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Improvement of information stream in a  
procurement system


Case company: Monolit Ltd.

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## DESCRIPTION

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<b>Abstract</b> <p>An information flow is a crucial objective in the international procurement. Optimized information transferred between involved supply chain parties provides a strategic opportunity to improve the managerial actions, an accurate maintain of an inventory reply to the changes in the demand and a decrease on spending logistics costs. The purpose of the presented study was to determine, examine and clarify the information stream in the all stages during purchasing activity of the Russian manufacturer Monolit Ltd. Since a company changed their international procurement sphere the focus of the following bachelor thesis was narrowed to the Chinese suppliers. The main reason why a Monolit had demanded on this research was the continuous problems occurring in information flow part during the purchasing activity.</p> <p>For the creating of a theoretical context subjects as supply chain, an international procurement, the business logistics, an information flow in purchasing and the supplier selection were examined. The research information was collected by the primary methods as participation, an observation and in-depth interviewing as well as document reviewing. These methods provided the most information for the empirical examination.</p> <p>As a result, an information flow was examined and presented through the stages of procurement cycle of a case company. Occurred problems during the purchasing activity were introduced. According to the theoretical concepts and with the base on company's needs the development ideas how to diminish dilemmas in an international cooperation were formulated and suggested.</p>		
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## 1 INTRODUCTION

Due to the rapid growth of the global economy and the internalization of business activities, supply chains between countries became more integrated. Acting internationally, companies should put more effort and attention on improving and strengthen their entire supply chain in order to get the most competitive advantage. Through logistics' activities, procurement has become the most important strategic procedure as it gives its advantages for decreasing overall spending costs, and as the consequence to reach more profitability (Waters 2003, 228). The most significant process that affects the whole supply chain is the supplier selection procedure and, as the main tool for ensuring the overall performance of the procurement system, flow of information on each stage of purchasing. Especially in the manufacturing and construction sphere of activities, raw materials and accessories present the most value of the total production costs, therefore the importance of efficient building of the entire supply chain suggests a huge opportunity for reducing expenses through logistics (Pal et al., 2013, 1395-1397).

In this thesis Monolit Ltd procurement activities was examined. Established in 2001 Monolit is a leading construction enterprise in Russia dealing with the manufacturing of plumbing engineering. It has its own manufacture line in Saint Petersburg that assembles and supplies its commodities across the whole country and also relates with the nearest foreign companions from Belarus and Kazakhstan. The ongoing company strategy (suggested around a year ago) is attended in sourcing raw materials and accessories from China and for today already established stable partnership with suppliers from here. However, during the international sourcing a company has experienced lots of misunderstandings, problems and complexities in the purchasing activities. Especially a company stressed out on complexities occurred at information flow of the whole procurement because of the total differences between two big countries of cooperation. Various issues such as cultural differences, language, production standards and others affect the performance of the entire chain. The main goal of the presented thesis work is to facilitate Monolit to determine and resolve the dilemmas occurred in their purchasing activity. Also as a major point to be collected and analyzed during further academic study is information flow as an element of a procurement system.

Chinese economy has increased gradually in the past decades and suggests new market conditions therefore attracting lots of western organizations. Nowadays China is suggested as one of the leading countries for sourcing and international cooperation (Subramanian et al. 2014, 559). Today People's Republic of China has reached a status of the largest merchandise exporter and manufacturer worldwide, and it is well known for high quality and stable suppliers (Morrison, 2014, 1-3). Russian organizations have started to cooperate with China in the past 90's and most of the companies today invest and established good and stable global supply chain with its eastern neighbors.

The main objective of the study is to determine, examine and clarify the flow of information in all stages during the purchasing activities with the focus on the Chinese suppliers for the commissioning company, and as a result to find applicable resolution for existing issues. Based on the main objective related research questions were formulated:

Q1. What is a procurement system?

Q2. What is an information flow as an element of procurement and how does it shift within stages in purchasing?

Q3. What issues exist and affect each procedure?

Q4. How to diminish problems such as uncertainty in data, risk of delivery, cultural dissimilitude and professionalism in purchasing?

An international procurement is a significant driving factor for the company's competitive advantage and profitability. A clear and accurate information flow, as part of the procurement system, is a base for the efficient flow of money and materials in a company purchasing operations. Questions identified above play an essential role when sourcing globally and suggested the main focus for this academic work with the concentration on the Chinese suppliers.

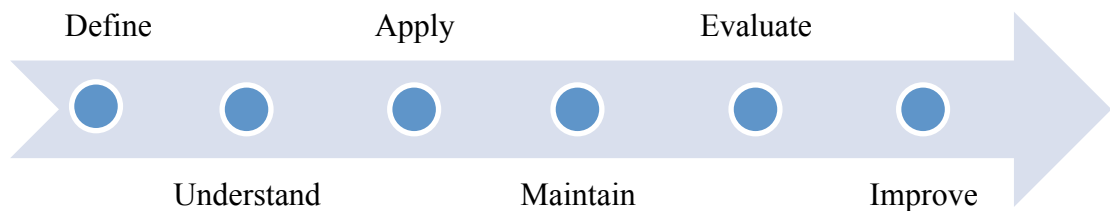
## 2 PROCUREMENT SYSTEM

*“Procurement consists of all those activities necessary to acquire goods and services consistent with user requirements.”*

(Novack and Simco, 1991, 146-151)

Procurement is the most important strategic action of a company’s activities. The overall aim of each active enterprise is to benefit of what they are doing and get profit of what they are obviously selling. An enterprise can not work isolative, organizations are not self-reliant so it is essential to get relevant basics for the production of service or product. Competitiveness of each organization is straightly directed on the impressive procurement of goods. The main task of the process is to assure the quality of supplying. Actually it is a mechanism for initiating the flow of materials provided (Coyle et al., 2003, 117-119).

Acquisition of goods and services as a strategic process (process organization presented in Figure 1) can be complex and challenging to identify, implement and manage. The process is organized by the procurement of products for further processing or resale.



**FIGURE 1. Process organization**

Material resources obtained for industrial products are required for manufacturing. An acquisition activity involves all the features that are mandatory for the daily and long run continuous provision of the company actions. According to Brewer et al. (2001, 68-71) the main goals of active acquisition within of company were identified and presented in Figure 2:

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## Aims of acquisition

Organizing an efficient material flow through the organization

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Communication and identification of needs from different departments and strengthen the relations

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Analyzing and detection of reliable suppliers

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Evaluation of the possibility for purchasing in different sources

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Establishment of acceptable prices and terms of delivery

---

Evaluation of products and services provider

---

Maintain stocks and material flow at possible minimum balance

---

**FIGURE 2. Main goals of active acquisition** (Brewer et al., 2001, 68-71)

How to organize each procurement process in a company depends on its type and size. Usually it is organized as a self-reliant department where all related activities are centralized. Waters (2003, 231-235) suggested that a company, which is aimed to operate through geographical borders, is using the centralized procurement system in order to benefit from it:

- Merger all orders and similar conditions in order to get quantity discounts
- Supervising activities to reduce transportation, administrative and stocking costs
- Developing and improving purchasing practices
- Concentration on procurement responsibilities
- Concentration and allocation on activities of each department separately



## 2.1 International Purchasing

Van Weele (2014, 3) introduced that purchasing should be defined as a right strategic planned concept and tool as a key factor in business operations. At this stage companies suggest more than half of their turnover to receive purchased reserves, so any decision at particular time of action brings an effect on future business success.

What is Purchasing? Sometime it means a one-time deal, aimed to the acquisition of the necessity at the particular moment. In this case it can be described as a tactical activity of the purchasing department. Otherwise, Supply is a strategic activity of the procurement process. Identifying the need of resources, analysis, selection and development of relations between parties, negotiations and other altogether show the complexity and the significance of understanding the company's procurement cycle. Controlling the company's external sources, since supply commodities are important to sustain internal activities are protected in highest conditions.

The concept of re-supply financial management that refers to planning and control of incoming material stream to company includes the following activities:

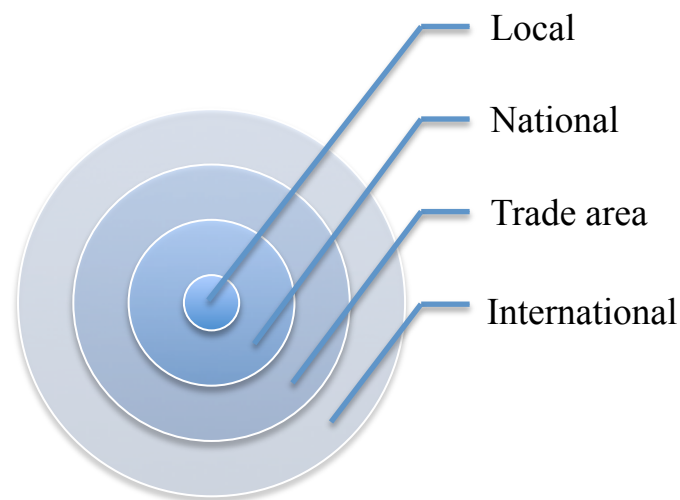
- Planning and control of incoming material resources
- Actual procurement and delivery
- Quality control
- Storage and release for production
- Disposal of unclaimed and poor quality remains and waste production

A Purchasing department is responsible for the receipt of materials and components at appointed conditions as a purpose of manufacturing facility. Otherwise, production department is responsible for serving all occurring needs to move materials and semi-finished products within the enterprise.

With the focus on the rapid increase of a globalization for past decades business partnerships and all involved relations are becoming more international. The benefits that all parties of such a coalition can gather are suggested at optimizations of the components and reducing costs in an entire supply chain. The possible geographical location advantages and countries that supply acceptable materials at low costs could

achieve it. Purchasing goods from the foreign department can cause challenges so it is extremely important to assign a responsibility for competing. The crucial point of procurement internationally is to detect and assess an availability and reliability of the specific product, access to the market, and formulate the right supply strategy. (Bhat, 2011, 95-108)

According to Smith (2002, 7-9) Figure 3 describes different options when a company desires to source items involved into the purchasing process:



**FIGURE 3. Bounds of purchasing** (Smith 2002, 8)

- Purchase items locally (within its city or federal district)
- Purchase materials nationally (domestic country)
- Purchase products within a national union (EU, etc.)
- Purchase internationally
- Purchase foreign sourced materials from the domestic distributor

According to Bhat (2011, 101) it could be said that there are two main reasons to go into international procurement:

- Collection of the material flow presented and produced in another country of companies operations and truly needed for company's activities.
- Collection of the material flow, produced with the most economical impact or with the highest quality for a reasonable price.

Figure 4 was prepared with the focus on Waters (2003, 333-337) that describes and shows some factors that emboldened the international trade:

Growing demand in new market

Interest in foreign products

Specialized support

Unification of the supply successions

Raise of demand on suppliers

Developing of logistic practises

Developed of communication phases

**FIGURE 4. Factors that emboldened international trade** (Waters, 2003, 333-337)

*Growing demand in new markets*

Nowadays an economic development of different regions causes an increase of consumption, therefore companies recognize an opportunity to cooperate globally with growing markets and enlarge their selling activities.

### *Interest in foreign products*

Through the global web and communications customers are able to examine the foreign production. They demand products that are not supplied by domestic chains.

### *Specialized Support*

Enterprises are concentrating on their special core competencies and willing to outsource some of their activities, therefore it gave a big effort to improve and suggest specialized support companies to help with international logistics operations.

### *Unification of the supply successions*

An integration of the supply chain provides a movement of goods from initial bases (suppliers itself) to final consumers. It became possible when national companies are clear and have to work internationally.

### *Rise of demand on suppliers*

Customers are putting more attention on related suppliers including several factors to analyze. Sometimes domestic manufacturers can not meet all the demand itself and a need of reorganizing their procurement to integrate foreign is raised.

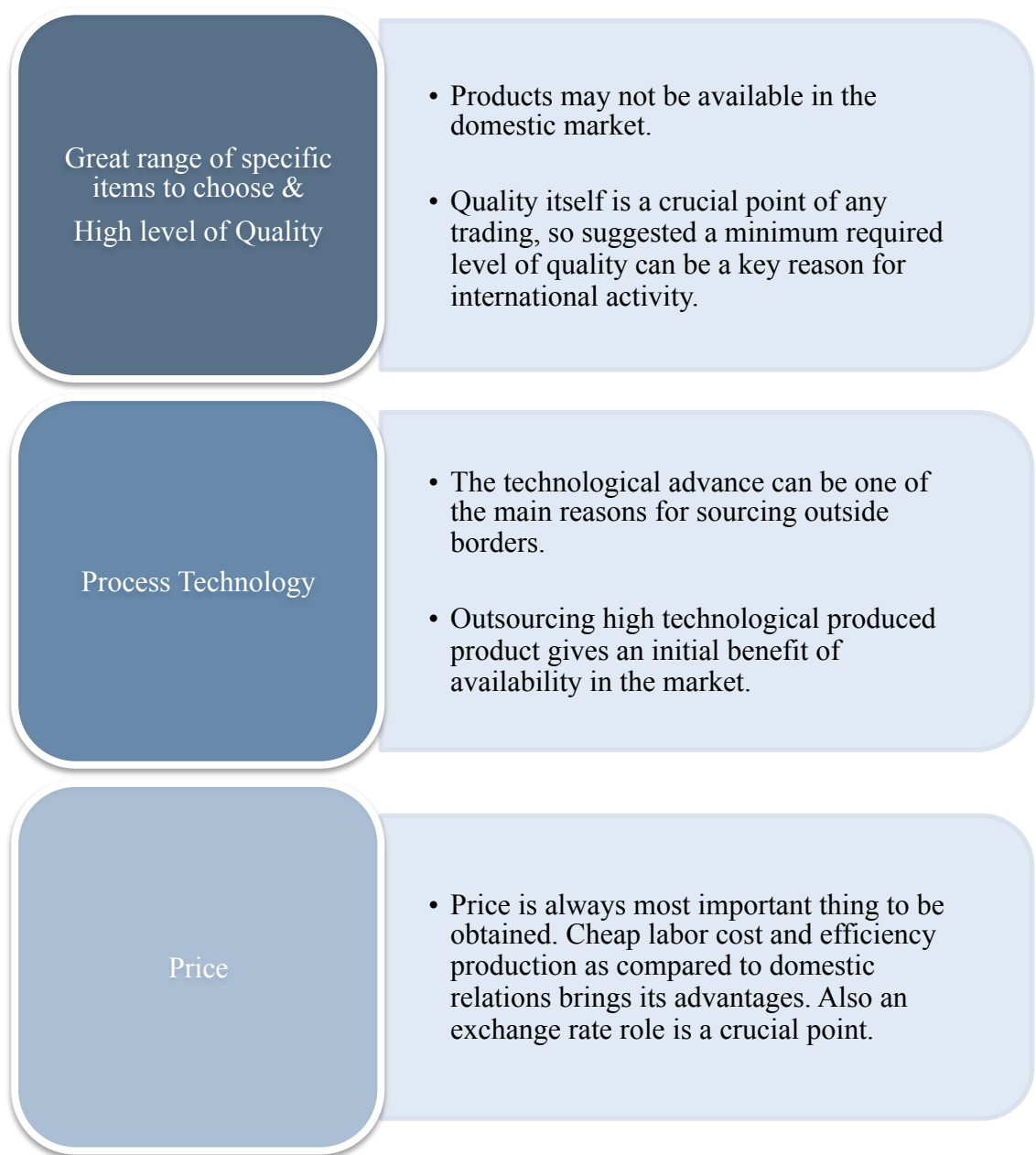
### *Developing of logistics' practices*

Improving the constituents of logistic operations make it now easier to trade international. Different factors as cheapness, quickness and others encourage companies to entry the new market.

