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Innovating the Wood Sector: A Case Study in Alta Floresta do Oeste, Rondônia State (Brazil)

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I. Introduction

There are a growing worries about the question of environment today as for example, global warming and rampant deforestation of the forest. Because of that, many actions to reduce the deforestation and raise the number of the forests under protection to improve the ecosystem are being implemented. The forest management, agro forestall systems, re-plantation are some of the projects that goal to cover forests and legal wood extraction allowing the companies to get raw material in a sustainable way to provide the demand of this segment. But to improve the optimization of the logistic of acquisition, stock and programming is necessary to invest in technological innovation to modernize their plants and improve the comp etitiveness. According to the United Nations Organization (ONU) 2013 the forests hire around sixty million of people in the formal sector that it means that the researches show that reduce the vulnerability of the families and raise the capacity of subsistence and resistance on a climate events. It still observes that the exportation of the wood sector was around 246 billion dollars in 2011.

According to the Ministry of Commercial and Industrial Development (MDCIC) 2010 Rondônia is the eighth exporter of wood of Brazil. According to the data published by ServiçoFlorestalBrasileiro – SFB (Brazilian Forestal Service) and the Instituto do Homem e Meio-Ambiente da Amazonia – IMAZON (2010) (Human Being and Environment of Amazonia Institute) the wood industry of Rondônia is responsible for opening around 35000 direct jobs (processing of forest exploration) and indirect jobs (transportation and selling of processed wood, juridical and forestall consulting among others). It is an important sector of state economy. The SFB and IMAZON (2010) declared that the majority of the processed wood is directed to national market and São Paulo is the main customer.

This introduction allow us to confirm valid elements in wood sector because of the social, economical and environmental importance of this sector for Rondônia, which answer could support the manager of this kind of activity assuring the global competitiveness and the survival, depends of the interaction with the environment through a right position in front of its competitors, so it´s necessary that the companies always looking for improvement and innovation of the products, process, service, equipment and knowledge, and the last one is more important, because the actual manager needs to follow the evolution of the market to maintain clients anxious to news, so it is necessary to develop new technology to compete with quality and productivity where the decision is take will be fundamental to restructure this sector that is more and more evident and targeted mainly by environmentalists that want to protect the environment because of the awareness of the maintenance of native forests and environmental preservation supported by law.

In front of the new reality, it is needed that the managers of the sector looking for strategy to get the information to keep the company competitive. The

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problem of this paper is to know if the logistic activities in wood companies follow the theoretical concepts in Administration Science. The confrontation between facts and concepts and definitions will be done to show the reality in a wood company, answering the question: Does the company obey the theoretical concepts in Logistic Administration, stock and production programming? The strategy is a proposition in investigative line, centered mainly in the Status of Art, leading the observation in the circularity of the object investigated; it is confronted in the exploratory and descriptive axial with the theoretical and conceptual field to elaborate the research.

As the goal propose to study the facts that influenced in the strategic innovation of the wood sector to indicate the specific goals: identify how is done the acquisition process and raw material control, analyze how are managed the excess to the acquisition, control and programming in support of the demand of market and show a solution facing this demand. The information technology is a tool to productivity programmming with statistics parameters, treatment of distance and time, needed volume, calculate the physical space, costs treatment, financial return demonstration, quality control and other management functions that is faced in the stock .

So, this job brings elements to justify why the wood sector is transforming itself in the last years facing the changes and demand of the market to survive in this environment is needed to be smart among the managers that are anxious to get more experience. The stock management in the wood company is being modernized because of the advantages that were added by information technology, the same technology that passed to make the routine of wood company much easier with its computers and software. The administrative problem is solved quicker and the management questions are more efficient, with full reports simulating alternatives involving costs, volume and others.

This paper is a theoretical and conceptual review, a description of a methodology to prepare this job, focuses on Trade Off of specific tasks and close some preposition that may contribute to improve the logistic activities of stock in wood manufacturing. This task is made of a short introduction, theoretical and conceptual review about the business logistic and the evolution on the applicability in wood sector that took as a basic Ballou, the following plan deals with the methodological aspects about methods and procedure used to prepare this task, followed by the conclusion and references.

