



Purchasing Professionalization

The journey to more professionalism within
Welbions' purchasing function

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Master Thesis (MSc)

Faculty: Management & Governance (SMG)
Program: Business Administration
Track/Specialization: Financial Management

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Acknowledgement

This thesis is written in partial fulfilment of the requirements for the Master of Business Administration program with a specialization in Financial Management at the University of Twente. It is written in co-operation with housing corporation Welbions in a timeframe from February 2013 until July 2013. During this period I have extended my knowledge regarding the professionalization of the purchasing function within an organization, in specific housing corporation Welbions.

This thesis specifically focusses on the purchasing function within Welbions. Nevertheless, the conclusions and recommendations made could be equally helpful to any organization that aims to professionalize its purchasing function. With this thesis I hope to contribute to the development of a professionalized purchasing function with reduced costs in perspective.

I am indebted to a number of people and organizations in the realization of this thesis. First of all, I would like to thank Welbions and all its employees who in one way or another contributed to the completion of this project. In particular I would like to extend my thanks to Maarten Jonge Poerink for being my external supervisor. Despite of his busy schedule, he managed to make time available for support, guidance, comments, and feedback.

From the University Twente I would like to thank my supervisors, Henk Kroon and Peter Schuur, for their advice, comments, and feedback, these helped me get my thesis on a higher level.

Last but not least, I would like to thank my family and friends for their personal support during my study. I could not have done this without you all.

It has been an enriching and interesting closing of my student days at the University of Twente. I have learned a lot and had pleasure in writing this thesis. Finally, I would like to wish you all a great time reading this thesis!

Hengelo (O), the Netherlands.

July 2013

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Abstract

The environment of Dutch housing corporations is changing, causing difficulties in different areas of concern. As a consequence, housing corporations are continuously searching for a higher level of effectiveness and efficiency, often resulting in the “professionalization” of various business operations. The current developments in the sector and the need to become more result driven, particularly in the area of purchasing, are the motivations for this research. Main area of concern within housing corporation Welbions is that the increasing costs can only be covered partly by the potential realizable increases in revenues. This has caused that in the near future a gap is going to arise between the organization-wide income and expenses. Additional actions are necessary, therefore is Welbions willing to have a better control over their costs, especially those generated by its purchasing function. The magnitude of purchasing’s impact on the overall corporate performance strengthens the question: Can the purchasing function of Welbions be “professionalized” with reduced costs in perspective? The Professionalization of business operations is seen as an effective way to reduce costs and thereby expanding the financial possibilities of an organization. The following main research question has been formulated for this research:

In what way can Welbions professionalize its current purchasing function in order to be beneficial to the organization?

Within this question, it is the purchasing function’s internal organization of processes and activities as well as its structural integration and coordination in which we are most interested. In order to find an answer to the research question(s), a qualitative case study has been conducted supported by an extensive review of literature in the field of purchasing. Besides literature, this research used different empirical sources of which internal documents and conducted (qualitative) interviews provided the majority of the practical information needed to answer the research questions.

Welbions currently possesses a decentralized mechanism to structurally integrate and coordinate its purchasing function. Various analyses indicated that this mechanism not anymore fits to the organization in order to manage a professionalized purchasing function. The analyses revealed that Welbions’ purchasing function should possess more centralization, be it either by a complete centralized function or a hybrid one. Despite the identified preference towards a complete centralized purchasing function, it is recommended to have the purchasing function integrate and coordinate by hybrid mechanism since this mechanism is deemed to fit better to the desires and needs of the organization.

Next to identifying which integration and coordination mechanism fits Welbions to manage a professionalized purchasing function, this paper also focuses on the actual professionalization of the purchasing function itself. Based on a combination of purchasing maturity models, other practical oriented literature, and signals out of Welbions have seven factors been selected that formed the theoretical framework of this research. The selected factors are deemed to be most beneficial (useful) to Welbions and should be minimally present in its purchasing function. Comparing the theoretical framework (“Soll-situation”) with the purchasing practices at Welbions (“Ist-situation”) revealed that Welbions definitely has the ability to professionalize its purchasing function. The following recommendations are made in order to possess a more professionalized purchasing function:

- **Purchasing policy:** continue with the development of the integral purchasing policy that describes the fundamental principles and objectives set by the management team.
- **Purchasing process:** compose a documented purchasing process that is based on the principles of the purchasing policy and preferably differentiated on the three main business processes.
- **Supplier selection:** determine, as part of the purchasing process, a structured way of selecting a supplier which is preferably differentiated based on the three main business processes.

- **Supplier performance evaluation:** structurally assess, document, and share the performance of key suppliers through a pre-determined set of objective performance indicators.
- **Contract management:** develop and actively maintain a contract management system/register in which all the concluded contracts and agreements are managed, organization-wide.
- **Purchasing portfolio analysis:** first, perform purchasing portfolio analysis periodically to identify the key suppliers and purchasing categories. Second, incorporate and distinguish the purchasing policy based on the portfolio analysis' classification.
- **Purchasing performance measurement and control:** develop a procedure/system to control and periodically evaluate the performances of the purchasing function. It should start with evaluating the compliance of the stated policy and process before objective measures are included to assess the stated purchasing objectives.

Each of these recommendations is deemed to lead towards a more professionalized purchasing function. If implemented, the organization is likely to have reduced costs in perspective.

This paper furthermore performed different quantitative analyses on the 2012 purchasing documentation in order to define Welbions' purchasing function in terms of nature and volume. The analyses revealed typical features and striking findings which strengthen the recommendations made. In addition, these analyses identified different potentials to further reduce/save costs through the purchasing function. Taking together the recommendations, analyses, and the suppositions of literature resulted in an estimated savings potential of between € 2,1 million and € 5,3 million (based on the 2012 volume). Translated into percentages, this indicates an overall estimated savings potential of between 3,3% and 8,3%.

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1 Introduction to the research

This chapter is dedicated to introducing this research and the case organization. The first section provides a detailed description and understanding of housing corporation Welbions, the case organization of this research. This is helpful since housing corporations are compared to other privately operating organizations different in terms of nature, activities and financing. The following section shortly sets out the origin of this research. Chapter 2 further elaborates on the occasion of this research and its design aspects.

1.1 Introduction to housing corporation Welbions

Welbions is an organization which belongs to a group of organizations that is a typical phenomenon in the Netherlands: Housing Corporations (HC). A substantial part of the housing stock within the Netherlands is owned by HC, 35% of the total housing stock and over 80% of the rental stock. In 1995, HC have been privatized and operate from then on in the private domain. Still, HC are highly regulated since they fulfil an important function in the public domain: providing an affordable house of good quality to people belonging to a vulnerable group in society. Due to their social characteristics and its social function in society, HC operate as non-profit organizations. This indicates that their primary goal is anything different from generating profit or creating wealth for its owners. It does not mean that HC are not allowed to make any profit, but the profit made should be reinvested in such a way that it is beneficial to the society and that the stated organizational goals are achieved (Merchant & Van der Stede, 2007; Smeets & Dogge, 2007).

Welbions is located in Hengelo (O), the Netherlands and is founded in 2008 as a result of the merger between the two HC “St. Joseph” and “HBS Ons Belang”. By that time, the two organizations were comparable in size and both aimed their activities on the housing market of the municipality Hengelo. Since the merger, Welbions accounts for approximately one third of the total housing market within Hengelo. The organization currently owns around 14.500 rental units (end 2012) located in and around Hengelo. Majority of these units (\pm 13.000) are houses which provide living space to approximately 25.000 residents. The remaining 1.500 rental units consist of garages/parking allocations, commercial properties, and other real estate.

