, including the quantity and price standards of raw materials, fuels, spare parts, and minimum inventory. Accounting department does not participate in the process of setting up the system. According to the survey, there are 15/41 Paper Enterprises (accounting for 36.6%) interested in building INV budgets.

***3.2.4. MAI information***

*3.2.4.1. Collecting MAI information*

* INV documentary system:

Paper Enterprises (41/41 Enterprises) fully apply the INV accounting documentary system in accordance with State regulations. Information about INV fluctuations is recorded and documented by IVN accountants to help reviewing and comparing data between accounting books and actual data of INV.

* Materials coding:

There are 28/41 survey enterprises (accounting for 68.3%) having the INV coding scheme applied uniformly throughout the company. In addition, there are 9/41 companies (accounting for 21.95%) applying the INV coding scheme for each unit and factories.

* Detailed inventory accounting:

According to the author's survey, there are 26/41 enterprises (accounting for 63.4%) applying the parallel card method, 10/41 enterprises (accounting for 24.4%) applying the method of revolving matching book, and 5/41 Enterprises (accounting for 12.2%) applying the balance book method.

* Inventory charts of accounts and accounting books:

In each survey paper enterprise, Inventory charts of accounts and accounting books are implemented differently depending on the conditions and specific management requirements of that enterprise.

*3.2.4.2. Inventory costing methods*

All the surveyed paper companies’ prices (41/41 enterprises) are in compliance with the accounting standard No. 02 for inventory. The actual price of purchased goods (raw materials and tools) is calculated basesd on the cost value principle, not fair value method.

*3.2.4.3. Analyzing INV information in paper manufacturing enterprises*

There are 33/41 companies (accounting for 80.5%) performing INV information analysis to server management requirements. 8/41 Paper enterprises do not calculate and build INV analysis criteria. This target will be reviewed, calculated and reflected by the Company's chief accountant in the Notes to the Company's Financial Statements at the end of the fiscal year.

*3.2.4.4. Providing MAI information*

INV Accounting reports of surveyed Paper Enterprises (41/41 enterprises) reflected the indicators related to INV including INV costing methods and INV cost value.

***3.2.5. Monitoring MAI procedures***

All survey paper companies have ensured the safety of INV data through the management system required entering username and password; 70.2% of enterprises assign accesses according to the level of information usage; 51.7% lock data after a centain period of time. Regarding the control of the output information, the Paper Enterprises have controlled the extraction of the data on the report, transmitted information to the relevant managements by assigning access rights to each employee in the system.

**3.3. The affecting factors to implement MAI in the Vietnamese paper manufacturing enterprises**

Combining direct interviews, group discussions and theoretical models proposed in Chapter 2, the thesis builds a research model with 4 factors affecting the of Management Accounting for INV (dependent variable): INV plan, information needs of managers, qualifications of accountants, firm size (independent variables).

The thesis uses the SPSS software to process data with the following steps: testing the reliability of the scale, regression analysis, and testing hypothesis. The multiple linear regression equation shows the relationship between MAI and the four independent variables set up as follows: **TK = 0.12 KH + 0.425 NC + 0.267 QM + 0.202 TD**

From the above equation, we can see 4 factors including the INV (KH) plan, the information needs of the administrator (NC), the level of an accountant (TD), the size of the enterprise (QM) all have influences in the same way to MAI (TK).

**3.4. Evaluating MAI in the Vietnamese paper manufacturing enterprises**

***3.4.1. Advantages***

The management accounting for INV in the Vietnamese paper manufacturing enterprises has been formed and initially demonstrated the leading role in providing useful and timely information and ensuring high reliability for managements. MAI has been implemented at a simple level.

***3.4.2. Limitations and root cause***

♦ Personnel to implement MAI in enterprises and apply information technology in management accounting

Most of the paper manufacturing enterprises do not focus on personnel aspect to implement MAI and or be aware of the role of Management Accounting in general and MAI in particular. Collecting and providing information for management accounting is quite sparsely .

* Setting standards and estimating INV:

It can be said that setting standards is a very useful foundation for budgeting in manufacturing enterprises. In fact, paper enterprises have set standards but only at quantitative, not at price levels yet.