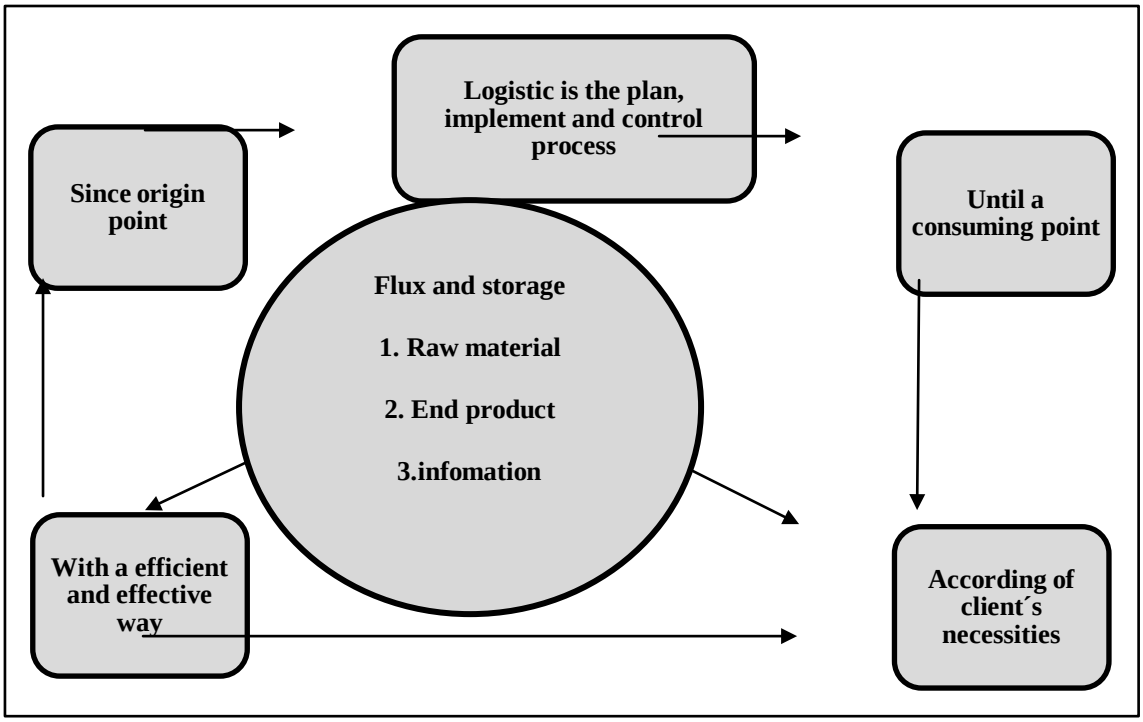
II. Theoritical and Conceptual Review

The Theory of Contingence was considered to prepare the theoretical and conceptual part, that is the most recent study in Administration Theory and because it is focus in technological innovation to face the competitiveness in wood manufacturing. This Theory, according to Chiavenato concept (2004), was made from many researches about models of organizational structure that are more efficient, saying that there isn´t anything absolute in the organizations, everything is relative, and is the border between old theories and the interaction of the most recent administration theories, that contains the basic principles of administration as: people, environment, technology, tasks and structure. The author says that there isn´t only one model pre-established to reach the goals that focus the environment with its opportunities and threats as main factor. Other concepts helps in this task to complete the circular treatment of the research; in this way follow the business logistic and its concepts, stock management, acquisition and the program, strategy and technological innovation as it follows:

a) The business logistic and its concepts

The theoretical and conceptual review in this task is about business logistic and its evolution in the applicability in a company of this specific sector. The base is Ballou (2009) that claiming that business logistic is an administrative view that has the goal to support companies to face the current competitive market with fast changes. The logistic among the business wants the integration, to manage the chain of supplies which has the main goal to support the strategic decisions.

It is through the management of logistic tools that the companies may retain the clients, growing barriers to the competitors while develop specific services to each need that assure the competitiveness. This study was made through a field research, focus in application of logistic in a family wood company that uses the principles of sustainability to manage internal action, doing wood logs sawing and flattening the wood to sell in internal and external market. It is about stock control, acquisition and production programming, followed by Figure 1, that shows the respective conceptual construction of application logistic, adapted from Ballou(2009).



Source:Adapted from Ballou (2009) by the authors

Figure 1: Scenario of business logistic conception

According to Ballou(2009), the business logistic studies the provision of the level of profitability in the activities of physical distribution and stock, aiming the products workflow, from the origin point or acquisition until the final consumer. These activities can be primaries or support. In wood manufacturing, the logistic implements basic activities to obtain, transport, stocking and information. To get its full functioning, the wood companies hire buyers to deal with the acquisitions, custom brokers to assist them with fiscal and environmental control issues, transportation companies to drive the wood between the origin point to the final destiny, accounting and others.

The supplier of wood is the main actor in the logistic process in the activity to obtain the wood. The logistic manager should maintain the supplier registration up-to-date, follow the legal papers between the tax bodies Environmental Brazilian Institute, the Secretariat of Environment and others. To buy wood from legal supplier is a basic management action in this business. The experience recommends to do a periodical up data of suppliers to be efficient in business, avoiding surprises while demand security actions. The maintenance of an excellent supplier list is the insurance of substitution in unforeseen situation besides certificated wood request.

b) The stock management, acquisition and programming

Some authors mention that currently facing the technological innovation there are many softwares available in the market to make the control of a company's stock providing more agility and economy, because it allows the company to cut costs in high stock's levels maintaining only the necessary. InViana's understanding (2002) the stock management seeks a balance between the minimum and maximum product, provides a balance between supply and demand seeks control input unnecessarymaterials.