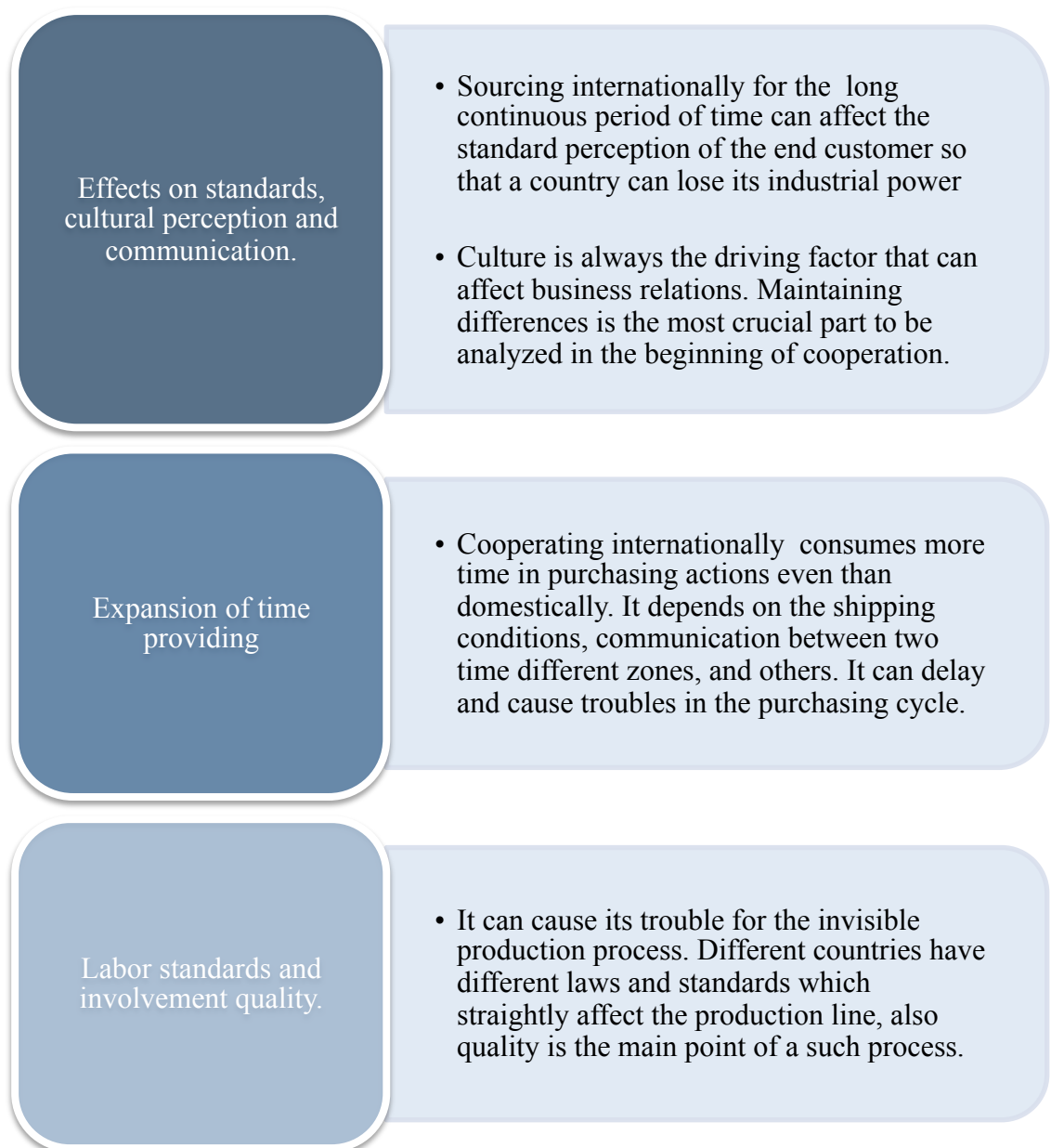
### *Developed communication phases as benefit for customers and business itself*

Modern communication channels such as TV, Internet and others provide flexibility on the choice and awareness of product conditions and stimulate the demand on different levels. The possibility to analyze different options brings more efficiency on the final output.

After several investigations and according to Bhat (2011, 100-105) a list that describes an advantages (Figure 5) and disadvantages (Figure 6) of the international trade is prepared:



**FIGURE 5. Benefits of international purchasing** (Bhat, 2011, 100-105)



**FIGURE 6. Disadvantages of international purchasing** (Bhat, 2011, 100-105)

## 2.2 Process of procurement

Starting at this point two main aspects could be suggested of how the procurement process is organized:

### 1. *Strategic*

The strategic side of purchasing involves communication within departments in the organization, integration with external suppliers, collaboration with end user,

specification of needs and demands. Main issue of the strategic procurement is proceeding that is about developing and using the right knowledge on how to allocate corporate resources efficiently (Carr and Smeltzer, 1999). Everyday plan is to identify strategic opportunities and provide with ongoing procurement schemes and methods. The main algorithm in the process of strategic procurement is to define, involve, manage and examine the scenario and decisions on an acquisition, to direct all activities toward opportunities with an enterprise's facilities in order to achieve long-term (Carr and Smeltzer, 2000, 135-137).

## *2. Tactical*

The tactical side of management activities is responsible for an overall daily purchasing operations of a company and designed to prevent deficiency, lack of resources, materials and the final product itself. During this stage it should be assured that there is no lack of commodity, the right amount with high quality is in the right time and place. Usually tactical purchasing is a batch of actions and mechanism used for the internal strategic purchasing process. It is based on collected information from limited environmental observations. (Lysons and Farrington, 2005, 3-18).

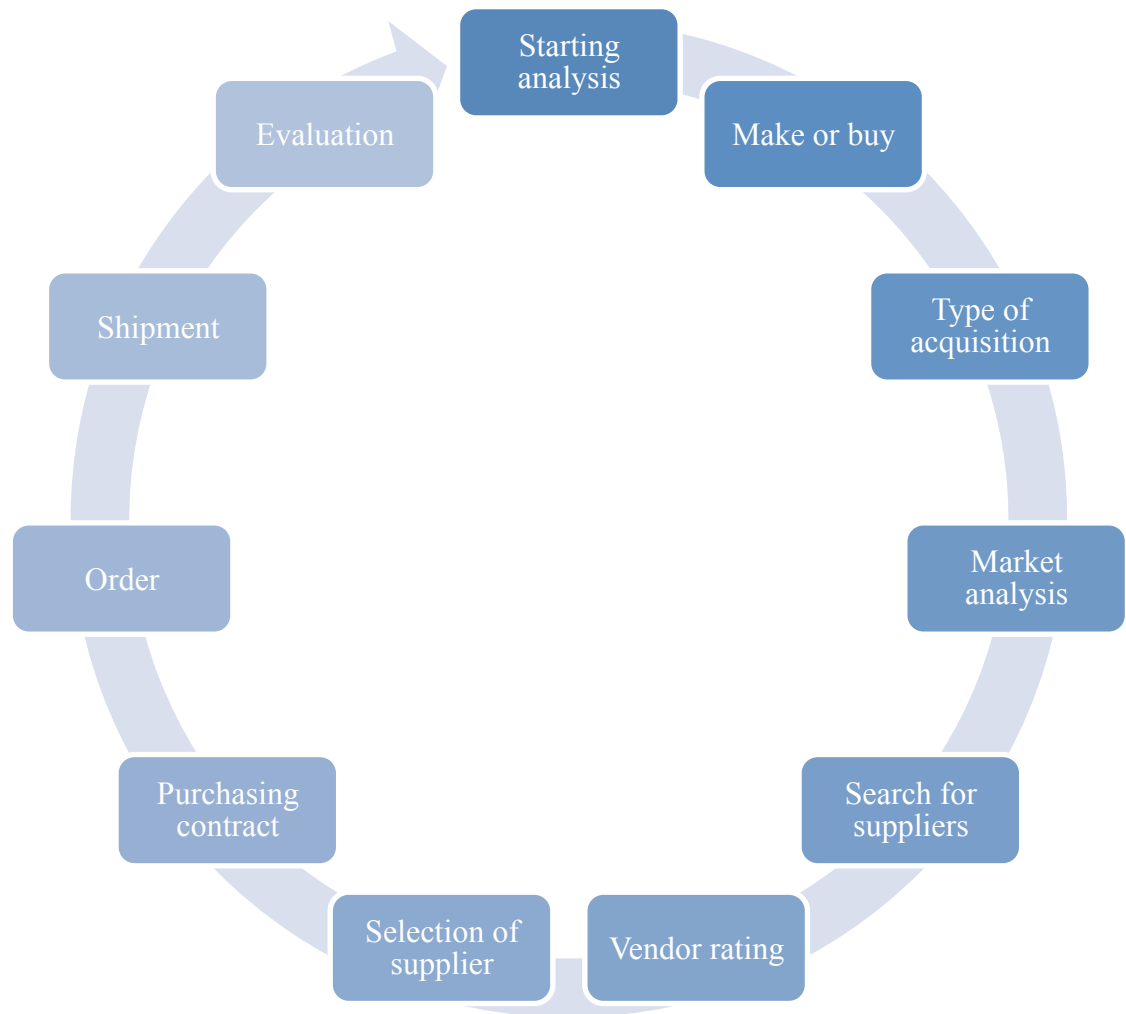
Each organization examines and suggests, then follows the right procurement process. It is vital to arrange a company's purchases (Waters, 2003). The standard algorithm of acquisition activity is to identify what you need or want to buy. Then probably make several approaches in different stages, prepare the list of facilities, and find a system to provide, search for suppliers, evaluate them, and then make your exact transaction.

A procurement process is a successful achievement of activities necessary to obtain goods and services after the customer requires to be comprehended. Activities that followed the procurement cycle can not be successfully completed without an interaction of all parties (functional and organizational). The right output of such activities strengthens the value for the supply chain.

### **2.2.1 Algorithm of procurement process**

Based on the following theory, an examination of various different purchasing process models was identified through disparate academic sources. Taking all gathered relative

information with the base on Coyle et al. (2003, 119-123), Fredenhall and Hill (2001, 200-215) and Van Weele (2003, 7-13), a reliable and comprehensive model was modified and presented in Figure 7 of how the procurement cycle was understood.



**FIGURE 7. Procurement cycle**

#### *Starting Analysis*

- Identify specification or reevaluate needs; customer requirements have to be assessed

According to Coyle et al. (2003) an identification of the need is involved on this first main stage. The mission of a procurement is to response to a customer is existing or



new demand. In different situations already existing commitments should be reviewed and rated because of the changing the impact. Once different involving parties in the whole chain determine a need, a procurement process starts. The identified customer requirements should be measured and evaluated in order to communicate users' needs with suppliers.

#### *Make or buy?*

For the better satisfaction of the end consumer, a company should decide whether to buy a finished product or service and bring it to market, or produce it itself. In both variants a company is looking to purchase some operational inputs from the outside supplier. This question is challenging and important as an enterprise started to outsource their activities.

#### *Suggest a type of acquisition*

Different forms of purchase can be suggested based on complexity of procurement process. *Straight rebuy* is just routine purchase, *modified rebuy* which suggest some changes in existing flow input and suppliers itself. And *new buy* is an outcome of new specific demand of the customer.

#### *Market Analysis*

A conduction of analysis on market can help an enterprise establish the right number of suppliers, whether it is purely a competitive market, oligopolistic or monopolistic one. Information about the current situation is not always reliable so it might be useful to examine information from trade associations.

#### *Search for all possible suppliers*

During this stage it is initial to identify all the potential suppliers where specific requirements of end consumer and suggestions from selling department can be met. Nowadays it could be challenging to find a new reliable supplier so accurate research is involved. It is vital to create some parts of investigation that can be participated by possible future partners so that all conditions and offers can be compared.

### *Vendor rating*

Monitoring a possible supplier and evaluating on their performance are necessary parts of the whole purchasing algorithm. It is done to make sure on future satisfactory service. It could be done in an easy way such as subject reviewing. Since often it is done with a checklist where all the important factors and requirements that should be met and accepted by future partners. Such list can consist of different aspects such as financial stability, delivery issues, quality, technical support and others.

### *Selecting supplier*

The choice of the supplier presents a future relationship, and how it will be structured and implemented. The actual cooperation will be based on an outcomes of vendor rating, such as quality, conditions, reliability, prices and so on.

### *Purchasing contract*

After the selection, specific contracting conditions should be identified and involved. It contains every step, coordinated earlier from both sides, from standards to delivery. The cost is set during discussions and biddings, and all the documentation should be understandable and clear for all parties concerned. Specific terms can vary from time to time such as a market situation, product characteristics, purchasing policies and others. A set of international benchmarks was created for avoiding the discussion of every little detail when relations take place in an international way.

### *Actual order*

After the unit price, technical requirements, suitable total cost, quantity and others information requirements are specified and a producer is willing to deal with the chosen reliable party, a purchasing contract are discussed and agreed. Then it comes to the processing of the order. A Purchase order should contain the description of the all goods and services, their costs, quantities and amounts, terms of delivery, timeframe and other relevant agreements to different subjects.

### *Expediting / delivery*

After the purchasing order is presented to the supplier it comes to the expedition. An expedition is a process of maintaining the supplier's performance in order to push them to meet original specifications of purchasing order. Different expediting methods are provided for various occasions. The three main possibilities were identified: exception expediting, ordinary status verification, advanced status check. Depending on the company's operations, stock situation and customer reactions, one of these methods is chosen to perform and assess the shipment time and avoid delays (Public works and services, 2013)

- Exception expediting. This method is common through purchasers. It presents the situation when a purchaser contacts the supplier to negotiate on a reformed delivery dates after the original were not met.
- Ordinary status verification. This method suggests negotiating with the supplier at the earlier stage of the delivery delay. Using this method purchasers are able to inform involved departments about postpones delivery at efficient time to manage them. Since it is a time consuming process, most purchasers do not use it.
- Advanced status check. This method is most complex. It suggests to maintain the supply process, not only providing information on delivery delays. It involves different scheduling technics to identify and evaluate the distribution process. This process allows maintaining problems at earlier stages and makes possible to avoid them.

Efficient monitoring and controlling on purchase orders should be significantly provided so goods and services ordered are adjusted at the specific timeframe and quality standards.

### *Evaluation and continuous feedback*

Evaluation and feedback are critically driven tools to evaluate performance and possible outcomes so that to manage different issues and challenges that may occur in

future. It will help to estimate the progress and keep updated with upcoming circumstances. It is crucial to have records and reports about different activities and capabilities for easy improvements in future.

With these basic logical steps the procurement department clarifies of how to carry their ongoing purchase cycle. After various attempts it becomes clear and efficient of long-term partnership to be established.

### 2.2.2 Procurement activities

To determine the purpose of procurement functions, shown in Figure 8, is necessary in order to be more involved and understand the process from inside (Handfield and Nichols, 2002, 15-23) The acquisition of goods of the right quality and the right quantity at suitable prices in a particular source at the right time – the main aim of such a process and function. This simplified approach is justified in making key decisions.

Purchasing at most competitive price

Maintain a high inventory turnover

Guarantee delivery of goods to company

Acquire the best quality products

Interact with reliable suppliers

Maximize the most benefits

Contribute to the achievement of corporate goals and maintaining logistics strategy

Reduce the share of expenditure on the purchase of a total logistic costs

Maintain effective automated records of purchased goods and support other information systems of the company

**FIGURE 8. Main purposes of procurement function** (Handfield & Nichols, 2002, 15-23)

The most reliable and principal actions in an organizations and maintaining the procurement process, summarized out of Bowersox et al. (2013, 50-57) were presented at following writing:

#### *Time management of delivery*

Establishing and identifying the time frame of material resources, services and product flows is a key concept for organizing all future activities of the manufacturing enterprise. A delay in procurement can disrupt the production schedule, which of course would entail a large overhead, and purchased ahead of schedule materials place an additional burden on the working capital and warehouse company.

#### *Rate of the delivery*

Compliance with an exact match between the volumes of supply and demand is a core concept. Excess or insufficient amount of supplied products adversely affects the balance of working capital and the stability of production. It can cause additional costs in restoring the optimal balance.

#### *Maintain & Enhance quality*

Products, materials or services are to be supplied with the required quality level, otherwise the final product will not meet the accepted standards, which will lead to increasing logistic costs. Costs of bringing the quality up to standard can be quite significant. So the need to improve the quality of supply is critically important to be improved continually. Also ensuring the competitiveness of goods and services on a global level requires attention to the quality of purchased materials

#### *Search and Purchase goods at the lowest price*

This problem is particularly acute for the Russian companies since procurement requires a large amount of working capital. Profits earned through purchases at lower prices or by reducing total logistics costs can be very significant.

### *Searching for competent suppliers and developing relationships with them*

The success of the procurement department ultimately determines the reliability of suppliers. Activity of provider has a big impact on productivity and competitiveness of the company. An employee, who is responsible for the selection of a supplier, should conduct a research and analysis of the possible supplier. It should be done by carrying out several criteria, such as a quality of the products offered, the possibility of timely delivery, price, service, etc. Another important criteria is the assessment of risk while purchasing.

### *Improving the competitiveness of the company*

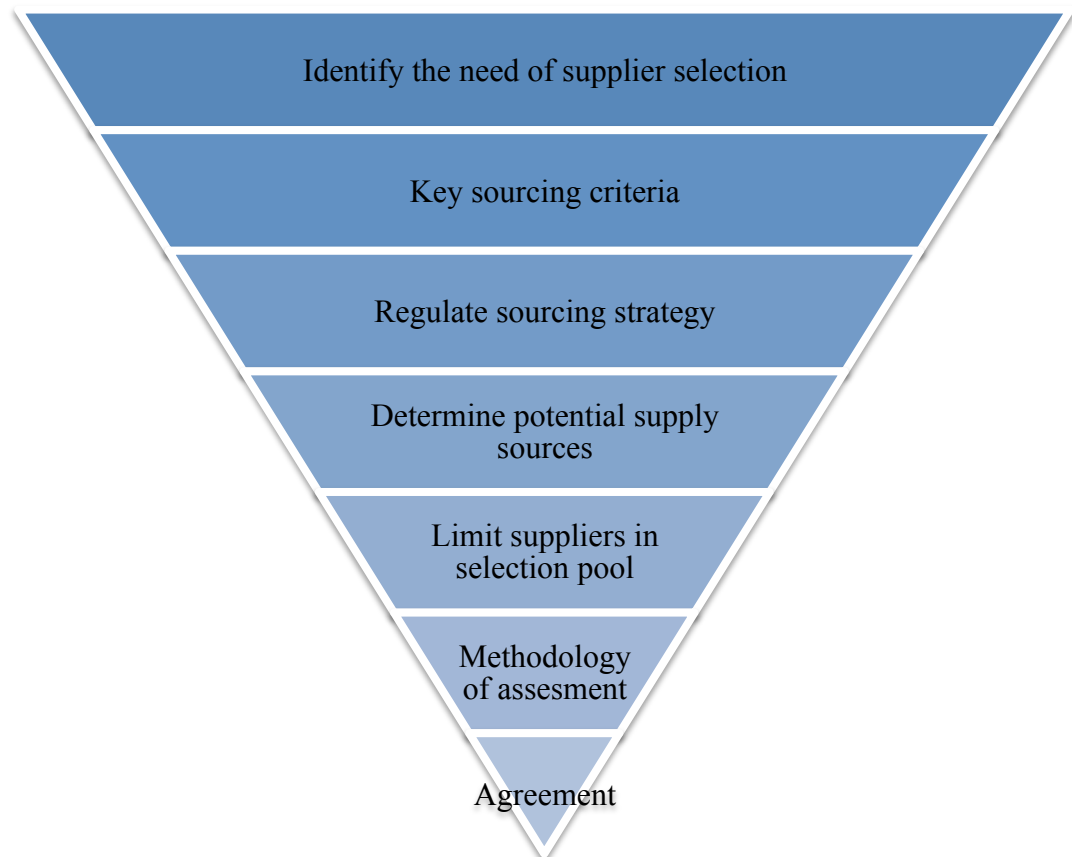
The main objectives of analyzing market purchases consist of regular collection and evaluation of data to determine the capacity of market and create the prerequisites for the optimization of procurement. This data can determine the amount of costs, changes in the distribution of its own program, introduction of technological progress, increasing the share of organization on the market and others (Lambert, 2004).