Due to the social function of HC, the core activity of Welbions is the housing of people who belong to a vulnerable group and who are for various reasons, such as a mental- or physical health problems, social welfare, or a low-/middle income class, unable to obtain living space through the market mechanism. Welbions rents, sells, manages, maintains its current property, and works on large-scale restructuring projects within multiple neighbourhoods to secure that people can live in the neighbourhood they prefer today, but also in the future. On top of that is the organization also engaged in the development of new housing projects for rent and/or sale purposes. Together with social partners in the fields of healthcare, education, culture, work, and sports, works Welbions to achieve “vital” neighbourhoods where people can utilize opportunities and develop themselves.

1.1.1 Welbions' vision- and mission statement

The vision- and mission statement of Welbions confirms the above mentioned core activities and social involvement. The vision and mission are central during daily activities of employees and the organizational decision making.

The vision is formulated as: *“Everybody in Hengelo should be able to live satisfied. Living satisfied is having a suitable and affordable house in a neighbourhood where one feels himself at home and where it is possible to develop oneself. Our focus is in particular on those with a lower-/middle income or with a specialized demand for care. We are working on vital neighbourhoods that are physically, socially, and economically in balance. Therefore, Welbions invests in houses, neighbourhoods, and people.”* (Welbions, 2012, p.9).

Following the vision, the organization's mission is formulated as: *"Welbions offers suitable and affordable houses, in such a way that people with a lower-/middle income or with a specialized demand for care can live satisfied in Hengelo. We, together with residents and other parties, undertake activities to realise vital areas and neighbourhoods."* (Welbions, 2012, p.9).

Corporate objectives

In order to achieve this vision and mission, four organizational core objectives have been formulated. These objectives are interconnected and one by one deemed necessary to realise a satisfied living. The following objectives are distinguished and explained/elaborated by three underlying ambitions:

1. **Realise a satisfied and affordable living:** (1) future-proof housing inventory, (2) balanced value (quality) for money, and (3) affordable housing costs.
2. **Create vital neighbourhoods:** (1) customization in neighbourhoods, (2) harnessing of residents' strengths, and (3) having diversified neighbourhoods.
3. **Work together and combine strengths:** (1) participation of customers, (2) work together with local and regional partners, and (3) having/creating an own role.
4. **Undertake actions effective and efficient:** (1) a steady course, realistic, and transparent, (2) think in returns, and (3) collaborate efficiently with partners.

Corporate core values

Underlying the mission statement, Welbions distinguished three core values. These are the guiding principles (norms and values) that help to define how the organization would behave during the execution of activities. The core values are:

1. **Inspiration:** inspiration is the starting point in order to get moving, it gives energy and power. Welbions wants to inspire employees, residents, and partners to realise a satisfied living.
2. **Co-operation:** Welbions believes that working together brings you further than doing it on your own. Employees, residents, and (preferably local) organizations work together with respect for one's ideas, beliefs, and possibilities.
3. **Enterprising:** enterprising means doing things with courage and creativity. It also contains a business way of thinking, including awareness for return. Welbions is an organization that encourages creative and innovative ideas and considers what most contributes to its objectives.

1.1.2 Organizational structure

Welbions has (end 2012) 150,5 full time employees headed by a single director who is in turn responsible to the Supervisory Board. The director manages three different departments, each headed by a departmental manager. The following main departments are distinguished within Welbions' organizational structure:

- Business operations, sub-divided in: organization support and finance.
- Housing, sub-divided in: housing and maintenance.
- Neighbourhood development.

In addition, the organization has three staff-departments to support the line functions during their activities: control, strategy, and human resource. An overview of the complete organizational chart is visualized in figure 1.

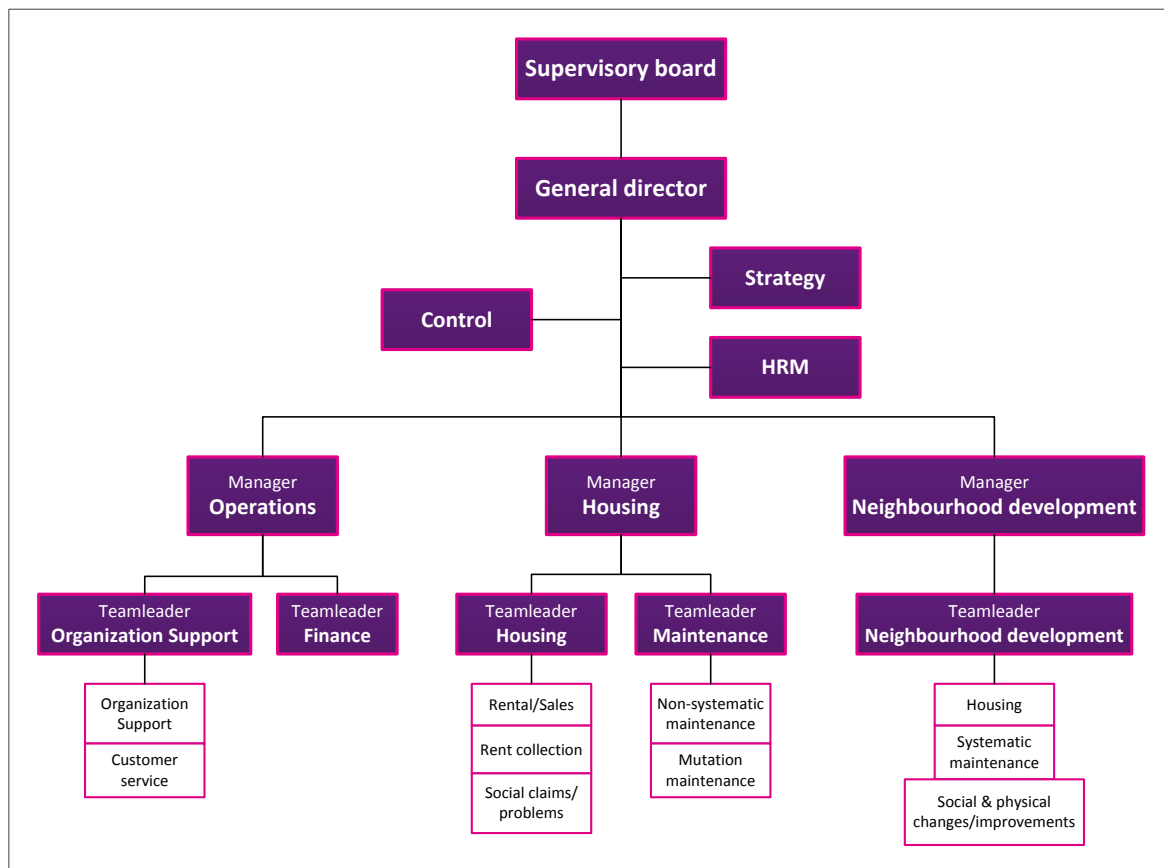


Figure 1: Welbions' organizational chart

1.2 Origin of the research: from cost increases to cost control

The internal and external environment where HC operate in is changing, causing difficulties in different areas of concern. On the one hand, policy interventions from the European Commission are re-shaping the contours of the housing market in the Netherlands. On the other hand, HC are tightened by the Dutch government through (tax) legislations and housing laws which causes a major distortion on the financial position of the sector as well as the individual corporations. As a result, (taxes and) costs are increasing which only can be covered partly by the potential realizable increases in revenues (sale/rental income). A situation that even worsens due to the economic crisis we are facing at the moment. A gap arises.

As a consequence of these developments, HC are continuously searching for a higher level of effectiveness and efficiency within their organization, often resulting in the "professionalization" of various business operations. The current developments in the sector and the need to become more result driven, particularly in the area of purchasing, are the motivations for this research. On average purchases Welbions products and services amounting to over 85% (\pm €60 million) of the annual revenues. The magnitude of purchasing's impact on the overall corporate performance strengthens the question: Can the purchasing function of Welbions be "professionalized" with reduced costs in perspective?

The occasion of this research will be further elaborated in Chapter 2.

2 Research design

Chapter 1 shortly mentioned the origin of this research. The purpose of this chapter is to further elaborate on the research origin and to discuss the various design aspects of this research.