For the author these procedures allow the manager to follow up and planning the amount of raw material buying keeping focused stock levels as a way to satisfy both the customer has their product on time and in the desired place as the company will be able to keep their stocksin a desired levels. This still guarantee that this procedure is adopted to register, monitor and manage the input and output amount of goods guaranteeing a safety margin stock.

Ballou (2009) argues that acquisition logistics are used processes on delivery, in the receipt, moving and storage of the purchased products by a company and it is focused on minimizing costs. For many companies is considered the "backbone". It is used to select suppliers and negotiate contracts including minimum and maximum orderproviding a delivery estimate. From the author's point of view provides the good's delivery in the desired place, with the estimated time in required conditions and a lower cost possible. In Fleury's (2000) opinion, with technological advancement and consequently increased access to Internet has changed the way to buy products and services making it vital for the company's survival.

Lucena&Filho (2002) argue that the stock programming can be viewed in a broad way as planning supply and it must be in accordance with the company's strategic planning that can be medium or long term it must be in accordance with the organization'sobjectives the mode that it has enough stock to attend the demand.

Ballou (2009) refers to the availability of necessary products for the production process, recommending caution to avoid surprise of stock's sufficiency, or the excess which endangers the cash flow by the goods' immobilization with the resulting costs.

The author points in this mender decision as dilemmain the stock management, especially when the timber company supports the principles of just-in-time with stock in the limit of the production process.

This author considers two ideal types of demand that can be interpreted for the timber industry. First, the permanent, demand with products under constant resupply, when it will be the timber's manager lift the historical flow through temporal requests, aiming the continuous items such as planks for construction, slats and bars, quite usual by the civil construction's client and those items which required volume is revealed on high for certain period of time, declining to an average afterwards.

The other type is the seasonal demand, with consumer of cyclical products and short lifetime;it's characterized essentially by a single peak in the stock control system, evidenced by the information system of the conceptual approach described above, are examples of seasonal demand in the timber industry thefilaments for residential furniture that are requested by customers to attend Christmas orders.

But the author points out other types of demand as the irregular, with difficult trade forecast in the timber industry, the demand in decline, with gradual shopping with surplus stock being over, both allowing the logistics manager to keep a schedule. There is also a form of derived demand, known if it was identified the demand of finished products, which depend on the particular timber product.

Ballou (2009) offers two significant horizons for stocky control in a timber industry. It's the classic Gantt's Graphical and Calculation of Needs Method, the first one establish a stock schedule in relation to quantity versus volume, very usual in programming of demand over time, for example, the second allows to simulate solutions to the problems in the timber stock, such as relations needs, supply, demand, planning equilibrium point, volume versus payback and other situations that require calculation.

Another approach in stock management in the timber industry is considered as related to the acquisition process. Table 1 below presents a conceptual basic formatting, useful for interpretative analysis by new manager logistics.

Type of procedure (Ballou, 2009)	Context conceptual and theoretical
1. Programming of New Varieties	1.1 Measurement of qualified species 1.2 Mounting the Sustainable Forest Management Plan. (SFMP). 1.3 Review and approval of PMFS by the Secretary's State and Environmental Development (SEDAM).
2. Realization of the supply's sources.	2.1 Opening roads for access 2.2 Make the logs plain 2.3 Transportation of the raw materials.
3. Goods' Physical form	3.1 Raw wood and plane 3.2 boards, plank, ceiling, and beam and others. 3.3 Wood's Waste and scraps.
4. Amount to be gained	4.1 Quantity selected by PMFS; 4.2 Fulfill Demand of 6,000 m^3 per year; 4.3 Demand of 500 m^3 monthly.

Picture 1 : Stock Management

c) Strategy and Technology Innovation

Chandler (1962) focusing the strategy as a complex challenge, dynamic and vital which error put the company in disadvantage with competitors, however changes made over time may lead the company's survival. The author stresses that the strategy is the way that the manager chooses in order to take in certain circumstances and priorities take risks to achieve goals. To the author strategy means facing the opponent in order to fight it and thus win their space, the opportunity for a similar perception to concepts in Sun Tzu (2008).

A random survey allows to register that the organizations today with an increasingly economy more globalized, technological innovation is daily and constant, while the information arrives at a fast pace. Perhaps that ability to innovate is recognized by several authors as a major tool of competitive advantage. Many scholars recognize the ability to innovate as the main competitive advantage, this will be treated as a basic tool. This quest for innovation is a universal process,

