

PURCHASING PROCESS & MANAGEMENT & FOREIGN SUPPLIERS: IMPROVEMENT PLAN

Case: Company X

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Abstract <p>Purchasing is considered a crucial function in most organizations nowadays. The development of purchasing activities could help optimize the entire supply chain. The thesis is carried out to illustrate the purchasing activities and to identify challenges existing in the case company. The author aims to establish an improvement plan for the case company to develop its purchasing activities.</p> <p>The theoretical section of the thesis covers the following areas: definition and objectives of purchasing, the purchasing process, tasks and responsibilities of the purchasing management, the purchasing management process, supporting tools and techniques in the purchasing management, and challenges in international buying. The thesis adopts the inductive approach together with the qualitative method.</p> <p>Data are collected from both secondary and primary sources. Secondary data are obtained from published books, academic journals, and trusted electronic sources. Primary data are gathered from face-to-face interviews with employees in the case company's purchasing department and from experiences and observations of the author. In the empirical part, the purchasing activities and challenges in the case company are presented. Moreover, some recommendations on how to cope with existing challenges at the case company are included.</p> <p>As a result, the study indicates the primary tasks of a purchaser and a purchasing manager of the case company. The thesis outcomes also show several challenges in the case company, for example, high employee turnover, lack of supplier evaluation measurement, inactive supplier base, inefficient purchasing management system, and lack of face-to-face interactions among employees. Based on the findings of challenges, an improvement plan focusing on the human resources, supplier risk and relationship management, electronic purchasing management system, and internal communication is created for the case company.</p>		
Keywords Purchasing, Purchasing Process, Purchasing Management, International Sourcing, Foreign Suppliers, Improvement Plan		

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1 INTRODUCTION

1.1 Research background

Supply chain in most organizations entails a crucial function, namely purchasing. Purchasing plays an important role in ensuring the company works smoothly, effectively, and profitably. Purchasing refers to the activity of buying materials and services needed for operations. The materials and services obtained should be of the right quality and quantity, at the right time and the right price. Efficient purchasing can facilitate a smooth flow of goods internally and externally, save on a company's total cost, and improve a company's competitive position. (Van Weele 2005, 16 & 18; Lysons & Farrington 2006, 6; Monczka, Handfield, Giunipero & Patterson 2009, 8.) Being aware of these benefits, many companies nowadays focus on professionalizing and improving their purchasing activities.

Depending on different types of businesses, industries, and a company's specific goals and objectives, each organization may create a particular purchasing process and follow its own purchasing strategy. According to Van Weele (2010, 8-9), a typical procedure may consist of several tasks such as selecting suppliers, negotiating with vendors, placing purchase orders, and following-up the orders. Concerning the purchasing strategy, different objectives bring corresponding types of purchasing strategies. For example, a company that emphasizes cost leadership tends to focus on cost and price reduction, whereas a company that aims for availability or quality differentiation may pay less attention to costs and concentrate more on lead time reduction or quality control. Purchasers apply detailed purchasing approaches to each of their daily tasks. The purchasing strategies should be assessed from time to time and updated with innovative ideas. It could be noted that when there is an improvement in one step in a purchasing process, a total chain's efficiency and profit could be increased. (Van Weele 2005, 18 & 142.)

In the electronics industry, specifications and quality of products are important when making a purchase. An end product or even a whole manufacturing chain could be hindered if one of the components functions improperly. In addition, goods availability and appropriate delivery time are critical with purchasers. If a key component is not provided at the right time, customers of the purchasing company, which could be factories and manufacturing companies, could face the need of postponing their production which may result in a huge loss. In the research, the author examines the purchasing activities of a small German company. It is a distributor of electronic components. For the purpose of the study, the author only focuses on material purchasing. Thus, all the aforementioned issues could

be some areas that the case company may need to pay attention to when planning the development of its purchasing activity.

1.2 Thesis objectives, research questions, and limitations

Thesis objectives

The author aims to analyze the purchasing and purchasing management process of the case company by describing the main tasks of a purchaser and a purchasing manager. The study then indicates several challenges that exist in the purchasing activities at the case company. Thenceforth, the core objective of the research is to present some suggestions for improving the overall performance of the case company's purchasing system.

Research questions

Arising from the core objective of the thesis, the main research question is:

What are the possible improvements for Company X's purchasing activities?

In order to answer the main research question, sub-questions are formulated as follows:

- How are the purchasing activities of Company X carried out and managed?
- What are the challenges existing in Company X's purchasing function?

Limitations

There are certain limitations in the research. First of all, regarding the research design, as a case analysis is chosen, the researcher's own bias may be involved in the data collection process and thus, the outcomes of the study may not be objective. Secondly, there is a criticism of the external validity or generalizability of the case study. (Willis 2014; Bryman & Bell 2015, 69.) As the scope of the research is the case company and its purchasing process, the findings are limited to this case company and its purchasing function. Thirdly, due to a confidentiality agreement, the researcher cannot reveal the identity of the case company nor share information relating to cost and profit in the purchasing procedure nor publish the names of participants in the interviews. The author refers to Company X as a data source throughout the thesis, but the exact source information such as the address of the case company's website is not mentioned in the list of references, due to the confidentiality agreement. Fourthly, the author and the interviewees are not native speakers of English so there may be miscommunication which affects the results of the study.

1.3 Theoretical framework

The thesis aims to analyze the purchasing operations of Company X and to suggest some development ideas to the company. Thus, concepts and theories about the purchasing process and purchasing management are the focus points in Chapter 2 and Chapter 3, respectively. Various steps in the process of purchasing, management responsibilities, the process of purchasing management, and supporting tools used in purchasing management are presented. Chapter 4 describes the major challenges with regard to buying internationally. The chapter covers such issues as communication, cultural issues, lead time in purchasing, transportation, quality-related matters, exchange rate fluctuations, and payment methods.

1.4 Research methodology and data collection

The research methodology is described as the procedures that the researchers go through to describe, predict, and explain a phenomenon. How the research problem is defined, in what way the hypothesis is stated, what data are collected, what particular method is adopted to analyze the data, why this specific technique is chosen, and other issues are comprised in research methodology. In short, the research methodology is considered as the study of methods used in research. Theoretical processes, experimental studies, mathematical formulas, and statistical approaches are some examples of methods that the researchers employ in their research. Regarding data collection, it concerns what sort of data is acquired and what ways of collecting adequate data are selected. (Kothari 2004, 8, 17-18; Rajasekar, Philominathan & Chinnathambi 2013.)

Saunders, Lewis, and Thornhill (2016, 124) created the research “onion” diagram to explain the choice of data collection techniques and analysis procedures. There are six layers of the onion, namely philosophy, approach to theory development, methodological choice, strategy, time horizon, and data collection and analysis. Due to the scope and purpose of the thesis, the author chooses to illustrate the thesis’s research methodology and data collection by the simplified research “onion” model (Figure 1) with four crucial layers: research approach, research method, research strategies, and data collection.

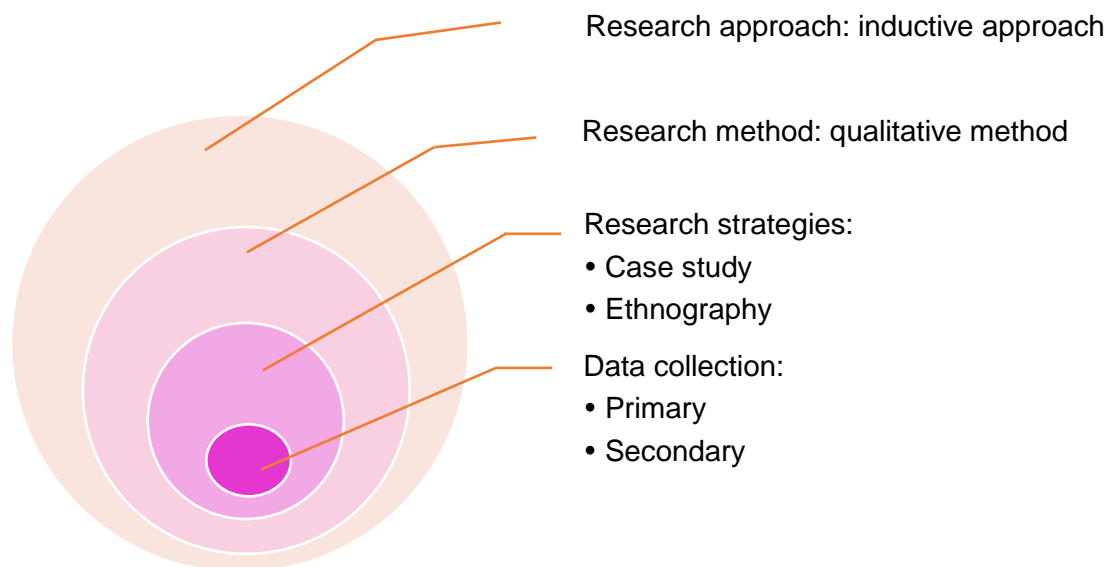


Figure 1 Simplified research “onion” of the thesis (Saunders et al. 2016, 124)

Research approach: inductive approach

Three main approaches to theory development are known as deduction, induction, and abduction. In deductive inference, theory and hypothesis (or hypotheses) are stated in the beginning, data are then collected and analyzed in order to test the hypothesis. On the contrary, in inductive reasoning, collecting and analyzing data occur first to generate conclusions. With abduction, data collection is used to build a new or modify an existing theory which is verified afterwards. (Saunders et al. 2016, 152.)

Concerning the topic and the objectives of the thesis, the inductive approach will be predominantly applied in the research. The author will start by gathering data about the purchasing performances in the case company via several sources. Subsequently, the author will analyze and explain these findings. Based on these observations and evaluations, conclusions about the topic will be produced with the improvement plan.

Research method: qualitative method

Quantitative and qualitative methods are the two most dominant approaches for conducting business research. Quantitative research emphasizes the testing of theories and focuses on the deductive approach to the relationship between theory and research. In contrast, qualitative research has an emphasis on generating theories from data, which stresses on an inductive view of the relationship between theory and research. Moreover, in data collection and analysis, for the quantitative research, quantification or numbers are concentrated while the qualitative method tends to be concerned with words. (Bryman & Bell 2015, 416-417; Saunders et al. 2016, 165, 166 & 168.) Overall, quantitative research

is used to study topics objectively with mathematics and statistics and attempts to generalize the findings whereas the qualitative method aims for getting insights into the topic from the perspectives of participants (Market Research Guy 2019).

The qualitative method is used for the thesis based on the grounds of the explorative nature and purpose of the research. The author tends to gain a deeper understanding of the case company's current situation in the purchasing department and identify its possible improvements. The qualitative research is conducted by collecting data mainly through interviews with employees in the case company's purchasing department. Different perspectives and detailed explanations about job tasks from interviewees are presented.

Research strategies: case study and ethnography

The choice of research strategy also needs to be paid attention to as it shows the way how the thesis objectives are accomplished and the research questions are answered. Multiple research strategies, such as experiment, survey, archival and documentary research, case study, ethnography, and grounded theory, could be linked essentially with research methods. While the first two strategies could be associated chiefly or solely with the quantitative method, the next two may be used in quantitative or qualitative, or mixed methods research. The last two strategies are then connected closely to qualitative research. Depending on diverse factors such as thesis purpose, research questions, available time and resources, and existing knowledge, authors select their suitable research strategy for their studies. (Saunders et al. 2016, 177-178.)

In the context of the thesis, case study and ethnography are utilized jointly. According to Yin (2018, 33), case studies are most likely to deal with "how" or "why" queries. These explanatory questions entail a profound description and understanding of the "case" which is defined as any phenomenon that may involve a group, a certain organization, a country, or a particular situation (Yin 2018, 33; Brewer 2000, 76). Another strategy, namely ethnography, is used in case studies. Ethnography refers to the study of meanings of individuals' behaviors and activities in natural settings through the researcher's direct participation in the environment. (Brewer 2000, 10.)

Considering the thesis, the author conducts a case company analysis about its history, products and services, personnel in general, and its purchasing department in specific via various sources such as company websites, training documents, and employees' interviews. When exploring purchasing operations of the case company, the author considers the ethnography so that the issues of the case company can be examined from multiple aspects.

Data collection: primary and secondary sources

After defining research problems and designing the research plan, the researcher comes to the stage of data collection. There are two kinds of data which are primary and secondary data. The primary data refer to the data that are recorded, experienced, or observed in the first place. Four principal types of primary data are measurement, observation, interrogation, and participation. On the other hand, the secondary data refer to sources that have been gathered and interpreted by someone else before. These data can be seen in the form of newspapers, magazines, documentaries, and internet sites. (Kothari 2004, 95; Walliman 2011, 69-71.)

The author collects data from both primary and secondary sources. Primary data are mainly from semi-structured interviews with employees in the purchasing department of the case company and from experiences and observations of the author who works as a purchaser during her internship. Secondary data relating to theories of the purchasing process, purchasing management, and international sourcing are obtained from published books, academic journals, and electronic sources. Secondary information involving the operations of the case company is from the company's website and training materials.

1.5 Thesis structure

The study comprises two fundamental sections which are theoretical foundation and empirical research. The following table displays a detailed structure of the thesis.

Table 1 Thesis structure

Chapter 1	Introduction
Chapter 2	Purchasing: definition, objectives, and process
Chapter 3	Purchasing management
Chapter 4	Challenges in international sourcing
Chapter 5	Introduction to case company
Chapter 6	Empirical research and data analysis
Chapter 7	Improvement plan for Company X
Chapter 8	Conclusion
Chapter 9	Summary

Chapter 1 describes the research plan including important elements: research background, thesis objectives, research questions, limitations, research methodology, data collection, and theoretical framework.

Chapter 2, Chapter 3, and Chapter 4 go through the theoretical basis of the thesis. The definition and objectives of purchasing as well as a thorough description of the purchasing process are included in **Chapter 2**. **Chapter 3** covers the primary tasks and responsibilities of a purchasing manager, the purchasing management process, and several supporting tools for managing the purchasing operation. A list of some challenges that purchasers may face when buying across the country is drawn up in **Chapter 4**.

Chapter 5 sketches out an overview of the case company.

Chapter 6 emphasizes the empirical research and data analysis part of the thesis. The material is collected from observations carried out by the author as well as a collection of viewpoints of interviewed employees. In addition, activities in the purchasing department are explained comprehensively. Challenges that the purchasers at the case company may face are presented as well.

Chapter 7 is the improvement plan for the case company. It includes some development ideas for the case company's purchasing department.

Chapter 8 concludes the thesis with answers to the research questions, reliability, validity, and gives suggestions for further studies.

Chapter 9 summarizes the whole thesis.

2 PURCHASING: DEFINITION, OBJECTIVES, AND PROCESS

2.1 Purchasing definition and objectives

Nowadays the terms “purchasing” and “procurement” are used interchangeably. In the context of the thesis, the term “purchasing” is used more often. “Purchasing” could be seen as organizational buying. “Procurement” is a somewhat wider term because, in addition to purchasing, it encompasses transportation, quality control, and sometimes environmental matters. (Van Weele 2005, 12 & 14; Lysons & Farrington 2012, 6.)

Purchasing or organizational buying could be regarded as purchases for organizational use and not for individual or family utilization. There are four main types of organizations: industrial/producer organizations, intermediate organizations, government and public-sector organizations, and institutions. Each kind has different characteristics relating to purchasing. To be specific, the first ones such as manufacturers or producers buy goods or services for their production and commercially significant purposes while the intermediaries such as distributors, retailers, and hotels buy goods or services for resale or for assisting in reselling other goods. The third category is the government or associations that provide service at the national or regional level, purchase goods or services for resale or use. The last group such as schools or voluntary unions purchase goods or services for their own needs. (Lysons & Farrington 2012, 7.)

Another definition for purchasing is from Van Weele (2005, 12) who refers to purchasing as

The management of the company's external resources in such a way that the supply of all goods, services, capabilities and knowledge which are necessary for running, maintaining and managing the company's primary and support activities is secured at the most favorable conditions.

According to Pooler, Pooler, and Farney (2004, 4) and Lysons and Farrington (2012, 4), the term “purchasing function” involves “acquiring raw materials, components, goods and services for conversion, consumption or resale”. An organizational unit responsible for performing the purchasing function is known as a “purchasing department”. A person who leads the purchasing department is called a “purchasing manager”.

As defined by Marrian (1965) and then cited by Lysons and Farrington (2012, 6), “organizational buyers” are

Those buyers of goods and services for the specific purpose of industrial or agricultural production or for use in the operation or conduct of a plant, business, institution, profession or service.

Throughout the thesis, the terms “buyer” and “purchaser” are used interchangeably. Likewise, the words “vendor” and “supplier” are essentially synonymous and used interchangeably (Pooler et al. 2004, 4).