Fredendall & Hill (2001, 138-141) stressed out that in the manufacturing company the main objective of logistics management is a reliable supply of production units of the company material resources needed to carry out the production schedule. Time framing must be formed in accordance with the marketing and logistics company strategy in the sales of finished products. It is not only about maintaining material flow, but also about resolving upcoming problems with suppliers during the partnership. For resolving different issues, such as a supplier's inability to meet requirements or changes of specifications, a department should stay in communication in all stages and be clear which actions to take.

## **2.3 Supplier selection process and evaluation**

Today's global market requires developing and sustaining strong relationships with suppliers in order to provide a competitive advantage. It is recognized the importance of supplier relationships as a part of successful procurement activity and also for the whole supply chain. Further in this study steps that should be taken in the supplier selection process are presented. Figure 9 represents the process of detection and

assessment of reliable vendors that are based on the discussions of Van Weele (2003, 7-13) and Monczka & Trent (2003, 28-30).



**FIGURE 9. Suppliers' identifying process**

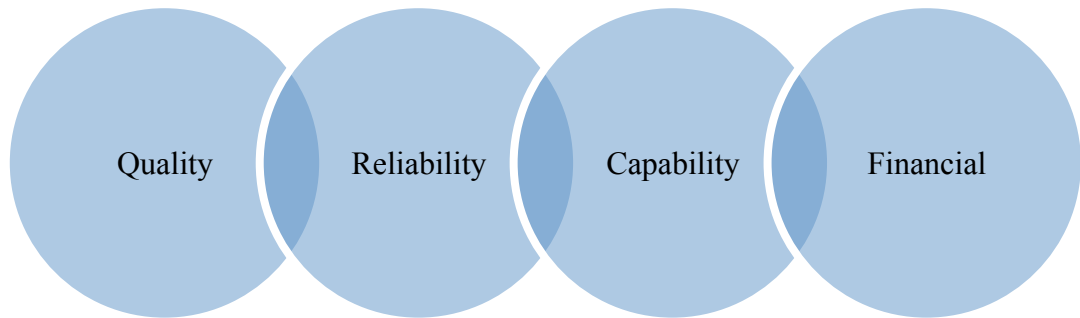
*Establish the need for supplier selection*

As it was investigated earlier, the identification of the need is the first and main step in the procurement for further actions. During this part main requirements for the selection and evaluating the supplier are established. Different situations such as launching a new product or current negative supplier performance are not sufficient and drive on a company to make decisions on the determination of a new partner.

*Key sourcing criteria*

When it comes to the partnership with a supplier, different criteria should be considered in a procurement situation as a key factor for following the succeeded

alliance. According to Coyle et al. (2003, 126-129), Figure 10 provides an overview of the most crucial points when selecting the supplier.



**FIGURE 10. Overview of vendor selection criteria** (Coyle et al. 2003, 126-129)

- Quality

Quality is the most important factor as it refers to consumer desires and should be capable with market specification. Quality includes different factors such as technical specifications, chemical or physical properties as well as design. Since it is also contains product lifecycle, possibility and the simples to repair, a complexity to use and maintain.

- Reliability

This criteria works with the delivery and performance history, because a buyer requires on-time outputs to prevent manufacture shutdowns. It should also be taken into consideration that the growing sphere of international chains presents challenges to achieve reliability.

- Capability

This selection criteria considers the potential supplier's production facilities and capacity, technical support and operating controls. Examination of these factors provides information about the ability of a vendor to present needed quality and quantity in the specified timeframe.



- Financial

The fourth major criteria for selecting and evaluating a supplier is a financial power. A company considers the supplier's financial position. Possible disruptions in long-run supply relationships can appear if the financial instability exists.

#### *Regulate sourcing strategy*

To understand and suggest how many suppliers for the particular product a company is eager to identify and establish, a classification of the type of their relations and contracting conditions are involved in this stage. Sourcing from outside obliges an enterprise to specify the strategy how to act. Here is a list with the main strategy options:

- *Short-term versus long-term contract obligations:* Commonly long-term partnership brings its advantages and suggests a good strong future communication.
- *Single versus multiply sourcing:* Preferably it is chosen multiply sourcing to avoid supply risks.
- *Domestic versus foreign suppliers:* It leads to specification of product and company's availability to purchase internationally.

#### *Determine potential supply sources*

Various sources such as different information databases, exhibitions, supporting organizations, trade sources and others, especially nowadays, can help to recognize potential partners. The main point of the selection is preparing the latest information on suppliers that fits a company's requirements.

#### *Limit suppliers in selection pool*

After considering the previous steps a purchaser draws a list of possible reliable and available suppliers and decides which ones are meeting the criteria. Limitation should be done in advance. How to limit? Suggested possible criteria on narrowing already found suppliers is presented:

- Financial criteria.
- Performance and experience.
- Surveys on each possible variant to be sure that both parties are integrate with overall requirements.

*Suggest a method for final evaluation and selection*

There are different approaches and models suggested how to assess and make a choice on supplier. Supplier information provided can be examined; a suggestion after visit the supplier under personal proposals is one possible method.

*Actual selection and agreement from both sides*

Those suppliers who best meet all the conditions and can contribute effectively with a company's capabilities are selected. The official contract that presents the main points of cooperation and responsibilities of both sides is prepared and signed to prove the partnership.

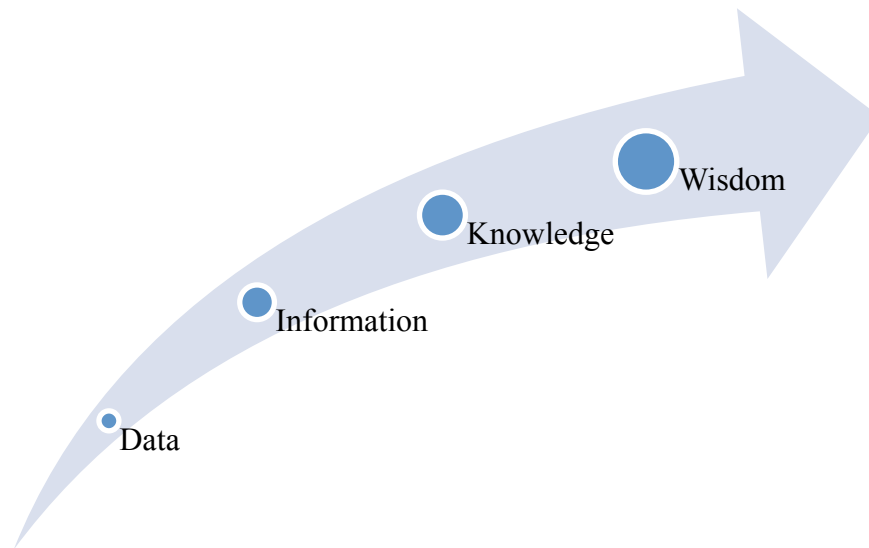
### **3. INFORMATION FLOW AS AN ELEMENT OF PROCUREMENT SYSTEM**

*“Information flow serves as the connection between the supply chain's various stages, allowing them to coordinate their actions and bring about many of the benefits of maximizing total supply chain profitability.”*

(Chopra and Meindl, 2004 472-485)

#### **3.1 Information**

A knowledge management is the most attractive thing nowadays. Ability to gather information about anything makes the significant progress in the world relations. Since it is not really clear what follows the current condition of things' understanding, according to Ackoff et al. (2002, 362-364) and with the base of Bellinger's et al. thoughts (2004) Figure 11 presents the four major segments of how gathered familiarity with things can be classified and explained:



**FIGURE 11. Hierarchy of information** (Ackoff et al., 2002, 363 and Bellinger et al., 2004, 5)

#### *Data*

A data is a raw material and the overall beginning for the awareness of something. It just exists at any form and obviously does not have a constant meaning of itself.

#### *Information*

Information it is the same data but with the given meaning and processed to be useful. Information often provides the answers for such questions as “who”, “where”, “what” and “when”.

#### *Knowledge*

Knowledge is a collection of the information, which seems to be useful. Somehow it is a process of determining the gathered information. During this process a data and information are combined and answer question “how”.

#### *Understanding*

Understanding is the most complex process. It deals with the analyzing of the previous knowledge. It is the primary act of the useful actions connected with the already

gained familiarity. An understanding could be synthesized with the new knowledge and then the circle starts again. Question “why” is answered during this stage.

### *Wisdom*

Wisdom is the process during which understanding is personally issued. It asks the questions where is no easy or achievable answer at moment. Wisdom is an evaluating and understanding and can bring the dilemmas to think about.

Information is the topic that is going to be estimated further on during this academic research. It is located above the data, raw material, and under the knowledge, consumed by the surroundings. To understand better an example connected to the procurement process was presented:

*Data* – a raw material, such as wood, metals and others.

*Information* – a willingness to purchase a raw material and deliver it to the estimated place and the actual order.

*Knowledge* – A processing of the order and the communication through the parties are involved.

*Wisdom* – An evaluation and suggestions for the future relations if actions are going to be repeated.

## **3.2 Information flow**

An optimized information transfer between the involved supply chain parties is a key benefit of integration. It provides an updated facts and consents for the accurate maintaining of the inventory reply to the changes in the perception and demand. Based on it levels of integration through the supply chain benefit in appropriate way (Stank et al., 2000, 27-32). A minimizing of the leading time, an accurate maintaining of the inventory, an improving the efficiency of the internal activities are the benefits gained through the successful integration (Lee et al. 2001, 94-96, Levary, 2000, 24-26).

All parties involved in supply chain are important in building successful supply channel. For an effective and efficient actions and gaining the competitive advantage information flow is playing an extremely important role. It is vital to increase the collaboration between the all chain partners (Mukkades et al., 2010, 227-330). Talking

about the information in the effective logistic it is an examination of the relevant data provided to the person at the specific time. Facts and materials gathered are the key to the successful supply integration as “*no products flow until information flows*” (Mukkades et al. 2010, 226).

An information flow is defined as a constant stream of communication through the parties to share the gathered data and facts. The main role is to connect and maintain the information so that all members can understand, use and improve it. According to the Mukaddes et al. (2010, 229-334) a different elements constitute the overall flow such as the certificates, reports, instructions, tables and other data and in each activity and in the particular case a supply activity should be understandable, transformable, shareable and usable to proceed with the processes and the materials flow within the operations. To activate the information flow to work it should be firstly collected, optimized and analyzed.

With the thoughts from Chaffee and Metzger (2001, 370-373) an organizations quite often try to develop and optimize their material flow within the established supply chain to gain a competitive advantage and not really focus on the improvement of the information flow. It should be taken into account that an access to the high-quality data is an important strategic goal in the improving of managerial actions. The logistic information is described as a process for collecting, managing, transporting and composing the information through the entities.

### **3.3 Information flow in context of logistic**

The effective information management helps the organizations to be sure that they meet the logistical needs and requirements from their customers. It should be prioritized in the company’s actions such a constituents of the supply integration as a order status, on-time delivery, maintaining levels of stock, an expedition, the completeness and others. The success of the implementation of such activities depends on how accurate and timely effective the information flow is described (Lambert and Cooper, 2000, 7-13).

In the context of supply chain it is about the connection of three relevant parties: materials, information and financial flows and how to apply it altogether based on the

valuable information. With a base on Sweeney's (2006) research it is suggested that the managing of the information flow within the company's operations is the most critical activity. The material and money transactions through the activities are caused of the information stream and its effective maintaining sustains the effective management (Cooper et al. 2006, 6).

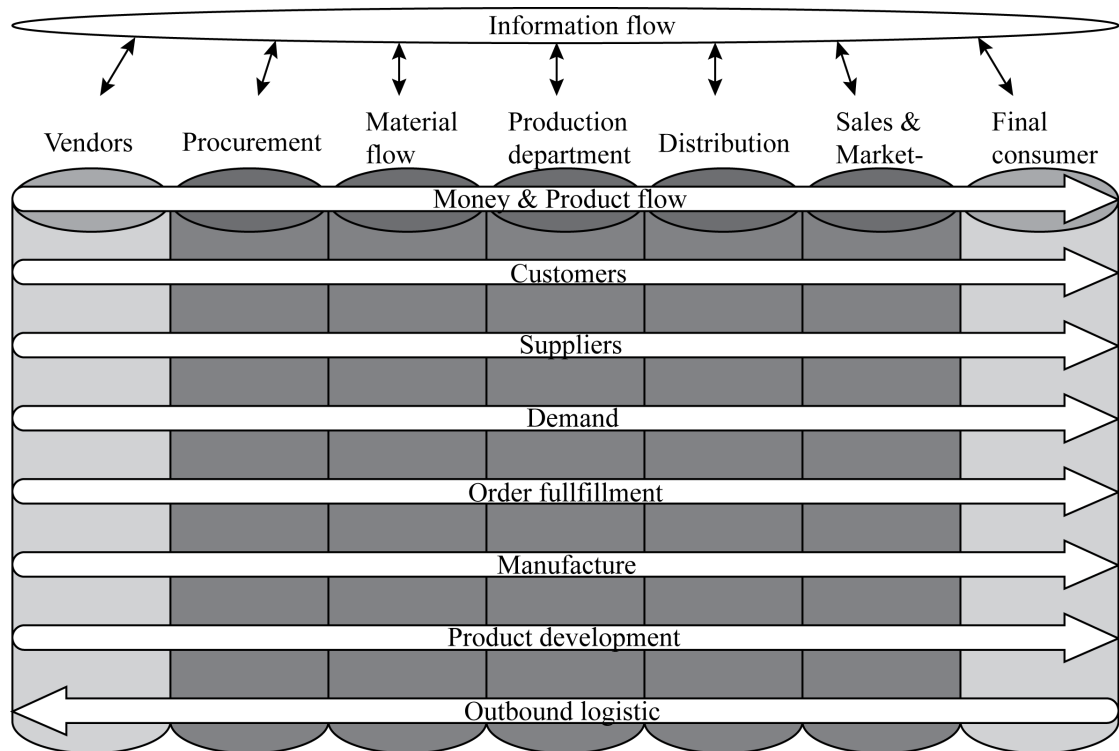
The aim of the logistic is to achieve the biggest profit with the reducing costs on the supply by the maintaining all flows effectively. It is developed with the connection of the information technology and the strategic aims, which are based on the reliable information. The whole supply chain is focused on the overall addition of value to the activities and to the consumers and performs the main aspects such as quality, acceleration, charge and flexibility (Cooper and Ellram, 2001). Supply chain goals should be accomplished at the minimum timeframe with a high speed of information transaction, minimum costs and high quality of the data content with the focus on the final customers' requirements. It suggests an improved entire chain with ability to successfully fulfill user satisfaction and create the most competitive advantage (Ketchen et al., 2008, 239-241).

From previous discussions it could be said again that the supply chain is about to apply a system approaches to maintain the flow of information, material and services in satisfaction of an end-user demand. Chase and Jacobs (2013, 8-11) suggested that the increasing of the data movement and the reducing the uncertainty are becoming the key factors for the effective development in the performance of the organization.

An operating of a supply chain without any doubts needs constant and reliable flow of information for the improvement of the product flow. Consumers are always driven factor for a greater attention on this mechanism. For the better satisfaction of the customer-oriented chain it requires analyzing the information not only at clarified manner but also in the sufficient time scale such as a quick response and the relevant feedbacks in the consumer demand. Based on Ketchen and Hult (2007) the most important three factors for effective driven supply chain are:

- Maintain an information flow in the consumer request
- Control an information flow in the manufacturing processes
- Supervise an information flow on the supplier performance

Figure 12 presents affecting of the information flow on the all substitute processes in the entire supply chain through the company's activities.



**FIGURE 12. Supply chain management** (Lambert and Cooper, 2000, 9-10)

### *Customers*

After the considering of the study of Lambert et al. (2005, 23-28) a first stage of the influence is consumer related information such as product description and accessibility, the updating in timeframes accurate information, and compliance in delivery dates. It is overall a business mission to identify the key customer and increase their loyalty by providing the specific product or service (Bolumole et al., 2003).