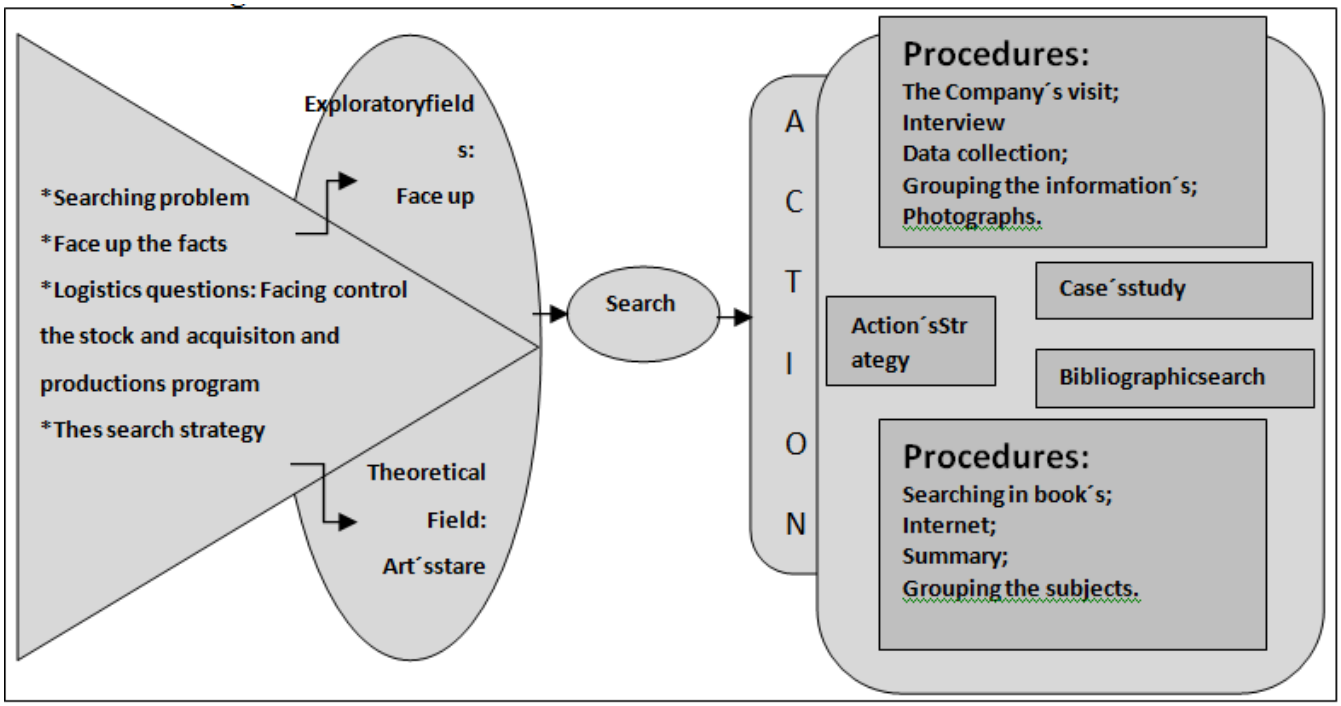
considering that some time ago consumers did not have many alternatives in choosing your products and services, supporting the reflection various authors.

Porter (1989) has defended the idea that technological innovation would play a key role in the daily lives of organizations that already visualized this would be a factor that would bring competitive advantage over the competition. Facing of globalization becomes increasingly necessary step up existing demands and technological innovation is the shortest path to higher profits and stay in the market. So much so that Caron (2003) indicates the importance of the strategy of technological innovation to maintain competitiveness and the company's longevity.

III. Methodological Aspects of this Work

The methodological approach of this study followed the preparation's rite in qualitative research, descriptive in nature, with the usual procedures for Case's Study oriented on Bressan (2001), from the Economics and Administration University in São Paulo. It was used primarily for bibliographic research in order to raise basilar's concepts and definitions on logistics acquisition and stock in a specific branch of business.

Searching for literature was adopted the following procedures: search and appropriation in books, magazines and other printed texts; capture using the web platforms in various sites from the Internet access book in the public domain, notes' analysis taken during the lectures and instrumental , summary's preparation, the discussion with their team work, preparation for conducting summary report. And for the Case's Study were used the following procedures: technical visit to the timber company; conducting direct interviews, according to recommendations on Rea (2001), ownership of data and facts' grouping and situations observed in industrial squad visited; selection of photo images usual in forensic work, as instructed in Vergara (2005). Figure 2 below shows the design of the scenario methodology practiced in this task.