According to Winthrop University (2012), as cited by Lysons and Farrington (2012, 6), the purchasing is “the process of procuring the proper requirement, at the time needed, for the lowest possible costs from a reliable source”. In this statement, Winthrop University mentioned some predominant objectives of purchasing. These objectives are to acquire materials and services necessary for the corporation, to buy efficiently and wisely, and to protect the cost structure of the company. Furthermore, nowadays, the purchasing function is expected to retain the appropriate quality/value balance, to ensure the continuous supply, to identify new or alternative sources of supply, to recognize market trends and on-demand items, to negotiate effectively, to build and maintain solid and long-lasting relationships with key suppliers, to coordinate with other internal departments, and to create a more ethical and sustainable supply chain. (Baily, Farmer, Crocker, Jessop & Jones 2008, 4-5.)

2.2 Purchasing process

A typical purchasing process model, according to Van Weele (2005, 13), comprises six standard activities which are illustrated in Figure 2. The detailed description of each step and some related concepts will be described in the following sub-sections.



Figure 2 Purchasing process model (Van Weele 2005, 13)

When there are purchasing requirements and the company decides to buy some goods and services, the company begins its purchasing process by determining the specifications of the required goods and services. The second step is concerned with searching for potential suppliers, investigating, and selecting the most suitable source(s). The third

stage requires negotiating with the suppliers to conclude with an agreement at a reasonable price and conditions. This leads to the fourth phase dealing with issuing the purchase order, contract, or agreement to the chosen supplier. The fifth step involves expediting and monitoring the order to ensure the timely delivery of the proper product or service at the agreed time and place. When the products are delivered, they need to be checked whether they meet specified requirements in the contract. The final phase comprises following-up and evaluating the suppliers. At this stage, responsibilities such as filing claims, rating suppliers, and updating goods and supply bases are included. (Van Weele 2005, 13; Burt, Petcavage & Pinkerton 2012, 1.)

2.2.1 Determining specification

During this first stage of the purchasing cycle, the requirements of the demanded item or service are clarified. The requirements for what to buy usually come from the company's inventory areas or other internal departments of the company. They inform their demands to purchasers through either of two methods: a material requirements planning schedule and a purchase requisition. The material requirements planning schedule and the purchase requisition may contain functional and technical specifications of the required items. Functional specifications express the functionality of the product whereas technical ones detail technical properties and characteristics along with suppliers' expected performance. (Van Weele 2005, 47-48; Burt et al. 2012, 15 & 17.)

A broader concept of functional and technical specifications is the purchase order specification. It embraces five aspects which are quality specifications, logistics specifications, maintenance specifications, legal and environmental requirements, and a target budget. Firstly, quality specifications indicate how the products should be certified in quality and what technical standards and disciplines that the items should comply with. Secondly, logistics patterns specify the required quantities and the anticipated delivery time. Thirdly, what maintenance and possible after-sales services that the supplier will offer in the future are described in the maintenance section. Fourthly, legal and environmental requirements denote the responsibility of respecting and obeying safety, health, and environmental regulations in products and production procedures. Lastly, the target budget shows how much the buyer should spend to make a purchase. One may say that this initial stage of the purchasing process is crucial as it assures clear descriptions of purchased products and services in many respects to avoid possible mistakes and problems in subsequent steps due to ambiguousness. (Van Weele 2005, 48.)

2.2.2 Selecting supplier

After determining the attributes of the purchased items thoroughly, the second stage of the purchasing process involves seeking potential suppliers and selecting the most suitable supplier(s) to place an order with. As for routine items or repeat purchases, buyers are likely to have their own list of regular vendors so that this supplier search stage does not take much time and effort. On the other hand, for totally new purchases, expensive, or scarce items, the investigation and selection process may be more complicated and time-consuming. (Burt et al. 2012, 17.)

In the case of finding new suppliers, the purchasing team may conduct a search through the Internet. Purchasers may use different search engines and browse numerous supplier databases or distributor networks. A comprehensive buying source published by Thomas Publishing Company is Thomas Register or an online platform ThomasNet today. It serves as a primary industrial directory connecting buyers to organizations that produce and distribute the products that buyers want. Some other helpful sources to explore more vendors are from international trade journals such as Purchasing World and Purchasing. Colleagues, salespersons, acquaintances, or familiar suppliers could also give recommendations or valuable contacts of providers. Additionally, supplier data could be obtained from commercial representative offices, companies' purchasing databases and platforms, the Yellow Pages, industrial fairs and exhibitions, and city libraries. (Womack 1998, 69; Benton 2010, 159; Lindholm 2012, 25.)

When numerous suppliers have been found, competitive bidding or negotiation between buyers and vendors takes place. Buyers send a request for quotation (RFQ) to suppliers, which implies that the vendors are invited to make a bid fulfilling the requirements in an RFQ. Varied organizations may have diverse forms of RFQ. These requests are often transmitted electronically to the vendors. (Burt et al. 2012, 17.) An RFQ could consist of individualization of the product, required standards and certifications, specifications and drawings, quantity, delivery time, the term of delivery (Incoterms 2020), price, and payment term (Nurminen 2012, 13-14).

Examining technical, logistics, quality, financial, and legal aspects of quotations and comparing bids are the following steps. There could be ranking schemes at this stage. In the end, the most suitable supplier is chosen to fulfill an order. Sometimes, in enormous or complex orders, multiple vendors are selected as each one can provide partial demand only. (Van Weele 2010, 52-53.)

2.2.3 Contracting

Once the purchasing agent selects the supplier, preparing and establishing a contract or a purchase order is expected. The contract is defined as the agreement to the transaction before a sale can occur between the buyer and the seller. In most situations, the contract could be seen as a purchase order. A valid contract requires a process of reaching an agreement by offer and acceptance. An offer is defined as a proposal for someone to do business. In the purchasing circumstance, the purchasing side sends an offer to buy – which is known as an RFQ – to the selling party. On the other hand, the sellers could issue their product catalog as an offer to sell to the buyers. An offer could be accepted, go through the negotiation stage, or be rejected. The acceptance of an offer will result in an agreement. (Benton 2010, 48-49; Burt et al. 2012, 17.)

As a signed contract is legally binding to both parties, the buyer and the seller need to specify precisely all requirements, terms, and conditions when creating a contract. In the next paragraphs, some integral components of the purchase contract are discussed.

Prices

Both parties need to agree on the price(s) to be paid. A fixed price arrangement is commonly used because it facilitates the control of budgeting and costs. A fixed price refers to the specific amount of payment negotiated in advance. Some other kinds of pricing mechanisms are fixed price plus incentive fee to encourage suppliers to exceed expectations in performance, cost-plus and cost-reimbursable settlements where buyers promise to pay expenses and an additional amount of profit, and price-adjustment contracts in which price is modified relying on changes in material and labor costs. Moreover, currency risks need to be considered when purchasing from foreign countries. (Van Weele 2005, 54.)

Quality and quantity requirements

Quality refers to “fitness for use”, “customer satisfaction”, or “conformance to the requirements” (ISO 8402, as stated in Lysons & Farrington 2012, 261). As stated by Van Weele (2005, 192), American National Standards Institute defined quality as “the total of features and characteristics of a product or service that bear on its ability to satisfy a given need”. ISO 9000, published by the International Organization for Standardization (ISO), is a worldwide well-known set of international standards on quality management and quality assurance (American Society for Quality 2020). ISO 9000 quality standards are accepted in many European countries (Van Weele 2005, 193). Quantity is the number of units of the component that needs to be ordered (Lysons & Farrington 2012, 342). Quality and quan-

tity obligations should be described concisely in the contract. Technical drawings or statement of work should be included if needed. A clear description of this part helps prevent misinterpretation and misunderstandings. (Burt et al. 2012, 17.)

Terms of payment

Payment terms represent how buyers conduct the payment to sellers. Broadly, these terms indicate “what, how and when the buyer will pay for the products and services delivered by the supplier” (Van Weele 2010, 14). Several examples of the payment terms are payment in advance, letters of credit, and time-draft payment (Griffin & Pustay 2010, 547). From the viewpoint of a purchaser, the method of the advance payment is the least secure and least favored. In practice, suppliers may be unwilling to ship the goods unless they have received payment from the buyer. On the other hand, buyers are unwilling to pay before they have received their shipment. The suppliers want advance payment while the buyers prefer to pay after receipt of goods. In order to meet the desires for payment terms of both parties, the payment can be executed in a few stages. For example, in stage one, 50% of the total amount owed is paid by the purchaser before the goods are shipped by the seller. In stage two, the remaining part will be remitted on agreed credit terms. The following are some determinants to consider when deciding the mode of payment: company policy, cash flow considerations, relationship with the supplier, the market conditions under which the supplier performs, and the buyer’s gut feeling. (Van Weele 2005, 55; Lysons & Farrington 2012, 512-514.)

Terms of delivery

On the matter of transportation from the selling organization to the buying organization, attention should be paid to clarifying the obligations of each side to reduce confusion and misconduct. The International Chamber of Commerce published a set of rules explaining and allocating the tasks, costs, and risks that occur in the shipment between the suppliers and the purchasers in international trade contracts. These shipping terms are revised periodically. The most recent version is Incoterms 2020. (Leenders, Johnson, Flynn & Fearon 2006, 380; Lysons & Farrington 2012, 500.)

Warranties and penalties

A warranty is defined as a promise or representation made by the seller to the buyer about the quality, description, or performance of the goods. It is important for the buyer to include any verbal statements of warranty in the written agreement. The warranty period should also be mentioned in the agreement. It refers to the time period in which the sup-

plier warrants that the provided goods function properly and is obliged to rectify the problem if there is one. The start date of the warranty period could be the delivery date or the date that the goods are brought into use. Moreover, supplier warrants to be able to provide maintenance and spare parts during the useful life of goods and services supplied. (Pooler et al. 2004, 311; Van Weele 2005, 56; Miller & Cross 2007, 337; Monczka et al. 2009, 556.)

According to Van Weele (2005, 55-56), suppliers are obliged to guarantee that:

- the delivered goods are in good quality and conform to the agreed specifications;
- the delivered goods are fit for the intended purpose and comply with agreed performance;
- the delivered goods are new and defect-free;
- the delivered goods are in compliance with legal and government regulations and health and safety procedures.

If the provided goods fail to comply with contractual conditions, corrective measures such as repairs and replacements should be executed first. If these corrective measures appear to be inadequate, suppliers are responsible for paying resulting costs as a rule. This procedure needs to be agreed upon in the contract. In addition, a force majeure clause may be included in the contract. This clause, on the other hand, protects a party from liability when the party fails to perform a contractual obligation due to certain circumstances beyond the party's control such as natural disasters, war, or labor strikes. Such circumstances are called force majeure events. (Pooler et al. 2004, 313; Van Weele 2005, 56; Vasani, Hasan, Pednekar & Himadri 2020.)

Other arrangements

In addition to the above general purchase conditions, Pooler et al. (2004, 68-69) and Van Weele (2005, 56) mention other provisions that could be added to the contract as follows:

- transfer of rights and obligations,
- contracting out to third parties,
- insurance and safety regulations,
- routing instructions,
- any special transportation, inspection, or packaging requirements,
- any special documents required such as certificates of origin.

To sum up, the main tasks of the purchasers in the contracting stage encompass providing the necessary contracting knowledge and expertise, deciding what price and other

trading terms need to be entered into discussions, arranging and undertaking negotiations with suppliers about all the terms and conditions, preparing contractual stipulations, and amending the purchase agreement (Van Weele 2005, 57).

2.2.4 Ordering and expediting orders

After the contractual conditions have been concluded and noted, the purchaser proceeds to place an order with the supplier. Today, most of the companies generate the purchase order electronically. As to the purchase order's format and what conditions are included in the order, variations exist amongst organizations. A number of fundamental entities in a typical purchase order include an order number, date of order, the name and contact information of the supplier receiving the order, an accurate description of the items ordered, unit price, the quantity, terms of payment, expected delivery time or date, delivery terms, delivery address, and invoicing address. Usually, these data should also be on the supplier's delivery documents and invoice(s) to assist electronic matching. Along with these aforementioned items that are specific to each contract, some standard stipulations protecting the buyers and minimizing their risk in such circumstances as contract termination, contract acceptance, shipment rejections, payment procedures, intellectual property rights and infringements, warranties, insurance, applicable law, and others could be added to the order. (Van Weele 2005, 57; Leenders et al. 2006, 67; Burt et al. 2012, 17-18.)

Once the purchase order is sent to the seller, an order confirmation or acceptance from the supplier is required. When the buyer receives back the order confirmation, the buyer should review it and check it carefully to make sure that the supplier accepts all the purchasing terms and does not modify or delete any of them. If there are any amendments or updates made due to the company requirements, a change order should be created and confirmed again by the supplier. The change order could be considered as a complement or replacement order for the original one. (Van Weele 2005, 57; Burt et al. 2012, 18.)

Each company decides the number of copies of the purchase order issued in accordance with its own needs. The original order is sent to the supplier. One copy is retained by the purchasing department. Another is forwarded to the accounting department for expediting the invoice payment process. Another copy is passed to the goods receiving department so that the receiver there can prepare for the receipt and update the inventory files. If there is an inspection point, the inspector will keep an additional copy of the purchase order to verify the delivered items. Nowadays the purchase orders could be stored in the internal database as digital documents that all departments can access. An electronic procurement system aids a lot in eliminating paperwork and managing document storage and

access during this stage. (Leenders et al. 2006, 69; Chapman, Arnold, Gatewood & Clive 2017, 183.)

After issuing the purchase order, the purchaser may expedite the order. Expediting describes the action of urging the supplier to complete the order by the time promised in the contract, to ship the goods earlier than scheduled, or to accelerate the delayed delivery. Expediting could result from several reasons, such as poor material requirement planning and improper supplier selection of the buying company. For example, if the buying company is not able to identify potential material shortages before they take place, or if incompetent vendors fail to conduct the shipment within the timescale, expediting activities are needed. If the majority of the released purchase orders require expediting, it might be the signal for purchasers to examine and improve the internal business operations. (Johnson & Flynn 2015, 85.) Van Weele (2005, 60) states that there are three types of expediting:

- Exception expediting: this method indicates the situation in which buyers only adopt measures when the organization notifies the approaching or existing supply shortages possibly due to late deliveries. This kind of expediting is not advisable. Instead, frequently monitoring the suppliers' deliveries to prevent material shortfall is suggested.
- Routine status check: this method is a preventive approach. Buyers will contact the suppliers a few days before the agreed delivery date for reconfirmation of the delivery to ensure on-time shipment.
- Advanced status check: this activity is applied to critical purchase parts and critical suppliers. Significant steps in the supplier's production or distribution plan will be communicated with the buyer at the stage of contracting so that during the manufacturing process, the buyer will undertake the periodical inspections.

The receiving department can find the packing list attached to the shipment. The packing list mentions all the purchased items that are packed in the shipment. Together with the copy of the purchase order, the receiving department employees can check whether the received goods meet the required specifications stated on the order confirmation. Documentation of the receipt of the ordered goods is then registered in the buyer's system for the purpose of updating the stock information. (Burt et al. 2012, 19.)

Despite a satisfactory purchase order, unexpected incidents may arise during transportation. These may cause loss of or damage to the goods. In such cases, reports of delivery problems are called for so that buyers can take timely corrective actions. The problems should be informed to suppliers to determine remedies and prevent matters from recurring. (Van Weele 2005, 61; Leenders et al. 2006, 73; Chapman et al. 2017, 183.)

In summary, according to Van Weele (2005, 61), at the fourth and fifth stages of the purchasing cycle, purchasing professional should be responsible for:

- creating and promoting an efficient procedure of ordering and order-handling between the buyers and sellers,
- tracking of the order,
- performing expediting and inspections,
- practicing an effective problem-solving process if need be,
- maintaining and updating an integrated computer materials system with important purchasing and supplier information.

2.2.5 Follow up and evaluation of the buying process

According to Van Weele (2005, 62), the last phase in Van Weele's purchasing process model involves some following activities:

- handling possible warranty claims and penalty clauses,
- dealing with claims regarding tasks which are not covered in the contract,
- arranging the purchasing and supplier documentation,
- monitoring the provision of maintenance service and replacement parts of the vendors when necessary,
- and evaluating and recording the supplier's practices.

Extra work needs to be reported to the purchasing manager for the aim of maintaining clear and true costs of purchase. Concerning supplier evaluation, it is a crucial step to build a strong, competitive, and productive supplier network. Process-based evaluations and performance-based evaluations are the two most commonly known methods of evaluating the suppliers. The former is the analysis and judgment of the supplier's manufacturing and service program. Frequently, the buyer inspects the vendor's site to assess the capabilities of suppliers. The latter, which is the performance-based evaluation, evaluates the vendor's actual performance on aspects of delivery dependability, material quality level, cost, and so on. This examination is carried out after the vendor conducts the service or ships the product so that the data collected is more objective and easier to obtain than the previous method. Being aware of the competences of each supplier and keeping records of experiences with them could assist in shortening and refining the supplier base. Gaining fewer but more qualified supply sources and sustaining solid relationships with suppliers by giving feedback and improvement ideas to them will result in increased profitability and reduced underperformances and expenses. (Van Weele 2005, 62; Benton 2010, 160-163.)