### *Suppliers*

The supplier relations are somehow an opposite of the customer connection. Both of these interactions play a vital role in company's activities. During this stage information flow influences on the accurately provided information about the vendors

in order to build the close and strong relationships with a long-term perspective of the cooperation for the better users satisfaction (Hardt et al. 2004, 109-113).

### *Demand*

It is an overall balance between the end-user obligations on need with the logistic capabilities of the company. According to Croxton et al. (2002, 55-59) a demand management is built in the accurate and efficient way with the driven tools such as Point-of-sale, Just-in -time and controlling on the latest customers' requirements. It can provide a competent necessary information flow and enable the organization be more reactive to the not expected demand so that minimize an uncertainty.

### *Order Fulfillment*

The whole process of the order fulfillment concerns the identifying requirements on the market, and then designs how to deal with the linking all obligations while minimizing the total cost. Croxton (2002, 22-28) suggested that the orders connect the whole system of the supply chain and its major elements such as purchasing, assembling, distribution and selling plans. An order arrangements are impression of the information therefore it could be said that the order flow is a transferable flow of the data gathered.

### *Manufacturing*

Relating to Goldsby and Garcia-Dastugue (2003, 37-46) it could be said that this stage involves all the necessities to produce, maintain and implement a production flow as well as managing the manufacturing flexibility. It makes it able to produce a wide range of commodity in the minimum time frame with the minimum costs. An efficient information flow during this process is a key tool for the manufacturers to response and reacts quickly on the new or changed customer requirements.

### *Product development*

With study of Rogers et al. (2004, 47-55) the process of the product development should be coordinated with the customers' relations, because during this stage an



identification of the structure of bringing a product to the market collaborates with both the suppliers and consumers. There are no doubts that an information flow here is a base for the process because of the selection of materials, a developing production technology and the overall integration in the supply chain.

### *Outbound logistic*

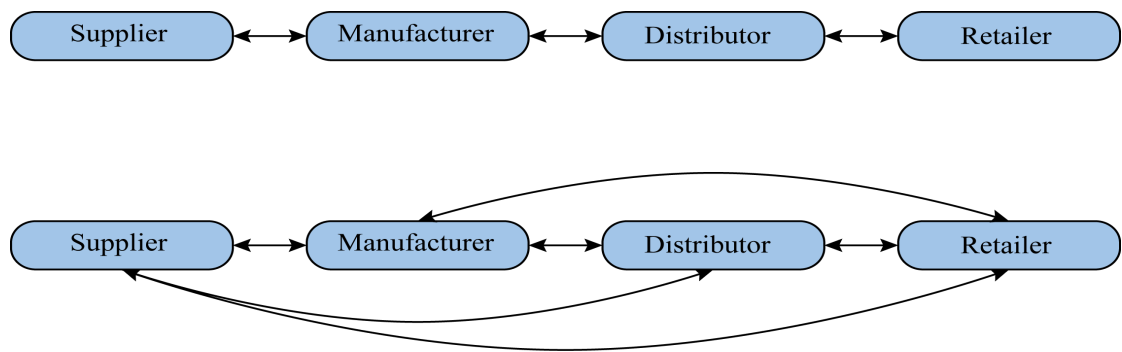
This process consisting of the returns and avoidance and its successful maintaining enables a company to manage the production flow in the more effective way as well as to establish a right strategy for minimizing the unwanted returns to the sustain organization's competitive advantage. A return can be suggested as a feedback that involves the unplayable vital information from users to the company performance. It could be said that the information flow is strong tool to reduce the weaknesses of an enterprise and improve its opportunities (Rogers et al. 2002, 7-13).

Developing an effective international supply chain maintaining the information flow during logistic processes is a key driven factor. Cooperation with the several parties involved can cause complexities because of the examination and maintaining a big amount of information gathered (Handfield, and McCormack, 2008). As it was examined earlier only the appropriate and accurate as well as strongly efficient information flow are making a base for the effective and constant flow on materials and money. The data movement (information flow) is straightly effecting on the order and the overall requirements in the four basic business integrations: a customer expectation and the obligations on need, an inventory needs, a distribution and the exact trade (Cooper et al. 2005).

### **3.4 Information coordination**

Another issue between exchanging the information through the different parties is to make sure that a data is accurate, reliable and appropriate. An implementation and the maintaining of shared information are expensive. With the consideration of Zhang 2008 (54-59) it is suggested that the operational information can be coordinated in two basic ways as it shows at Figures 13 and 14:

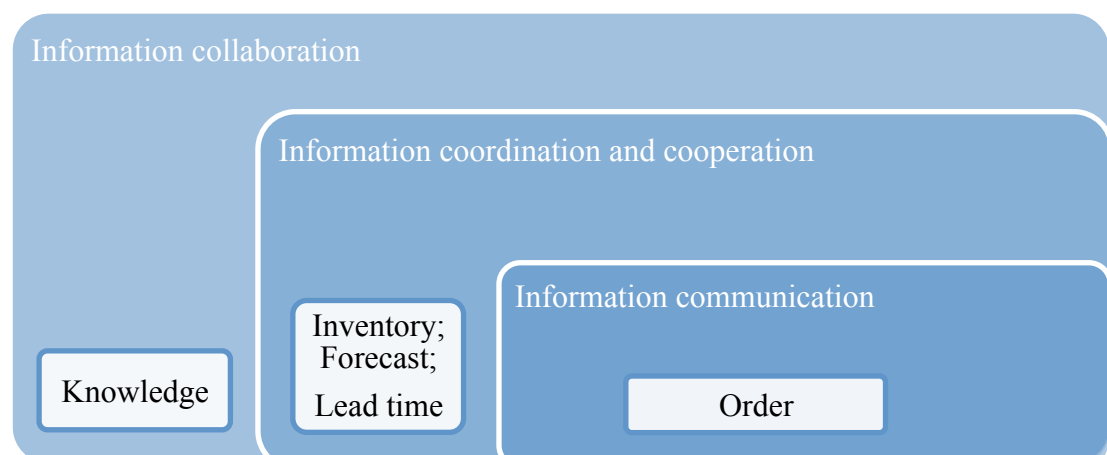
*Internal & External coordination*



**FIGURE 13. Span of information flow** (Zhang 2008, 55-59)

First an internal coordination through the manufacturing is implemented. An overall aim is to send the relevant, precise information straight to the personnel of the different departments for the maintaining and managing tasks in the production in the special time frame. After the precise internal examination the information sharing can step to the external level. It leads to the different states, such as a response on customer, an inventory costs, a delivery issues and others. For the managing those in most beneficial logistic system it may need an extra information, provided by the external parties.

*Depth of information*



**FIGURE 14. Depth of information** (Zhang, 2008, 55-59)

An information communication is the basic state of the exchanging the data flow in the logistic between the members. Its mission is to enable the improvement on the production to satisfy a customer demand.

The aim of coordination and cooperation is to provide a clear and detectable information flow. A huge amount of different data such as an inventory, the lead-time, a forecast and other information should be shared in order to gain the advantage, minimize cost and improve operations.

Collaboration is the process that enable individuals with the sufficient skills share their creativeness. It is used for the construction of the new knowledge by cooperation that could not be generated by the individual parties. It suggests a sheared opinion on the processes and the product itself. It drives at new understanding and philosophy in the supply chain and used for the creating new perspectives for a company.

How to benefit from the integration of the information flow? If it is at the internal level, it provides ability for the departments to share the information in the more clear and faster way. This minimizes the communication issues and improves the cooperation into more simple and efficient way. As to the external integration, an information flow can help the organization to improve a dialogue with its end customers and partners. So far a different processes could be developed such as an inventory maintaining, the customers' reactions, an order status, the demand management and others in the better, faster and profitable way.

### **3.5 Bullwhip effect**

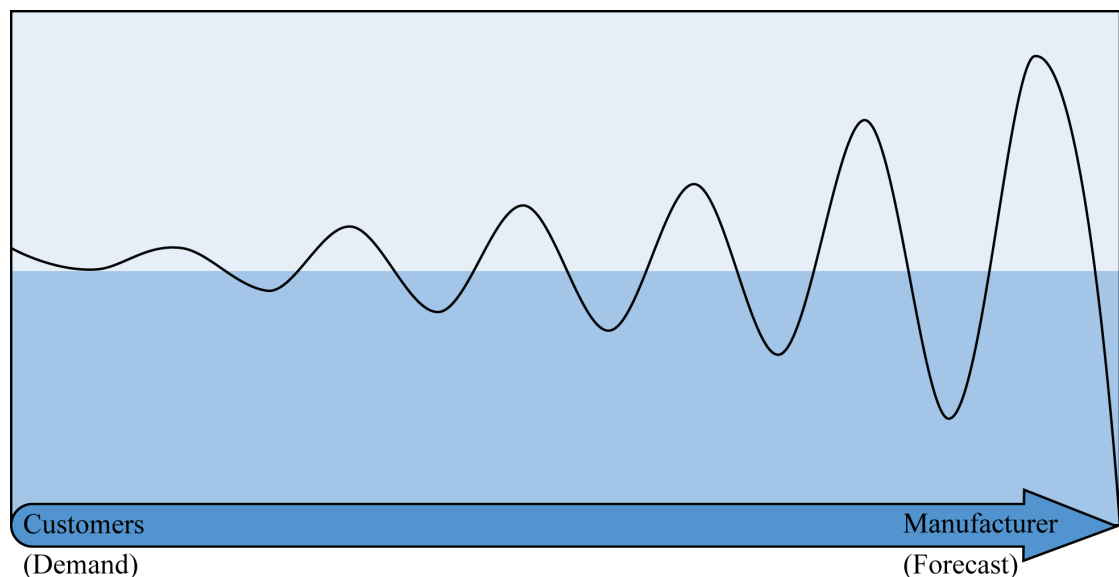
*“The bullwhip phenomenon is observed in supply chains where the decisions at the subsequent stages of the supply chain are made greedily based on local information, rather than through coordination based on global information on the state of the whole chain.”*

(Ertek and Eryilmaz, 2008, 1)

Nowadays s huge global competition among the businesses pushes the companies to enlarge their production and liquidate the complexities and the problems of their entire supply chain. Different problems are: the superfluous inventory, a scarcity of

production, an incomplete transportation and the deformation of information. The bullwhip effect can be named as one of the crucial reason for such problems existing. The bullwhip effect is the growth of the variations on the demand while shifting from the downstream departments to the upstream (Lee et al. 1997, 94-99).

This effect can be explained as an information deformation and misinterpretation (Lee and Whang, 2000). Overall, it is an accident identified by the supply chain where orders delivered to the manufacturer and distributor creates big difference then actual sales to the consumer. If an organization when developing their production line and strategy rely only on the information about the customer demand on this product from the non-relative sources, it causes the differences with the real demand information. It can cause a huge progressive through the supply chain of the insufficient information provided with the real customer need. That's why the sharing of the information is an effective method to deal with an effect so that minimized risks. In most productive and competent way an information flow should be shared among all the members in the supply chain so it would be easier to compare, manage and implement right information to improve the supply activities and the entire chain (Lee and Tang, 2000, 549-552). Figure 15 presents the picture on how the effect is progressing.



**FIGURE 15. Bullwhip effect** (Lee et al. 1997, 97)

Bullwhip effect presents an inefficiently built entire supply chain and even small changes in the demand and perception of the consumer can cause and result in a great

fluctuation in the upstream order place. The lead-time of the information and material are the most impulses for an effect arising. Based on Lee et al. (1997, 94-99) the four reasons caused the bullwhip effect are introduced:

### *1. Demand forecasting*

Forecasting is used to specify a plan of the capacity, schedule the production plan, control of the inventory and the production requirements. Historical companies' records on information sales make the base for the forecasting. The order placing is going from the downstream departments to the upstream parties and an information shared during the shifting vary a lot due to the forecast. Also as a consequence of the forecasting safety stock is required and increasing the lead times suggest an enlarging this stock. Such situation causes a huge variance on the actual demand so the bullwhip effect happens.

### *2. Order batching*

Departments use controlling on inventory stage in order to flow orders from downstream to upstream parties. In practice companies do not suggest their orders to suppliers immediately. They usually group demands and use two suggested strategic models: periodic ordering and push ordering. During periodic ordering a usual period of ordering is provided, for example once in a week. Longer period can cause a bullwhip effect as suppliers will deal with unstable downstream of orders. Pushing order consists of usual quarter or year ordering. Here bullwhip effect appears on higher variation of customer need on consumption.

### *3. Price swinging*

Seasonal discounts, special offers, quantity discounts usually cause the fluctuation of price. This situation quite often play a trick on company's selling as customer purchase for future on a lower price even to purchase continually at normal price. It causes not stable consumption and huge variations on demand so that bullwhip effect occurs.

#### 4. *Lack of final products*

Demand can rise significantly and exceeds its supplies. Lack of goods to sell refers to suppliers ration the product between downstream-involved parties. After that those parties suggest their demand order more than their actual need in progressive way. After improving and fixing the lack of commodity, time passes and order demands will be annulled because of inflation. Bullwhip effect quite often been caused because of this reasons as actual customer demand varies a lot at moving from consumer to vendors.

### **3.6 Information systems**

Clear and fast information flow has a straight influence on logistic efficiency. Therefore organizations suggest information systems to improve movement of data through channels of supply chain. Such systems became really important for the company's supply operations.

According to Simchi-Levi et al. (2007), different systems were introduced in recent years for effective link and integration between vendors and end users:

- Customer relationship management (CRM)
- Vendor-managed inventory (VMI)
- Enterprise resource planning (ERP)
- Supplier relationship management (SRM)
- Collaborative planning, forecasting and replenishment (CPFR)

What is information system in supply chain? After studying of Stair and Reynolds (2011, 10-18) it could be suggested as a collection of data, which is processed and as output information that provides the response.

Information system includes and aims at identifying, collecting, organizing, processing and transforming of data needed. Logistic management suggests different approaches on how to integrate suppliers, producers and distributors. Therefore involved parties try to create an efficient and stable working information value system through information sharing. Overall it is collaboration of members, resources and

data streams in the supply chain. Companies desire to provide most value to customers within a minimum time frame at low prices. With an attention to McLaren et al. (2004, 3-12) the key requirements of valuable information systems are presented:

- Ability to minimize company's operating costs by developing operational efficiency.
- Increasing and developing the reply on supply chain.
- Supervising the communication of information flow between internal and external members of chain.
- Suggesting more accurate and reliable information flow in specific time frames.
- As an output it should decrease lead-time and inventory facilities as well as increase company's performance, sales and improve relations with consumers.

Any failure and delay caused in information reply or transfer will affect the supply chain, its efficiency and overall activity so it is extremely important to examine each information flow at all stages as a part of supply chain management.

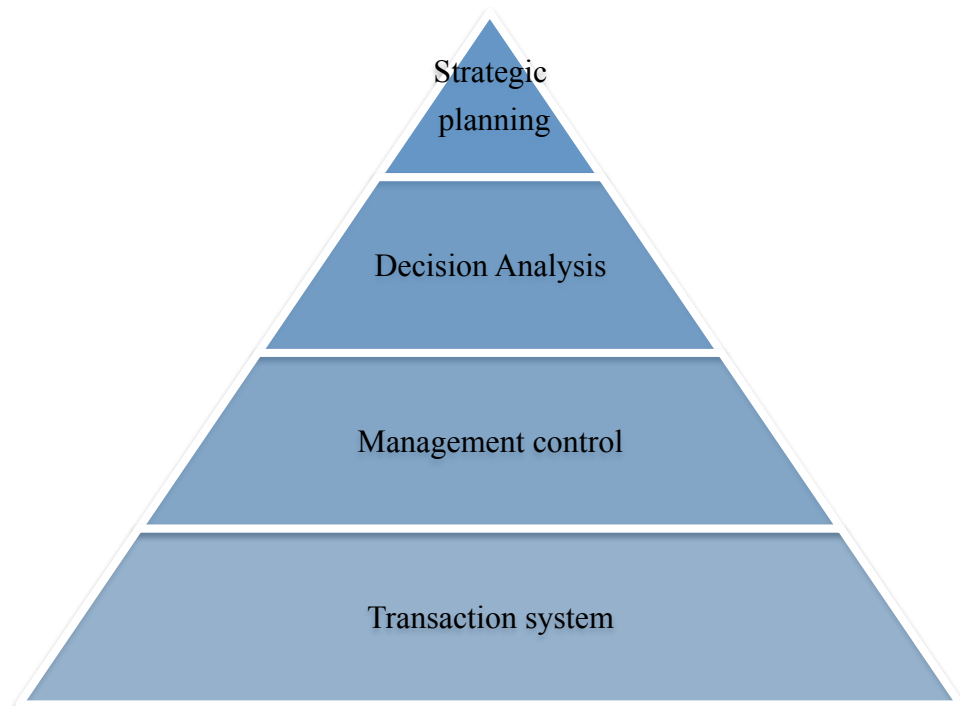
#### *Information system functionality*

Logistics management is focused on depository of commodity and flow over whole supply chain. Information flow as an element of procurement and its correctness doesn't seem so critical point especially to customers. So it could be suggested three principles why information in specific moment has become more important in supply nowadays:

- First is the customer perception of information about status of order, availability of products, distribution and invoices for everyday operations. For the consumers it is often necessary to provide real-time reliable and trustful information.
- Secondly, information is needed in managerial tasks of supply to reduce inventory. If customer requirements design is based on accurate and time specific information it can reduce inventory by decreasing uncertainty in demand.