The first section describes the problem that initiated this research. It first discusses the (general) background of the problem followed by the description of the specific problem within Welbions. Section 2.2 sets out the research goals which are translated into research questions in section 2.3. The research methodology is described in the fourth section which also describes the data collection technique. The final section concludes with an exposition of the research structure.

2.1 Problem Statement: the changing environment of housing corporations

The changing environment (section 1.2) contributes to the fact that housing corporations (HC) are faced with various problems, such as a disturbed housing market, the complexity of inner city regeneration, a considerable growth in the number of elderly people, etc. (Smeets & Dogge, 2007). On top of that, KPMG (2012) found that the management costs (beheerskosten) of HC increased substantially (70%) over the period 2001-2009. This increase can partly be explained by the expanding package of tasks performed by housing corporations, but also due to the (current) inability to create cost advantages through economies of scale. This leads HC to having a cost structure that is almost a third higher compared to for-profit real estate organizations.

2.1.1 Problem background: The housing agreement

HC finance their activities and investments from incomes generated by their social and non-social activities, cash flows from the sale of houses and/or commercial properties, and loans at favourable conditions. Today, these incoming cash flows are under pressure due to the economic crisis and the situation on the Dutch housing market, resulting in scarce and expensive resources. Prices of houses have decreased substantially and far fewer houses are sold, affecting the cash flow generated by the sale of property. On top of these developments, the Dutch government intends to change the legislations and regulations regarding the housing market. On 13-02-2013 Minister Blok (housing and civil services) presented the housing agreement (woonakkoord), intended to get the housing market out of its stagnation and to tackle the various problems it faces. The general effect of this agreement is expected to negatively affect the housing market and particularly the financial position of HC.

Analysis of the housing agreement revealed several consequences specifically related to HC, the two most radical ones are discussed. First, the proposed annual rental increase will be reduced compared to the intended coalition agreement. This means that HC cannot increase their rental income as much as intended, see table 1.

Income category	Coalition agreement (old)	Housing agreement (new)
< €33.000	Inflation + 1,5%	Inflation + 1,5%
€33.000 – €43.000	Inflation + 2,5%	Inflation + 2,0%
> €43.000	Inflation + 6,5%	Inflation + 4,0%

Table 1: Rent increase per income category starting at 01-07-2013

Second, the additional landlord levy (verhuurderheffing) will be lower than intended by the coalition agreement, €1,700 million in 2017 instead of €1,990 million. The levy is imposed on HC in order to make a contribution to the costs of the rent subsidy. Summarizing overview of the payment spread over the period 2013 – 2017 can be found in table 2.

Year	2013	2014	2015	2016	2017
Coalition agreement	€50	€1.285	€1.525	€1.765	€1.990
Housing agreement	€50	€1.165	€1.355	€1.520	€1.700

Table 2: Landlord levy payment spread 2013-2017 (in millions of euros)

The slight decrease in amount is not all good news for HC and will still have a major impact on the sector. According to the housing agreement, HC can almost completely cover the additional levy by the intended rental increase. The cumulative difference over the period 2013 – 2017 is estimated to

be €350 million, negative. This difference should be compensated by the proceeds from additional sales of real estate, higher level of efficiency, energy-saving fund, and lower salaries paid. In relation to this, it is assumed that HC are in the position to control their costs in the period 2014–2017, resulting in an average cost reduction of around 10%. This will equate in a structural cost reduction of €350 million, suggesting that HC are not harmed by the housing agreement.

Different opinions on the intended housing agreement arise. Aedes, the umbrella organization for HC, is sceptical: *“The investment capacity of housing corporations is likely to deteriorate.”*, continued by: *“Although the landlord levy will be lower, so will be the rental income as well. Therefore we can invest less, for example in new constructions.”* (Haverkort, 2013). KPMG (2012) stated that a housing corporation has different possibilities to strengthen their investment capacity. The professionalization of business operations is seen as an interesting approach to expand the financial possibilities. The developments and insights in the environment of HC form the basis and motivations for this research.

2.1.2 Problem within Welbions: professionalization of the purchasing function

The need for Welbions to control costs and work effective and efficient exists as never before. Welbions’ management team (extended by the controller and manager human resource) recognizes the current developments and started in co-operation with KPMG a project called “Blok-Bestendig” (Blok-proof). The purpose of this project is to get an understanding of different future scenarios and their effects on the organization’s business model. The team stated: *“Of course it is annoying that at this moment we are in a state of uncertainty and unable to set out a direction. Nevertheless, it has positive sides. As a housing corporation we are professionalizing at a fast pace. It has been said for years that housing corporations should rely more on a business way of thinking. We are convinced that it is a good thing to organize Welbions more effective and efficient. This process is accelerated by the current circumstances. Within these circumstances it is the challenge to keep in mind where we are heading. We can change “the way of doing things”, but the aim towards the future remains unchanged: we remain committed to our stated mission to realize an affordable and satisfied living.”* (Welbions, 2013).

The rising costs, which only can be covered partly by the potential realizable increase in revenues, are a main area of concern within Welbions. Additional actions are necessary since a gap between the organization-wide income and expenses is going to arise in the near future as stated by Mr. Jonge Poerink, controller/manager control: *“The provided opportunity to increase the rent is nice, but to keep housing under the current circumstances affordable for our target group reveals an estimated negative balance between income and expenses of €5.5 million a year. Additional actions regarding the income out of sale of houses are necessary. In addition, savings on the operating expenses and cost reductions on maintenance and investments are also deemed necessary.”* (Jonge Poerink, 2013).

In order to secure continuity in the future, it is essential that the estimated negative balance between income and expenses be kept as low as possible or even positive. Additional increases in rental income are restricted by governmental legislation and regulations. On top of that, income generated out of the sale of houses is not enough to fill the gap and an expanding sale of houses is not desired on the long-term. Due to this, Welbions is willing to have a better control over their costs, especially those generated by the organization-wide purchasing function.

The purchasing function is accountable for the main part of the total costs generated (€60 million or ± 85% of annual revenues) and has a great influence on the corporate performances. In this case, purchasing concerns the resources spent on investments, maintenance/renovation of property, and other operating activities. In a conversation with Mr. Jonge Poerink it became apparent that Welbions does not have a clear view if their purchasing function is as effective and efficient as desired/needed. These circumstances and the increasing impact of purchasing on the overall performances of the organization strengthen the question: Can the purchasing function of Welbions be “professionalized” with reduced costs in perspective? On this premise, the main topic of this

paper can be summarized as: professionalization of the purchasing function with reduced costs in perspective (further elaborated in section 2.2 and 2.3). This means that this paper will answer the question in what way an organization, in specific Welbions, can professionalize its purchasing function in order to be beneficial to the organization. Within this question, it is the purchasing function's internal organization (set-up) of processes and activities as well as its structural integration and coordination in which we are most interested

2.2 Goals of the research

Based on the problem statement, a set of goals is formulated that will act as guidelines during this research. The main goal of this research is to come up with scientific grounded recommendations and (wherever possible) quick-wins that will lead Welbions towards a more professionalized purchasing function. If this goal is achieved, it is likely that Welbions will have a purchasing function that is more effective and efficient with a perspective towards reduced costs. Within this goal, it is the purchasing function's internal organization (set-up) of processes and activities as well as its structural integration and coordination in which we are most interested.

In order to achieve this goal, five consecutive underlying sub-goals are formulated:

1. Determine the meaning of the notion “purchasing” and its role and importance for organizations.

The first sub-goal is to get an extensive understanding of the notion purchasing based on a literature review in the field of purchasing. Interesting questions such as: what does purchasing mean for organizations? why is it important? and what activities and objectives does purchasing have within an organization? should be answered.

2. Develop a “theoretical framework” to reach more professionalism in the purchasing function with reduced costs in perspective.