3 PURCHASING MANAGEMENT

3.1 Primary tasks and responsibilities

In general, according to Quayle (2006, 26 & 29), planning is regarded as a key element in the tasks of any manager in organizations, from the top-level managers to the managers within departments such as purchasing. Planning is “deciding what to do, how to do it, when to do it, and who to do it”. It basically involves establishing objectives and goals and designing plans and procedures to achieve the objectives. Along with planning, organizing, staffing, and controlling are essential functions of the management. Baily (1987, 253) described the job of the purchasing manager, in particular, is “to plan, organize, direct and coordinate the work of buyers, purchasing officers and others, and the resources appropriate to purchasing and procurement activities”.

A significant contribution of an effective purchasing manager is “to ensure the free flow of materials at economic prices and in suitable quantities to meet production schedules and sales programmes” (Quayle 2006, 34). In order to gain an insight into the roles of purchasing and/or supply managers in organizations, Van Weele (2010, 53) mentioned their principal tasks and responsibilities as follows:

- Ensuring the availability of the required products and services for the customers. This represents the **supply task** of purchasers. They are expected to secure the goods that meet specified quality and quantity requirements, at reasonable costs, and from reliable suppliers. Purchasing managers should be aware of factors reducing the availability, for example, resource depletion, adverse weather conditions, and quota restrictions (Quayle 2006, 44).
- Monitoring and minimizing all purchasing-related costs. This represents the **spend management task** of purchasers. They are expected to achieve the best value of the money spent. The best value for money is the optimal combination of the total cost of ownership, value, and risk. Purchasers should establish and maintain a healthy balance of cost reduction, value maximization, and risk avoidance. The total cost of ownership refers to the sum of direct goods cost and all indirect costs for logistics, storage, material handling, inspections and testing, and so on. Purchasers could reduce indirect costs by eliminating activities such as inspections and expediting that may be redundant.
- Reducing risks relating to supply markets. This represents the **risk management task** of purchasers. They are expected to reduce the risks of over-dependency on a few certain suppliers, concerning both supply and technology. In the long term, a

multiple-sourcing strategy that spreads purchasing demands across several suppliers should be considered to mitigate the supply and technological risks. In addition, it is important to become a socially responsible corporate who can create positive influences on environmental, ethical, social, and economic matters. Corporate social responsibility programs support for managing risks of the company. (Toyne 2004; Kytte & Ruggie 2005, 1-2.)

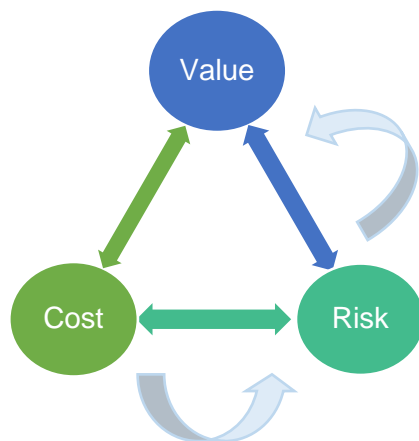
- Taking part in product and process innovation. This represents the **development task** of purchasers. Many suppliers nowadays may come up with new products and technologies that sometimes buying organizations are unknowledgeable about. In order to stay abreast of technological advances, forming partnerships with suppliers in the area of research and development is highly recommended. In addition, the product development task may include the extension of the product range and the development of new and adjusted products to satisfy the customers. (Quayle 2006, 37; Van Weele 2010, 53.)

Traditionally, the foremost aim of any purchasing manager is **cost reduction**. Electronic auctions, where buyers take advantage of competition between suppliers and thus select the most competitive prices, are carried out to serve the aim of cost reduction. In addition to the price, the managers strive to minimize transaction costs. (Van Weele 2010, 53.) Hence, they go for product standardization. This approach could allow purchasers to order larger volumes from suppliers that could offer some benefits of economies of scale (Anderson 2004, 157). In addition to lower prices, lower component variety could decrease transportation, inventory, documentation, administration, and testing costs. Moreover, purchasing time and effort are saved as the ordering process of standard goods is simpler than that of unusual items. However, each customer may have different preferences on product characteristics and market demands also vary so that standard components cannot satisfy customers' desires fully. (Perera, Nagarur & Tabucanon 1999, 109-116; Anderson 2004, 157-159.) Some other ways for cost-saving are cutting the supply base down and sourcing materials from low-cost countries. Although the supplier reduction strategy results in lower administrative and transaction costs, disadvantages of single sourcing are that dependency between the supplier and the buyer becomes greater, the buyer does not have alternatives in case the supplier fails to deliver the goods, and the risk of supply disruption increases. (Choi & Krause 2006, 637-652; Van Weele 2010, 53.) On the flip side of international sourcing, companies could encounter, for example, emerging supply risks relating to labor abuses in low-cost countries, pollution, and violence against health and safety regulations. (Van Weele 2010, 53.)

Outsourcing and global sourcing raise a concern to supply risks and how to manage them effectively. Thence, **risk management** has been of vital importance to purchasing managers. Risk indicates the probability and effects of negative occurrence that makes the business suffer (Benton 2010, 195). According to O'Brien (2014, 192-193), there are five types of supply risks namely failure or delay risk, brand reputation risk, competitive advantage risk, price and cost risk, and quality risks. The risk management process involves four repetitive stages known as risk assessment, risk mitigation, risk monitoring, and contingency planning. In risk assessment, purchasers attempt to identify potential harmful incidents, realize the likelihood of the risk, and understand the degree of loss if these events happen. Risk mitigation implies actions used to remove the risk or lessen the severity of its impact. Risk monitoring refers to the practices of tracking supply chain conditions frequently in order to prevent the risk's happenings. These stages may consist of supplier audit and financial assessment, the exercise of the tracking system such as RFID, contract planning, communication, and the formation of close relationships with suppliers. In practice, certain risks are impossible to be eliminated. Thus, the fourth step, contingency planning outlines practices that could be taken to prepare for these unexpected situations. Some examples of preparation and response activities are having some substitutes that can fill in at short notice, switching vendors, rescheduling the timescale, providing guidelines on disaster survival and recovery, and discussing remedies with suppliers to recover from such events. (Benton 2010, 195; O'Brien 2014, 192, 194-195, 197-199.)

Today a lot of innovation and technology development comes from suppliers and the buyer may not be up-to-date with these developments. Buyers would like to bring these advancements into their product, service, and business and thus, establish collaboration with the suppliers. Early supplier involvement (ESI) into new product development (NPD) takes place in many manufacturing companies nowadays as well. Suppliers are engaged in an arrangement called "gain and risk-sharing agreement" where the success of new products in the end market contributes to the future income of suppliers. Some benefits enjoyed from ESI, co-development, and partnerships are improved product specifications, higher quality, lower development costs, enhanced competitive advantage with the knowledge and application of the latest techniques, collaborative problem solving, exchange of expertise, increased trust, and suppliers gaining a better understanding of customers' requirements. Getting suppliers involved in the NPD stage and closely cooperating with suppliers on new technologies could be seen as value-adding activities of the purchasing department. Furthermore, the purchasing adds value to the company by employing the electronic procurement applications and the centralized purchasing, challenging existing vendors for price competitiveness, and practicing order consolidation to benefit

from economies of scale, greater discounts, and lower administrative and shipping costs. (Lysons & Farrington 2006, 453; Van Weele 2010, 55; Lysons & Farrington 2012, 250, 304 & 428.) The purchasers now put efforts on growth and **value improvement** in addition to the traditional attempt of cost reduction. To sum up, purchasing management's responsibilities these days are about maintaining a balance between cost, risk, and value. (Van Weele 2010, 55.) Figure 3 summarizes these tasks.



Value improvement: revenue growth through new products, early supplier involvement in new product development, co-branding, co-development, and so on.

Purchasing cost reduction: supply base reduction, product standardization, global sourcing, electronic auctions, outsourcing, and so on.

Risk management: single or multiple sourcing, performance-based contracting, corporate social responsibility, sustainable purchasing, supplier auditing, supplier quality assurance, supplier financial position, and so on.

Figure 3 Purchasing agenda: balancing cost-risk-value (Van Weele 2010, 55)

3.2 Purchasing management process

Managing purchasing and supply is illustrated in the following figure as a process.

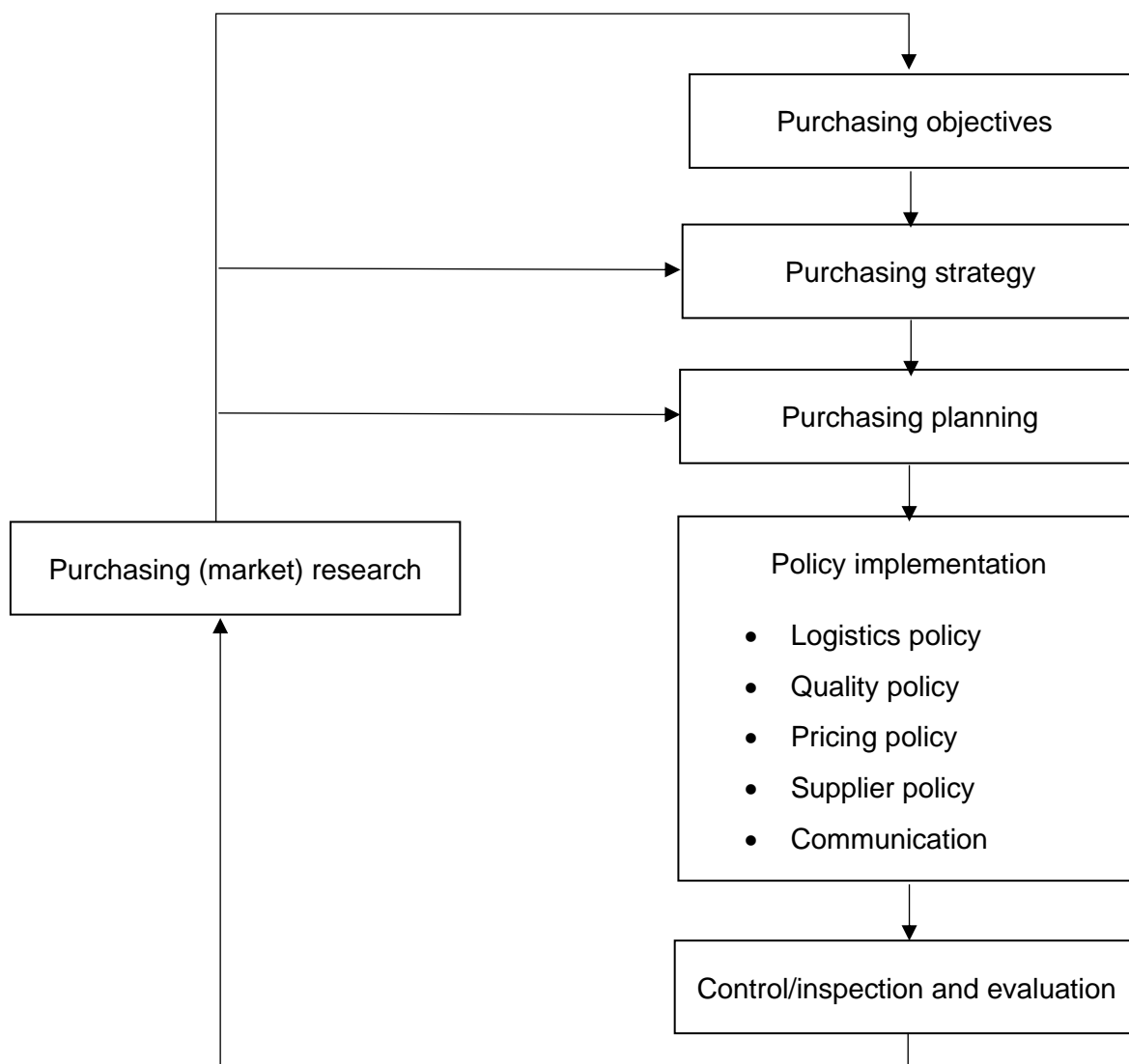


Figure 4 Purchasing management process (Van Weele 2005, 87)

Purchasing and supply (market) research

Purchasing and supply (market) research is the systematic collecting, analyzing, and studying of all the elements that may influence the purchasing activities of goods and services to satisfy the company's present and future requirements. It assists the process of making purchasing decisions of the management. Purchasing (market) research could be studies of the internal organization such as the analysis of the company's purchasing portfolio and the cost structures. It also could be the research on the external markets such as the report of the capabilities of a certain supplier, the investigation into the supply and demand of the marketplace where the supplier operates, or the analysis of material cost and expected price trends. (Van Weele 2005, 87, 100-101; Quayle 2006, 28.)

Purchasing and supply objectives, strategy and planning

Depending on different periods, types of business, and the main goal of the whole company, the purchasing department sets its corresponding objectives, for example, product variety decrease, quality improvement, and material cost reduction. Developing purchasing strategies involves the purchasing managers deciding on matters such as outsourcing versus insourcing, the appropriate number of suppliers to maintain for each purchased product category, and long-term relationships formation with certain vendors. Purchasing policies or sets of principles are designed. (Van Weele 2005, 87-88; Quayle 2006, 28.)

Implementation of the purchasing policy

According to Van Weele (2005, 88-89) and Quayle (2006, 39-40), there are five core aspects to take into consideration when executing the purchasing policy. They are supply, product and supplier quality, materials cost, supplier, and communication.

- **Supply policy.** In supply policy, streamlining purchasing order processing and materials and supply planning is mentioned. The purchasing order process involves dealing with purchasing demands, ordering procedures, expediting orders, and administration tasks along with the company's computer system. Materials and supply planning focuses on planning purchase and delivery schedules, ensuring the on-time availability of materials while minimizing inventories, tracking the delivery status of the supplier, and solving the supply problems promptly.
- **Product and supplier quality policy.** Product development and enhancement of the supplier's quality performance are discussed mainly in this policy. Some examples of practices in this policy are product standardization or simplification, development of new materials, negotiations with suppliers about quality terms and rejection level minimization, implementation of value analysis process, and agreement on warranty extension.
- **Materials cost policy.** The aims of this policy are to prevent suppliers from requesting price increases which are not justified and to attempt for a price reduction in a systematic way through collaborative and carefully-planned action schemes. To develop materials cost policy, a profound understanding of the supplier's choice of pricing strategy and cost structure and knowledge of price-cost analysis are needed. Developing foreign supply sources to increase price competition and considering producing the product in-house could be included in the policy.
- **Supplier policy.** The supplier policy strategically manages the complete supplier base of the enterprise. It may comprise decisions on, for example, multiple sourcing or single or dual sourcing, outsourcing or insourcing, and whether or not to en-

ter into alliances with this partner. Furthermore, the policy may include supplier appraisal methods and supplier reward and recognition programs. Eliminating bottom performing vendors who are incapable of meeting the organization's standards and requirements should be considered as well. Suppliers' performance history is assessed carefully to help the management come to sound decisions.

- **Communication policy.** Internal and external contacts are indicated in this policy. It is essential to communicate the company's purchasing policy within the organization and to the suppliers. The internal contact is facilitated by electronic technology. Many companies today install their own intranet networks which allow every employee to access and share the company's information, tools, goals, policies, and so on. Several organizations also create a purchasing site or platform and utilize it to convey their requirements and operating methods to the suppliers.

Control/inspection and evaluation

In the end, the management needs to examine actual performance against the purchasing policy at certain intervals to check whether these initiatives have worked or not. The results are usually reflected in the report of cost savings attained from purchasing operations. Additionally, the performance of suppliers and the purchasing department should be evaluated and recorded regularly. Practices or actions of the purchasing department are modified if needed in order to fulfill the purchasing objectives. (Van Weele 2005, 89-90; Quayle 2006, 28.)

Overall, the purchasing management process can be seen as a loop of planning, acting, reviewing, and adjusting. The process is believed to be improved over and over again. (Van Weele 2005, 90.)

3.3 Tools assisting purchasing management

This sub-chapter discusses four supporting techniques or tools that can be applied to manage purchasing activities. They are pre-qualification questionnaire, cost-ratio and categorical methods, and SAP software. The first tool regards supplier assessment. The second and third approaches are employed in supplier performance evaluation. The last one is an enterprise resource planning system that is well-known for controlling business operations across functions.

Supplier assessment is necessary for the buying company when participating in international sourcing. It involves examining prospective suppliers in many aspects to guarantee that they are capable of fulfilling financial, technical, and trade obligations from the buyer. Depending on different requirements of the purchasing organization, suppliers could be

assessed in respect of finance, quality, productive capacity and facilities/service support capability, health and safety, environmental management, and so on. (Lysons & Farrington 2012, 366-367.)