- Also information flow plays a vital role in flexible decision-making regarding to when, why, how and where resources can be utilized to gain most competitive advantage.

With reviewing Bowersox et al. (2013), it is suggested that information systems are putting together all logistical operations into unification process. Figure 16 presents the integration process consisted of four major functions.



**FIGURE 16. Supply chain information system functionality** (Bowersox et al. 2013, 132-136)

#### *Transaction system*

As a basic level of integration transaction system is about individual supply activities and its effects. It is characterized by standardization of common rules, communication and everyday operations. In most times it involves order and inventory maintaining, distribution and customer inquiry. The process of simple transaction system is presented at figure 17. During all involved processes every party expect the right information about status of order.





**FIGURE 17. Transaction system process**

#### *Management control*

The managerial control focuses on evaluation performance and records. It is initial activity to measure performance to provide two-way communication about supply performance. Usually it includes customer service, cost, quality and others. It is necessary to record history of performance in different stages and time flow in order to improve and develop existing activity.

#### *Decision analysis*

This stage includes focusing on tools that help managers to maintain strategies to improve performance. It could be inventory management, logistic design and others.

#### *Strategic Planning*

At the last level information system is needed to assess and clarify logistic strategy. During this stage information is transferred and organized into formation. It helps to improve strategic and customer partnerships and to develop logistic capabilities.

### **3.7 Quality of information**

Not all information gathered can be used. Data flow itself can have different characteristics, which can be suggested as valuable or not. Each one of them straightly affects the whole chain of operations and individual actions too. It also can depend on provider and receiver perception and ability to analyze it. Different requirements cause variable outcomes. In organization actions it is more than important to receive exact information that is required because minimum misunderstanding can cause a big postpone to a certain action and as consequence can affect the whole operational process. If to take into account international business chains difference in culture,

language and others brings into market different perceptions so that the lack of coordination valuable information flow is a big problem.

To think about transaction of information flow in supply chain context it could be suggested the two main aspects that have a straight impact on its value:

### *1. Quality and exactness*

Without any doubts information quality plays the main role in overall flow. Information should be accurate on operational, tactical and strategic levels. The other important aspect is accessibility and availability of needed information. Also for success operations and obtaining of information flow it should be reliable, which means trustful information. The relevance and appropriateness to the specific subject is also useful criteria. Furthermore information flow should be completed at all levels, be presentable and leads to the specific time frame. Coverage of information can be wide or narrow. From the beginning it depends on topic then in personal perception and evaluation and sufficient need of data.

### *2. Speed of response and security*

Information should also be accelerated and have the initial speed of transaction. Here the main aspects are time of information be created and evaluated regarding to quality, then it takes level of acceleration of transaction between involved parties and the final aspect is time of receiving and exchange gathered facts. Information should be secured at all stages of its transaction and maintaining. While managing the value of information provided, different errors in processing (unites, amount, differences) and instability may occur. Due to international coordination in logistics, mistakes also may appear because of language variety, culture differences, perceptions and standard differences.

Focusing on global activities through international trade, lots of complexities are occurred in information flow, so that not all companies can work internationally, especially from poor economical countries. Uncertainty of reliable information should be managed in global perspectives; also it can take a huge time to transact information flow. Government issues also take place here, such as currency and inflation rates.

Lack of professionals, appropriate skills and capabilities of them can cause its mistakes. Different standards and specifications; overall difference between countries, its time zones, communication standards and others straightly affect globe purchasing. If company wishes to source globally it should be aware of right information about product, suppliers and location specifications. To minimize uncertainty of those right developed skills and capabilities will help to deal with complexities of internalization.

#### **4 CASE MONOLIT LTD**

“MONOLIT Ltd” (later Monolit) is a Russian production company that deals with manufacturing of plumbing engineering. Under its own trademark “Monoflex” company produces and supplies its commodity through the whole country and also has relations with its nearest neighbors Belarus & Kazakhstan. It offers stainless steel braided flexible hoses for water, inlet and outlet tubes for washing machines and a patented unique system “Aqua Stop”, preventing leakage of water.

Monolit is engaged in manufacturing flexible water liner of different diameters, as well as the water intake hoses for washing machines that can be customized under clients’ requirements. Company was founded at 2001, so it has accumulated valuable experience, which helps to achieve good quality of products while holding competitive prices available for the buyer. Alexander Kartashov, the CEO of the enterprise, as a financial director presents the founder of company. Monolit has an office in Saint-Petersburg, Russia with a staff around 10 employees. Production hall and warehouse are located in close proximity to the office, which has a positive impact on the management of the production process. Warehouse consists of employees range from 10-15, so in total there are about 25 people working in company at the moment. The year turnover of company is varies from 6 millions to 7 millions of US dollars and net profit is 10-12%. Procurement share is about 80 percent with all expenses are included.

Order fulfillment begins with receipt of the request, an application form from the client. Then sales manager accepts it and program of processing the data on availability of finished products in stock and available components provides with the information on the timing of orders. After that, the application goes to the warehouse and production line.

Main production is flexible hoses for water, which are customized in different sizes and shapes regarding to consumer specific requirements. During the year 2014 company has developed a new line of product to bring to the market. It is a high-tech innovation in the Russian market of sanitary engineering. It is produced with a new durable and eco-friendly material PEX. Customers can easily find information needed in the web site of a company and also communicate with sale managers to find out specific solutions for their need.

#### 4.1. Production

For better understanding example of new technology product, known as flexible connective hose for water 12 mm in stainless steel braided with new assembling material Pex-technology is presented at Figure 18.



**FIGURE 18. Flexible water hose 12 mm stainless steel PEX-technology**

([www.Monoflex.ru](http://www.Monoflex.ru))

Flexible hose for water represents itself as a water hose from Pex cross-linked polyethylene filament braided stainless steel. Braided high quality stainless steel consists of strands of 0,18 mm thick. The main innovation is that braided nylon thread with no inclusions. It has significantly improved environmental friendliness and increased the life of exploitation. Flexible hoses for water are used to connect water mixers, toilets flushing cisterns, bidets, showers, and water meters, filters, watering garden hoses, washing machines and dishwashers, coffee machines and refrigerators with ice maker.

Material Pex (PE – Polyethylene, X – Cross-linked) is cross-linked polyethylene, referring to a group of thermoplastics. This material has a number of outstanding advantages compared to other materials currently used in sanitary engineering. This

discovery by Thomas Engel in 1968 marked the beginning of the evolution in the field of polymers resistant to high temperatures (NAHB research center, 2006). Figure 19 is suggested to show some advantages of the Pex material is used:

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Advantages of production material PEX

*Time tested.* Pressure pipes using Pex-material established themselves as the best solution in the field of domestic water supply for today.

---

*Sustainability.* Through the use of advanced production technology material is non-toxic and does not form a salt deposits and accumulations of rust on the inside walls of the hose.

---

*Reliability.* Material has the ability to absorb sudden changes in water pressure to extinguish water hammer resist mechanical stress. Flexible connection with the material pex made without inclusion of nylon yarn, which weakens the strength of the hose.

---

*Installation.* Not twisted along the axis for mounting at the crease and completely returns to its original form.

---

*Life cycle.* Material is resistant to temperature changes, has high resistance to aging, which increases the service life of the inner hose to 50 years.

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*Innovative.* Leading European and international manufactures of faucets for water use only hoses with pex.

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**FIGURE 19. Advantages of PEX-material** (NAHB research center 2006, 5-7)

### *Manufacturing process*

Order execution begins with receipt of the request from the client. Then the manager accepts the application. After acceptance, program of data processing for an availability of finished product in stock and accessories provides data on orders timing. Than it comes to enter the warehouse and the production.

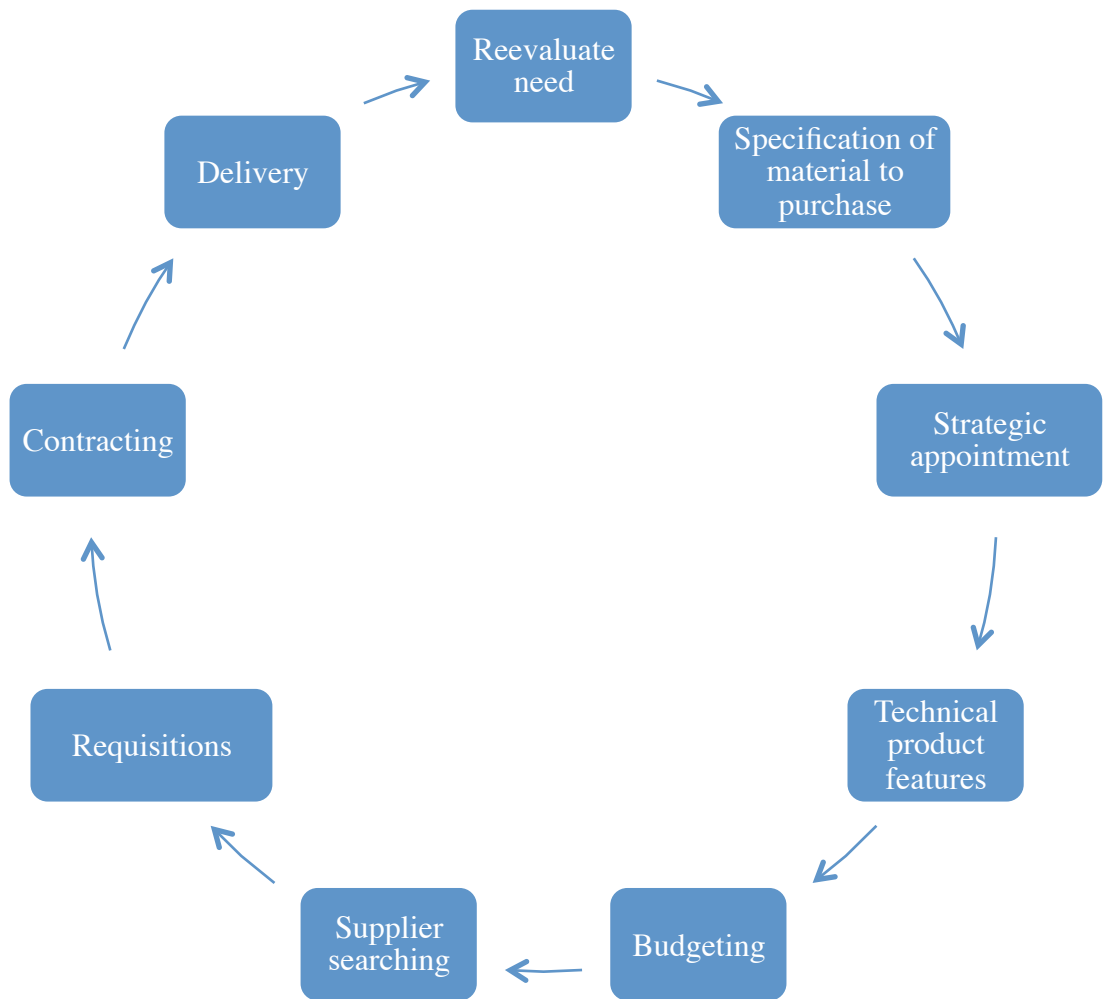
In the production line pre-braided hose is installed in the automatic cutting machine and set on the computer to the required length and the necessary number of hoses and carried segments automatically.

These segments come on semi-automatic assembly machine, which carried out mounting captive nuts, nipples, fittings and crimp sleeves on a piece of hose. This responsible operation allows correctly insert the crimp sleeve on a piece of hose, avoiding the crease under the sleeve, thereby eliminating the hidden faults. After that, the machine is done blooming crimp sleeves with a predetermined force, and finished flexible connection is supplied on site labeling and packaging.

All regulated testing of manufactured products are made according to the specifications. After this flexible connection is stored and ready for shipment to the customers. Thus in the manufacture of flexible liners “Monoflex” human factor is minimized, because all responsible operations are carried in automatic and semi-automatic mode on machines without direct human intervention.

#### **4.2 Procurement activities of Monolit**

Based on the previous theory research (chapter 2: figure 7 on procurement cycle), Figure 20 is suggested to present procurement cycle in particular case study. The model consists of nine major steps concerning company’s operations; all of them are important and have their explanation further on. The following chain was suggested and created through participation and observation of business activities and considered within communication with Alexander Kartashov, CEO and Alexander Gryaznov, logistics manager.



**FIGURE 20. Monolit purchasing activities**

*Re-evaluate need*

Monolit is willing to sources materials from China. Price is one of the most important and driven factors that pushes company to make decision on elaborating the strategy to change supply partners. It is done to increase company's profit. The identification of need to purchase materials from new environment is explored.

*Specification of material to purchase*

Company produces recent products with new eco-friendly material, so it is initial to consider types and technical capabilities for future material acquisition. With the right and precise explanation of material, risks on purchasing the wrong good reduces.

### *Strategic appointment*

Strategic appointment is a crucial procedure to ascertain company's activities. During this stage the process of procurement is established. List with all requirements and specifications for a product is prepared and checked with involved personnel. All members of the company are initial parties during this stage as to brainstorming, creating new points and double-checking for preventing the complexities and failures.

### *Technical product features*

List with included technical specifications is prepared and performed accurately. It is done for being convinced that technical capabilities meet company's needs. It is also important for future partners to clarify obligations and material requirements. Determination of specification is a primary act in price establishing.

### *Budgeting*

Accounting team is involved into stage of budgeting. Estimation of the budget for future acquisitions is the main point of execution of operations thus making profit. Organization should be aware of amount they can spend on procurement and also forecast future spending. So under this phase company is provided with information of financial possibilities for purchasing.

### *Supplier searching*

Monolit is willing to reduce cost on procurement with changing suppliers. The search of best suitable variants of future suppliers who can suggest and meet the level of quality to meet organization's capabilities is done. Theory presented above is described how to find, select and evaluate the possible supplier. Involved framework of how the process in company is carrying out is presented further on this work.

### *Requisitions*

Requisition and description of material that matches all specification should be asked from all searched and matched suppliers. It could be done with included samples and



precise explanation. At the moment at Monolit request bids consist of all necessary technical requirement information of quality and way of manufacturing the material.

### *Contracting and delivery*

The act of contracting is prepared and signed by both sides with all time frame and preliminary actions involved. As it came from contract specifications delivery should be done under signed points. Nowadays company gets from two to five containers per week.

### **4.3 Present situation and setting up partnership with Chinese retailers**

Initially, Monolit used to purchase raw materials from European market: Spanish and Italian suppliers. Since costs and standards started rising critically, company couldn't gain enough profit through such partnership. Strategically it was suggested to change its procurement environment, considering a new alliance with searching for new suppliers. As for today China has already entered global sourcing partnership and strengthened its position for the last 10 years successfully. With fast growing economy China is welcome every business for alliance and open their market for foreigners. This country suggests very cheap prices of materials and flexible purchasing and selling policies. So the decision of changing company's supply activity to Chinese was carried out. Monolit suggests to get the same quality materials but with lower prices.

Entry new country and matrix for business relations is not an easy decision and is very complicated. Chinese culture is totally different from Russian so to find new suitable supplier and establish long-term relationship takes a long time examination and consideration. When talking about Chinese people they are respected and well known for their accuracy and responsibility in doing business and it is an important point for considering of cooperating with this cultural environment.

For this moment Monolit is already stated to apply strategic line by changing environment for their procurement activities from Europe to China. Nowadays it already has some relevant and stable supplier connections in China, purchasing internal and external hoses with all appliances. Every week there are containers shipped straightly to manufacturing area.

One of the company's strength is Alexander Gryaznov, is logistics manager who responsible for sourcing from China and has a great experience on working in this sphere. According to him, it is vital to collect, assess and analyze the information flow before exact partnership. As to his previous and ongoing experience in Monolit errors and complications often occur in the information part, which straightly affects production and money flow.

It is usually happens that not sufficient and specified items delivered to the end point and for the next time every shipped material is faced the specific requirements. So sometime it is confusing to work with Chinese retail market. There are not so many possibilities to meet suppliers personally, as it could be the best solution to manage manufacturing processes from inside. Businesses partnering in international way, especially China, face these problems because of the total differences in culture, way of work, standards, quotation and others that critically affect information flow. In the case situation these issues have a great influence on information part in procurement system in Monolit. Providing the solution on them will absolutely improve the efficiency of company's entire supply chain.

## **5. RESEARCH COMPOSITION**

*“For the social scientist or researcher in applied fields, research is a process of trying to gain a better understanding of the complexities of human interactions”.*

(Marshall and Rossman, 2010, 15-17)

Research is the main process and tool for the investigation. For this academic study qualitative research methods were used as an important manner for applied science investigation. For qualitative study mainly actual engagements are examined such as dilemmas and questions gained through experiencing and observing interactions in contemporary field. Fundamental primary methods of collecting data used by qualitative researchers are documents overview and examination, straight observations, cooperation and participation. Also the most efficient tool for information collection is in-depth interviews that are used and explained further during this study. Secondary methods such as historic observations, films, photography and others are also a part of whole qualitative research (Marshall and Rossman, 2010, 78-86).