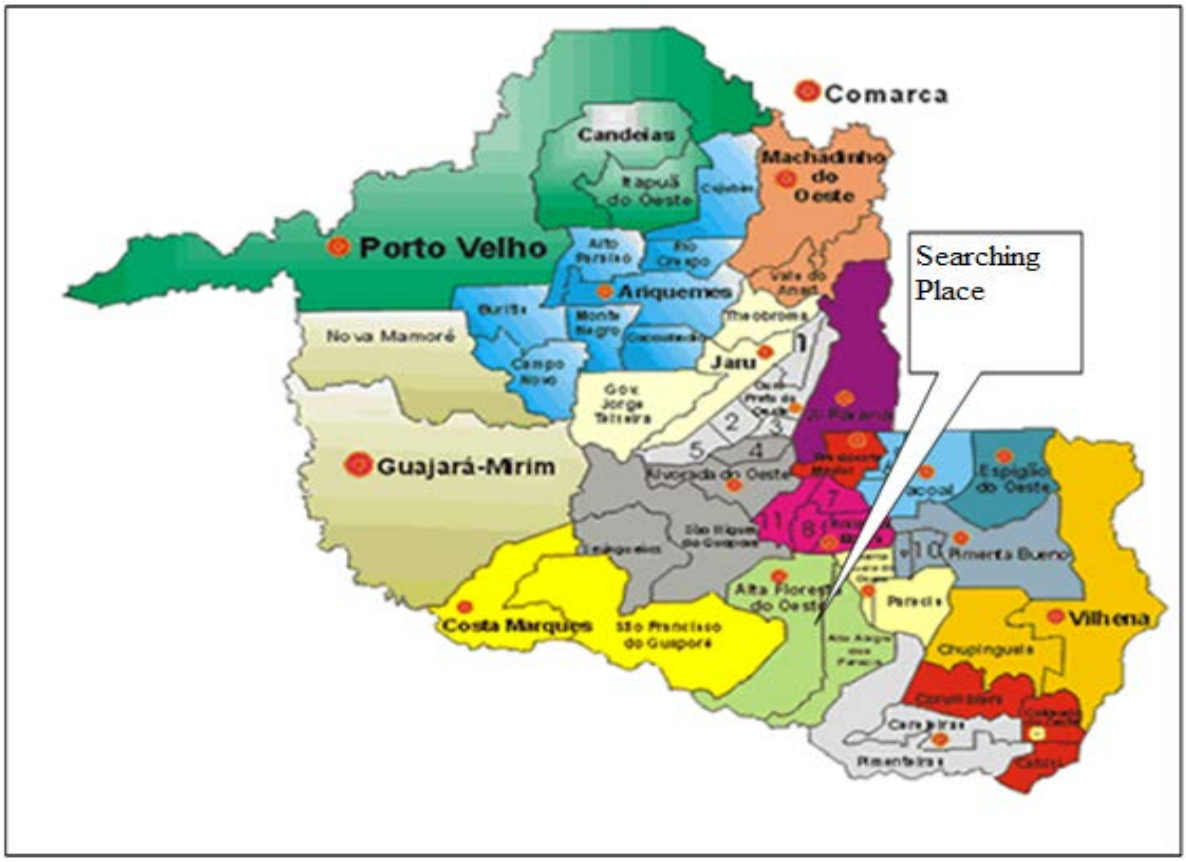
Source: Adapted from Cooper (2003) by the authors.

Picture 2 : Setting the research

IV. Innovation in the Acquisition Management, Stock Control and Programming Production

The case study is proposed on a medium-sized timber segment, composed of a staff about 600 employees, with an annual sales average in the last five years from $ 100 thousand dollars. Currently this company researched meets national and international markets, the domestic market, supply logs to other loggers, and profiled with several lines of semi-finished products; it also serves the furniture industry, with products under orders follow a scheduled production; it supplies to civil construction industries with beams and wooden structures for residential architecture and other orders that may arise in their daily routines. For the international market, exports products under orders of the same characteristics from the national market, but in a larger volume and all upon request. The internal tasks in this industrial establishment are in a certification's

process, but their products are with the official seal since the origin, fulfilling a legal requirement and strict internal control in this aspect.



Source: Google images

Figure 3 : Map of the studied company's location

The Alta Floresta'stown is located in western Rondônia, and it has a population of approximately twenty-five thousand inhabitants, with the most economically active, prevailing a high school level education among the inhabitants, according to data published in 2010 by the Brazilian Geography and Statistics Institute. The region has been highlighted by dairy and cutting cattle, for agriculture activity with expression in coffee production, and also in the cassava's cultivation, rice, beans, bananas and corn offered to the regional market, but it could pass for adding value through redesign agribusiness. The trade is strengthened and the industries installed there reveal themselves by the exploitation and processing timber without an innovation that qualifies theindustry for a required competitiveness.

Aiming a sample foratimber industry's performance, it was researched an establishment installed in the municipality. To meet the demanded management burdens, the researched company presents a simple functional picturewhich is given below. As recommended Ballou (2009), the logistics manager must keep the product that is necessary, but he can never neglect the stock's volume. According to this author is in this discipline that describes the stock management dilemma.

Team's assignments	
Function	Statement of activities
1. Administration	1.1 It is composed by the partners that are the company's founders.
2. Accounting Manager	2.1The responsible person to plan, organize and supervise the accounting activities in general.
3. Stock Manager	3.1 Responsible to analysis, forecasting, control and the raw material replenishment.

4. Purchasing Manager	4.1 Responsible by the flow purchase negotiating the best prices seeking products' stability and maintenance and the balance in the accounts.
5. Sales Manager	5.1 Responsible for coordinating and plan the sales strategies in order to increase the company's profit
6.Industrial production manager	6.1 Responsible to reduce production costs, certify the quality of the final product, takes care of the handling logistics of the company's raw material.