Pre-qualification questionnaire

According to Lysons and Farrington (2012, 367-372), in an attempt to collect this aforementioned information, the pre-qualification questionnaire is designed and issued to suppliers. After receiving replies from the suppliers, the buyer analyzes them. A number of considerations and questions that the purchasing organization should be aware of and investigate are listed below:

- Finance: the last three years' turnover of the supplier's company, the profitability, any losses in any examined period and the causes of these losses, the value of capital assets and return on capital assets, the level of borrowings, and the ratio of debts to assets.
- Quality: has the supplier been certified or has the supplier met the quality approval criteria such as the Counterfeit Avoidance Accreditation Program, AS9100D, and ISO 9001?; what are the inspection and testing processes of purchased products?; can the supplier guarantee that the purchasing company can exclude incoming material inspection without any risk?
- Productive capacity and facilities/service support capability: the maximum number of units produced per unit of time; is the factory area advanced?; are there enough machines and equipment for the supplier to produce products?; are machines and equipment modern and properly maintained?
- Health and safety: the supplier's health and safety policy, health and safety auditing plan, and first aid and welfare regulations.
- Environmental management: are materials acquired from sustainable sources?; do the manufacturing process adhere to EU directives on environmental policies?; what energy savings can the purchased products provide?; how the supplier control nuisances, contamination, and hazardous substances?

Monitoring and evaluating supplier's overall performance are important and essential as they help control and motivate suppliers to improve their performance. Thus, the relationship between the purchaser and the vendor could be promoted and strengthened. Moreover, the information stemming from the evaluation is useful in adjusting the supply base to make sure only satisfactory vendors are retained. (Burt et al. 2012, 601; Lysons & Farrington 2012, 375.)

Cost-ratio method

One of the most common and precise systems of the supplier performance evaluation is the cost-ratio method which utilizes standard cost analysis. Through this method, operating costs involved with quality, delivery, and service of supplier performance are recognized. The technique comprises four steps. Firstly, these associated costs are listed. Secondly, each is converted to a cost ratio which is the proportion of that cost to the total value of the purchase. Thirdly, three quality, delivery, and service cost ratios are added up to obtain an overall additional cost ratio. Lastly, the selling price of a supplier is adjusted by applying the overall cost ratio. The adjusted prices of several suppliers are placed in the comparison in which the lowest figure demonstrates the best supplier. Table 2 illustrates the first two steps of the method in calculating the quality cost ratio. Table 3 shows the remaining steps. (Benton 2010, 164-165; Burt et al. 2012, 604.)

Table 2 Example of quality cost ratio (Benton 2010, 165)

Supplier: A	
Elements	Costs (€)
Plant visits	100
Incoming inspection costs	50
Testing costs	175
Reworking costs	225
Warranty costs	300
Lost time due to rejected parts	150
Total quality costs	1,000
Total value of purchase	100,000
Quality cost ratio (Total quality costs/Total value of purchase)	1%

Table 3 Example of price comparison using the cost-ratio method (Benton 2010, 165)

Supplier	Quality cost ratio (%)	Delivery cost ratio (%)	Service cost ratio (%)	Overall cost ratio (%)	Selling unit price (€)	Adjusted unit price (€)
A	1	3	-1	3	86.25	88.84
B	2	2	3	7	83.24	89.08
C	3	1	6	10	85.10	93.61

In order to deploy the cost-ratio plan effectively, the associated costs need to be known and a company-wide computerized cost accounting system should be put into practice. The supplier performance evaluation process could be conducted monthly, quarterly, or biannually, depending on the situations and decisions of the management. If an interval is too short, before underperformed suppliers have a chance to ameliorate their actions, buyers might already remove them from their supplier list. On the contrary, if the time gap is too long, the purchasing company could be too late in detecting the problematic vendors and replacing them. It thereby could cause significant loss to the buying organization due to the supplier's failures in the implementation of the contract. (Benton 2010, 165; Burt et al. 2012, 602 & 604.)

Regarding limitations, the cost-ratio method could be rather complex and expensive to carry out. As this technique is cost-oriented, some qualitative elements of supplier performance such as supplier attitude, supplier representative qualification, and supplier response time to queries are not taken into consideration. (Benton 2010, 164-165; Burt et al. 2012, 604.) Therefore, to gain a more comprehensive appraisal of suppliers, applying the second evaluation method named categorical plan is advised.

Categorical method

The categorical plan is a simple, informal, inexpensive, and easy-to-manage system. Basically, in the beginning, a list of performance indicators of each supplier is created. The buyers next give a mark that is presented in simple categorical terms such as "good", "neutral", and "unsatisfactory" to each supplier. These performance evaluation results are then discussed in monthly or bimonthly meetings with suppliers. In these meetings, purchasing managers could express their expectations in the future. Table 4 displays the method. (Benton 2010, 164; Burt et al. 2012, 602.)

Table 4 Example of the performance evaluation using the categorical method (Benton 2010, 164)

Supplier	Cost	Attitude	Speed	Total
D	Good (+)	Unsatisfactory (-)	Neutral (0)	(0)
E	Neutral (0)	Good (+)	Good (+)	+ +
F	Neutral (0)	Unsatisfactory (-)	Neutral (0)	–

The drawback of this scheme is its subjectivity. The ratings are mainly based on the personal opinion of the evaluator, without solid supporting evidence. (Benton 2010, 164; Burt et al. 2012, 603.)

SAP software

SAP is a widely renowned enterprise application software supporting primary organizational functions such as procurement, sales, production, and accounting of all company sizes. It is developed by a German company SAP SE. SAP stands for Systems, Applications, and Products in Data Processing. (SAP 2019.) SAP offers various useful application solutions. Based on business needs, the company selects which applications are relevant and appropriate for its business operations. It is thus not surprising that the choice a product manufacturer makes may not be the same as the selection of a service provider, for instance. Generally, the main application areas provided by SAP are accounting, human resources, logistics, procurement, analytics, and enterprise resource planning. Each area comprises an array of applications with a distinct purpose. In the accounting field, the user may find applications for financial accounting/controlling, financial supply chain management, and project systems; in the human resources section, there could be personnel management and payroll and time management applications; in logistics, the user has applications of materials management, production, sales and distribution, and logistics execution. Considering procurement, there is SAP Ariba Buying and Invoicing solution that helps streamline the purchase-to-pay procedure of the company while incorporating with existing enterprise resource planning system for the payment process. With multiple features such as effective collaboration with suppliers, rapid vendor enablement, proactive contract pricing, and easy catalog maintenance, this purchasing management tool enhances productivity, flexibility, and performance of the whole purchasing unit. (Sharma & Mutsaddi 2010, 2 & 4; SAP Ariba 2019.)

4 CHALLENGES IN INTERNATIONAL SOURCING

International sourcing refers to purchasing the required goods or services of the organization from other countries or foreign suppliers. There are many motives for the organization to buy overseas. Some of the reasons are that foreign vendors can offer lower costs, more advanced technology, or excellent quality or that there is a lack of materials in the domestic market. For example, foreign labor costs are considerably lower than domestic labor costs; some international sources, such as steel and aluminum, may be more advanced technologically than domestic sources; and certain spices and fruits, cocoa, and coffee are available only from certain countries. (Leenders et al. 2006, 372 & 374; Baily et al. 2008, 311; Burt et al. 2012, 421.) However, there may be challenges when sourcing internationally. These challenges are covered in more detail in the following paragraphs.

4.1 Communication

Language differences can affect communication. When the buyer and the seller discuss or negotiate in a language that is neither one's mother tongue, misinterpretation or misunderstanding may occur. For example, with the same word, the buyer and seller may not understand it in the same way. It could lead to a huge problem and conflict in the future if the buyer and the seller do not have a mutual understanding of some contract terms or technical terminologies. Thereby, some companies may require their purchasers to be multilingual or collaborate with interpreters or translators when communicating with suppliers. The hiring of interpreters and translators and misunderstandings due to miscommunication cost organizations money. (Leenders et al. 2006, 379; Baily et al. 2008, 315.)

Some other communication challenges relate to time differences and communication networks. It may be inconvenient for buyers when they cannot reach the vendors any time during the buyers' working hours. A buyer may make calls to vendors or expect to receive their email responses early in the morning or in the evening. Moreover, some countries can only use their national social media platforms and messaging applications which are unusual for foreigners. In this case, the telephone could be the only way to communicate with vendors. Nonetheless, long-distance calls are typically costly. Poor network connection in some parts of the world is another issue. (Leenders et al. 2006, 379.)

4.2 Cultural issues

A purchaser should not ignore both culture and business customs when dealing with foreign partners. Cultural misunderstandings and mistakes could adversely affect the work-

ing relationship and ruin business deals. Hence, being aware of cultural differences, obtaining cross-cultural skills, and adapting to the vendor's customs and manners are doubtlessly necessary for successful communication and negotiation with overseas sellers. There are some useful suggestions for working across cultures. Firstly, purchasers should spend some time doing basic research into the culture, history, politics, dos and do nots of the supplier's country. Hofstede's Six Dimensions of Culture could be a helpful tool for learning national similarities and differences. Secondly, as English is not the native language of everybody, avoid using jargon and idioms and keep the communication clear and simple so that everyone can easily understand what is being said. Thirdly, having an interpreter in meetings should be considered. Fourthly, a company should organize some follow-ups with suppliers to make sure that all messages are understood correctly. Fifthly, it is necessary to put important conclusions and decisions in writing. Additionally, purchasers should be open-minded and respect each other's opinions and values. (Leenders et al. 2006, 379-380; Lysons & Farrington 2012, 496 & 498.)

4.3 Lead time and transportation

Lead time in purchasing is the period between placing a purchase order and receiving the ordered items (Chapman et al. 2017, 273). Lead time could be shortened by selecting appropriate transportation methods and promoting communications among parties involved. Nevertheless, unexpected events could happen. Such circumstances as delays in delivery, lengthy customs clearance procedures, complex document requirements for customs process, unpredictable weather conditions, and additional security measures increase the lead time. Therefore, preparing proper documentation for customs clearance activities, choosing reliable transportation carriers and suitable mode of transport, and updating promptly any schedule changes are some approaches that help reduce lead time. (Leenders et al. 2006, 375; Burt et al. 2012, 422.)

Regarding means of transportation, air freight is the fastest option. It is best suited to carry light, small, and high-value items. However, airways are the most expensive mode of transport. On the contrary, waterways are the cheapest, yet slowest means of transportation. It is chosen for low-value, heavy, and bulky goods such as steel, coal, and cement. Both airways and waterways are affected by poor weather. The most common mode of transportation is motor transport. Compared to other modes, motor transport is suitable and economical for handling small shipments over short or medium distances. This mode is favorable in distributing between wholesalers and retailers in medium and light manufacturing industries. (Smith 2002, 64-65; Ailawadi & Singh 2006, 83 & 85; Lysons & Farrington 2012, 508; Agarwal 2019; Logistiikan Maailma 2020.)

4.4 Quality

Ambiguous understanding or interpretation of quality specifications may result in major losses for a company. If the provided items do not meet the quality conditions, the supplier may need to revise and reproduce the whole batch of goods, which is relatively costly. Companies probably endure additional costs stemming from reworking or scrap. The reworking could also be time-consuming because of far distances and long production lead times. In addition to ensuring a clear understanding of quality specifications between parties, unanimous consent from both sides to the process of material acceptance or quality control is needed. (Leenders et al. 2006, 377; Burt et al. 2012, 423.)

4.5 Exchange rate fluctuations

The exchange rate is defined as the rate at which the currency of a country is exchanged for the currency of another country (Baily et al. 2008, 315). The exchange rate may fluctuate because of economic, political, and psychological factors. The fluctuations in the exchange rate give rise to the risk that the purchaser in international transactions may be required to pay a greater amount than expected. When there is a long interval between the date of the conclusion of the contract and the date of the payment, the exchange rate may change significantly which results in a substantial rise or decline in the due amount. So as to reduce or eliminate this risk, purchasers may consider these following approaches: agreeing on the price stated in the supplier's currency with a contractual limit to the extent of change in the exchange rate; pricing products in the buyer's currency – this means that while the buyer knows the exact amount to be paid, the seller is uncertain about the amount to be received; pricing goods in the third currency other than currencies of the seller and the buyer (if the currencies of the seller and the buyer are relatively weak or volatile, payments in the third currency which is more stable might be preferred); using the adjusted exchange rate as an average of the exchange rate at the date of signing the agreement and that at the date of making the payment; and arranging the forward contract. (Leenders et al. 2006, 376-377; Baily et al. 2008, 315-316; Griffin & Pustay 2010, 538; Lysons & Farrington 2012, 498-499.)

4.6 Payment methods

There are several payment methods used in overseas trading. Many foreign suppliers tend to request payment in advance which entails the buyer paying immediately after he or she places an order or paying before delivery. Payments in advance are usually made by wire transfer. With purchasers who the vendor has developed long relationships with

and has confidence in, the vendor may accept an open account transaction. This payment term refers to the business where after the goods or service is delivered, the money is remitted, often in 30, 60, or 90 days (The U.S. Department of Commerce's International Trade Administration 2016). When the seller and the buyer are new to each other, the seller may not be willing to ship the goods unless the remittance is sent or the seller can guarantee that the payment will definitely be made by the buyer. Likewise, the buyer may refuse to pay the money owed before the shipment is received or when the buyer is not sure whether the seller will deliver the agreed-upon goods or services. As a result, the seller and the buyer may decide to agree on using the bill of exchange or letter of credit, with the participation of a middleman, frequently a bank. Bank charges are incurred in the service. Defined by Belovski, Majhosev & Dujovska (2016, 39), the bill of exchange is an unconditional order written by a drawer and given to the drawee with the purpose of requiring payment at a predetermined place and time in future. The drawee accepts the bill by signing it and at an agreed future date, the bank obtains the sum of money from the drawee. This document is an instrument of assuring the payment to the seller. Similarly, the letter of credit is the written form issued by a bank, on behalf of the buyer, to make sure the payment will be made to the seller providing that he or she has delivered the goods and fulfilled the specified terms and conditions. In reality, trading parties may not use solely one method of paying. They may employ the combination of the payment methods in one order. (Giovannucci 2002, 3, 4 & 8; Leenders et al. 2006, 377; Baily et al. 2008, 316-317; Griffin & Pustay 2010, 539-543; Universidad de La Laguna 2014, 1-3.)

4.7 Other challenges

In addition to the aforementioned challenges, there are other risks that need to be considered when conducting global businesses. In 2001, the PricewaterhouseCoopers (PwC) Opacity Index was introduced and has served as a powerful tool to demonstrate the transparency of the marketplace. Five major factors in the Index, abbreviated to CLEAR, have been used to reflect problems present in the country and how difficult it could be to trade there. CLEAR factors consist of C: corruption in the government office, L: legal systems controlling contracts or protecting property rights, E: economic policies regarding fiscal, monetary, and tax-related matters, A: accounting and reporting standards, and R: business regulations. (Lipsey 2001, 35, 40, 42-43; PricewaterhouseCoopers 2001, 8; Burt et al. 2012, 423-424.) Based on Corruption Perceptions Index 2019 from Transparency International (2020, 2-3), a comparison between China's and the United States' scores, for instance, shows that China has a higher level of corruption than the United States.

5 INTRODUCTION TO CASE COMPANY

The case company, Company X, is a German distributor specializing in sourcing hard-to-find and obsolete electronic components. Their primary focus is providing active, passive, electromechanical components, and specialty products that are used in, for example, military, automotive, aerospace, computer, and medical industries. Furthermore, Company X provides customers with comprehensive packaging and logistics services involving quality control, goods testing, and product inspection. The company has extensive contacts with more than 700 recognized and verified suppliers worldwide. They also have partnered with ISO approved components test laboratories that perform testing processes to ensure the originality, quality, and functionality of the parts. Their distribution centers are located in Europe, the United States, and Asia allowing the company to offer faster deliveries to their customers. (Company X 2019a.)

The company was founded by two co-founders. It operates in two countries, Country A and Country B. Owing to the confidentiality agreement, the names of these countries are not specified. The company employs approximately 150 employees. The workforce comes from multiple nations which are, for example, Germany, the Czech Republic, Turkey, Russia, France, Spain, Italy, India, Kazakhstan, and Vietnam. The employees primarily study or work in Europe. Many of them are multilingual. For example, the sales department, in particular, can serve customers in over ten languages: English, German, French, Dutch, Spanish, Polish, Slovak, Russian, Chinese, Japanese, and Arabic. The majority of the employees work at Company X as interns. (Company X 2019a; Company X 2019b.)

Country A workplace consists of sales, human resources, customer care, and IT departments with approximately 100 personnel. In the office in Country B where the author worked, there are four major departments: purchasing, sales, logistics, and accounting departments. Ten to fifteen people work in each department. In purchasing, sales, and logistics, two or three smaller teams could be formed based on the needs and assigned to different tasks. Hence, there are often several supervisors or team leaders in these departments. They take charge of supervising their members, assisting other groups, reporting to the directors, and outlining tactical plans. Both founders are working and managing all operating activities in the company. Moreover, human resources and IT teams support these four departments. (Company X 2019b.)