As stated in the first chapter, the main aim of research is to analyze information flow as a part of procurement system for Monolit and find the way to reduce occurred problems. It is accomplished by responding identified earlier research questions.

Research question 1: *What is procurement system?*

Company of examination had established and experienced working environment in international way. Through cooperating with foreign suppliers Monolit faced problems in identifying superior suppliers and complexities while working with them. As long as organization operates in manufacturing field, it would be necessary to start with studying the procurement system. Purchasing process is one of the most important and complex strategic mechanisms in company. Further studying is come from this main topic, so sub-questions have been formulated:

1. What are activities of procurement?
2. How is supplier selection process connected to the purchasing?

Research question 2: *What is information flow as an element of procurement and how it shifts through stages involved in purchasing?*

These two research questions are straightly related to the examination of theoretical concepts and frameworks. As a main purpose of the academic work is to identify and name complexities that exist in information flow and suggest solutions on their reducing, it is necessary to observe and use linked theoretical knowledge.

Following research questions are presented the main outcomes that are completed during further study. They related to the practical part of research and presented the main idea of what was investigated:

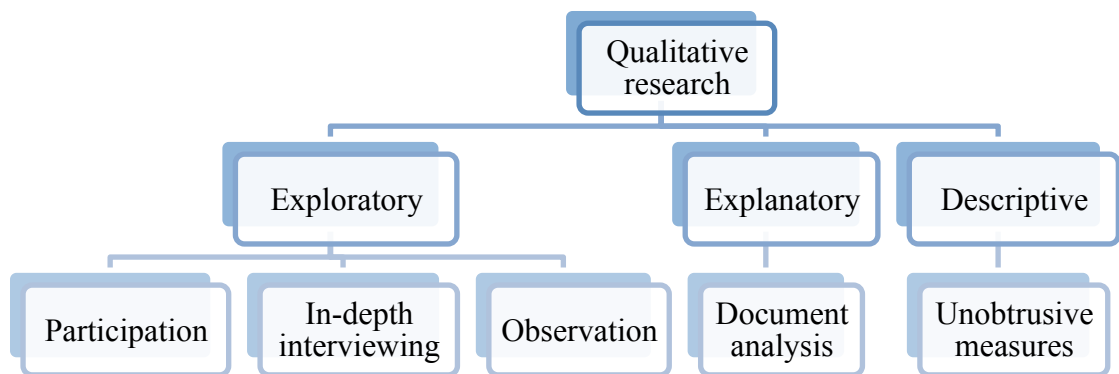
Research question 3: *What issues in information flow exist and affect each procedure?*

Research question 4: *How to diminish probable issues such as uncertainty in data, risk of delivery, cultural dissimilitude and professionalism in purchasing?*

## 5.1 Methodology of research

Main Purpose of presented study is carried out through qualitative research.

Exploratory, explanatory and descriptive methods are combined so it is not necessary to present differences between quantitative and qualitative research. According to Marshall and Rossman (2010, 38-47), questions of research and strategy suggested through forming these questions have a straight ratio of methods of primary and secondary data collecting. Participation, observation, in-depth interviewing divided to ethnographic, phenomenological, elite and focus group interviewing and the review of documents are primary methods of data collection. Supplemental methods of collection data are narrative inquiries, life histories, historical analysis, visual anthropology, film ethnography, questionnaires and surveys, psychological testing. Figure 21 presents how research was identified, developed and formed in detail.



**FIGURE 21. Research process composition**

Most outcomes and detailed answers for research questions that have been identified earlier were gathered by interviewing process that was applied through personal and Internet based interviews. Also participation and observation was involved as a main tool to draw the picture of topic researched. As it was estimated communication channels were located worldwide: Russia and China, so Internet based approaches were one of the most important portal for collecting data. Also to explain the composition of research and describe the phenomena of interest, document analysis and unobtrusive measures were decided as efficient methodological strategy and tools for studying.

## 5.2 Data collection

Two major ways of data collection exist and present today: primary and secondary sources of information gathering methods. Researchers should consider which method will suit them best for providing efficient and accurate information related to the topic. The best solution is to cooperate with both methods as primary data will be supported by secondary source materials. For the particular study both primary and secondary data collection methods were used for examination and implementation of results. For exploratory purposes of study to show the understanding of phenomena, primary sources such as participation, observation and in-depth interviews were used. For explanatory purposes to draw and explain forces, documents analysis as a primary data source were used. And for the descriptive purpose unobtrusive measures were used to show process and issues occurring.

### *In-depth interviewing*

Analyzing information flow as a part of procurement system and identifying problems existing it is important to find the best method how to gather information. Interviewing was suggested as the best main tool for data collection in this thesis. It could suggest solutions and methods of analysis of information needed. Analyzing the current company procurement situation structure of information flow was identified through long estimated communication with its participants. For better understanding and drawing the overall picture on research Chinese workers were interviewed for comparing two major points of view. To clarify the process of communication and exact interviewing process, elite-interviewing method was used to establish phenomena.

Marshall and Rossman (2010, 78-86) states: “*An elite interview is a specialized case of interviewing that focuses on a particular type of interviewee*”. Person that is interviewed is considered as a powerful and informed party in organization. This method has a lot of benefits such as providing a comprehensive view of specified phenomena in company. Elite interviewing is a subdivision of in-depth interviewing. Qualitative in-depth interviews do not concentrate on formality and answer categories. Even elite interviews focus on concrete topics with formal response.

Interviewing within the case company was mostly done with CEO of the company, Alexander Kartashov, and logistics manager, Alexander Gryaznov, who is responsible today for sourcing materials from China. Alexander Gryaznov provided most information and understanding of information flow process and showed the common problems during procurement. Also one more interview was done with Chinese cooperator Tony Dong, from Yanling Ltd, already established partner, who provided thoughts and reasons on complexities that may and actually occur. As the third outside party the Russian specialist Egor Drubin from Flagma Ltd, who is working and establishing connections with Chinese suppliers were interviewed for creating solutions and advices on how to improve information flow system.

### *Observation and participation*

For clarifying and deep understanding of working processes in case organization, observation of working structure and activities and participation on them for future analysis is highly important. As a method of collecting all needed information for conducting and building an appropriate suggestions and resolutions participant observation was used as one more main methodology for qualitative research.

Participation and observation first of all considered as a process and operation where involved party should be aware of field and sphere that is going to be examined. So this point is really valuable for further movement through investigation. During the participation of current organization's actions, information about its operations was gathered. Also information flow part were described and shown on examples and illustrated with procure operations and most complexities of its functioning were introduced. According to Flick (2006, 219-225) three major steps of participation and observation are introduced:

1. *Descriptive observation*. It is related to find, describe and specify the field of study. Through this step nonspecific details are observed and used to establish issues of the field and prepare future research questions to be examined more in details.
2. *Focused observations*. It is specified with narrowing and specifying problems that are most important for research.

3. *Selective observation.* It is concentrated on providing proof for the process identified in previous step.

### *Document analysis*

As one of the parts in this research was to analyse and resolve problems with selection supplier process documents overview was considered as a critical factor for analyzing information at long-distance. The aim of this method is to bring the picture of possible suppliers for future comparing, evaluating and selecting. Different brochures, price-lists were collected for following analyse.

### **5.3 Design of interview questions**

This section is involved into research process to show the communication and present a link between questions asked to the personnel within the framework of the study. The main aim here is to present the formal structure. Main questions were asked for three parties of participation, in order to show the structure on data was collected for future analysis. The precise questions that were prepared for three parties are located in Appendix 1, Appendix 2 and Appendix 3.

*Question 1:* Can you describe the procurement process of your company?

Since the first research question was aimed on description of procurement as following topic of examination is based on purchasing activities, it is important to understand the sequence of activities.

*Question 2:* Can you specify the international activities involved in purchasing process of your company?

As further topic of study is based on international cooperation, specification on activities to international way is important. It shows stages where international cooperation is involved in purchasing and specifies conditions on working sphere.

*Question 3:* Can you describe the stages involved in purchasing activity of your company?

It is important here to divide the big procurement activity into stages involved in whole process. It is important for understanding and precise examination of each stage and for further identifying problems during each activity.

*Question 4:* Can you, please, specify the information flow part within procurement?

This qualification is needed to specify the process of information flow and link it to the procurement within the company. It is important to understand the role of data movement through procurement.

*Question 5:* Why do you have a willingness to work with Chinese traders? Are you satisfying with already established contacts?

This question is straightly relates to the introduction part of this thesis. Reasons for cooperation were identified. Also the answer for this question makes a strong background of the research.

*Question 6:* What are difficulties you already faced working on international way, especially with Chinese suppliers?

It is crucial here to understand the aim of the research and reasons that should be analyzed and resolved. The explanation of these problems occurred makes the ground of this study while working to Chinese retailers. Further, under observation and participation in company more problems were introduced.

*Question 7:* What elements of procurement straightly influence the success of purchasing activity? What are the complexities occur in information flow?

Since company stressed out on complexities connected with flow of information within purchasing activities, this question make a strong foundation and framework for the research.

*Question 8:* Are problems, raised in information flow part within cooperation, common in international procurement? What steps, you think, companies should take for reducing such issues?



Negotiating under these questions intends to brainstorm about suggestions and possible solutions to resolve problems exist.

*Question 9:* Which specific peculiarities can you consider when doing business with Chinese?

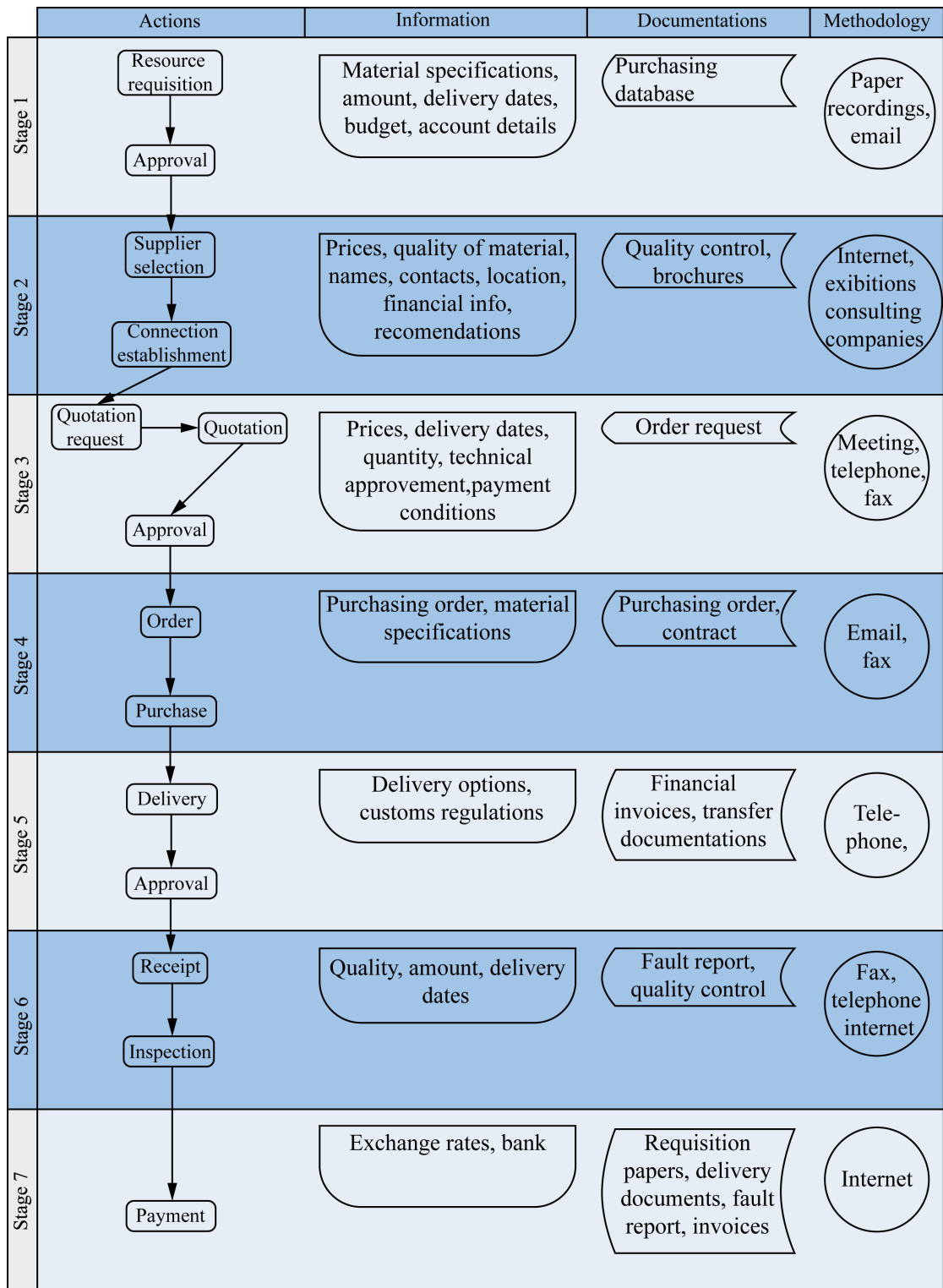
This facts collected through communication under this questions are important to remember and every time to analyse when establish new contacts and partnership in China. They are referring to organizational structure, cultural dimensions and way of communication.

## **6. EXAMINATION OF INFORMATION FLOW AT MONOLIT**

The particular findings were gathered and examined through deep interviewing and observation of company activities. Most of data was collected and analyzed through communication with logistics manager, Alexander Gryaznov, descriptions and personal negotiations as well as with other company participants were involved in different stages. The presented Figure 22 on information flow processes was developed. It presents information flow map going through all involving stages concerning procurement of company and showed needed data, documentary records and procedures of maintaining information in the particular sector.

### **6.1 Information flow in procurement**

Presented Figure 22 describes the stages of procurement at Monolit and information flow related to these stages in logistics. It is done with reviewing the ongoing and already established system in case company.



**FIGURE 22. Information flow map**

*First stage: purchase requisition*

This stage is developed in two following activities: resource requisition and its approval. From the beginning, the request about materials to be purchased is

developed. Usually two parties discuss it: technical department, which involves both main engineer from manufactory and technical administrator, and CEO of the Monolit.

First stage of procurement consists of providing material specification. It is precise description of goods to be purchased from technical point of view. Product case was described earlier and company is willing to purchase component accessorizes to assemble the final version. Some technical standards are presented further: outside diameter, inner diameter, connecting dimensions of the fittings, minimum internal dimensions of fittings, range manufactured length and others specifications. Also during the resource requisition amount of quantities is generated in order, the date of delivery is established, amount of budget is specified, account details and others are provided. Second stage is an approval on request of material examination; it is done by Alexander Kartashov and then information is recorded into the purchasing database to store for future analysis.

*Second Stage: selection of supplier and establishing contact*

After the resource requisition is prepared and approved it comes to the stage of detection the supplier. The electronic version of all materials description is sent to the Alexander Gryaznov. He examines the request from his own point of view and starts to look for a suitable supplier.

Future supplier should suggest the best solution with price and quality under material specifications presented. As the main benefit of long-term gained experience of making business with Chinese suppliers Gryaznov has his connections with manufacturers in China. First of all the specifications on materials requisition are checked. Then items that organization needs to purchase are discovered and reported.

Since several good connections are already established in long-term supplier is named with no doubts. Considering that Monolit wishes to enlarge its procurement by increasing the amount of suppliers Gryaznov is now doing a search for possible suppliers, partly based on this study. One possibility of identifying new partners is to check from personal presents or previous established contacts that are suitable. Ask them for possible solutions they can provide. Other possibility is to make search

through Internet databases, participate the exhibitions and ask from consulting companies.

The organization's strategy goal is to provide business journeys every three months. It is done for participation on special events, exhibitions and plumbing fairs to collect and analyse more information about different possibilities with sourcing from China. Visiting the exact manufacture during these journeys is crucial, since it gives a possibility to check it personally.

Process of identifying new partners is complex because lots of information has to be collected, examined and analyzed. Also communication and involved negotiations should be improved and maintained during this stage. Main purposes of this process are to maintain supplier information. It includes names and contacts, location, financial stability, product assessment including quantity and quality, recommendations etc.

It is also important to monitor current information such as prices, different conditions of payment, validity of product materials and its specifications, special case of discounts and others. By maintaining such information it makes easier to communicate with partners about the quotation, in order to benefit. Beside this, the evaluation of each contact is done accurately for future cooperation.

### *Third Stage: quotation request, actual quotation and approval*

This part is divided into three stages: requisition of quotation, quotation and its approval. Request of quotation refers to official application of materials and its specifications needed for suppliers. Obviously it is done as an order quotation and recorded at database of purchase department. Actual quotation includes materials prices, delivery dates, quantity, and technical approval of quality and payment conditions. This part refers to the answers given by the supplier to the order request.

When all needed information is received and answers are given, specifications are checked technical administrator and logistics manager provide the decision. After that, time to choose the best suitable option is come. Selection criteria refers to price, but other factors can also affect the decision. Meeting should be arranged with chosen

supplier for signing the contract. It could be done while business journeys or by meeting in Russia with a special representative from China to arrange official documentation.