The second sub-goal is to find out how an organization should organize (in terms of process/activities) its purchasing function to become more effective and efficient (professionalized) with the ability to reduce costs. Literature will be reviewed to identify factors that are suggested and found to lead towards more professionalism within an organization's purchasing function. Findings will form the “theoretical framework” of this paper.

3. Define Welbions' current purchasing function/practices in terms of organization, nature, and volume.

The third sub-goal is to define the current purchasing function/practices of Welbions. Interviews will be conducted and empirical data analysed to obtain interesting insights (quick-wins) and practices concerning the organization-wide purchasing function. Questions such as: who purchases? how much is purchased? which suppliers are used, etc. will be answered in addition to the description of the practical application on the factors of the theoretical framework.

4. Identify and discuss actions that Welbions should take to achieve a more professionalized purchasing function.

The fourth sub-goal is to come up with actions that Welbions should take in order to improve the level of professionalism within its purchasing function. Comparing the purchasing practices with the determined theoretical framework should reveal potential areas of improvement which are translated into actions/recommendations. The analyses of the third and fourth sub-goal are finally translated into an estimated savings potential for Welbions.

5. Identify which integration and coordination mechanism fits Welbions' desired, professionalized, purchasing function.

The fifth sub-goal is to identify which integration and coordination mechanism fits Welbions to manage a professionalized purchasing function. In order to achieve this goal, literature will be reviewed to define the mechanisms that can be used to integrate and coordinate the purchasing function followed by the analyses of the current- and desired mechanism for Welbions.

Each of these (sub-) goals is translated into research questions in the following section.

2.3 Research questions

Based on the aforementioned problem statement and goals of the research, the following main research question has been formulated:

- ***In what way can Welbions professionalize its current purchasing function in order to be beneficial to the organization?***

This question contains some expressions that need to be conceptualized¹ in order to create an unambiguous understanding of their meaning within the context of this paper. By “**Professionalize**” is meant that the (current) purchasing function of Welbions becomes more **effective** and **efficient**. In this sense, **effectiveness** refers to “*the degree to which an organization achieves its goals.*” (Daft, 2009, p.20), while **efficiency** refers to “*the amount of resources used to achieve the organization’s goal. It is based on the quantity of raw material, money and employees necessary to produce a given level of output.*” (Daft, 2009, p.20). Subsequently, “**Purchasing function**” refers to both purchasing’s internal processes and activities as well as its structural integration and coordination within the organization. Following these explanations, “**beneficial to the organization**” is conceptualized in a cost reduction perspective. In this sense, the professionalization of the purchasing function is beneficial to the organization when resources regarding purchasing are reduced/saved while the level of quality is maintained or even improved.

To be able to answer the main research question, sub-questions are formulated based on the sub-goals (section 2.2). Since each of these goals contributes to the achievement of the main goal, will answering these sub-questions provide the required information needed to answer the main research question (see also figure 2 in section 2.5). The sub-questions are as follows:

1. *What is meant by the notion “purchasing” and why is it important for organizations?*
2. *In which way can an organization professionalize its purchasing function with the ability to reduce costs?*
3. *How can the purchasing function of Welbions be defined in terms of organization, nature, and volume?*
4. *What actions does Welbions have to take in order to improve the level of purchasing professionalism?*
5. *Which integration and coordination mechanism fits Welbions to manage a professionalized purchasing function?*

2.4 Research methodology: qualitative case study underpinned by a literature review

To find answers to the stated research questions, a case study has been conducted supported by an literature review in the purchasing field. Although a case study can be performed by using either qualitative or quantitative evidence, this study mainly uses qualitative data and/or evidence (Yin, 1981). It is qualitative in nature since it concerns an empirical- and desk research with (mainly) a non-numerical examination and interpretation of observations of Welbions’ purchasing function. The unit of analysis of this research is therefore Welbions, specifically its organization-wide purchasing function (Babbie, 2010; Rowley, 2002; Yin, 2009).

Many qualitative studies are found to have a primarily descriptive approach. Although a case study could have more than one purpose, the main purpose of this research is also descriptive (Babbie, 2010; Yin, 1981, 2009). Rowley (2002) stated that researches with a descriptive purpose are well suited to be investigated through case studies. This research method is appropriate when the focus is on one contemporary set of events within a real-life context over which the researcher has no or little control, as in this research (Babbie, 2010; Yin, 1994). It is not simply a methodological decision, but the selection of one particular object on which the study particularly focusses (Deniz & Lincoln, 2005). A case study allows concentrating efforts on a unique situation compared to a general

¹ Conceptualization is defined as: “*the mental process whereby fuzzy and imprecise notions [concepts] are made more specific and precise*” (Babbie, 2010, p.127)

situation, for example proposed by literature. Despite scepticism on case studies regarding its rigour and objectivity, it is a widely used research method since it may offer insights that probably are not perceived by other methods (Rowley, 2002). Therefore, Dubois and Araujo (2007) concluded that case studies are a well suited method of research, especially in the field of purchasing.

To support this research with scientific knowledge, an extensive literature review has been performed, prior to and during the research. Prior to, to gain extensive knowledge in the purchasing field and during the research to gain knowledge regarding a specific topic that has proven to be helpful. While searching and studying the relevant literature the so called snowball method (technique) is used: the list of references of a book or article is scanned to point out other interesting literature on the topic of concern (Van Aken, Berends, & Van der Bij, 2007). On top of that, time is spent in the library of the University Twente to scan interesting and topic-related sections of the library and the internet. According to Yin (1981) a case study researcher should preserve a “*chain of evidence*” during his research. By combining this case study with a literature review, this chain of evidence towards overall findings and conclusions is secured.

2.4.1 Data collection

Besides literature, a qualitative case study typically uses a variety of evidence gathered from different empirical sources, such as: (internal) documents, interviews, conversations, and direct/indirect observations (Babbie, 2010; Rowley, 2002). Therefore, different empirical sources and methods have been used and consulted in order to gather the needed information to answer the research questions.

First of all, several internal documents, such as the procurement and purchase authorisation, internal notes/memos, previous intended (unfinished) purchasing and procurement policy, annual reports, treasury regulations, the intranet, etc. have been consulted and/or analysed. The quantitative part of this case study comes from the analysis of the 2012 purchasing documentation derived from the financial administration. This data is used to gain a further understanding of the purchasing practices at Welbions and as input for the different numerical analysis performed in this paper. Since many of these documents are not publically available, is it likely that they contain critical information about Welbions’ purchasing function. Internal documents are also a good source of information since they are written for daily business activities and not for research purposes. Therefore are these more valuable than others because they contain a reduced reporting and selection bias (Yin, 1984).

Second, qualitative interviews and conversations are conducted/held with employees who are involved or related to the purchasing function. A qualitative interview is: “*An interaction between an interviewer and a respondent in which the interviewer has a general plan of inquiry, including the topics to be covered, but not a set of questions that must be asked with particular words and in a particular order.*” (Babbie, 2010, p.318). Interviews are especially for this research a good source of information since they extend the knowledge and provide practical insights. The interviews are guided by a set of topics and no set of standardized questions is used. It is therefore possible to revise the aim and questions during the interview based on the circumstances and topics of discussion. This interview method motivates openness and flexibility of both interviewer and interviewee. See appendix I for an overview of employees interviewed.

2.5 Research structure

This section discusses the research structure and methodology used to answers each particular sub-question. It concludes with a summarizing overview of the research structure.

The first research question, “***What is meant by the notion “purchasing” and why is it important for organizations?***”, requires a literature review. The question is not limited to defining the notion but will also elaborate on purchasing’s role and importance for organizations.

The second research question, ***“In which way can an organization professionalize its purchasing function with the ability to reduce costs?”***, also requires a review of literature. This question aims to find out how an organization should organize/set-up its purchasing function (in terms of processes and activities) to become more professionalized with reduced costs in perspective. The answer to this question will be based on literature and forms the theoretical framework of this paper.