Based on the author's observations, in the purchasing department, there are a total of ten employees including the author. The department consists of three purchasing managers. One of them takes responsibility for a four-member team. Another manager manages the

tasks of three subordinates. The author worked in the office as a purchasing assistant during spring and autumn in the year 2019.

6 EMPIRICAL RESEARCH AND DATA ANALYSIS

6.1 Data collection

The author utilized data from both primary and secondary sources. The secondary data was collected from June to August of 2019. The secondary data – relating to concepts of the purchasing process and purchasing management – was obtained from literature, theories, published books, academic journals, and electronic sources. The secondary data involving the operations of the case company was obtained from the company's website and training materials.

As mentioned in Chapter 1, the qualitative method is predominantly used in the study. Thus, during June and July in 2019, the primary data was gathered by conducting semi-structured interviews with all employees working in the purchasing department of Company X, except the author, to increase the accuracy and objectivity of the responses. The information collected via this type of interview ensures reliability. In addition, via these interviews, the author was able to receive information about the current purchasing activities in the case company. Moreover, the author's observations of daily routines in the purchasing unit while having an internship period in the company were taken into account in the research. The data analysis was conducted from October to December of 2019. Figure 5 shows the timeline of the data collection process for the thesis.



Figure 5 Timeline of the data collection process

Interviews

The author had prepared several open-ended questions before carrying out the interviews. The interview questions are presented in Appendix 1. Most of the questions were built upon the theory of purchasing process and purchasers' tasks as well as encountered difficulties and challenges. The first section of the question part sought out the age range and the position of the persons interviewed, their purchased items, and their skills and experience in the field. The second section entered into detail about how the purchasers performed their tasks in each stage of the purchasing process and what their points of

view and decisions were in certain contexts. The third division concentrated on challenges and problems confronting the purchasing department in the past, at present, and possibly in the future. The frequency and the consequences of the issues, as well as the measures that the purchasers took to mitigate the past incidents, were also asked. The last questions were about the respondents' affection for the job and their suggestions for improving the purchasing process of the case company.

The aim of these interviews was to gain viewpoints of the interviewees about the company's purchasing operations. Overall, there were a total of nine participants, comprising three purchasing team supervisors and six assistants in the interviews. A face-to-face and individual interview was conducted with each of the nine employees. Each interview lasted around 40 minutes. Before the interviews, questions were provided for the participants on request. Doing so created a comfortable atmosphere for interviewees to share their standpoints and allowed them some time to prepare for some questions involving thorough consideration. Their answers were recorded for further analysis.

After conducting each interview, the author transcribed it. The author listened to the recording of the interview and converted the audio into text. The text document was used for the analysis of the material. The transcript included both questions and the interviewee's answers.

The names of all the participants were kept confidential during the analysis. The author assigned the interviewees identifiers: Interviewee 1, Interviewee 2, Interviewee 3, Interviewee 4, Interviewee 5, Interviewee 6, Interviewee 7, Interviewee 8, and Interviewee 9. Interviewee 1, Interviewee 2, and Interviewee 3 are the purchasing managers of the case company. Interviewee 4, Interviewee 5, Interviewee 6, Interviewee 7, Interviewee 8, and Interviewee 9 are the purchasing assistants of the case company. Even though the number of purchasers is small, their given answers are important to identify underlying problems and capture possible improvement ideas.

6.2 Interview analysis and ethnography results

Data harnessed in the analysis were collected from interviews and the author's ethnography observations. Theories in Chapters 2, 3, and 4 acted as a basis for the interview's questions and the analysis. According to the theoretical framework and the division of the questions previously stated in section 6.1, the analysis of the responses consists of five main parts. Firstly, the general information of the interviewed purchasers is described. Through the interviewees' responses and the author's reflections, an insight into daily operations in the purchasing department is gained and presented in part 6.2.2. The analysis

continues with purchasing management duties and challenges in international sourcing. Lastly, major challenges existing at the case company are mentioned.

6.2.1 Backgrounds of purchasers at Company X

In the first part of the interview, interviewees were asked about their age range, current job title, purchased items, working experience, and language skills. Information relating to the interviewees' backgrounds was gathered then. Among the nine purchasers interviewed, four were males and five were females. Coming from six nationalities, all interviewees could speak fluently two languages. Two were trilingual. Three of them were team supervisors with two-year working experience in the company and the rest were interns. Four interns had worked for more than three months and two newcomers had been in the team for only one and a half months. Regarding the age distribution, the youngest was 20 years old, the oldest was over 30 years old, and seven people were between the ages of 22 and 25. All interviewees were responsible for purchasing electronic components requested by customers of the case company.

6.2.2 Purchasing process at Company X

The following passages go through each step in the purchasing process of the case company. The description of activities involved at every stage is based on the responses of the interviewees and the own observations of the author. This section 6.2.2 is an answer to the sub-question: How are the purchasing activities of Company X carried out?

Confirmed by all the interviewees and the author, the purchasing process at Company X corresponds to the purchasing process of Van Weele (2015, 13) that is discussed in sub-chapter 2.2. The purchasing process at Company X consists of determining specification, selecting supplier, contracting, ordering and expediting, and follow up and evaluation.

Determining specification

According to all the interviewees, the first step in the purchasing process at Company X was determining the purchase order specifications. Preliminary requirements from customers were sent to the purchasing department through sales teams most of the time. When receiving a new requirement, Interviewee 8 said,

I check the correct part number and descriptions like whether the parts should be new and original, any information regarding date code, the dimensions of the part, the manufacturer, etc. and go through the datasheet and pictures if the customer provided them.

Sometimes, customers only gave a general description of their needed items without specific details. For example, two purchasers (Interviewee 5 and Interviewee 7) had to undertake research on technical features by going through the product drawings for instance. They then gave their findings to the salespersons so that the salespersons could contact customers to confirm the detailed specifications of the parts. At the same time, all the purchasers checked the products' provided information with the company's suppliers to see if they had the parts in stock or not. Since the principal goods that the purchasers bought were electronic components, all the purchasers should be familiar with some key industry terminologies such as properties of goods (passive or active components), date codes, packaging types, conditions of the parts (new and original or refurbished goods), and some legal regulations (Interviewee 1). The complete purchasing inquiry could include the part number, number of units required, unit price, expected receiving date, date codes, state of the parts, brand name, warranty terms, quality standards, and any environmental directives that the products should comply with. Interviewee 1 stated that these aforementioned specifications needed to be clarified and recorded in writing to avoid problems later on. These documents were kept in PDF format and stored in a shared enterprise platform.

From the author's observations, a purchasing inquiry could be in the form of either official purchase order from customers or request confirmation from the sales team. All the purchasers could access the purchasing inquiry documents via the shared platform of the case company.

Corresponding to the theory section 2.2.1, in the first step of the purchasing process, after receiving the purchasing inquiry from customers, purchasers at Company X strived to determine purchase order specifications including technical features (part number and date codes), quality specifications (state of the parts), logistics patterns (number of units required and expected receiving date), maintenance specifications (warranty terms), environmental requirements, and the unit price. In addition, purchasers at the case company were in agreement with Van Weele (2005, 48) about the importance of a clear description of the purchased products. The purchase order specifications were recorded clearly in writing to avoid possible mistakes in subsequent steps.

Selecting supplier

The second stage in the purchasing process at Company X was selecting suppliers. All the interviewees stated that by reviewing history files of purchased items on the company databases, they could determine if the received order from the customer had been accomplished before. If it was a repeat order, purchasers accessed the past folder on the system to get the details of the supplier who had provided the stock and contact them. In other

cases, with new purchase requirements, all the interviewees mentioned that firstly, purchasers visited sites of several authorized electronic component distributors. For example, Interviewee 1 and Interviewee 2 mentioned “DigiKey, Avnet, Arrow, and Farnell”; Interviewee 4, Interviewee 7, Interviewee 8, and Interviewee 9 added “Mouser, The Broker Forum, RS Components, and HK Inventory”. Secondly, purchasers might find the information about the vendors from different search engines such as Google and Yandex as well as on the company’s available supplier database (Interviewee 8). In addition, all the interviewees confirmed that their familiar vendors, colleagues, and sales teams had suggested the suppliers to them.

Interviewee 1, Interviewee 2, and Interviewee 3 emphasized that during the process of seeking new providers, purchasers attempted to verify the creditability of the vendors by checking the suppliers’ websites, reading company reviews, or asking coworkers who may have cooperated with them before about their reliability. In agreement, Interviewee 8 added that he would ask the suppliers to provide their “references, business card, and company website”.

All the interviewees stated that after obtaining a number of potential suppliers, they sent RFQs to the suppliers mostly via emails or through the communication tool Skype. Interviewee 1, Interviewee 2, and Interviewee 8 confirmed that in their RFQ, they first introduced their company to the suppliers. Following the introduction of the company, the RFQ included a list of needed items with product specifications including part number, product dimensions, product drawing (if available), identification of the manufacturer, quantity, date codes, condition of parts, required certifications, and standards that applied to the required parts.

When receiving quotations back from the vendors, all the interviewees stated that they added the suppliers’ offerings into the company’s purchasing system in the enterprise platform. If any clarification or further information was needed, the purchasers contacted the suppliers and updated the missing information to the company's purchasing system. Interviewee 2 said,

When purchasers get an offer from a vendor, they have to make a note of it on the enterprise platform. Even if the offer seems bad, purchasers need to write it so that we can always have a global view of the vendors’ offers.

Then from the summary of quotations, purchasers carefully assessed and compared suppliers’ proposals in terms of quality, technical, logistics, financial, and legal issues (Interviewee 1 & Interviewee 4).

When being asked what were the criteria used in selecting suppliers and which criterion was the most important one, Interviewee 1 expressed her opinion,

There are so many things to check. Reliability is the most important one. Then the price and quality of the product, delivery conditions, payment method. Reliability is the most important one because it brings other things automatically. If the supplier is fake, there is not much to discuss anyway.

Interviewee 8 was of the same opinion, stating that “For selecting the suppliers, my criteria would be the reliability of the suppliers, their past business with me and the company. Price comes next for me.” Likewise, the most important criterion for Interviewees 2, 3, 4, 5, 7, and 9 in the supplier selection was the reliability of the vendors. Conditions of the parts, price, methods of payment, and logistics convenience were considered subsequently. Meanwhile, Interviewee 6 prioritized the price of the parts. Interviewees 4, 5, 7, and 8 revealed that they selected the three most suitable vendors and presented their selection to the purchasing supervisor for approval.

All six purchasing assistants (Interviewees 4, 5, 6, 7, 8, and 9) indicated that twice a week they submitted the report about their assigned purchases, the main points in their progress of work, and results to the leader or supervisor. The supervisors then made their decisions on choosing which vendors to place orders with. In addition, in some critical circumstances they might discuss their decisions with the directors in order to reach a conclusion. (Interviewee 1, Interviewee 2 & Interviewee 3.)

Corresponding to the theory section 2.2.2, in the second stage of the purchasing process, purchasers at Company X found potential suppliers from various sources, such as different search engines, sites of authorized distributors, colleagues, familiar suppliers, and the case company’s available supplier database. In agreement with Burt et al. (2012, 17) and Nurminen (2012, 13-14), purchasers at the case company sent RFQs including required specifications, standards, and quantity electronically to the potential suppliers. As discussed by Van Weele (2010, 52-53), purchasers examine technical, logistics, quality, financial, and legal aspects of quotations and compare bids. In agreement, the supplier selection process at the case company was based on multiple criteria, such as the suppliers’ reliability, financial aspects (prices and payment methods), logistics convenience, and technical and quality-related aspects (conditions of the parts).

Contracting

According to all the interviewees’ responses, after choosing the best supplier(s) to provide goods, the purchasers officially accepted the offer of the vendor(s) and started to draft the

purchase order and/or contract. According to Interviewee 1, the purchasing department created an Excel template of the contract or the purchase order. In the template purchasers needed to clarify the name and contact information of the supplier, item number, quality conditions, unit price, quantity, payment terms, receiving place, and expected lead time. Lead time in the purchase order shows the amount of time it needs for the parts to arrive at the buyer's agreed place from the moment the order is placed. The lead time ranged from two days to several weeks depending on the availability of the parts. Warranties and return policy related information was included in the template. Prices in the offers, purchase orders, and contracts were always stated in euros, Company X's currency practices. A fixed price was negotiated and settled in advance. (Interviewee 1.) Interviewees 1, 2, 3, and 8 stressed that it was important for purchasers to include a clear and concise description of all the requirements in the contract.

All the interviewees were aware that there were four common means of payment in the case company, namely Net Terms, PayPal, Escrow service, and Telegraphic Transfer (Bank Transfer) in advance. Depending on the vendors that purchasers were doing business with and on the value of the order, buyers determined the acceptable payment methods and discussed with the vendors to come to an agreement. All the interviewees mentioned that the most desired payment term for the buying company, Company X, was Net Terms in 15 days or 20 days. It means that the purchaser is allowed to pay the vendor 15 or 20 days after delivery. With familiar vendors, Net Terms might be accepted (Interviewee 1, Interviewee 2 & Interviewee 3). Interviewee 1, Interviewee 2, and Interviewee 3 shared that PayPal and Escrow service were the safe ways for both parties to secure the payment and the shipment, especially applied in first transactions. They also mentioned that it was worth using Escrow service when the order's value was greater than 1,000 € as the service fee was rather high. Interviewee 1, Interviewee 2, and Interviewee 3 added that purchasers might agree with advance payment only when the vendor was highly reliable or the vendor could provide the photos of the parts and few free samples. Interviewee 8 stated,

If the order amount is between 500 and 1,000 €, I may go with PayPal after testing the parts. I use Escrow service if there are huge orders with the amount higher than 2,000 €. Telegraphic Transfer in advance is the worst case. It is acceptable only after getting the supervisor's permission and getting certain proofs, references, labels, and pictures of the parts for sure.

Considering the supplier side, vendors preferred prepayment before they shipped the parts. That was the reason why the negotiation process relating to payment mode might

take a lot of the purchaser's time. (Interviewee 3.) Interviewees 1, 3, 4, 5, 6, and 9 claimed that at least 50% of their time was spent on negotiating with the suppliers about the price and payment terms.

Based on the author's observations, approximately 80% of these discussions ended up using PayPal or Escrow service, or a combination of advance Telegraphic Transfer and Net Terms.

Other arrangements in the contract such as penalties, warranties, shipment rejections, and special conditions were examined thoroughly before concluding the contract (Interviewee 1).

Based on the author's observations and experience, some of the terms in the case company's purchasing contract were as follows:

- Shipped parts are in good quality and accordance with the agreed specifications;
- Shipped parts are new and original;
- Photos of parts must be provided before shipping;
- Photos of parts and packaging need to be confirmed with end-users and the purchaser before shipping;
- Shipped parts must be the same as on the photos provided;
- Parts must pass through testing in the purchaser's official test house. Tests include deep visual test, blank test, and functional test;
- If the parts are rejected due to functional issues, the supplier takes them back and Company X does not pay the order's invoice. The supplier takes responsibility for return shipping costs;
- The supplier provides a 360-day warranty;
- If there are delays in the delivery, the supplier must provide a 20% discount on the total order amount.

Corresponding to the theory section 2.2.3, in agreement with the descriptions of Van Weele (2005, 54-57) and Burt et al. (2012, 17), the contracting stage at Company X basically involved preparing contractual stipulations, such as prices, payment methods, quality and quantity requirements, delivery terms, warranties, penalties, and shipment rejections and conducting negotiations with suppliers about all the terms and conditions. The purchase order at the case company was considered a legal contract document.

Ordering and expediting

According to Interviewee 1, when all the stipulations in the contract were agreed upon by both the buyer and the seller, the purchaser placed an order with the supplier. At Company X, the purchase order was considered a contract. In addition to all the aforementioned entities and conditions in the previous step, the purchase order needed to contain the order number, date of issue, the responsible purchaser's name, and invoicing address.

As the author observed, the company's name, logo, website, phone number and address, and date of order were automatically presented in the order template. In addition, the total amount due was included after the quantity and unit price.

The entities included in the purchase order of Company X correspond to the entities in a typical purchase order mentioned by Van Weele (2005, 57), Leenders et al. (2006, 67), and Burt et al. (2012, 17-18) in the theory section 2.2.4.

All the purchasing assistants at the case company were aware that before sending the order to the supplier, purchasers had to send it to the purchasing manager for confirmation. Purchasing managers checked the order and made amendments if needed (Interviewee 1, Interviewee 2 & Interviewee 3). After this, the purchaser sent a PDF version of the order, via email, to the supplier. The purchasing manager(s), logistics manager(s), and inventory manager(s) were included in the order email. These order files were then stored in the purchaser's folder for future reference. (Interviewee 1.)