*Fourth stage: order and purchase*

This stage is divided into following activities: the process of ordering and actual purchasing. For this point the suitable supplier is already chosen and contract is signed, whether it is one-time deal or already established contact for long-term relationship.

Purchasing order is sent to the suppliers via E-mail. The purchasing order is closely relative to previous description of request to purchase. It is a critical activity off all operations including in procurement, because of complexity of two-side document to which every party is belonging. Both supplier and purchaser maintain it. After sending the order request to the supplier it is asked to send the confirmation of receiving back. It includes all descriptions on materials with financial invoices and transfer documentation. These documents are recorded to the company's database and personally reported by Gryaznov for future evaluation.

*Fifth stage: delivery and approval*

It is established and named in documents received in previous stage (transfer documentation of materials) that supplier has to deliver the order under contract conditions. It includes quantity, quality, volume, diameter and others specifications to be delivered at right time to the confirmed place.

Supplier side is responsible for shipping to Monolit's manufacture warehouse as it comes from the policy of delivery suggested with the company requirements. Supplier should find the way of transfer by contacting agencies such as China Shipping or others freight forwarding companies who are able to ship goods accurately to Russia.

It comes to shipping with uploading materials ordered to special area for custom examination. If custom is passed successfully goods are ready to be delivered to final

destination. When every part is approved shipping, related documents are sent to Monolit directory.

After actual delivery all of the materials are checked. If there are any discrepancies found, compliment feedback should be filled in and sent back to the supplier immediately. Different reasons can cause this situation: nonconformance with amount of order, quality and others specifications written and agreed in the contract. These complaints are also recorded for future monitoring, evaluation and improvement of supply relations.

*Sixth stage: receipt and inspection*

Due to the modern way of doing sourcing internationally it is possible to check delivery on its different stages. It is done through Internet with special codes that are received from supplier. There are might be troubles during the delivery stage and supplier has a full responsibility at any overdue. It could be checked and report request about all postpones of shipment with explanation and suggested dates and time is asked.

After goods are delivered successfully inspection and examination group are able to check the quality and quantity of order with the same list that both parties have. It is an important process as any disparity can straightly affect material and profits of Monolit. Quality and amount of order are checked and if some problems are identified, materials are going to be sent back to the supplier with a fault report and detailed explanation. These documents are also recorded.

Those goods that match all necessities after inspection transfer to the next stage of payment. All the reports on examination of materials whether it is positive or not are sent to the both parties of contract and should be confirmed. This stage and all involved actions and documents straightly affect the evaluation criteria of selected supplier and gives new thoughts for future improvement and development.

### *Seventh stage. Payment*

Payment is the last stage in particular procurement process. After documents involved in earlier actions are checked carefully it redirects to the CEO. Examination and audition of original order requisition paper, delivery documents and fault reports if involved are done precisely. Sometimes the participation of head leadership is involved on the inspection stage of goods on quality and all related specifications.

If conditions match the requirements of order and delivery, invoice is paid with established payment conditions. If there are some reasons for non-acceptance of the materials, then the payment can be postponed until the reasons are clarified and the fault report is sent to the supplier. Since this is time and cost consuming process in nearly all episodes Monolit accepts the delivery and pays the invoice.

## **6.2 Complexities and problems are occurring in information flow**

Main concept of this academic research is to regulate and find solution how to reduce occurred complexities in information flow process through supply chain. From the beginning the problems that influence this chain are discovered and presented. All difficulties that company faces in information flow during procurement are based on the earlier examination of whole data movement throughout these operations. These dilemmas were discussed with both CEO and logistics manager of Monolit. As it can be considered and predicted complexities in data stream are occurring nearly in each phase of procurement.

### *Problems in first phase: purchase requisition*

This stage is entirely maintained by internal company's activities so different problems can be named: accessories confusion, incorrect estimation and calculation, delay on requests and inaccurate information specification. Accessories confusion is happened sometimes during the manufacturing. It is caused by assembly team's instance of having the wrong idea how to apply and utilize materials for final products. Also it can be an incorrect estimation and calculation of amount of units and materials to be used and examination on their conditions.

As it always happens especially in manufacturing organizations, it is really hard to estimate the right amount of demand, as construction and creating the order starts after receiving the order request from clients. So the problem for predicting the right amount and specific conditions for resource requirement are arising. Delays and complexities could appear because of human factor. Every detail should be examined in accurate and clarifying way in order to reduce internal company's issues with purchasing request.

*Complexities on second stage: selection of supplier*

The most critical part of procurement is to find the right partner. Lots of problems and issues can be named here: uncertain information and problem how to collect it in an appropriate way. Also issues on suppliers' information are influenced the stage of selection: reputation, financial stability and ability to cooperate in effective way. While cooperating with Chinese suppliers differences in language, culture, communication and overall way of doing the business is affecting the entire supply chain.

Detection of right supplier to purchase materials is the most critical and essential part of establishing the entire supply chain. The topic of supplier selection process can be suggested as narrow part of procurement, because there is no way to collect and examine every trouble that really happens during this activity. For better understanding it is suggested to make it in easier and more logical way.

Precise description of request to be purchased is received, analyzed and then straightly transferred to the supplier. During the process of company's needs estimation, Gryaznov should be aware of Monolit's expectations on procurement: quantity and quality, prices, delivery dates, etc. Problems occurred because of different understanding and suggesting the wrong information.

Since it is also organization's internal communication such problems happened rarely. Different cases on such communications are already happened when suggested order consists of one condition product and received another. After report on discrepancy is prepared and sent back to the supplier, he suggested it was a problem of estimating the right requisition form from Monolit's side.



Process of detecting and suggesting the right supplier starts after precise description of order request is received. It is time consuming mechanism as a big amount of information related to each supplier should be collected and evaluated. After an identification of supplier is done the comparison of different choices are analyzed in order to choose the most suitable one. This process is crucial and every decision is made based on careful and accurate examination, as the company wishes to establish long-term, trustful and effective cooperation for reducing uncertainty and future issues.

It is a huge and challenging job. Estimated information of each supplier, such as names, addresses, ability of production capacity is recorded. Establishing a non-delay contacts, suggesting the information about budgeting and product condition and specifications are involved in negotiations. After this process is done the most challenging decision as evaluation and selection the right supplier is made.

Evaluation is often based on Gryaznov's own opinion, and includes the main principles such as reputation of a supplier, his history on delivery and feedbacks provided, etc. Huge amount of factors can influence this process, so mistakes on search, evaluation and selection are also happened. For this reason logistics manager suggest having more time to act on each stage accurately and carefully.

#### *Issues during third stage: quotation*

After right contact is established it comes to quotation. Things as currency and its exchange rates, problems with communication and cooperation occur. Basically, Chinese suppliers usually provide the information about prices in their own currency "renminbi" and its primary units "yuan". Under specification in order condition, it is suggested to provide prices already in USD dollars, as Monolit uses this currency for money transactions.

One of the main logistics task is to compute the difference in currency and its exchange rate to the Russian ruble. Today it is critical and unstable factor that makes this evaluation really important. So the main idea is to find the best time solution to get the fewer prices on exchange rates and win money on this coordination. If there are mistakes in calculations it causes extra money surcharge. Since the situation was

stable with currency exchange and ruble was positioned itself on normal steady line of power, it was an efficient time situation to purchase more materials on the winning positions. Right now the situation is critically unstable and fluctuate from day to day.

Everyday Monolit maintains currency positions in order to bypass extra spending and collapse on activities. For managing these situations it could be suggest several possible ways of acting. First is to purchase from lower suggested prices, but here the quality issues and different uncertainties can influence material flow. Another one is to procure from global supplier's where the price is higher but reputation is already known. Then additional costs will be presented for certainty. There is a possibility to take a chance with winning money on purchasing, but it will straightly affect the condition of requisition. Because of it company will spend its financial power on fixing them.

When communicating with the selected supplier about prices and included conditions the issues on conversions are materialized. Two parties of one dialogue are using English as a relevant and international language for cooperation. It is suggested form previous Gryaznov's experience to use fax and e-mails, written and recorder tools for communication with Chinese retailers. It is strengthen the communication because suppliers are often non confident about their speech and could misunderstand.

Using electronic communication also causes its disadvantages. There is no estimated time of communication and also time zones affects the straight negotiation. It can take minutes to reach the supplier or sometime a week, after pushing on them to answer. Based on it, problems of cooperation cause because of non-stable and non-right predictable time consummation on communication with party. It creates delays on company's purchasing activities.

#### *Difficulties in fourth stage: ordering*

Contracting is involved in the third stage of Monolit procurement, but it is suggested to include problems occurred when contracting in this stage in order to divide problems related to specific topic.

From the beginning a good draft of contract and consideration of all points should be prepared and presented. When a good related supplier is found both parties require a contract to prove their cooperation and partnership in official way. It should include general and specific terms and conditions on cooperation. This process is done in very narrow, special and maximum accurate consideration of special terms to be included otherwise one missing point can cause a huge dissonance.

Through cooperation of two total different countries contract specifications and contents may be different based on policies and standards of each. So contract should be prepared carefully, because of disagreements could be caused by language (as the main cultural difference), policies on procurement, goods specifications, time zones differences and others. One more main point of contracting is to estimate payment terms and conditions. Usually it depends on supplier's performance. As an example of already established contact and suggested as a long-term relationships, Monolit pays 30% of the whole payment before materials are going on shipment phase and the rest after quality and quantity examination at the place.

One more critical point in contracting is assuring products quality and overall guarantee provided by supplier. For these cases special terms of warranty are suggested. They are discussed earlier during purchase requirement; otherwise a supplier should take all responsibility for damaged goods. The process of contracting is complex and usually problems occur whether it is understandable for parties under legislations, specifications and descriptions.

After the contracting issues are presented it moves to the ordering conditions. The main problem in this stage is accurate information on particular order. When the contract is signed and agreed on all conditions, Monolit provides purchasing order to the supplier. When suggesting the order it comes under careful consideration about specific information and conditions. Uncertainties and problems during this stage are: amount of goods ordered, material and accessories specification on quality and status, prices description and suggestions, dates and place of shipping, account numbers, payment conditions and others. Confirmation of order from supplier is sent with attached documents on delivery and payment invoices. When considering about order requisition to be sent precise attention in every detail should be provided.

*Inconveniences during fifth stage: delivery*

Participation and observation were done during this stage in Monolit. Most problems occur on delivery delay, discrepancy with order requirement: quantity and quality, harm production, labeling and package disagreements. To solve such dilemmas even they are once or constantly appearing, information flow should be improved on the previous stages to be aware of current activities.

If third party is involved during logistics, as in different cases suppliers are responsible only for the shipment goods till uploading on the tracks of the boat, problems during custom examination on Russian borders could happen. Suppliers don't take responsibility for these problems, so it comes to Gryaznov's power to provide solutions on such problems, hopefully they are happening not often. Based on it one critical point of selecting the right partner is his delivery history and performance.

*Troubles through sixth stage: inspection*

During this stage collection of all involved documentation and its examination is done. Obstacles are raised here because of bad monitoring, no accurate investigation on the documentation and others. Managing of documental part has to be done with great attention. During this phase it is initial to monitor information flow during ordering. It is highly important to record all steps for ensuring current activity in positive way and also for future collection and evaluation of existing cooperation.

Risk factor is playing an important role here. To solve problems already occurred in procurement quick response and reporting on every existing inconvenience with immediate communication with the second party is a good method. Also it should be improved in order to avoid issues in future.

When order reaches its destination the inspection on them should be done in accurate way. For this action not only logistics manager but also technical manager and CEO are responsible. Delivered goods are checked with order requisition at points of quantity, quality and other involved specifications. After investigation there are two possibilities. First, goods that were successfully accepted goes to production line and reach the payment stage. Second, if there are some discrepancies with original

requisition than order is non acceptable and should be sent back. It could be suggested as a failure on procurement. Reasons should be identified in order to improve future situations. If the supplier accepts their inconvenience it is suggested new terms of money refund.

Inspection as a part of purchasing activity plays a vital role for Monolit's capability and performance and must be done in accurate and considerable way. Also during this stage most of suppliers' performance are identified and used for future evaluation and suggestion.

#### *Problems in seventh stage: payment*

Information complexities are presented here in inappropriate terms on payment, not-matching bank accounts and uncertainty of safe transactions, banks cooperation and others. If the partnership is already stable and trustful then parties can consider on special credit terms. Otherwise the special condition of letter of credit can provide a guarantee on money transaction. Unfortunately this system is old for its complexity, cost and time-consuming process, so only a few companies use it nowadays.

Monolit is willing to transfer money straight to the bank account of its supplier, but sometimes the transaction is unsuccessful and non-accepted. This is really unstable and unpredictable situation and causes problems when communicating and establishing good relations with suppliers. Also some banks can restrict the transactions worldwide. Some of the suppliers use their own system that is not supported by Russian banks. In different cases an international conditions are established through banks, but sometime the transaction can't reach its destination. Because of this, losses at cost and time are appeared. Also daily exchange rate can influence the everyday transaction and cause a loss or a profit for the Monolit.

### **6.3 Reasons identified that caused occurring issues**

During the participation and observation in company and through interviewing, different reasons for complexities appeared during procurement were announced and presented previously. The findings were analyzed and suggested as a summarized list

of reasons caused with the base on interviews with Monolit personnel and Chinese supply manager from established partnership.

### 1. *Cultural differences*

Problems will appear while working and cooperating within two different countries. When entering a new area of business activities purchaser should be aware of concepts and differences of making business relationships. This topic is straightly related to international competence study and should be examined before actual cooperation. Without proper information about culture of the country you are going to enter lots of misunderstandings and problems in communication might appear. Cultural studies are an essential part of preparation for international business activity. From practical point of view many entrepreneurs and coworkers say that culture dissimilarity could cause lots of obstacles and barriers for communication and cooperation.

### 2. *Proper language*

Each country of cooperation has its own language as a cultural concept. This problem of communication came as a circumstance from first point. English became an international language especially for international business partnerships for past decades. China and Russia are both non-native speakers of English. Problems in communication with third language can cause misunderstandings because of non-fluent understanding from both sides.

This problem firstly goes to internal company's consideration, as it is Gryaznov's part to detect suppliers, communicate with them and find an appropriate way for both to be understandable. Two solutions could be suggested here. First is to communicate on native language of country, so even to learn Chinese from Monolit side or to find suppliers, speaking Russian, but in a practice it is really complicated. Second is help of third party to be involved might be necessary. For example translator services to reduce uncertainty on negotiation and understanding different specifications.

Naturally, this influences the information flow. Problems existing are depends on skills and ability of person to communicate at studied language, as information written in one certain condition can be perceived differently. In contract there is no part such

as language understanding, so no one can specify who is responsible for complexities occurred because of confusing and misunderstanding from negotiating. Also human factor is playing here a huge role. From gained experience while working with Chinese retailers Gryaznov said, that Chinese suppliers are often based on their personal skills even on technology how to record, operate and transfer particular data flow.

### 3. *Information*

Information, its collection and examination methods are all different forms of transaction and parts of negotiating. Sometimes it comes really hard to manage and maintain information flow as for its instability, changeableness, confusion, and imperceptibility. Main points here can be introduced for successful information flow: quickness of transferring data and response, and quality of information itself. These are two main points, and if something is missing problems will occur. It comes to the main concept of presented study, information should be really clarified, gathered in accurate way and strictly examined. For the particular case and obvious human factors, numbers and all specifications should be checked twice and not only by one person.

### 4. *Communication*

When doing business internationally communication plays vital role in establishing partnership, especially when both parties are willing to make it in long-term and trustful ways. Monolit suggested under its experience during participation and negotiation to invite a translator who knows Chinese (Mandarin) and English and could speak it on excellent level to reduce uncertainty and avoid mistakes during understanding different points.

Establishing good relations first of all goes from internal communication with people. If you are in good relations and have sufficient information on the persons with whom you are going to do business connections it will have its benefits, as level of distrust and unfamiliarity will reduce. Also when purchase from different country it is essential to have a trustable person, who can advice and show you useful cases on how to communicate, negotiate and overall conditions. The main point under this topic is to

have a reliable and trustful person in order to succeed. Gryaznov suggests that he already established really good and credulous relationships with different people who also help him and provide consultation on particular proceeding.

#### 5. *Quality disagreement*

Disagreements rise because of different national standards, quality suggestion and perception, its control and monitoring and overall conditions differences under technological characteristics. Worldwide it is known and accepted that most of times Chinese retailers provide poor quality standards, and products marked under “made in China” suggested at not high level of aspects and features. Russia positioning itself with a high quality level and sometimes Chinese high level is quite dissimilar. Various factors influence this statement but overall it’s the contrast on business conditions under two total different countries. So when purchasing from China an accurate examination on particular quality level conditions should be done. Recommendations on how to improve maintaining process are presented further.

#### 6. *International collaboration*

When the action of detection of supplier has come, it is suggested to search only through international workers. If domestic and even pretty small suppliers in China were found problems would appear and break business flow, because internal Chinese conditions on manufacture vary from international.

Big point of success is to find well-known supplier that already checked by others buyers, with good positioning and well-provided history on performance. If it comes to the supplier that was focused on domestic actions it could be problematic to communicate with him and arrange delivery details. They don’t have sufficient skills, knowledge and experience on doing business internationally.