The third research question, ***“How can the purchasing function of Welbions be defined in terms of organization, nature, and volume?”***, will mainly be addressed based on the theoretical framework developed at the second research question, the various empirical sources, and the conducted interviews within Welbions. It will also define/analyse Welbions’ purchasing function in terms of nature and volume to gain additional insight and practices. These analyses will mainly be based on the purchasing documentation (quantitative).

The fourth research question, ***“What actions does Welbions have to take in order to improve the level of purchasing professionalism?”***, has a comparative nature and will compare the theoretical framework with the practices at Welbions. This should reveal potential areas of improvement that in turn will lead to actions (recommendations) necessary to have a more effective and efficient purchasing function.

The last research question, ***“Which integration and coordination mechanism fits Welbions to manage a professionalized purchasing function?”***, will combine a literature review on the mechanisms that can be used with the conducted interviews and previously made analyses, recommendations, and conclusions. The question aims to find out which integration and coordination mechanism fits Welbions to manage a professionalized purchasing function.

Answering these sub-questions would provide the information needed to answer the formulated main research question: ***“In what way can Welbions professionalize its current purchasing function in order to be beneficial to the organization?”***. Ultimately, the answer should lead Welbions towards a more effective and efficient purchasing function with reduced costs in perspective. An overview of the research structure can be found in figure 2.

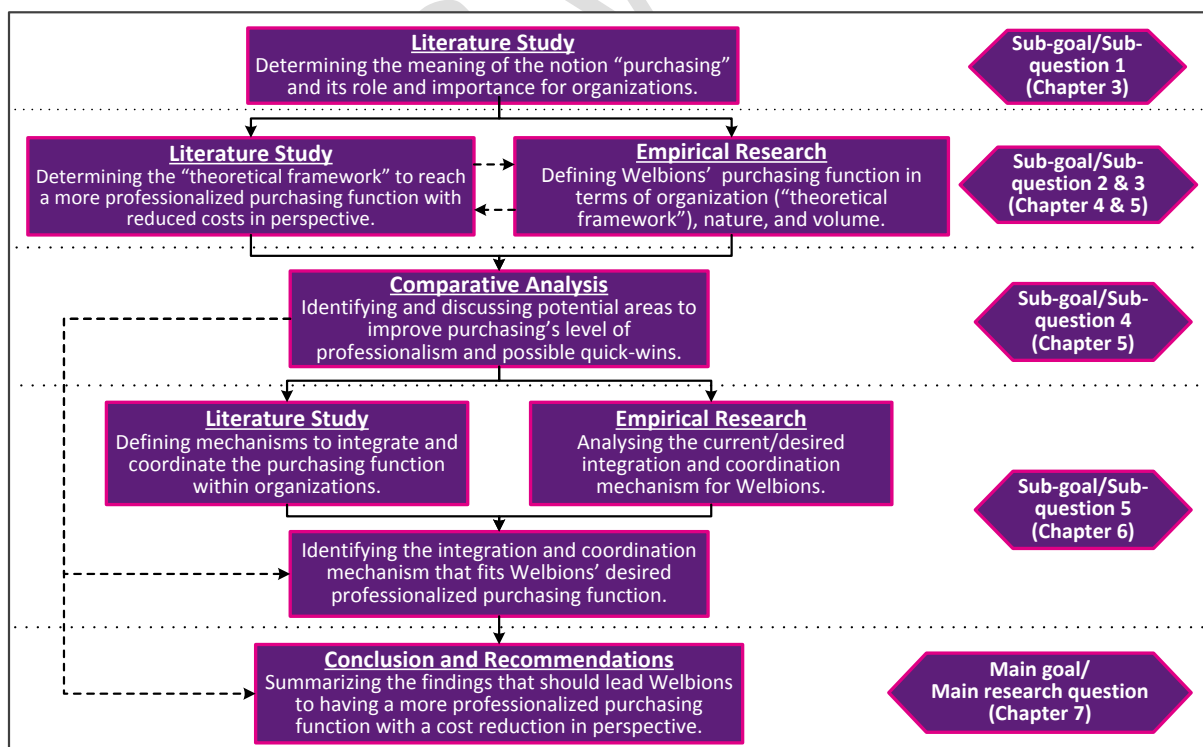


Figure 2: Research structure

3 The notion purchasing

This chapter further elaborates on the notion “purchasing”. It determines the meaning of purchasing and its role and importance for organizations. Thereby it answers the first sub-question: *“What is meant by the notion “purchasing” and why is it important for organizations?”*

The first section provides an introduction to organizational purchasing. Section 3.2 identifies the definition of the notion that is used to understand purchasing throughout this paper. Section 3.3 elaborates on purchasing’s changing nature while the fourth section focusses on the main activities and objectives that the purchasing function should fulfil. Section 3.5 discusses the benefits from having a decent performing purchasing function and shows what impact a cost saving/reduction could have. The final section concludes.

3.1 Introduction to organizational purchasing

Purchasing is a notion with a widely accepted meaning to people. A purchase is made every time we go into a shop to exchange money for anything that we want. It is an ordinary daily activity of which employees in many organizations think they can do effectively and efficiently themselves. In case of organizations, purchasing is not only a matter of magnitude (varying from few euros to contracts of billions of euros) but also a matter of greater good (varying from one to over thousands). Imagine for example an organization willing to purchase a new headquarter. This purchase is much more complicated and expensive than buying a daily used product in a supermarket or office supply. Consumer purchasing differs for numerous reasons remarkably from organizational purchasing (Van Weele, 2005). Consumers simply buy to satisfy their own needs while organizational purchasing has an objective to ensure operations and competitiveness. In addition, organizational purchasing has a more co-operative orientation compared to consumer purchasing. Further, the share of a single consumer purchase normally has little impact on the supplier’s revenues, while a single organizational purchase can have a considerable impact on the suppliers’ revenues. As a result, organizational purchasing can influence price, product, or even market behaviour of suppliers.

It is apparent that these differences, among others, make organizational purchasing more complicated and challenging. The basic view of an organization consists of three sequential process steps (Monczka, Handfield, Giunipero, Patterson, & Waters, 2010):

1. **Buying:** acquiring various types of products/services.
2. **Making:** using these in operations to produce products/services.
3. **Selling:** delivering finished products/services to customers.

Obviously this paper focusses on organizational purchasing, the first process step.

3.2 Definition of the notion “purchasing”

Purchasing, logistic management, supply, procurement, buying, acquiring, supply chain, etc., are all concepts that literature uses interchangeably to describe the same principle: organizational purchasing (Baily, 1993; Baily & Farmer, 1993; Monczka et al., 2010; Van Weele, 2005). The remainder of this paper will use “purchasing” which instead also could have been one of the other mentioned concepts.

Due to the use of different concepts, literature not agrees on a single accepted definition. Baily (1993) for example talks about organizational purchasing and defines it as: *“the process by which organizations define their needs for goods and services; identify and compare the supplies and suppliers available to them; negotiate with sources of supply or in some other way arrive at agreed terms of trading; make contracts and place orders; and finally receive, accept and pay for the goods and services required.”* (Baily, 1993, p.4). Purchasing is in this definition predominantly seen as an operational activity. Monczka et al. (2010) sees purchasing in a broader context: *“Purchasing is responsible for acquiring all the materials needed by an organization. It consists of the related activities that organize the flow of goods, services and other materials from suppliers into an organization.”* (Monczka et al., 2010, p.10).

Van Weele's (2005) definition is also different and he sees purchasing not just as an operational activity (Van Weele, 2005, p.12):

Purchasing is 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 favourable conditions.

This definition clearly makes a distinction between buying for primary activities and buying for support activities, see table 3.