Purchasers at the case company were in agreement with Leenders et al. (2006, 69) and Chapman et al. (2017, 183) about the convenience of electronic purchase orders. Company X's purchase orders were generated and sent electronically to the suppliers and other internal departments.

The supplier was informed to check the order and was requested to send the order confirmation back to the purchaser. At this stage, the supplier also issued the invoice and sent it along with the acknowledgment form. (Interviewee 1.) All the interviewees concurred that the purchaser had to review all these documents carefully to ensure that all details of the order were included and all details were correct and to check that the supplier had not changed nor removed any order-related requirements. Interviewee 1, Interviewee 3, and Interviewee 4 had experienced situations whereby the supplier attempted to delete and change some terms. In these cases, Interviewee 1, Interviewee 3, and Interviewee 4 suggested that purchasers might discuss the modification with the supplier, update the order, or make a new one. On the contrary, when amendments were made from the buyer's side, purchasers needed to act in the same way: notify the suppliers with the changes and wait for their confirmation (Interviewee 1, Interviewee 2 & Interviewee 3).

All the aforementioned activities at the case company, from requesting for the order confirmation to modifying the order due to changes from either the supplier or the purchaser, match the descriptions of Van Weele (2005, 57) and Burt et al. (2012, 18) in the theory section 2.2.4.

Based on the author's observations, the original invoice from the supplier was kept in the purchaser's folder and one copy of the invoice was forwarded to the accounting department for processing the payment.

The purchasers kept in touch with the suppliers to make sure that the suppliers delivered the goods at the agreed time and place (Interviewee 1). Interviewee 8 advised that "Do follow up with the vendors once in three days". Interviewee 4 indicated that the suppliers might use the shipping service of a third party to ship the goods to the purchasers. The suppliers got the tracking number from the shipping company and gave it to purchasers so that the purchasers could track the time of departure and goods' itinerary via the transportation company's online tracking system. Hence, purchasers could make a schedule for incoming materials, detect shipping problems, and handle the issues promptly. Interviewee 1 stated that "When the lead time specified in the purchase order is not respected, the purchaser needs to speak with the vendor to understand why he is late and tries to resolve the problem". Moreover, the purchasers needed to inform the logistics supervisor of the tracking number, of any changes, or shipping troubles.

According to Van Weele (2005, 60) in the theory section 2.2.4, there are three types of expediting: exception expediting, routine status check, and advanced status check. Purchasers at Company X used expediting method of routine status check. They contacted the suppliers a few days before the agreed delivery date for reconfirmation of the delivery to ensure on-time shipment.

As mentioned by Van Weele (2005, 61), maintaining and updating an integrated computer materials system with important purchasing and supplier information are necessary tasks of purchasers at the ordering and expediting stages. In agreement, at Company X, all the aforementioned activities, from issuing the purchase order and receiving the order acceptance to forwarding the invoice to the accountant and getting the tracking number from the supplier as well as the dates on which these tasks occurred, were noted on the shared enterprise system. It facilitated order monitoring in the later step. (Interviewees 1, 2, 3, 4, 5, 6, 7, 8 & 9.) Interviewee 2 asserted, "It is very important to keep the notes on the enterprise platform complete and clear". She explained,

Purchasers will be dealing with tens of different orders and they will not be able to remember everything that happened for each of them. If the purchasers write their

notes clearly, they will find the information they need in a few seconds, so no waste of time.

All the parts arrived at the company's warehouse or the authorized test houses. The goods were inspected, repackaged, and labeled to be ready to ship to the customers. If the inspector discovered mistakes, defects, damages, or any losses to the shipment, he or she informed the responsible purchaser of the order. The purchaser then needed to communicate with the vendor to discuss what remedies should be taken. According to the circumstances, the order might be returned to the vendor and refunded or the vendor delivered additional parts to compensate for the damaged and lost ones. The purchaser was responsible for updating these matters on the shared system so that relevant departments were kept informed of the order status. (Interviewee 1 & Interviewee 2.)

The activities of receiving and inspecting the goods at the case company match the descriptions of Van Weele (2005, 61), Leenders et al. (2006, 73), Burt et al. (2012, 19), and Chapman et al. (2017, 183) in the theory section 2.2.4.

Follow up and evaluation

The purchasing process at Company X finished with the follow-up and evaluation phase. At this stage, purchasers might deal with the repair, replacement and refund claims, and penalty clauses. The reasons for these claims included delays in the supplier's delivery, inaccurate items, or parts' functional failures based on the faulty report from test houses. (Interviewees 3, 4, 6, 8 & 9.)

Interviewee 2 shared that "There are many issues and problems to fix on a daily basis. One of them is when the customer does not accept the parts". Customers of the case company received the shipment from the case company but rejected the parts as the parts were not up to their quality requirements. Thus, the customers wanted to return the parts to the case company. At Company X, this situation was known as Return Merchandise Authorization (RMA). RMA process was what all the purchasers attempted to avoid. In this situation, the purchasers might ask the supervisor how to handle it. Generally, the purchasers requested a refund from the suppliers and submitted the RMA document. To substantiate the claims for refunds, the purchasers provided proof from the customer or test report explaining the reasons why the parts were rejected. Together with the sales and logistics departments, the purchasers kept track of the delivery process from the customer to the case company and from the case company to the vendor. (Interviewee 1 & Interviewee 2.)

Evaluating the supplier's performance was another essential task of purchasers at the case company. Purchasers in collaboration with the logistics team only made performance-based assessments on the supplier's delivery reliability, material quality level, and cost. However, there was no official rating program or tool utilized in the purchasing department. (Interviewee 8.) Interviewee 8 indicated that the underperformances of the supplier were recorded in one Excel file. The file showed the past purchases of purchasing teams. It included the date of purchasing, name and contact details of the vendor, order quantity and value amount, descriptions of problems, frequency of the issues, and consequences. When the author asked other interviewees whether they had known about this supplier evaluation file, six out of nine interviewees (Interviewees 1, 2, 3, 4, 8, and 9) replied with a yes. However, they rarely updated the file. Interviewee 4, Interviewee 8, and Interviewee 9 mentioned that when they had problems with some vendors, they reported on these vendors' underperformances to their supervisors. The supervisors then informed the whole purchasing team of these unsatisfactory vendors.

Based on the author's observations, none of the visits to the suppliers' manufacturing plant were conducted due to the geographical distance between the vendor and the buyer. Thus, their production procedure was not monitored.

Another duty of purchasers at Company X was to review and organize the purchasing and supplier files arising during the whole purchasing process. All the interviewees showed the author that on the interviewees' computers each of them had various folders including relevant documents such as sent purchase orders, invoices, payment receipts, test reports, delivery notes, and RMA requests. The folder represented each order that the purchaser took care of.

Corresponding to the theory section 2.2.5, in agreement with the descriptions of Van Weele (2005, 62) and Benton (2010, 160-163), the last stage in the purchasing process at the case company encompassed settling possible warranty claims, penalty clauses, and RMA process, making suppliers' performance-based evaluations, monitoring the provision of replacement parts of the suppliers when necessary, and arranging the purchasing and supplier files. Company X did not carry out suppliers' process-based evaluations.

6.2.3 Purchasing management at Company X

The following paragraphs describe primary tasks and responsibilities of purchasing managers and the purchasing management process at Company X. This section 6.2.3 is an answer to the sub-question: How are the purchasing activities of Company X managed?

Primary tasks and responsibilities

Based on the responses of three purchasing managers Interviewee 1, Interviewee 2, and Interviewee 3, in general, their primary roles concerned supply, spend management, risk control, and development tasks. First of all, it is undeniable that the supply task is the main responsibility of the purchasing department. Interviewee 1 explained it as “ensuring that within the allowed budget, the parts are supplied from reliable sources and meet all the conditions of the customers”. This explanation is in agreement with the statement of Quayle (2006, 34), “to ensure the free flow of materials at economic prices and in suitable quantities to meet production schedules and sales programmes”. From the perspective of the case company’s customers, lead time was the amount of time between the moment the customer placed the order and the moment the customer received the parts. Failing to complete the order at the promised time would lead to customer dissatisfaction, reputational harm, and loss of sales. (Interviewee 1 & Interviewee 8.) Interviewee 1 mentioned that “In some cases, the customer is really strict about the lead time and could cancel the order if the delivery is late”.

Secondly, all three purchasing managers at Company X affirmed that they strived to obtain the lowest total cost while securing the availability of the goods. Interviewee 3 stated,

The goal of every company is to make a profit. A purchaser not only buys the good parts for the customers so that they are satisfied but also ensures to gain enough growth profit for the company. One of the aims of a purchaser is cost reduction.

Thus, Interviewee 3 recommended the purchasers to “always try to lower the price or strive for better payment terms” and “be direct with the vendors”. In addition, “playing on the price rivalry” was the suggestion of Interviewee 1. Moreover, Interviewee 2 suggested “asking for discounts on big orders” and “buying multiple parts from one vendor to benefit from discounted total prices”.

Furthermore, based on the observations of the author, the purchasing department had bought the electronic components from several low-cost countries to reduce the purchasing expenses.

Not only had Interviewee 1, Interviewee 2, and Interviewee 3 attempted to buy the components at competitive prices but also they kept indirect costs such as testing expenses and inventory holding costs minimal. Interviewee 2 believed that by purchasing from credible suppliers who could guarantee the quality of goods in accordance with the contract, testing the parts might not be necessary. Hence, the expenditure on testing and quality inspection would be reduced. Additionally, Interviewee 1 and Interviewee 3 supposed that order consolidation was an option to save logistics costs and customs clearance. Interviewee 3 came to the conclusion that spend management was not only about getting the

lowest price. Interviewee 3 underlined the necessity of considering other aspects and costs in addition to the price of the parts. He presented his viewpoint that

The best offer is not always the one with the cheapest price. Purchasers have to consider the whole offer: payment terms, price, lead time, quality, reliability of the vendor, etc. Such cheap prices always hide something. Think of related costs: testing fees, escrow service fees, shipping fees, etc. as well when buying parts.

Thirdly, risk management involves avoiding overdependence on one supplier. Indeed, in the case company, there were a number of reliable vendors that purchasers worked with. Interviewee 3 indicated that they had “a list of best vendors, not only one or two vendors”. In addition, Interviewee 1, Interviewee 2, and Interviewee 3 were aware that international sourcing strategy brought some risks and they were responsible for managing and mitigating these risks. Most of the risks were associated with the quality failures of the parts, delays in delivery of the parts, and unexpected increases in the total cost. In order to minimize the quality risks, Interviewee 1 mentioned that the purchasers were likely to buy the parts from the list of familiar vendors who Company X trusted and regularly did business with. According to Interviewee 1, these vendors were considered as the best vendors as they had offered Company X “loads of parts with most of the time good prices and good quality”. Company X had done business with these vendors for a long time and the case company kept maintaining close relationships with them. Moreover, “they are honest with us” and “most of them offer us good payment terms because of the long relationship”. In addition, with new vendors, Interviewee 1 reminded the purchasers to “always double-check the conditions and quality of the parts with new vendors” and “test the parts to make sure the parts are working”. In order to reduce the delay risks, Interviewee 2 mentioned that she specified in the contract that “the seller has to respect the lead time otherwise the purchase order will be canceled”. Moreover, Interviewee 1, Interviewee 2, and Interviewee 3 were in touch with vendors time after time to track the delivery of the goods. Examining and classifying the vendors in terms of their dependability and service quality were parts of the purchasing manager’s roles in controlling risks as well (Interviewee 1, Interviewee 2 & Interviewee 3). Interviewee 1 stated that she had her own special list of vendors. She verified and categorized them according to their experience, their locations (Europe, the United States, China, Hong Kong, etc.), and the number of successful orders. Interviewee 2 and Interviewee 3 agreed that they had their own lists of top vendors. Concerning the cost risks, increases in the total cost of the order resulted from the happenings of the delay and quality risks. Thus, removing or reducing risks of quality failures and delays in providing the goods would help mitigate the cost risks. (Interviewee 1, Interviewee 2 & Interviewee 3.)

In addition to risk mitigation, Company X made a contingency plan. The plan included maintaining a list of substitute vendors, replacing the vendors, rescheduling the delivery date of the shipment, and working with vendors to cope with the incidents. (Interviewee 1, Interviewee 2 & Interviewee 3.) Additionally, according to Interviewee 2, Company X required its partners including vendors to comply with environmental laws applied in the electronic components industry such as Lead-Free and Restriction of Hazardous Substances Directive as a contribution to corporate social responsibility.

As a distributor, Company X strived to provide customers exactly with what the customers required. Therefore, lastly, regarding the task of product and process development, Interviewee 1 mentioned that only when the vendor suggested using similar but more innovative parts instead of the ones that customers demanded, the purchasing team offered customers the vendor's recommendations. If the customers gave their consent to the new offerings, the purchasers placed an order then. Interviewee 2 added that in some cases, she asked her vendors whether they might find more advanced products that might substitute for the demanded ones. If there were better products, she would recommend the products to the customers. Cooperating with vendors who could supply advanced products that might add value to the end-users' operations was highly regarded in the case company.

In addition to these fundamental responsibilities of the purchasing management, purchasing managers play the role of supporter and mentor to their team, in both professional and emotional aspects. Interviewee 2 said that the purchasing managers at Company X took charge of training new purchasers. The purchasing managers or supervisors "provide the standard training to new arrivals and help them with daily problems they could encounter". They needed to supervise a small team of purchasers, distribute new orders from the customers among team members, and make sure that the buying process was smooth. Interviewee 1 further mentioned that every six months, the management reviewed and revised the training materials. All the interviewees agreed that the working environment of the purchasing department at Company X was friendly and encouraging. Interviewee 4 and Interviewee 8 indicated that the hard work and contribution of every individual were acknowledged and appreciated. Team gatherings and free dinners were organized as an award for team achievements. As mentioned by Interviewee 5, purchasing managers promoted the personal growth of team members by offering cross-training on different functions in the company. Interviewee 5 stated that as she expressed her interest in learning accounting skills, her supervisor created an opportunity for her to observe the operations in the accounting department.

As observed by the author, purchasing managers strived to convey a clear description of the purchasing procedure, policies, and expectations set to the purchasers so that they could understand thoroughly what their role was and how they should work with the vendor and be better at their jobs. Managers listened to their subordinates' concerns sincerely and offered their help whenever needed.

Corresponding to the sub-chapter 3.1, purchasing managers at Company X, in agreement with Baily (1987, 253) and Quayle (2006, 26 & 29), were responsible for planning, organizing, directing, coordinating, and controlling the work of purchasers and the resources suitable for purchasing activities. The primary tasks of purchasing managers at the case company included supply, spend management, risk management, and development tasks, which are the same tasks described by Quayle (2006, 34, 37 & 44) and Van Weele (2010, 53 & 55). Interviewee 1, Interviewee 2, and Interviewee 3 agreed with Van Weele (2010, 55) that the purchasing managers aimed for maintaining a balance between cost, risk, and value.

Purchasing management process

According to Interviewee 3, at Company X, research on the electronic components industry, the relationship between specific suppliers and the case company, and total purchasing spend had been conducted periodically. The research assisted managers in making purchasing decisions relating to, for example, supply base optimization, cost reduction, and outsourcing. Interviewee 1 and Interviewee 2 described briefly some main activities in the purchasing management process. With some purchasing objectives set forth in meetings with directors, purchasing managers drew up purchasing strategies and policies. Typical purchasing policies at Company X related to reducing prices and indirect costs, developing the ordering process, negotiating quality requirements with the vendor, managing the suppliers' performance and their relationships with the company, minimizing inventories, and improving internal and external communication with the support of the enterprise system. Several action plans indicating the aim of the plan, steps, involved employees, and timeline of activities were created. The action plans were then spread out among team members. Following the schedule in action schemes, the purchasing managers checked the progress of work and achievements. Reports on the possible amounts of savings resulted from executing the strategies were submitted to the directors for evaluation and revision at the end.

Based on the aforementioned descriptions of Interviewee 1, Interviewee 2, and Interviewee 3, the purchasing management process at Company X corresponded to the purchasing management process of Van Weele (2005, 87) that was discussed previously in the sub-chapter 3.2.

6.2.4 Challenges in international sourcing at Company X

Company X worked with suppliers of electronic components from Hong Kong, China, the United States, the United Kingdom, and Europe such as Poland, Turkey, and Germany. In the process of communicating, negotiating, and purchasing, purchasers encountered various challenges. Based on the answers of the interviewees, challenges and considerations in international sourcing at Company X are described in the following paragraphs.