Source: Adapted by the authors.

Picture 3 : Functional activities of Timber Company searched.

These people who have training and commitment with the company to develop their tasks in the best possible way in order to increase and guarantee productivity supervising and developing guidelines to keep in competitiveness as evaluates some authors.So that there are no delays in providing even with the rising costs of purchasing and stock the company responsible for choosing the transportation of all the raw materials to make up the demand from May to October because of the supervenience, the demand's behavior fluctuates a lot, in this case the Amazon region'swinter called rainy period which comprises the months from November to April it is impossible the car traffic on the access roads, for these and other peculiarities the same cannot bring the wood to the storage yard of timber company besides the environmental agency responsible prohibits the extraction of trees during this period, contradicting Ballou'sconcepts (2009).

a) *The acquisition through the sustainable management*

There were focused technical aspects for understanding as timber's company functionality. Themachine's park and the industrial equipment of timber's company admits a structure that attend the real necessities, the hand labor specialization used fulfill the demands for competitiveness and quality in business which it engages the market; the technical information system working together guarantee an efficient management, with practical results and evaluation-ondition and adjustments required; as the functional processes adopted, the company complies with legal requirements and controls its administrative management quality. This task turns to the acquisition, stock and production scheduleof the timber's company in focus, meeting various authors.

Statement of technical composition	
Phases	**Attributions**
1. Management	1.1 Preparation of the Sustainable Forest Management plan (SFMP) by forest engineer; 1.2 Inspection and approval of the project by the competent body; 1.3 Authorization for forest exploitation by the competent body.
2. Purchase	2.1 Agreement between the handling holder and the potential buyer: 2.2 The Agreement is formalized by the product purchase through a DVPF (document of sale of forest products); 2.3 The document must be issued by the competent body.
3. Cut and esplanade logs	3.1 Occurs the trees cutting marked in the management; 3.2 Branches Opening; 3.3 The logs are taken to the terraces.
4. Transport	4.1 Trees are cut in sizes from 4 to 7 meters; 4.2 Makes the logs loading on trucks; 4.3 When they arrive in the company's yard the logs are unloaded.
5. Sawdust	5.1 The logs are taken to the saw; 5.2 Transformed into lumber; 5.3 According to buyer's request.

Source: Adapted by the authors.

Picture 4 : The timber's company technical composition

However the supervenience in thecompany investigated need to keep stock to make up its demand, because in the rainy season the responsible environmental agency prohibited the trees' extraction and

transportation, do not releasing the Sustainable Forest Management Plans (SFMP) for companies, among these and other reasons justified the importance of each sector manager be committed to activities preventing a waste to the supplier and buyer evaluatesBallou (2009).

The industry is installed in the Amazon region and because of this seeks to bring a difference, given the good practices that succeeded in accordance with sustainability; able to project not only the respect in the market, but also provides opportunities an example of how to manage the acquisition wood without hurting the environment intensively. For this, the timber company has adopted the criteria established by PMFS - Sustainable Forest Management Plan, as shownin Picture 5 which requires. Failure to comply with the protocols identified that follow will result in an administrative process, with penalties on the businessman as well as legal proceedings that may result in civil and criminal responsibility for the timber company. The protocols are technical, prepared under the timber company'sresponsibility. Involves the opening in the forest for the extracted wood movement in according with regulatory procedures, the trees' cutting previously selected in the sustainable management form; the extracted wood should follow the exploitation ritual in the operating system form adopted by the timber company, which had been previously approved by the governmental agency control.

Criteria's demonstration adopted by the company	
Event	Occurrence'sDescriptive
1. Management Plan's Presentation	1.1 In accordance with the current protocol.
2. Previous license's licensing	2.1 Demonstrates the origin of the rural property where the management will be effected.
3. Operation License	3.1 Form to obtain authorization and provide supervision from the official bodies that control the forests.
4. Exploration's Plan	4.1 Trees' Selection to be put down to obtain wood.
5. Mounting the Project	5.1 elaborates a forest management project to be delivered to the official agency for approving or recommendation.
6. Project's Presentation	6.1 The Forest Management Project Presentation to SEDAM (Superintendence for the Development of the Amazon) that will enjoy and accompany the practices.
7. Inspection	7.1 It will be inspected by the SEDAM's inspectors who will attend in the local wood's exploration.
8. The project Approval	8.1 After the Project Management's approval it will be issued to AUTEX (Authorization to Exploration).

Source: Adapted by the authors.

Picture 5: Criteria for wood acquisition and forest preservation

The timber company promotes anexploration's forest in a sustainable way. All these measures are safeguarding natural reserve against illegal exploration; regardless of these rules has not been sufficient to prevent the Amazon's destruction, because the advancement of this economic function requires ethical commitment of the socioeconomics' actors to the environment as recommended Rotta (2006).

b) Acquisition Control or Wood's Exploration Control

The wood's exploration control in theresearched company until recently was done manually, but with the computers increasing integration the managers are considering the possibility to enhance their knowledge and slowly are adapting to this new reality, trying to adopt acomputerized system which allowsa precisely control and diminish the costs assimilating the concepts of various authors, when they say that you need to use the modern world's tools.