Aspect	Buying for primary activities	Buying for support activities
Product assortment	Limited to large	Very large
Number of suppliers	Limited, transparent	Very large
Purchasing turnover	Very large, considerable	Limited
Number of purchase orders	Considerable	Very large
Average order size	High	Small
Control	Depends on type of planning	Limited, forecast- or project-related planning
Decision-making unit	Production/Development	Fragmented, varies with product/service

Table 3: Main differences between buying for primary- and support-activities
Source: Van Weele (2005, p.12)

As can be noted are the different definitions highly related and do often overlap with each other. The definition proposed by Van Weele (2005) (see text block above) has been chosen to understand purchasing throughout this paper. This definition is not only complete, but also defines purchasing in terms of most favourable conditions, in this paper translated in terms of effectiveness and efficiency. Therefore fits this definition best to the overall purpose and main goal of this paper: to have a more professionalized purchasing function with reduced costs in perspective.

3.3 The changing nature and importance of the purchasing function

The environment where purchasing operates in has been/is changing rapidly. This leads to the change of purchasing's position in the ladder of importance within an organization. It moved from being a relevant function to an essential one. This increasing importance is found to be directly related to increasing percentage of revenues directly spent on raw materials, products, and services (Faber, Lamers & Pieters, 2007). Schiele (2007) also found that in the past years, the volume of purchasing expressed as a percentage of the organization's total revenues had increased substantially. Purchasing already accounts for over 60% of the total revenues in industrial organizations, a percentage that is expected to grow as a result of the increasing tendency towards outsourcing of non-core business activities (De Boer & Telgen, 1998; Faber et al., 2007; Munson & Hu, 2010). The purchasing function is of great importance for both private- as well as public (governmental) organizations (De Boer & Telgen, 1998). This indicates its essence for organizations whose primary goal is related to profit as well as for organizations whose primary goal is not related to profit (non-profit), like housing corporations. These circumstances brought purchasing to be a decisive factor to attain competitiveness (Faber et al., 2007).

While Karjalainen (2011) found that organizations increasingly note purchasing's impact on their competitiveness, Van Weele (2005) also concludes that purchasing fundamentally contributes to business success. In former times, the role and place of purchasing was easy to understand: acquire products needed for production and/or sales. Efforts were concentrated on the previous link in the chain and leave the rest to others. Nowadays it is generally agreed that purchasing has a more important role in the corporate strategy, resulting in the evolvement of the function from being a clerical buying one towards a strategic one (Gelderman & Van Weele, 2005). On top of that, Karjalainen (2011), Kraljic (1983), Monczka et al. (2010), and Rozemeijer (2000) also mentioned purchasing's changing perception and state that it moves from an operative function, as it used to be, towards a strategic position today and in the future. Empirical evidence found by Gelderman and Van Weele (2005) revealed that an organization indeed can obtain competitive advantages through its purchasing function. Following this tendency towards strategic oriented purchasing, Carr and

Smeltzer (1997) state that strategic purchasing is *“The process of planning, implementing, evaluating, and controlling strategic and operating purchasing decisions for directing all activities of the purchasing function toward opportunities consistent with the firm’s capabilities to achieve its long-term goals.”* (Carr & Smeltzer, 1997, p.201). Within this evolution, the primary focus of purchasing is changing from short-term cost reduction towards long-term strategic flexibility, reliability, quality, and responsiveness (Smeets & Dogge, 2007).

As the scope and importance of purchasing is increasing, organizations give more attention to their purchasing function and increasingly recognise the necessity to coordinate its overall efforts. Kraljic (1983) already stated back in 1983 that management of organizations must learn to make things happen to their own advantage instead of simply monitoring current developments in the field.

3.4 The activities and objectives of the purchasing function

Since the role and importance of the purchasing function has changed is a clear understanding of its activities and objectives helpful. A well-known statement of purchasing’s objective is: *“to purchase the right quality, at the right time, in the right quantity, from the right source, and at the right price”* (Baily & Farmer, 1993; Monczka et al., 2010). Its mission is to manage the delivery of products/services through the supply chain in such a way that it is cost effective (Johnson, Leenders, & McCue, 2003). This mission is for both the private as well as the public sector the same. Van Weele’s (2005) definition of purchasing covers activities specifically aimed at:

- Determining the specifications of the purchase in terms of quality, quantities, and conditions.
- Selecting the best/most feasible suppliers and develop procedures and routines to select these.
- Preparing and conducting negotiations with these suppliers to come to the establishment of a contractual agreement.
- Placing orders with the supplier and/or developing an efficient order and handling system.
- Monitoring and controlling the orders to secure supply.
- Follow-up and evaluation of the selected suppliers.

These main activities are schematically illustrated by the purchasing process model as in figure 3.



Figure 3: The purchasing process model
Source: Van Weele (2005, p.13)

Opposed to Van Weele (2005), Baily and Farmer (1993) talk about purchasing’s objectives instead of activities. They suggest the following broad statement of objectives:

- Supply the organizations with a steady flow of products/services to meet the required needs and ensure continuity of this supply by maintaining effective relationships with existing sources, but also by developing other sources of supply, either as alternative or to meet planned/emerging needs.
- Buy efficient and wise, meaning to get the best value for every euro spent.
- Manage inventory to give the best possible service at the lowest possible cost.
- Maintain well co-operative relationships with other functions/departments and provide these with information and advices as necessary to ensure the effective operation of the organisation as a whole.
- Develop staff, policies, procedures, and organization to ensure the achievement of the foregoing stated objectives.

They additionally stated some specific objectives that purchasing should strive for: select the best suppliers available in the market, help to generate effective development of new products, protect the cost structure of the organization, maintain a correct balance of price/quality, monitor trends in

the supply market, and negotiate with suppliers in order to work with those who will seek a reciprocal benefit through economically superior performance.

3.4.1 Strategic objectives of the purchasing function

Based on the current developments, Monczka et al. (2010) elaborates on the objectives of purchasing in its strategic role/function. In this role, purchasing should guide the organization to achieve its general mission. In order to achieve this, a set of six long-term objectives are distinguished, the purchasing function should:

1. **Support organizational goals and objectives:** support the broader aims of the organization seen from a strategic point of view. This might seem obvious, but the goals of the purchasing function may not always be aligned with the organizational stated goals.
2. **Develop integrated purchasing strategies that support organizational strategies:** develop strategies that are aligned with strategies of other functions or the overall corporate strategy. Purchasing often fails to have aligned strategies due to various reasons such as the tradition to see purchasing as a lower level support function and the inability of management to recognise the benefits of having an effective and efficient purchasing function.
3. **Support operational requirements:** perform its traditional role of acquiring products/services efficiently to satisfy the needs of the internal customer. This is ensured by buying from the right source, at the right price, with specification that meet the users' needs, in the right quantity, at the right time, and to the right user.
4. **Using purchasing resources efficiently and effectively:** usually the purchasing function has limited resources in terms of time, money, people, facilities, information, and knowledge. It therefore has to use the available resources as efficient and effective as possible with an aim towards designing operations that need fewer resources.
5. **Supply base management:** select, develop, and maintain a suitable set of suppliers in a supply base (overview of all suppliers used). Purchasing therefore needs to work closely with its suppliers to improve the existing capabilities and to develop new ones.
6. **Develop strong relationships with other functions:** have close links with other functions, these are the internal customer. Within this development, organizations have to start moving towards a more integrated organizational structure with close functional relationships.

3.5 Reducing/Saving costs through the purchasing function

Nowadays, the purchasing function is essential for organizations and can bring a considerable contribution to business success. Monczka et al. (2010) found that an organization can obtain various benefits through a good performing purchasing function (in terms of effectiveness and efficiency). In this sense, purchasing:

- Provides an efficient service to the internal customer.
- Gives a reliable flow of materials into the organization, ensuring availability when needed.
- Identifies/selects the best suppliers and develop good relations with these.
- Encourage product innovation and improvement through co-operation with suppliers.
- Improves product quality by using the best available suppliers and materials.
- Negotiates good terms that reduce the unit cost of purchased materials.
- Encourages the use of standard and readily available materials to reduce costs.
- Reduces the amount of stock needed to cover for uncertainty.
- Ensures fast flow of materials through supply chain to reduce stock.
- Allows more flexible operations and better service to customers.
- Co-ordinates purchasing of different products/services and reduce the overall efforts.