Firstly, purchasers at Company X had faced challenges of language differences. The working language was English most of the time. Although none of the interviewees were native-English speakers, all of them had good English skills. Two purchasers could speak Turkish fluently, so they took charge of purchasing from Turkish companies. Although there were language differences, Interviewee 4 did not find it difficult to communicate with foreign suppliers. He stated that “Most of my vendors can speak English. I always use a short and simple way of talking so we can understand each other clearly. Overall, I do not have any difficulties with them”. On the other hand, Interviewee 8 mentioned that “Language difference is the main barrier as it would be difficult to communicate if we are not speaking the same language”. At times, suppliers could only talk in their mother tongues so that it was hard for purchasers to continue the conversation with them. Purchasers might ask for help from their multilingual colleagues in these circumstances. Interviewee 3, Interviewee 5, and Interviewee 6 also mentioned that when talking with vendors whose English was the second language, there were misunderstandings sometimes due to the language barrier. Most of the vendors could understand common English phrases but some technical terminologies. These problems arose during the stages of negotiating and drafting the contract. It would take time to explain thoroughly contractual terms and conditions to the supplier to prevent any misinterpretations. However, Interviewee 1 supposed that this time-consuming task happened with new vendors at first orders only. Gradually, both parties got used to the way of communicating and requirements of each other. “The more business you do with the same vendor, the more casual the conversation with them is and more easy to work with them”, Interviewee 1 commented.

Secondly, there were communication challenges relating to means of messaging. Most of the vendors in China, in particular, used their own national email applications and social media platforms. Interviewee 4 said that

Many Chinese vendors do not use Skype, they only have WeChat, QQ, etc. to contact so we need to contact via emails and by phone. Using emails could take more time to wait for their replies than using Skype.

Interviewee 5 and Interviewee 9 hold the same position. Therefore, purchasers at Company X tried to talk to Chinese vendors on the phone or install their applications. As a result, the costs of communication (phone charges) and labor efforts were increased. (Interviewee 9.) Interviewee 3 shared that when he used the phone to contact the Chinese vendors, they did not answer a phone, so he could only use emails.

Thirdly, concerning time differences, Interviewee 8 commented,

The time difference is not a big problem with the Chinese vendors because we usually have at least five hours to communicate with them, which is sufficient to discuss the business.

Meanwhile, Interviewee 1 stated that considering the vendors from the United States, the time difference was a challenge. Thereby, in some busy days, purchasers were required to work two hours earlier in the morning or later in the evening to be able to contact all the needed foreign suppliers (Interviewee 1, Interviewee 2 & Interviewee 3).

Fourthly, all the interviewees were aware of differences in customs, behaviors, and business etiquettes of vendors coming from a variety of cultures. For example, according to Interviewee 8, in the Chinese business context, people tended to get to know and build close relationships with colleagues or partners by sharing their private lives such as family, hobbies, and lifestyles, whereas in Western cultures, work-related and personal matters were separate. Interviewee 8 said that he had “casual conversation, not only for work stuff” and discussed “their studies, hobbies, cities where they live, etc.” with Chinese suppliers in an attempt to build trusting relationships with them. Interviewee 8 supposed that at first purchasers at Company X would find it unusual when being asked some personal questions relating to their family and leisure pursuit from Chinese suppliers, but as time went on, purchasers would get more and more comfortable and enjoy chatting these aspects with vendors. Interviewee 1 also mentioned that “We have a really friendly business relationship with them (Chinese vendors). They could be really friendly at first contact. No formal “Sir or Madam” required at all”. The style of speaking is apparently influenced by cultures.

Based on the author’s observations and experience, Western suppliers such as American vendors were likely to be more direct and straightforward in conversation than Eastern

counterparts. Thus, purchasers avoided being too upfront or opinionated since they might be seen as rude and inappropriate ways of communicating with Chinese companies.

Fifthly, regarding quality issues, all the interviewees claimed that the defect rate of supplies originated from China was higher than that of products produced from the United States and Europe. Interviewee 1 and Interviewee 2 stated that even though items from Chinese vendors might be cheaper and more diversified, there were more expenses and time spent on testing, re-ordering replacements, or demolishing damaged goods. The company also would suffer from loss of sales and reputation when distributing components that did not adhere to the required quality standard. Interviewee 1 said,

We have already met a lot of problems with new vendors before, pretending that the parts were new, original, and in good quality and at the end canceling the order because they finally were not good enough to be sold on the market.

Sixthly, Interviewee 1 said that in addition to quality issues, the purchasers had reliability issues with the vendors from China. "There are so many companies that turn out to be fake, which challenges us the most", Interviewee 1 expressed. Interviewee 8 agreed with Interviewee 1. He stated, "Whether to trust a vendor or not is one of the most common problems I faced when buying abroad".

Seventhly, according to Interviewees 1, 3, 4, 5, 6, 8, and 9, the purchasers paid attention to customer lead time when sourcing internationally. Interviewee 8 demonstrated that the customer lead time was the amount of time between the moment the customer placed the order and the moment the customer received the parts. He further explained,

Lead time is also one of the important considerations. The parts are manufactured in some countries. Then we need to ship them to the authorized test house. After that, we forward them to the customers. During this journey, many factors like the weather conditions in that region, the test results from the test house, the customs clearance process, and many more play an important role in determining the length of lead time.

All the interviewees knew that the authorized test houses and distribution centers of Company X were located in Asia, Europe, and the United States, so wherever the suppliers were from, goods could be delivered and gathered in a few days. Airfreight and roadway were the two most common methods of transportation used at Company X. They were convenient and saved a lot of delivery time.

However, according to Interviewees 1, 4, 5, 6, 8, and 9, as most of the components demanded from the customers were obsolete and hard to find so the time for locating the

sources was rather long, possibly up to multiple weeks and months. In addition, Interviewee 4 mentioned that the customs clearance process could be time-consuming and complicated. These matters extended customer lead time.

Eighthly, all the interviewees concerned payment methods and the payment procedure. All the interviewees were aware of four common ways of payment to the suppliers at Company X: Net Terms, PayPal, Escrow service, and Telegraphic Transfer (Bank Transfer) in advance. Since suppliers always asked for prepayment, negotiating and convincing them to accept other payment methods took some time. "Negotiation process is the one takes the most time", Interviewee 1 claimed. The order could not be placed when both parties did not reach an agreement in terms of payment.

The author noticed that all four payment means required the case company to pay some fees to the banks or financial institutions for the service they provided. The amount of service charge depended not only on the bank and what type of service the company requested but also on the value of the order. Overseas money transfers were more expensive than local bank transfers. Additionally, while many domestic wire transfers could be completed within one working day, international ones might take three to five business days.

Interviewee 1 stated that there were several times that problems occurred during the process of transferring the money, especially when the buyer's bank and the seller's one were different and located in two countries. Consequently, bank transfers were delayed. The sellers postponed the shipments because the sellers had not received the payments yet, whereas the case company made the payments already. In these situations, Interviewee 1 believed that it was important for the purchaser to present the proof of payment or the receipt from the bank to the seller so that the shipment could be conducted. Furthermore, it was advised that both parties contacted their banks to check how the process was going on, identified what the problem was, and looked for a solution.

Ninthly, regarding the currency issue, the author noticed that in the purchase order of the case company, purchased items were priced in euros, the case company's currency practices. Therefore, the purchasers were less worried about changes in the exchange rate and about the uncertainty of the amount to be paid.

In addition to previously mentioned challenges, according to Interviewee 1, Interviewee 2, and Interviewee 3, Company X kept abreast of political stability, corruption level, fiscal and tax-related policies, economic and legal reforms, and business regulations in countries in which Company X and their partners operated. These data assisted in planning purchasing strategies regarding pricing and relationships with existing suppliers. Moreover, these

elements needed to be investigated when the company intended to find potential markets and suppliers for providing goods.

Corresponding to Chapter 4, in general, when buying from foreign suppliers, purchasers at the case company encountered some challenges, such as differences in languages, time zones, and communication networks, differences in customs, behaviors, and business etiquettes, reliability- and quality-related matters, long customer lead time, and delays in the process of transferring the money. At Company X, purchased items were priced in euros, the case company's currency practices. Therefore, the purchasers were less worried about fluctuations of the exchange rate and the uncertainty of the amount to be paid.

6.2.5 Challenges at Company X

The chapter denotes several challenges existing at Company X, thereby answering the second sub-question: What are the challenges existing in Company X's purchasing function?

These challenges are realized and addressed by the interviewees and the author herself. The following table gives an overview of four major challenges relating to human resources, supplier risk and relationship management, electronic purchasing management system, and internal communication.

Table 5 Challenges at Company X

Challenges	
Human resources	<ul style="list-style-type: none"> • High employee turnover • Lack of experienced workforce • Communication difficulties with foreign suppliers
Supplier risk and relationship management	<ul style="list-style-type: none"> • Lack of supplier evaluation measurement • Lack of trusting relationships with suppliers • Inactive supplier base
Electronic purchasing management system	Time-consuming and inefficient purchasing management system
Internal communication	<ul style="list-style-type: none"> • Lack of face-to-face interactions among team members and different departments • Lack of understanding each other's job duties

Human resources

Interviewee 9 revealed,

The labor force of Company X is mostly composed of interns which makes the team unstable due to high staff turnover. It is a good way to save money, but it is a big weakness of Company X.

Based on the observations of the author while working in the company, around 70% of the employees were interns who were undergraduates or postgraduates. Most of them only worked at Company X for six months at maximum.

Interviewee 9 demonstrated disadvantages of the high staff turnover resulting from employing too many interns,

The company spends a lot of resources and time in order to find and recruit interns and train them. The second problem of the high turnover is that purchasers who leave the company need to give another worker all their unfinished quotes. So, a new purchaser needs to spend a lot of time understanding the current status of the order and establishing the relationships with the supplier and with the sales department.

Interviewee 9 believed that when the purchasing employees left the company, their knowledge also left with them. The company then needed to repeat the recruitment and training process which involved posting job ads, shortlisting applicants, interviewing, and training new employees. Interviewee 9 commented that high staff turnover led to a repetitive training process. It consumed time and effort that should have been spent on job duties.

Furthermore, the responsibilities and tasks of the person that left the company would be assigned to those who remained in the company. These remaining people might be overloaded with these responsibilities and tasks. The new responsible purchaser might need a lot of time to acquaint himself or herself with the details and current situation of the handed-over purchases and continue the work unfinished. He or she must also take the time to get to know and build relationships with the suppliers as well as other parties involved in the order. (Interviewee 9.)

Based on the author's observations and experience, the high staff turnover affected the quality and productivity of the work. In some cases, as the new employees were not used to the working system, mistakes, delays, and disruptions occurred. They caused customer dissatisfaction and loss of sales to the case company at the end.

Another problem relating to Company X's purchasing personnel was the shortage of experienced, skillful, and permanent labor force. Based on the author's observations and as shown in the general description of the purchasers who participated in the interviews, eight out of nine purchasers were in their twenties with no more than two-year working experience. Six out of nine were interns.

One of the purposes of hiring young and inexperienced people might be to decrease wage expenses. However, the majority of staff being interns brought about some worrisome effects. One of the negative consequences of lack of senior and steady employment was that the discipline in the workplace and commitment to the employer were at a low level. (Interviewee 9.)

The author noticed that managers at Company X had to handle lateness, neglect of duty, slipshod manner, poor attitude, and unplanned leaves in the young and inexperienced workforce.

In addition, the company spent more time instructing interns to make them have an idea of the working environment and understand their jobs (Interviewee 9). Interviewee 9 mentioned that

I asked the manager a lot about the negotiations, payment terms which can be acceptable, vendors which I can trust, and about a lot of unpredictable and hard to solve situations.

New and inexperienced purchasers might not be aware of untrustworthy selling agents and buy from them, which was harmful to the business. As a result, the managers needed to pay more attention to the interns to provide timely guidance. (Interviewee 9.)

Additionally, staff short of relevant experience needed more time than experts to accomplish tasks and might not achieve preferred outcomes. An example was that when encountering conflicts or discussing payment methods with vendors, purchasers less proficient in negotiation might not close the matter or finalize the deal promptly and satisfactorily. (Interviewee 4.)

As indicated in the section of challenges and considerations in international sourcing at Company X, there were communication difficulties due to the language barrier and cultural differences. As the author observed, after reading the company's purchasing manual containing some instructions on how to talk with foreign suppliers effectively and after working with overseas vendors for a while, basically, all the purchasers were culturally aware. However, their cross-cultural communication skills needed to be developed.

Supplier risk and relationship management

The description of the purchasing process at Company X indicates that two phases of supplier selection and evaluation were not well-arranged. Assessing suppliers before placing an order was mainly based on data about past businesses with them. These data could be found in an existing supplier evaluation file, but it was not updated regularly. The company did not inspect carefully many aspects of the vendors such as their facilities and equipment, the revenues and profitability, and the health and safety policy. If the suppliers were new, purchasers verified their reliability just by checking their company profiles or websites or reading the reviews if any.

Interviewees 1, 2, 3, and 8 shared that the company reduced the risk of scammers and protected itself from fraud by requesting pictures of the stock from the suppliers, rejecting prepayment, and only using methods of Net Terms, Escrow service, or PayPal payment after testing the parts. However, Interviewee 4, Interviewee 8, and Interviewee 9 mentioned that there came a few cases that only one supplier could provide the required parts, the company had no choice but to buy from that seller and agreed to pay partially in advance. It was risk-taking for the company to make the payment in advance as some of them used fake certificates and failed to respect the contract requirements concerning the quantity, specifications, quality, and lead time (Interviewees 1, 2, 3, 4, 8 & 9).

Interviewee 1, Interviewee 2, and Interviewee 3 further revealed that the untrustworthy vendors made up all kinds of excuses to gloss over the fact that they did not have the required items, temporized the delivery, or sent fake or poor-quality goods. The worst scenario was that the vendors took the company's prepayment and disappeared with it. Such unpleasant incidents adversely impacted the company's reputation and its profit. It also took a lot of time and resources to solve these situations. The case company might even file a lawsuit against these fake suppliers. (Interviewees 1, 2, 3, 4, 8 & 9.)

Additionally, Interviewee 7 stated that the supplier base of the case company was rather extensive but not truly active. The supplier base of Company X might contain up to 700 vendors from all over the world. After sending requests for quotations to all the supplier contacts, the purchasers only received around 10% positive responses from the vendors. (Interviewee 7 & Interviewee 9.)

Electronic purchasing management system

The study reveals that the majority of activities in the case company's purchasing process were conducted via emails, Excel, and Skype programs. When receiving a new purchase request, a purchaser determined the specifications of the demanded components and looked for a group of potential suppliers. The purchaser needed to send requests for quotations to every potential supplier with Skype or emails. Every day, each purchaser might contact 100 suppliers on average. As could be seen, it took a lot of time for purchasers to complete this task. (Interviewee 9.) Interviewee 9 believed that this task was time-consuming and inefficient. Interviewee 9 said,

Currently, workers of the purchasing department spend a lot of time making RFQs and sending RFQs to the vendors on a day-to-day basis. The vendors' list I am taking care of included nearly 80 contacts. I am supposed to contact each one of them daily in order to ask about the required parts.

Based on Interviewee 2's responses, once placing an order to the vendor, purchasers filled in the Excel purchase order template manually. Mistakes regarding quantity, price, and suppliers' contacts were likely to occur at this stage if the purchasers were careless. Interviewee 2 stated that "There is not proper purchasing management system such as SAP in our company. We have to generate the purchase orders manually".

In addition, Interviewee 2 mentioned that the purchasers made the to-do list and set up the schedules for important activities, such as sending the purchase order to a specific vendor, making the payment to the supplier, and submitting the report to the supervisor, by themselves. The purchasers needed to be aware of the deadlines to finish the tasks on time. Reminders in SAP, meanwhile, could keep track of the deadlines and help manage the activities of the purchasers efficiently.

Internal communication

When the author asked the interviewees what aspects should be improved in the purchasing department, more than half of respondents, Interviewees 1, 4, 5, 6, 7, and 9, expressed a desire for fostering communication among their team members, between managers and subordinates, and across different departments. As discussed in the section of the purchasing process at Company X, twice a week, each purchasing assistant made a report summarizing happenings in every order that they were responsible for and sent it to their purchasing managers. The managers then selected several most important and urgent issues to discuss in online meetings with the directors. Online meetings with the directors also occurred twice a week and involved sales and purchasing supervisors and the directors. After meetings with the directors, the purchasing managers gave instructions to their purchasing assistants, mostly via Skype. (Interviewee 1, Interviewee 2 & Interviewee 3.)

As the author observed, the Skype application was used widely in the company to set up calls for meetings and to exchange information with others. Moreover, via organizational emails, the purchasers sent necessary documents to the accounting and logistics departments. A messaging function on the enterprise platform was utilized sometimes. As shown, internal communication in Company X was mostly organized electronically.

Interviewees 1, 5, 6, 7, and 9 stated that interactions between the purchasing and sales departments should be concerned since members in each department did not have a thorough understanding of the other's jobs. Conflicts occurred due to the lack of understanding of others' circumstances and difficulties in searching for the parts or in satisfying all the requirements of customers.