Model form of exploration control		
Wood'sName	Distance	Measure
Angelim		
Angelim cedro		
Cedro Rosa		
Cerejeira		
Maracatiara		

Garapeira		
Peroba		
Breu		
Tauari		

Source: Assigned by the researched company and adapted by the authors.

Picture 6 : Exploration control

With the acquisition manager's registration form the manager will have a better monitoring avoiding major losses allowing that the manager has a distance delineation that is located and wood's footage and these procedures allow them to send to the wood's exploitation local only vehicles that are necessary for transportation avoiding unnecessary waste. After adopting all the necessary procedures to withdraw the same wood is transported, stacked in the of the timber company'syard to be sawdust later as customer request. The responsible for woods' acquisition control check the necessity of logs that will beesplanade, make the measurement and then fill out theControl Exploration's form with the necessary information maintaining a schedule to keep competitiveness heading for Caron'sconcepts (2003).

c) The acquisition description's system in a timber company

With the great goal of increasing profitability and returns, being the basis that sustains a company, the employees performing these tasks with greater efficiency and effectiveness based on the knowledge of the process and control of it. Then are evaluated the opportunities and threats that are fundamental variables to be supported and able to sustain in an increasingly competitive environment and aimed to be in the Amazon Regionbecause of the appeals for an environmental protection in several authors' view.

The route's description from the exploration to the final destination	
Elements	**Facts' Narrative**
1. Supplierofrawmaterials	1.1 The supplier is located at a distance of 150 km from Alta Floresta town where the timber is installed.
2. Transportation	2.1 The transportation is effected through outsourced trucks
3. The storage	3.1 The wood is placed in timber's yard where remains until the sawdust.
4. Sawdust	4.1 Through the request of the customer's orders the wood is sawn as required specifications.
5. Wood'sDestination	5.1 Packagedandsentto São Paulo, Espírito Santo, Minas Gerais, Paraná and Rondônia.
6. Leftoversandwaste'sdestination.	6.1 Separated, pile up and sold to slaughterhouses located in the Rolim de Moura's city and ceramic located in Alta Floresta town.

Source: Adapted by the authors

Picture 7 : Acquisition System and the product's distribution

According to authors surveyed to validate this task the Amazon forest adds a variety of wood species that are used for commercial use. So the wood extraction in the Amazon region worsens considerably each year due the illegal exploration in protected areas, fires, biodiversity loss and even the climate changes that are occurring on the planet. Facingthe environmental demands imposed in the XXI century the company researched fosters the wood extractionwith exploration through sustainable management and has the function to reduce illegal incursions and avoids erosion on the river banks and slopes and with this contribute to the of conserving challenge and guarantee the individuals' welfare.

d) Automation in Timber Company searched control

In the current context, with the technology in evidence, the innovation is part of people'slife, customers are more demanding in order to quality. The manager of this sector has been struggling for the forest

products also accompany this modernity to develop and become increasingly profitable and competitive as well as industrial products, thus, the importance of automating thecompany control that is in a simple touch may make a sale, heading against the theoretical conceptual sieve.

Stock's model control of the investigated company					
Wood mobilized species	Input Data	Output Data	Radius in m^3	Length in Meter	Total of units
Cerejeira					
Maracatiara					
Angelim-pedra					
Tauari					
Cedro rosa					
Garapeira					
Peroba					
Peroba rosa					
Angelim amargo					
Breu					

Source: Assigned by the company researched and adapted by the authors.

Picture 8 : Report stock's control

The stock control allows the manager to follow up to find the entry and exit of the wood, the radius which is the measure used to measure the log stumbles, length in meters which will make the logs are cut to size requested by the customer and total of wood to be transported allowing it to set the order request from its customers is not compromised. These applicationsare intended to facilitate the logistics company allowing greater control.

Upon the logs receipt's moment in the saw's yard passes through the sieve of a responsible person who makes the measurement of each species and passes the information to a computer program allowing monitoring and control stock efficiently, the same is performed as the durability of each species, the woods perishable, such as the kind of popular name Tauari, which has a shorter life for this reason need to be sawn first now the most durable woods such Garapeira (popular name), can get on the yard for several months, because it does not at risk to spoil, while those that can be chewed by insects the peelings are removed and processed into blocks, so it last longer as recommended Ballou (2009).

e) Process control of the schedule production

A random survey allows us to affirm that the sustainable management is the best solution, because a relocated forest is economically viable and protects the soil against erosion, maintaining water quality besides hosting biodiversity and still offers these and many other resources for future generations . The Decree 1182/94 shows a technical definition of Forest Management corresponding to "forests' management to obtain economic and social benefits, respecting theme-chanisms that support the ecosystem." Rotta (2006) argues that the Sustainable Forest Management Plan happens gradually, through plots, in other words, an area of land is ready to receive planting is a model that allows a rational exploration techniques that will yield a minimum of environmental impact, the forest that has management can continue offering their wealth for future generations, because it guarantees a greater uptake and water infiltration in the soil preventing the desertification process.