Many of these benefits can be translated into potentials to reduce costs involved. Cost reductions, or savings as they are called by Nollet, Calvi, Audet, and Côté (2008), can be classified into:

1. **Hard savings:** monetary savings that have direct impact on the organizational expenses such as: lower prices paid, reduction in the workforce, lower transaction costs, etc.

2. **Soft savings:** savings that have indirect impact on the expenses, but can result in direct savings, such as: higher quality of purchased products/services, time savings, savings favourable to other departments, reduced process costs, etc.
3. **Cost avoidance:** reduction/elimination of a future costs, such as: lower maintenance cost on investments that are highly sustainable (e.g. plastic frames), etc.

Professionals do not always make a distinction between hard savings and cost avoidance, while others do not see cost avoidance as savings at all (Nollet et al, 2008). Nevertheless, avoided costs can considerably lower organizational expenses, leading to improved performance which is a valid reason to see cost avoidance as a way to reduce costs.

Reducing costs through the purchasing function is often referred to as corporate advantage or synergies. In this context, synergies refer to “any benefit resulting from any form of cooperation between two or more business units belonging to the same corporation” (Rozemeijer, Van Weele, & Weggeman, 2003, p.5). Synergies are often illustrated by the equation: $1 + 1 = 3$ while Karjalainen (2011) mentioned that in case of purchasing, a better illustration would be $1 + 1 = 1.5$. Synergies can be classified into three categories (Trautmann, Bals, & Hartmann, 2009):

- **Economies of scale:** lower unit costs by increasing the market power through bundling of volumes (demand) and standardization of purchase categories.
- **Economies of information and learning:** benefits derived from sharing information and knowledge across different purchasing sites/locations on suppliers, new technologies, applications, specification requirements, but also on best practices and experiences.
- **Economies of process:** benefits derived from establishing a common way of working and the exchange of best practice procedures across the organization.

According to Karjalainen (2011), synergy benefits are often reached through a centralized integrated and coordinated purchasing function. This arouses the impression that synergies can only be obtained by organizations that possess or move towards a centralized purchasing function. Rozemeijer (2000) disagrees and concludes in his research that corporate synergies can also be managed in organizations that have a decentralized purchasing function. This implies that every organization should be able to benefit from purchasing synergies (the integration and coordination of the purchasing function is further treated in Chapter 6). The impact of a cost reduction is often translated into improved (financial) performances as illustrated by figure 4.

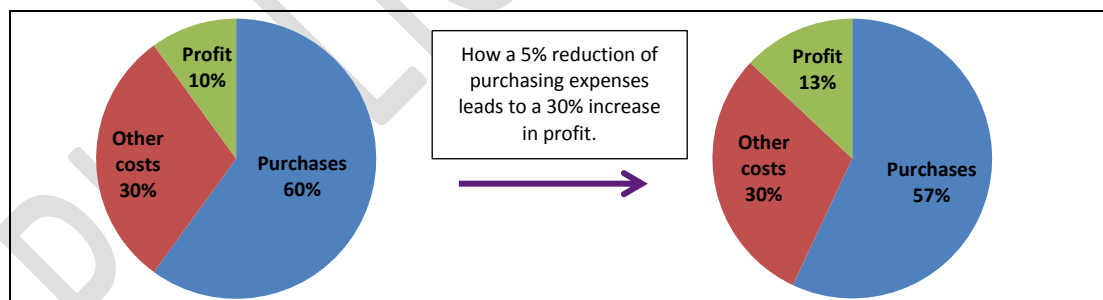


Figure 4: Impact of purchasing cost reductions/savings
Source: Baily (1993, p.238-239)

Assuming that an organization spends 60% of the revenues on the purchase of products/services, profit could be increased 30% if it is able to realize a 5% cost reduction. Although this is a theoretical example, it is not very unrealistic since many organizations spend over 50% of their revenues on purchases. Stated differently, a euro saved in purchasing is simply a euro added to the bottom line of the profit and loss account (taxes ignored) (Van Weele, 2005). As will become apparent, Welbions spends on average over 85% of the annual revenues on the purchase of products/services. This magnitude indicates that if the organization creates the ability to reduce costs involved, it can considerably improve its (financial) performances. This all sounds nice, yet Monczka et al. (2010) warns that an organization should not focus too much on short-term benefits since these can bring long-term drawbacks.

3.6 Conclusion

This chapter defined the notion purchasing and discusses its role and importance for organizations. Due to the use of different concepts, there is no single and widely accepted definition of purchasing found. The various definitions found are highly related and often overlap with each other on various aspects. The definition of Van Weele (2005) has (see textbox below) been chosen to understand purchasing throughout this paper. This definition fits best to the overall purpose and main goal of this paper: to have a more professionalized purchasing function. It is not only complete, but also defines purchasing in terms of most favourable conditions, in this paper translated into effectiveness and efficiency.

Purchasing is 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 favourable conditions.

Looking at the position of purchasing within organizations it is evident that purchasing became/becomes more important. There is a perceived increase in the percentage spent on the purchase of products/services, there is an on-going change in the nature of purchasing from an operative function towards a strategic one, and its ability to attain competitiveness and business success is recognized. When the purchasing function performs its activities/objectives in an effective and efficient manner, organizations can obtain various benefits. Many of these benefits are easily translated into potential to reduce/save costs. Thereby it is concluded that purchasing is important because the function can improve the overall performance of the organization and considerably save/reduce costs.

4 Professionalization of the purchasing function

This chapter is dedicated to determining the “theoretical framework” that can be used to achieve a more professionalized purchasing function. It discusses the application of internal process/activity oriented factors that should lead to purchasing professionalization with reduced costs in perspective. Thereby it answers the second sub-question: “*In which way can an organization professionalize its purchasing function with the ability to reduce costs?*”

The first section introduces this chapter and the performed literature review. Section 4.2 assesses the link between purchasing professionalization and maturity models. It discusses various arguments for and against these models ultimately leading to this paper’s position towards these models. Each of the following five sections elaborates on a particular factor that is proven to lead towards a professionalized purchasing function. The final section concludes.

Remark: *this paper aims at both, the purchasing function’s internal processes/activities as well as its structural integration and coordination. While this chapter specifically focusses on process/activities, Chapter 6 focusses on the structural integration and coordination. The integration and coordination of the purchasing function is treated separately since it is assumed to be the final step in the journey to purchasing professionalization.*

4.1 Introduction to purchasing professionalization

Chapter 3 confirmed the growing importance and role of the purchasing function in organizations. It is an essential function, especially when large percentages of revenues are spent on the purchase of products/services. Many industries currently face an economic downturn and reducing costs has almost become a universal aim of managers to improve (financial) performances. Since a good performing purchasing function can bring a considerable contribution to business success, managers often see the purchasing function as an attractive option to reduce costs and as an untapped area to improve financial performances (Monczka et al. 2010).

Traditionally organizations focus their efforts on internal initiatives when searching for potentials to reduce costs through purchasing (Monczka et al., 2010; Telgen & Sitar, 2001). These internal approaches are easily applied and still very effective, but their impact on the overall costs is not as effective as it used to be since organizations already found the major internal approaches. It is therefore claimed that organizations should focus more on external aspects to reduce costs (e.g. outsourcing, external collaboration, etc.). Although this is a valid argument and confirmed by many authors (e.g. Baily, 1993; Baily & Farmer, 1993; Van Weele, 2005; Zheng, Knight, Harland, Humby, & James, 2007), this paper focusses on internal process/activity oriented factors which should lead towards a more professionalized (effective and efficient) purchasing function within Welbions. To be able to achieve costs reductions through purchasing an organization needs, according to Baily (1993), to reach a higher level of purchasing professionalism. Professionalization of the purchasing function could lead to massive cost reduction and thereby improved (financial) performances (Karjalainen, 2011). Organizations who want to reduce costs through purchasing should not only focus on prices paid. Apart from these direct savings, the purchasing function can also contribute more indirectly to costs reductions (Baily, 1993; Monczka et al., 2010; Van Weele, 2005).