Other issues

Interviewee 1 and Interviewee 2 noted that there were delays in the company's payment system. These delays caused lateness in delivery of the goods as the suppliers postponed shipping the parts unless the payment was confirmed (in the orders where prepayment was required). This might affect the planned timeline of Company X and make the case company unable to ship the parts to the customers on time, which eventually caused customer dissatisfaction. In addition, the case company would lose vendors' trust as the vendor had not received the payment by the agreed-upon date.

Furthermore, Interviewee 1 mentioned that "Our IT system is not prepared for something which could affect our working process". Based on the author's observations, the organizational internal network was closed several times due to technical issues and power cuts during the period the author had her internship. The company had to stop operating in those days.

7 IMPROVEMENT PLAN FOR COMPANY X

The improvement plan for Company X, which is a summary of suggestions from the author and interviewees, is explained in detail in the chapter. The chapter provides an answer to the main research question: What are the possible improvements for Company X's purchasing activities?

The following table displays an overview of the improvement aspects for Company X. These improvement approaches and solutions correspond to each challenge discussed in the previous section 6.2.5.

Table 6 Improvement aspects for Company X

Improvement aspects	
Human resources	<ul style="list-style-type: none"> • Considering hiring experienced and permanent worker • Retaining talented employees • Providing employees with training courses about skills, languages, and cultural differences
Supplier risk and relationship management	<ul style="list-style-type: none"> • Developing supplier evaluation measurement • Forming trusting relationships with suppliers • Optimizing supplier base
Electronic purchasing management system	Installing a more advanced electronic purchasing management system (e.g. SAP Ariba software)
Internal communication	<ul style="list-style-type: none"> • Increasing interactions and promoting information sharing among team members • Cross-training

Improving human resources

The first improvement aspect suggested for Company X deals with the human resources area. The company should consider hiring a skillful and experienced employee instead of young and inexperienced ones. Thus, the company should retain highly qualified talents.

Interviewee 9 claimed that three interns could be replaced by one experienced staff. Purchasers with years of work experience were believed to provide more efficient and pleasing work performance which improved the company's overall productivity and quality of services. This helped build a positive corporate image in front of both suppliers and customers.

Furthermore, these experienced employees adapt to the working culture faster and require less training effort. With their rich expertise in the field, they serve as role models for younger employees and motivate them. They share their perspectives and give guidance to others, which creates an attractive and inspirational working environment. (Gaikwad 2018.)

Additionally, in order to promote employees' growth, the case company is advised to provide training courses or seminars (online or offline) for language learning, on cultural differences, and skills improvement such as intercultural communication and negotiation skills which are advantageous to their purchasing job (Leenders et al. 2006, 379). Such courses or seminars would help enrich the purchasing-related skill set of interns, enhance the knowledge, capability, and productivity of purchasing function's employees, and increase their attachment to Company X.

Improving supplier risk and relationship management

In sub-chapters 3.1 and 3.3, according to Lysons and Farrington (2012, 366-367) and O'Brien (2014, 195), it is important for a company to put more emphasis on supplier assessment and evaluation to mitigate risks from the suppliers, especially when the company is engaged in international sourcing. The case company should consider utilizing the pre-qualification questionnaire in its supplier assessment stage for a thorough evaluation. Furthermore, Company X should verify certificates or any materials received from the suppliers by, for example, contacting a third-party verification company or the certificate issuer to ask for the confirmation of those certificates. Nonetheless, the suppliers may be less willing to facilitate the audit process of the buying organization. In addition, being adept at assessing is not a common skill that any purchaser may have at the beginning.

Hence, the company may consider hiring audit services from a qualified inspection organization or recruiting professional assessors or experienced individuals to conduct the assessment. (O'Brien 2014, 197-199.)

Getting to know suppliers deeply and maintaining close relationships with them should be taken into account as well. In practice, since buyers usually see what sellers want them to see, the purchasers need to try their best to gather data and recognize their underlying intentions. The purchasers may want to be aware of any changes taking place in the supplier's practices that could become risks to the buying company. Examples are layoffs or replacement of key personnel. Keeping abreast of suppliers' activities means better risk control and mitigation and a close-knit and trusting relationship is beneficial to both parties in respect of terms, conditions, and profit. (Lysons & Farrington 2012, 304; O'Brien 2014, 198.)

After every purchase, employees should evaluate the supplier's performance and give the suppliers feedback. Supplier evaluation and ratings are useful for future reference. It is suggested that an aggregate supplier evaluation be organized quarterly. Cost-ratio and categorical method, as discussed in the sub-chapter 3.3, will assist this evaluation task. The purchasers should understand the significance of the prudent and precise supplier assessment and evaluation and exploit the referred two tools.

Concerning the inactive supplier base as mentioned by Interviewee 7 and Interviewee 9, the purchasing department at Company X is advised to eliminate inactive and low-quality vendors and optimize supplier base based on the supplier ratings. Company X then focuses on building stronger bonds with retained suppliers. Some operating and logistics fees could be saved and discounts could be obtained if orders are placed with few vendors (Lysons & Farrington 2006, 453; Interviewee 1, Interviewee 2 & Interviewee 3).

Improving electronic purchasing management system

All three purchasing managers, Interviewee 1, Interviewee 2, and Interviewee 3 felt the need for upgrading the current enterprise resource planning system. They suggested installing SAP software specialized for procurement. This application was described briefly in section 3.3. If the company invests in integrating the advanced SAP Ariba solution into the existing enterprise platform, lots of time could be saved, workload and labor costs could be reduced, and accuracy and efficiency are increased.

Improving internal communication

A face-to-face meeting within a department should be arranged every two weeks for sharing experience. During these meetings, colleagues could share experience from their successful purchases, techniques they used to complete the order effectively, and their contact list of favorite vendors. Any problems and challenges that they faced, the way they handled these difficulties, and the information about fake or low-quality suppliers should be mentioned as well so that other purchasers could avoid these suppliers. (Interviewee 9.) In addition, participants may raise their concerns and questions to the supervisor and teammates. People discuss and put forward their ideas and solutions for ones who may have difficulties in their ongoing tasks. Meeting and discussing in person from time to time help strengthen internal networks and promote trust and engagement among team members.

As can be seen from the description of the purchasing process at Company X in section 6.2.2, the duties of salespersons and purchasers are related closely. Hence, it is necessary for sales and purchasing departments to consider scheduling some meetings and cross-training in which they have a chance to clearly indicate their role to the other, understand each other's position, and distribute the work wisely and effectively. Interviewee 9 suggested that in meetings between sales and purchasing departments, salespersons, on behalf of customers, could present the customers' requests in detail and buyers could explain the progress and situations where some conditions might not be fulfilled. Both sides can brainstorm and come up with solutions then.

In addition to the sales unit, purchasing teams should stay in touch with the logistics department regularly to keep them informed of shipment from suppliers and supplement documents for clearing goods through customs if needed. Facilitating the process of customs clearance contributes to reducing overall lead time (Leenders et al. 2006, 375; Burt et al. 2012, 422).

Other improvement aspects

The current payment system should be streamlined. The company may consider hiring accounting or financial specialists so that they could detect the problems in the payment system and advise. Furthermore, Interviewee 2 stated that SAP system should be considered to install as SAP would help improve the case company's current payment system.

Concerning the internal network shutdowns, the company should outline a contingency plan for this matter. The contingency plan may include whom the employees may contact when the incident occurs and what possible measures the employees could try to take. Moreover, the contingency plan may mention the replacement system that the employees may use and the instructions on how to operate the replacement system.

8 CONCLUSION

8.1 Answers to research questions

Sub-question 1: How are the purchasing activities of Company X carried out and managed?

The purchasers at Company X start their jobs by determining the purchase order specifications after receiving requirements from customers. The purchasers continue with finding potential suppliers, sending requests for quotations to the suppliers, assessing the suppliers' proposals, and deciding the most suitable supplier(s) to place the purchase order with. After this, the purchasers need to prepare and draft the contract or the purchase order. During this contracting stage, negotiations and discussions between the buyer and the seller about the terms and conditions in the contract usually take place. When all the terms and conditions in the contract are agreed upon by both the buyer and the seller, the purchase order is generated electronically and sent to the supplier and some involved parties such as the purchasing and logistics supervisors. The purchasers wait for the order acceptance letter and the invoice from the supplier and forward the invoice to the accounting department. The purchasers keep in touch with the suppliers to make sure that the suppliers deliver the goods at the agreed time and place, detect possible shipping problems, and handle the issues promptly. If there are shipment problems such as delays, defects, damages, or losses, the purchasers need to communicate with the vendors to discuss what remedies should be taken. Moreover, the purchasers are required to update these shipment matters on the shared system so that relevant departments keep informed of the order status and undertake appropriate measures. The purchasing process in Company X finishes with the follow-up and evaluation phase. At this stage, the purchasers might deal with the repair, replacement and refund claims, and penalty clauses. Evaluating the supplier's performance is another essential task of purchasers. In addition to the aforementioned purchasing tasks, the purchasers need to organize and manage the purchasing and supplier files arising during the whole buying process and report the purchases to the supervisors and the management twice a week.

Concerning the roles of the purchasing managers at Company X, their primary tasks consist of supply, spend management, risk control, development, and team management responsibilities. Firstly, the supply task refers to purchasing the goods that meet the conditions of the customers from reliable suppliers within the allowed budget. Secondly, the spend management task refers to obtaining the lowest total cost while securing the availability of the goods. Thirdly, risk management involves avoiding overdependence on one

supplier, requiring the vendors to comply with environmental laws, examining the vendors, and classifying the vendors in regard to their dependability and service quality. Fourthly, regarding the development task, the purchasing managers cooperate with the vendors who can supply innovative products that may add value to the end-users' operations. Finally, the purchasing managers play the role of supporter and mentor to their team, in both professional and emotional aspects.

The purchasing management process in the case company basically means that the purchasing managers establish strategies based on the purchasing objectives set forth in meetings with the directors. The purchasing managers create some action plans indicating the aim of the plan, steps, involved employees, and timeline of activities and then explain these plans to their team members. Checking the progress of work and achievements is the next step. In the end, reports on the possible amounts of savings resulted from executing the strategies are submitted to the management for evaluation and revision. Moreover, researches on the electronic components industry, the relationship between specific suppliers and the case company, and total purchasing spend are conducted to assist the managers in making purchasing decisions.

Sub-question 2: What are the challenges existing in Company X's purchasing function?

Four major challenges existing in the purchasing department in particular and in Company X in general relate to human resources, supplier risk and relationship management, electronic purchasing management system, and internal communication. Problems relating to human resources include a high employee turnover and a lack of experienced workforce. Concerning supplier risk and relationship management, the supplier selection and evaluation are not highly-regarded and well-arranged and the supplier base is rather extensive but not truly active. Regarding the electronic purchasing management system, the majority of activities in the company's purchasing process are conducted on Excel and Skype programs. The study reveals that these activities are time-consuming and inefficient. In respect of internal communication, conflicts often occur between the purchasing and sales departments due to the lack of transparent communication and a thorough understanding of each other's responsibilities and the work progress. Other issues are delays in the company's payment system and shutdowns of the internal network.

Main research question: What are the possible improvements for Company X's purchasing activities?

Based on the above findings and data gathered from theories, there are some improvement ideas corresponding to each challenge that is discussed in the sub-question 2. With

regard to human resources, the company should consider hiring a skillful and experienced employee instead of young and inexperienced ones and retaining highly-qualified employees. In addition, it is suggested that the company should provide the purchasers with training courses or seminars about languages, cultural differences, and skills development. In order to enhance the management of the supplier risk and relationship, the company should conduct the supplier evaluation and assessment more carefully. Getting to know the suppliers deeply, keeping abreast of their activities, and maintaining close relationships with the suppliers are advised as well. The company should also optimize the supplier base and build stronger bonds with the retained suppliers. Regarding the electronic purchasing management system, the company is recommended to integrate SAP software specialized for procurement into the existing enterprise platform. Improving internal communication is another suggestion. It is advised that a face-to-face meeting within a department should be arranged every two weeks for sharing experience. In order to promote the efficiency and understanding between the sales and purchasing departments, these two departments should schedule some meetings and cross-training. The purchasing department should also stay in touch with the logistics employees regularly to keep them informed of the shipment from the suppliers. Moreover, the company should streamline the current payment system and outline a contingency plan for the internal network shutdowns.

8.2 Validity and reliability

Validity and reliability are two essential concepts that reflect the credibility of the research findings. Validity refers to the accuracy of the research findings. It indicates how accurately the research outcomes answer the research questions. Reliability is concerned with the consistency of the findings. Research is reliable if the same results are generated by other researchers, with different samples, on different occasions, or with different methods of data collection and analysis. (Phelan & Wren 2005; Saunders et al. 2009, 156-157; Taherdoost 2016, 28 & 33.)

The theoretical part of the thesis is enriched by secondary data gathered from multiple qualified sources such as academic books, professional journals, and up-to-date and trustworthy websites. The secondary data are related to the thesis topic. In addition to the secondary data, the author collected primary data by conducting face-to-face interviews with the purchasers in the case company to gain an insight into the company's current purchasing activities. The interviewees had relevant knowledge and experience so that their answers were valid and reliable. The face-to-face interviews allowed the author and the participants to ask additional questions for more detailed information or for clarification

to avoid misunderstanding. English was used in the interviews as the author and the respondents could understand and speak English clearly. However, the author and the interviewees were not native speakers of the English language so there may have been a miscommunication. To ensure open and honest responses from the interviewees, the author informed the respondents that their names would not be revealed in the thesis. Data collection and interpretation were implemented properly. Overall, the research findings are reliable at present. Nevertheless, if the research is repeated, the results may be different due to the changes in the case company's purchasing personnel or operations. In addition, employees in other departments may give different answers to the same questions. Moreover, as the research is case-oriented, a study of another company could yield different findings.

8.3 Suggestions for further research

Further research could be conducted to gain more comprehensive results for the case company and deeper insights into the issues related to the thesis's topic. As the thesis examines the purchasing activities in the case company from the perspectives of the purchasers, further research on improving the purchasing activities covering viewpoints of other employees working in different departments or suppliers is recommended. Moreover, it is advisable to study and develop other departments in addition to the purchasing function. Creating a full improvement plan involving all the departments for the case company is another suggestion. Moreover, further research could investigate the outcomes after the case company applies the improvement approaches provided in this thesis to evaluate whether these solutions are effective in practice or not.

9 SUMMARY

The first aim of the thesis is to describe and analyze the purchasing and purchasing management process of the case company. The research then identifies several challenges existing in the purchasing activities. The main purpose is to establish an improvement plan for the case company in order to enhance the overall performance of the purchasing function. The thesis employs the inductive approach and the qualitative research method.

The theoretical part starts with the explanation of the purchasing definition and its objectives. The purchasing process which is based on the model of Van Weele (2005, 13) is described in detail afterwards. The following chapter indicates key tasks and responsibilities of the purchasing managers, the purchasing management process, and a few tools supporting the purchasing management. Next, major challenges that the purchasers are likely to encounter when sourcing internationally are discussed. After that, an overview of the case company and its operations is depicted.

The empirical part begins with the process of collecting primary data, followed by the interview analysis and ethnography results. Interviews including open-ended questions were conducted with employees working in the purchasing department of the case company. The author analyzed the collected data by adopting the qualitative method. The analysis provides an insight into the purchasing activities and challenges in the case company. The empirical part ends with an improvement plan outlining some recommendations on how to cope with existing challenges at the case company and to increase the performance of the case company's purchasing activities.

The findings of the research demonstrate not only the primary activities of a purchaser and a purchasing manager at the case company but also challenges and solutions relating to the human resources, supplier risk and relationship management, electronic purchasing management system, and internal communication of the case company. The findings are utilized to answer the research questions. Following this, the validity and reliability of the research are assessed. Several constructive suggestions for further studies are presented at the end.

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APPENDICES

Appendix 1 Main interview questions

Are you over the age of 18?

What is your current job title?

What are you responsible for purchasing?

How long have you been working as a purchaser?

What languages do you fluently write or speak?

Describe your daily tasks in detail.

What is the task that may take most of the time?

What are difficulties that you may have when searching the products/ selecting suppliers/ making purchase orders/ implementing orders, etc.?

What are your criteria for selecting suppliers? What criteria are the most important?

How have you verified suppliers or made supplier assessment before placing an order?

Speaking of purchasing internationally, what are difficulties or challenges that purchasers may face? (Example: reliability, language barrier, time differences, culture differences, lead time, transportation, means of contact, payment, etc.)

What are the most common problems you may face as a purchaser?

Describe the problems/ challenges/ difficult situations you may have experienced in your work. How did you handle or overcome these problems/ challenges/ difficult situations?

What did you learn from this experience?

How do you feel about our internal communication and working environment?

What are the limitations/ difficulties/ challenges that our purchasing process may have?

What would you suggest to improve our purchasing process?