* Collecting MAI information:

Inadequate documentary system for MAI has led to insufficient information provided to managements. In addition, the detailed charts of accounts system and INV books has not been set up by paper manufacturing enterprises to gather information and determine root cause differences between the plan and implementation. Paper businesses have not yet built relationship and connections between teams and departments to collect and analyze information.

* Analyzing MAI information:

There are 33/41 paper manufacturing enterprises that do not conduct a full analysis of INV information before and during the implementation process. New businesses conduct an analysis of INV turnover targets and implementation of INV setting standards to make business decisions.

* Providing MAI information:

The accountants in the paper manufacturing enterprises note that providing INV information is still isolated, and there is no real connection between them. For information for reports and control reviews, it has only showed at a high and general level which is not detailed enough to provide sufficient information for managements.

* Monitoring MAI’s activity:

According to the survey, monitoring MAI’s activity in the paper manufacturing enterprises is still inadequate. There are undiscovered errors and frauds during the recording, reviewing, and reporting process.

***3.4.3. Root cause***

There are many reasons for the limitations in implementing MAI in the Vietnamese paper manufacturing enterprises, in which the subjective reasons from the enterprises are the root cause.

**CHAPTER 4**

**SOLUTIONS TO IMPROVE ORGANIZING MANAGEMENT ACCOUNTING FOR INVENTORY IN THE VIETNAMESE PAPER MANAFACTURING ENTERPRISES**

**4.1. Orientation for the development of the Vietnamese paper manufacturing enterprises**

In the inevitable trend of the globalization context and the commitments to join, the Vietnamese Paper Enterprises will have to continue to invest in production systems to compete with large regional and international paper enterprises. Therefore, the paper enterprises need to pay more attention to the accounting in general, management accounting and MAI, in particular, to promote the efficiency of production and business activities, and to meet the growth objectives and output targets of the paper industry.

**4.2. Principles for the improvement of MAI in the Vietnamese paper manufacturing enterprises**

In the trend of international economic integration, MAI in the Vietnamese paper manufacturing enterprises needs to be implemented in accordance with the current context, and also towards an integration in accounting. According to the author, in order to ensure the solutions to implement MAI in the Vietnamese paper enterprises which are feasible and suitable for enterprises, the accountants need to comply with 4 Global management accounting principles that has been defined by the Global Certified Accountants Association (CGMA, 2018), specifically:

* Principle 1: Implementing MAI must be based on communication with great visions.
* Principle 2: Implementing MAI must be based on appropriate information.
* Principle 3: Implementing MAI must be based on an analysis of the impact on the value.
* Principle 4: Implementing MAI must be based on sustainability.

***4.3. Solutions to improve implementation of MAI in the Vietnamese paper manufacturing enterprises***

***4.3.1. Personnel to implement MAI***

According to the author, large size paper manufacturing enterprises should apply a mixed model, in which the MAI section needs to be built separately. The accounting apparatus in these enterprises also needs to have certain changes to meet new tasks. Due to the large and complicated volume of management accounting work, the large-scale paper enterprises need to appoint accountants to take care of this part. For small-scale paper production enterprises, they should apply a combination model to gradually implement MAI.

***4.3.2. Improve inventory systems and budgets***

*4.3.2.1. Improve inventory systems*

The optimal construction of raw materials system is related to the determination of the optimal order quantity and the proper loading schedule. The calculation of usage levels must be based on the cost of consumable materials, using predictive statistical methods to calculate the actual cost standards to perform the work, using annual calculation data as a basis to assess the ability to create saving at the reporting period as well as building a consumption level at the planning period.

*4.3.2.2. Improve inventory budgets*

After setting INV systems, the Paper Manufacturing Enterprises can apply the general process for INV budgets according to three (3) phases: preparatory, budgeting, and approval and implementation. INV budgets should be including:

* Purchase of raw materials budget
* Raw materials for production budget
* Ending period of raw materials budget
* Cost of raw materials budget
* Material variance budget
* Reserve of finished products budget

**4.3.3. Improve implementation of MAI**

*4.3.3.1. Improve collecting MAI information*

In this context, the thesis proposes solutions to improve organizing MAI documentary system, costing in MAI, MAI accounts and books systems.