#### 7. *No possibility to check and maintain current process*

It is a big obstacle to manage all flows and processes involved in whole procurement. It comes from purchaser’s inability to see what happening on the other side of the border, especially on exact manufacturing process. Main point here is discrepancy on



provided sample from supplier with the actual delivery. It is often happens that the final product doesn't match the original pattern.

To sum up, information is a way of transferring thoughts and a tool for communication. In the case of research transferring is made through two different perceptions, the most critical problem which faced by both sides. Gryaznov is pointed at written form communication in English for better monitoring and ability to record and check information in different stages if necessary. So as the most dramatically point, language should be indicated as a major way for negotiation and finding solutions for business activities. Also information itself can't be touchable, visible so hand tools can't affect it.

Seven major reasons are shown above were summarized through two interviews. One interviewee is a logistics expert from Jangling Ltd manufacturing company in China. The second is Alexander Gryaznov, logistics manager from Monolit Ltd, Russia. Mostly similar reasons for problems in cooperation were named. Information was positioned as the main reason and biggest problem of international procurement. Both interviewees pointed out on being careful and clear with information provided. Every party of cooperation expects clear and accurate information with quick transferring and responding. Quality and speed as main factors should be qualified before its transaction. Keep and update information quality is a key for successful communication.

What is more, cultural differences were also named as one of biggest issue from both sides of interviewing. As a Chinese expert fingered the cultural concepts of his country should be studied before doing business with Chinese retailers. It is highly important to have an idea how to communicate, respect and understand the ways of Chinese negotiations. Russian entrepreneurs should continually examine current economic situations as a driven factor for standards of business, as it also will help to understand current conditions.

One more reason is professional skills and way of doing business. Both sides should be aware of professionalism of each other in order to avoid poor conditions and reduce the uncertainty. Tony Dong said that nowadays lots of manufactures in China in poor condition because of slow development and economic growth. He also mentioned a

lack of sufficient knowledge. Professional skills are driven factor for improvement of production, reducing costs and efficiency. Huge competition between Chinese retailers brings its disadvantages for international cooperation. They are also about to slow down development, provide illegal standards and conditions and build distrustful relationships.

The last major problem both of interviewee announced is business differences. A big list of such differences can be named: currency and exchange rates, time zones, technical standards and regulations, different distribution channels, quality and many others. These things can not be changed personally. They are provides the business culture of two different countries, and mission of cooperation is to find suitable solutions how to deal with those.

Based on the provided reasons they can be divided and named as three major aspects of problems existing: problems in communication and negotiation, precarious suppliers and issues in differences between two countries of cooperation.

## **7 CONCLUSIONS AND DEVELOPMENT IDEAS**

According to the empirical findings and examination of the information flow and the analysis of the problems occurred at Monolit, three major aspects of the problems occurred were introduced. They're the negotiation problems and communication issues, unreliable and precarious suppliers and country differences. In this chapter, three solutions and included development ideas will be presented based on each reason. Considering the results identified in practical part with the base of theoretical concepts the objective of the bachelor thesis is achieved. Following study describes the answers for the research questions were presented in the beginning.

1. Suggestion on how to solve communication issues and negotiating problems.

During the examination of theoretical findings lots of methods how to solve information flow complexities caused by communication problems were introduced. Suggested following solution was developed based on company's needs and indicated as optimum that faces Monolit capabilities.

Best solution for reducing negotiations issues is to hire a permanent representative in China. It is conditioned because of language skills as the main criteria was introduced. The representative should have an ability to communicate with both logistics manager from Monolit and Chinese suppliers. Basic requirements for him are English, Chinese and Russian language proficiency. It will come to cooperation with Gryaznov and suppliers so this person should be able to communicate with both sides at excellent level.

Main responsibilities for the representative are to coordinate both sides of cooperation, personally visit suppliers and monitor the procurement process with supply processes. Also experience in logistics sphere, especially international is highly required. Established good social networking among Chinese suppliers is a big plus. The main idea of cooperation with representative is double maintaining in order to avoid problems in the beginning of procurement. After collecting all information about purchasing order with all requirements and specifications at Monolit strategic guideline has to be developed and provided. Then the information on order with this guideline is transfer to the representative who is permanently staying and working in China. His task is to contact, visit and maintain the suppliers. Also the inspection of the processes during manufacturing is a crucial point that should be done under provided guideline.

Person who will be responsible of this job should be competent and involved in international purchasing. It will also be helpful for those manufacturers in China who wish to expand their sourcing internationally. The main advantages of this solution are that the representative will make a strong connection between Monolit and suppliers, strength their communication and maintain suppliers at place. With such person hired the necessity of translator is reduced, and language issue is solved. It is an essential part for building strong information flow. Also one more advantage is that Monolit will reduce expenses on business journeys. Also problem of time management with contracting, negotiating and visiting the supplier will reduce automatically.

Actual cooperation should be involved in order to divide responsibility of logistics manager. In this case, Gryaznov will be able to spend more time on resolving problems within company activities. After purchase order is sent to the representative, he is taking responsibility to resolve problems outside of company activities. He will

be able to visit actual factories to inspect the process of material manufacturing, so that reduce problems on insufficient materials delivery and improve the quality maintaining. Also he will be helpful in finding appropriate forwarding company to ship goods without issues. The final main idea of this cooperation is that the representative will help to collect right information on suppliers' performance for future evaluation. It will improve the supplier selection process in order to establish trustful and long-term relationships.

One disadvantage of this solution is that the chain between customers and suppliers in company becomes bigger, so that the process itself could be more complicated. One example could be that problems are already appeared in internal activities of Monolit so that the representative will gain wrong information. It will make much more time to establish and resolve the problem. So the representative should be involved in internal company's operations and should be trained and presented with all information that flows during procurement.

In addition, it is difficult to find a professional person with strong background of international logistics and language proficiency. Trust and confidence play here the main role. Identifying such person will take time, but its advantages of such cooperation will improve the information flow between company and suppliers and entire supply chain itself.

## 2. Recommendation on how to avoid unreliable and precarious suppliers

Lots of solutions on how to improve the selection process of suppliers exist today. It relates to how to find trustable partner and establish strong long-term relationships with him. But in practice not all theoretical recommendations can help to resolve this dilemma. Only actual involvement and experience can suggest the best way.

Based on examination in company main points of unreliable suppliers were introduced. They are: quality inconsistencies with purchasing order, instability in pricing, noncompliance with contract clauses, inability to take responsibilities and imitation on provided information about performance.

First recommendation to solve problems with unreliable suppliers is to visit manufacture. Almost all suppliers send prepared samples to the Monolit. Since it was explained such way of quality controlling is not efficient. While personally visiting the supplier manufacture place production conditions can be examined and suggest the picture of materials processing. If poor conditions of manufacturing were identified it is a signal that received materials will not match required level. Also the capacity of production should be checked. Two possibilities are presented here. If the stock is full of production that may suggest that supplier is responsible for maintaining its capacity and actions are done without hurry, that straightly affect the quality. If there is only a few production is stored that may be a high-risk cooperation, as manufacturers will deliver a low-quality goods.

One more solution for supplier selection procedure is to maintain suppliers that are already established good relationships. It could be done by maintaining other purchaser's supply contacts with the same production Monolit is looking at. While contacting them, information about reliable suppliers will be presented. While suggesting this way of selection, comparison of at least three suppliers should be done. Based on this comparison more detailed information about suppliers, who is more responsible and have good feedbacks, price renting and quality analysis. To conclude, the best method of supplier selection is to participate through one cycle on manufacturing at place. For the efficient monitoring visiting several suppliers, negotiations with them and comparison in each other will make a strong ground for the process of detection.

Also one more recommendation is provided. To find a suitable supplier, searching from special sourcing databases where B2B companies are concentrate on international cooperation helps. Clear information on reputation and behavior of each supplier is provided there. Comments suggested under suppliers are also helpful thing for monitoring their performance.

One more solution can be named here. It is contacting special intermediary agencies that provide information and help to find superior supplier. In China, especially in Hong Kong lots of such companies offer their services on supplier selection. This recommendation could be controversial as for high costs to be spent. Also based on strategies of such companies the decision provided could not be best. Suppliers always

bidding for their presentation and recommendation. Because of that the question of trust is raised here.

Establishing of trustful and long-term relationship requires creation of stable supplier evaluation system. Detailed collection on related suppliers' business activities should be done precisely. During negotiations providing collected history on supplier may help to resolve questions appeared. Also such system should be updated continually for further improvements.

### 3. Solution on county differences

Country differences are fixed points. They include country standards, cultural concepts, currency and its exchange rate, different regulations, level of quality and its control. These things are vary and could be changed during specific time. They are not influenced by everyday human decisions, so there is no efficient way both participants of this case can take to resolve. Only the improvement of the differences issues can be suggested.

One recommendation on resolving information complexities under country differences is to use modern technological information systems. Different software can play an essential role within cooperation. The main idea is that both purchasers and suppliers will use the same software for planning phase. It will make the information transaction consecutive and stable in both directions: from Monolit to supplier and round.

Enterprise resource planning system (ERP) could be suggested as best software to collect, store and manage information from supply business activities. This system should be used by both Monolit and suppliers in order to integrate the core specifications of processing such as provided numbers, amount of goods to order, dates of delivery, bank accounts and others. According to technological advances this system ensures the information flow through stages in procurement in more accurate and clear way. Also one of the advantages of such system is immediate transaction of information for both participants. When ERP system is applied by both sides of cooperation standards and specifications can be updated immediately and accurately. ERP system will automate the transfer of documentation so time on communication is reduced; make backups so every document is saved. One more advantage of this

system is that if any problems will occur in information within documents it could be checked by purchaser and supplier and responsible person will be named.

Since suppliers use different information system an ideal solution will be establish a secure connection between systems each supplier uses. Based on it suppliers can log in one database with a special password is provided. All the information collected from suppliers till customers is stored in this database. It gives its efficiency as a centralized information system, and no data will be lost.

Also it will reduce communication tools problems as every participant in cooperation can negotiate through this system. This system should provide immediate response to all messages sent. Also it will reduce unnecessary movement such as redirect purchase order to supplier, transfer documentation via e-mails and others. One more advantage is that control on delivery and quality can be done in easiest way. Through ERP system communication with supplier about every specification are stored in one dialogue and the information needed through different stages could be find easily. One more benefit is simple maintaining currency and its exchange that are also stored. Logistics manager and CEO can find information about everyday currency rates and based on it predict the fluctuation.

However, creation of such database and system is time and cost spending process. Only trustful suppliers can gain an access to it. Also for maintaining this system information technology department should be involved. Russia is not at high level of technological advances, and most of enterprises do not use information systems at all. So this suggestion for resolving issues between countries differences is an innovative. Probably it could be improved in next years.

### **7.1 Recommendations from third party**

This subchapter is based on interview with specialist Egor Dubrinin who owns a consulting company in Saint-Petersburg, Russia. He cooperated with Chinese workers and gained a great experience on how to do business in China. Today his company suggests a service on consultations under different cases in order to help businesses in elaboration with Chinese partners.

Different reasons for cooperation and sourcing from China was introduced as a strength point of this country. They are: cheap labor, low material and manufacturing cost. Also one good reason for sourcing from China is availability of qualified materials that are not produced in Russia. Different business spheres such as electronic, technological, textile manufacture and others are benefit from sourcing internationally. Also it was stressed out that manufacture in China is well developed and efficient.

Since Chinese traders provide low material costs it could be suggested that efficiency of production is also not in high level, so an accurate analysis should be done firstly. It is suggested and accepted that higher prices provide higher quality.

Also the location was mentioned as a critical factor that straightly influences the performance of supplier. The standards can vary depending on location of manufacture. Also it was pointed out that suppliers' way of acting depends on area where it is common to do business internationally or not. It is common for Chinese retailers to introduce extra costs while procuring, based on communication problems: not proper information, misunderstandings, loss of documentation and others. One more critical point was introduced that the documentation can be falsified from suppliers' side.

To ensure the performance of supplier the collection of different documentation and facts play an extremely important role. The examination of production manufactory should be done accurately. Therefore participation and observation an actual processes is highly advised before actual cooperation, even it is costly activity. Talking about business standards, China is provided their own technical principles. It causes some obstacles while sourcing. Today Chinese manufacturers are stressed out on providing and complied with international standards. To solve this problem the suggestion on representative could be an ideal.

To sum up, production capabilities are improving and retailers put more attention on quality standards to face customer demand among countries. Also government is pushing on retailers to improve and involve international regulations. However, during international cooperation it is impossible to avoid problems in information flow. Accurate consideration and examination on each information part during stages of



procurement should be done correctly. Based on this study Alexander Gryaznov is now aimed to change structure of procurement in Monolit and applied recommendations in order to improve purchasing process and reduce complexities occur in information flow part.

## **8 CONCLUDING REMARKS**

This study was aimed at analyzing the procurement system of Monolit, identifying on information flow complexities exists. As a result of completed research and with the main tool of data collection method in qualitative research, in depth interviews, all research questions were answered and development ideas on resolution existing complexities were formulated and provided. It is important to mention strong corresponding of presented theoretical concepts with provided empirical data. A lot of attention was paid in identifying suitable information to present appropriate theoretical findings.

Recommendations were prepared based on empirical data collection through active participation, sustained observation and comprehended interviewing. The concept of procurement algorithm presented in chapter two was crucial for formation of this study. Based on concept developed and modified out of several resources, model of purchasing cycle of commissioning company was prepared and illustrated. This concept was a base for following examination of information flow during stages involved. Moreover, practical findings are common in Russian organizations that cooperate with Chinese suppliers. Presented analysis is suggested as a guideline involving main features of empirical data collection. Recommendations and development ideas presented in this thesis were significant for commissioning company as advices how to solve existing problems. Also these findings can be used by other organizations as an assistance work while developing their procurement.

While analyzing procurement system and its main element information flow, several ideas for future research were brainstormed. Since these problems are common and exist nearly in each company sourcing from China possible quantitative research could be suggested among these companies. This research may be helpful in collection information connected to the topic of information flow global complexities

and show the connection between several parties involved and also to draw whole picture of Russia and Chinese businesses relations.

Moreover, this particular studying was concentrated at analyzing B2B relations between two different countries. Similar research can be done with focus on cooperation with Chinese retailer and particular consumers. It will suggest the focus analysis on B2C cooperation. Under this examination research question can be named as what issues are influenced B2C trade. Similar problems that were examined in this study can be introduced here, but the overall focus would be suggested at uncertainty of such cooperation. Also online trade will be examined here.

Furthermore, concept of international behavior and competence may suggest a great examination, as cultural differences were one of the main dissimilarity and obstacle for relations. Also based on international competences other relations with eastern countries can be compared, for example India, as one of leading manufacturer too. This research would suggest a comparison between two big countries of sourcing. Description of differences while sourcing and others could be presented.

While considering this topic in Monolit, the concept of in the formation flow of logistics was fresh in the beginning. Since this topic is quite popular today in Russia it provided beneficial knowledge for future experience. Also correspond theoretical findings with empirical data was crucial and new and gave a great skill for future research processes. Therefore, this thesis process is suggested as remarkable collection of knowledge with applying them. Also personal competence was improved while interviewing different parties. The process of thesis was aimed to study how to manage and apply such massive examination and was reached with all consequences to be thought about. For future researches and similar work gained experience would be really helpful and would be enjoyable as this study.

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## **APPENDICES**

### **APPENDIX 1.** Interview questions to the personnel of Monolit.

1. Can you briefly describe your company?
  - Which is a core activity and what is the main production you propose to the customers?
  - Can you provide information about basic thing of your business: number of personnel, year turnover and net profit?
  
2. Can you please specify the purchasing activity in Monolit?
  - What is the area of you purchasing activity?
  - What reasons are follow under selection of Chinese retailers?
  - Can you briefly describe the previous procurement activity with the focus on European market?
  - Are you satisfying with international cooperation?
  
3. How a procurement algorithm is organized in your company?
  - What is a whole picture of procurement cycle in Monolit?
  - Which stages are followed in this cycle?
  - Why these stages are crucial in the procurement?
  
4. What problems can you specify while procuring?
  - Which problems relate to the internal company's activities?
  - Which problems relate to external company's activities?
  
5. Can you please stress out on main reason or section for problems exist?
  - Does information flow influence all stages?
  - Can you please describe the influence on examples?

6. What are the complexities occur in information flow?
  - Can you please divide them based on internal and external company's activities?
7. Are you satisfying with international cooperation and information flow through it?

**APPENDIX 2.** Interview question to the Chinese logistic manager.

1. Can you please specify the international selling activities of you company?
2. What are the problems while cooperating with Russian purchasers?
3. Can you describe the information complexities based on working life with some examples?
4. What is the competitive situation among sellers in China?
5. What points from cultural concepts influence the process of cooperation?
6. Which main ideas and facts should Russian purchaser remember while cooperating with sellers from you country?
7. Which recommendations on improving information flow complexities can you suggest?

**APPENDIX 3.** Interview questions to Russian specialist from consulting company.

1. What is your experience in international business?
2. Why China is the most popular country nowadays for international cooperation?
3. Based on your experience can you please specify the main concepts for successful partnership?
4. What problems exist in Russia to China coalition?
5. To which points of supplier selection process should companies pay most of attention?
6. Why complexities in information flow during procurement arise?
7. Are these problems common in international procurement?
8. Which steps do you think companies should take in order to reduce these problems?