Forthe present author the forest management became the understood beyond the technical aspect includes a commitment with the ethical codes began to rescue the forestry activities of future generations based on sustainable development. Viana (2002) guarantees that the control process' steps begin with a thorough environment analysis in order to monitor it to identify risks and opportunities to guarantee the proper operation.

Process' Steps	Basic Descriptive
1. Order request	1.1 Client application requests.

	1.2 Production receives the request and provides the transformation process.
2. Raw Material Separation	2.1 The logs' choice necessary 2.2. The logs' transportation for the production area.
3.Logs Transformation	1.4 Logs' sawing process. 3.2 Unfolding the sawn wood.
4. The sawn wood's classification	4.1 It is classified by the wood's size and measurement. 4.2 Separation of the classified woods.
5. Drying oven	5.1 The classified wood is sent to dry. 5.2 It remains for a period of 4 to 5 days.
6. Packaging	6.1 The wood is stacked by classification. 6.2 The wood is packed.
7. Finished goods' Stock	7.1 The wood is packed. 7.2 They are sent to storage.
8. Delivery Order	8.1 The wood transportation as requested. 8.2 Delivery to the buyer.

Source: Assigned by the company researched and adapted by the authors

Picture 9 : Productive Process Control (Ballou, 2009)

With an increasingly globalized market requires that the companies be efficient in the process of moving their products from input to output, because of this, it is essential a stock control and that the Company Logistics is operating in compliance since that the information are vital for the business.

As you can see in thePicture 9 there is an usual routine in the procedures used in the timber's company investigated. The first step to start sawing wood comes from a request of the interested person that can be made by phone, e-mail or in person, the client requests the wood's application thatis needed, the production receives and the responsible selects the logs according to the request, after occurs the sawing and unfolding of therequired woods, classifying the sawn woods and sending them to dry in the drying oven, which is a technique that aims to reduce the moisture content in a shortest possible time, then this wood is sent to be packed later it goes to the stock where it waits the transportation to the customer's delivery, the procedures are beingperformed to guarantee no mishaps in the delivery requested corroborating withBallou'sconcepts (2009).

f) The management solution in the demand's face

According to the theoretical conceptual the batches' wood storage predicting its future use requires business investment. The timber business segment will be required to synchronize the supply and the demand, which imposes stock's levels balanced. However, differently to others industrial activities in the timber company is unpredictable flow'sdemand future, and not always the supplies are available at any time they must have to accumulate stock to guarantee the goods' availability and minimize the total production's cost and distribution. The entrepreneur may appeal for a cordial agreement with your supplier for support in this unpredictability time, as advised several authors. It is good to note that when there is no wood to saw obviously won't have product to sell, so a constant attention from the programmer part the company will avoid an imbalance between buy and sell.

V. Conclusion and Suggestion

It was concluded that this study does not exhaust the possibilities involving reforestation and sustainable exploration, the relationship between the wood exploration and technological advances come to give a support to the timber companies, so it is recommended a format for each situation. The dissemination with the international community raises a concern with deforestation because of this obtains a global support for a sustainable management; it provides funds and incentives favoring partnerships for the environment's preservation. The objectives of the task were achieved which is to share new knowledge with corporate managers and those who for one reason or another are involved, showing that through the Business Logistics can generate cost savings in business and better customer service aiming develop skills and techniques to that permit encourage the rationalization of logistics processes, the use of technology's information, the enhancement of human

capital, the cooperative negotiation and increasing productivity developing in a timely commitment to deliver the product and also provide a major company's function, the customer satisfaction and in return to maintain the profitability.

The study allows us to offer some valuable suggestions for the business modernization in the timber company business. To enroll the benefits that a timber company can find with to organs like the Brazilian Service Support for Micro and Small Enterprises-SEBRAE and National Service for Commercial-SENAC, two institutions with anExcellence's history of in develop entrepreneurial talents, and that may contribute to the knowledge needed for the required improvements. Significant measures enter here as a suggestion to the timber companies' managers: implement improvements guided by pro-innovation tools (1); improve administrative management through government programs available for free in the two institutions mention above (2); find new niches to expand their business, always visualizing new frontiers (3), using technological innovation in support of their management (4), assume a commitment with the environment in order to implement innovative solutions for sustainability and social responsibility (5); develop a strategic plan of social responsibility linking the timber comp-any' sobjectives with the community'sobjectives; mapping solutions interest in common with the local community and provide intervention in accordance with the collective decision (6); elaborate a continuous development of technology capable to enhance the individuals' sustainability promoting a better quality of life taking a step towards sustainable development outlining management strategies that capable to combine an economic and environmental performance (7); invest in specimens' reforestation that matter to your business (8).

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