*4.3.3.2. Improve analyzing MAI information*

In the paper manufacturing enterprises, INV often accounts for a high proportion of the total assets of the enterprise. Therefore, an efficiency of using assets is significantly affected by an efficiency of using INV. Management accounting needs to analyze the targets of INV from which to make reasonable decisions. From the basis of grasping the data for each type of goods, the administrator will consider the total value of INV to determine the proportion of INV compared to short-term assets to assess the investment level of INV, to make reasonable adjustments. The thesis has proposed the process of analyzing the systems and the criteria for analyzing INV.

*4.3.3.3. Improve providing management accounting information for INV*

INV information provided to management is combined and reflected on reports by Management Accounting. The INV governance report plays a particularly important role for managers to make more effective decisions. Reports provided for the purpose of corporate governance in enterprises can be divided into three (3) categories: (1) Reporting for the evaluation of INV, (2) Reporting for the control of INV; (3) Reports for decision making about INV.

*4.3.3.4. Improve monitoring management accounting for inventory in the paper manufacturing enterprises*

Solutions adhere to the accounting process include:

* Control input information
* Control the process of purchasing and exporting/importing INV
* Control providing information about INV

***4.3.5. Other solutions***

Based on the statistical results describing the factors affecting the implementation of MAI combining with in-depth interviews with managers at all levels, the Vietnamese Paper Manufacturing Enterprises should focus on the following:

* Management’s information needs about MAI and qualifications of accountants:

Managements are considered an important factor, playing a decisive role, and most influencing to the implementation of MAI in each enterprise. Therefore, the managers in Paper Enterprises need to change their awareness about the role of MAI in the management of the Enterprise. Traditional and experiential management thinking needs to be replaced by using modern management accounting methods and updating information to be in compliant with laws and regulations, and setting standards for the accounting department.

In addition, management accounting personnel must have adequate qualifications and trainings, ability to use and handle information technology, and work ethics. The improvement of the quality of accountants is a continuous work, so that employees always need to keep their professional knowledge to be able to identify, estimate, record, and analyze indicators of INV.

* Factors of enterprise size:

Expanding the scale of the paper enterprises will create environment for improving the efficiency of implementation of MAI. There are many reasons that motivate businesses to scale up, but the most important reason is to expand the market and increase market shares for businesses. Regarding the purpose of investment in production expansion, it is necessary to combine horizontal and vertical investment, in which vertical investment is the main direction. Both of these forms increase the size of the Enterprise.

**4.4. Recommendations on the implementation of the proposal to improve MAI in the Vietnamese paper manufacturing enterprises**

***4.4.1. For the paper manufacturing enterprises***

The paper manufacturing enterprises need to build information channels to help managements realize the importance of management accounting, such as through the forum of the Paper and Pulp Association, the Association of The Vietnamese Accounting and Auditing.

***4.4.2. For the State and the authorities***

The state and the authorities need changes in the system of macroeconomic policies and laws, equality in prices, and equality in marketing methods. The Ministry of Finance needs to establish guidelines to help establish and implement MAI in the paper manufacturing enterprises.

**CONCLUSION**

The thesis has studied both the theoretical and practical aspects of the management accounting for INV in the Vietnamese paper manufacturing enterprises. The thesis has achieved the following results:

* Systematize the basic theoretical issues of management accounting for INV. It clearly states the concept of management accounting, MAI, and systematize the main contents in MAI. The thesis also mentioned the experience of implementation of MAI in some countries.
* Analyze and evaluate the actual status of the MAI in the Vietnamese paper manufacturing companies. Based on the actual survey, the thesis clearly stated the good implementation aspects and the shortcomings as a premise for proposing complete solutions.
* Identify the basic requirements and the content to improve the MAI in the Vietnamese paper manufacturing enterprises following the trend of international economic integration. At the same time, the thesis also made recommendations to implement on both side of the State and authorities as well as the paper manufacturing enterprises.

However, the author found that there are still certain limitations in the research:

* Limitations on the scope of the survey, so many contents of the topic are based on qualitative research results with data provided as an interview result. Therefore, it cannot avoid the subjectivity of the data. On the other hand, the author has not yet discovered all the factors affecting the implementation of MAI in the paper manufacturing enterprises.
* Limited access to information resources from enterprises, the topic has not met the high requirements of the level of detail of the information, in certain aspects the problems raised are not in-depth.
* Due to the complexity and diversity of INV, the author cannot solve all the problems raised.