Literature has been reviewed, resulting in the discovery of various factors whose presence is suggested to ensure a more effective and efficient purchasing function. Interesting finding of this review is that literature widely discusses purchasing maturity models. These models are used to assess and improve the level of professionalism within the purchasing function based on different dimensions and corresponding factors (see section 4.2). Based on a combination of maturity models, other (practical oriented) literature, and signals out of Welbions have seven factors been selected and included in the theoretical framework presented in this chapter. These factors are deemed to be most beneficial (useful) to Welbions and should be minimally present in a professional purchasing function. More factors could have been selected, but due to time limitations and high level of detail are factors such as stock management, demand planning, involvement in development processes, electronic sourcing, logistic management, outsourcing, human resource, etc. not included.

4.2 The link between purchasing professionalization and purchasing maturity (models)

Both practitioners and academics widely develop, discuss, and use maturity models to assess the maturity level of an organization's purchasing function (Dubois & Wynstra, 2005; Hartmann, Kerkfeld, & Henke, 2012; Rozemeijer et al., 2003; Schiele, 2007; Telgen & Sitar, 2001). The underlying assumption of these models is to link the purchasing function's maturity to its performances. Literature does not reveal any consensus about how to refer to purchasing maturity. A variety of concepts can be found: purchasing evolving, purchasing development, purchasing sophistication, stages of evolution, supply development, stages of maturity, etc. (Gelderman & Van Weele, 2005; Ramsay & Croom, 2012; Rozemeijer, 2008; Van Weele, 2005). Despite of the name differences there is obvious a common denominator in these concepts. Their primary purpose is to assess (and improve) the maturity level of an organization's purchasing function. This paper will therefore use the concept "purchasing maturity" as proposed by Rozemeijer et al. (2003) and defined as "*the level of professionalism in the purchasing function*" (Rozemeijer et al., 2003, p.7). This definition is widely accepted in literature and fits best to the purpose and aim of the underlying models.

A maturity model describes several verifiable stages which an organization is expected to grow through in its search for greater sophistication. Organizations scaled in a mature level apply best practices while organizations scaled in a low(er) maturity level do not apply best practices (Schiele, 2007). Information on the maturity level can easily be communicated and many models suggest what actions an organization should take to reach more professionalism (Kahn, Barczak, & Moss, 2006; Reck & Long, 1988; Schiele, 2007). Over the past decades, many purchasing maturity models have been developed and almost all authors assume a step- or stage-wise development towards purchasing professionalism (Chadwick & Rajagopal, 1995; Cousins, Lawson, & Squire, 2006; Freeman & Cavinato, 1990; Keough, 1993; Paulraj, Chen, & Flynn, 2006; Schiele, 2007; Syson, 1989).

4.2.1 Criticism on the usefulness of maturity models

Consensus on the usefulness of maturity models is not found in literature. Kahn et al. (2006) state that for some organizations/industries a lower than "best practice" level is appropriate. Sometimes it is even not desired to reach a higher level since returns do not compensate the resources spent. In addition, Dubois and Wynstra (2005) question why a higher stage should be considered more advanced and sophisticated than others. A purchasing function can do a very good job in terms of performance even though it is not scaled at a high or highest possible maturity level. Reaching a higher level of maturity could demand higher skills of employees or expensive supporting technologies. The expected benefits of these demands should outweigh the involved costs. Yet, these decisions should be made deliberately and organizations should realize their potential "shortcomings".

Ramsay & Croon (2008) are even more critical and state that purchasing maturity models are completely unhelpful. This conclusion is based on the absence of empirical evidence in any of the papers on maturity models and their finding that the development of the purchasing function is not a one-way path towards professionalism. Some of the investigated purchasing functions appear to have fallen back to a lower maturity level over time. This is supported by Reck and Long (1988) who concluded that "*the purchasing function appears to move up and down the development continuum*" (Reck & Long, 1988, p.7).

4.2.2 Evidence of the usefulness of maturity models

While there is criticism, literature also provides evidence in favour of the usefulness of maturity models. Rozemeijer (2000) found that corporate coherence and purchasing maturity are related to the creation of corporate advantage (synergies) in purchasing and ultimately to its performances. A third factor, external business context, is found to have an indirect influence, see figure 5. Purchasing maturity is seen in relation to the level of professionalism, expressed in terms of status, role and position, availability of information systems, quality of people, and level of collaboration. In another study, Rozemeijer et al. (2003) again concluded that when the purchasing function can be

characterised highly mature, it will lead organizations towards a different and more advanced approach to manage/create corporate synergies.

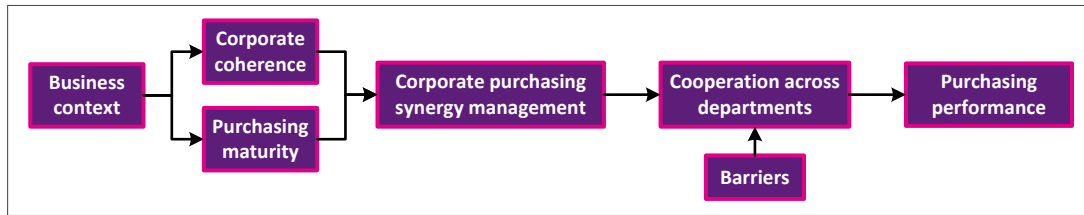


Figure 5: Relationship between purchasing maturity and performance
 Source: Rozemeijer (2000, p. 174; 2003, p.8)

Contrary to the argumentation of Ramsay & Croon (2008), Rozemeijer (2008) states that purchasing maturity models are helpful, not only in terms of classification, but especially for determining possible directions of change towards more maturity. He agrees on the lack of empirical evidence, but this does not directly mean that these models are useless in beginning. Opposed to the lack of evidence argument, Schiele (2007) empirically tested the link between purchasing maturity and its performances. To do this, he first developed a new model to assess the maturity of the purchasing function, including five dimensions that are primarily deduced from dominant literature: planning, structural organization, process organization, human resource, and controlling. Cost savings were used as the measure for performance. He realises that the purchasing function's contribution to the overall success of an organization exceeds cost savings. Yet, cost savings are seen as a valid measure since these are directly influenced by the activities of the purchasing function. A highly significant relationship between maturity and savings was found, indicating that more a mature purchasing function performs better than less mature ones. Contrary to what one would expect, evidence shows that larger saving potentials have been realized in more mature organizations.

Furthermore, Telgen and Sitar (2001) see purchasing maturity as one of the four factors that affect purchasing's added value, see figure 6. They selected five main categories of values added by the purchasing function. These added values are considered representative for almost every organization: better contracts, improved efficiency, improved customer satisfaction, a more/closer relationship with suppliers, and through an early involvement of purchasing in new product development, reduced costs, and improved quality/time to market. Empirical results show a positive and significant relationship between purchasing maturity and the added values: the higher the level of maturity, the more added value the purchasing function brings to an organization.



Figure 6: Factors affecting the added value of the purchasing function
 Source: Telgen and Sitar (2001, p.808)

Based on this exposition, it is concluded that purchasing maturity models are useful for organizations who want to improve the level of professionalism within its purchasing function. Despite criticism, evidence of their usefulness predominates leading to the conclusion that these models are useful for the purpose of this paper. Therefore are the dimensions and factors suggested by maturity models (also) used as input for the theoretical framework presented in this chapter.

4.3 Purchasing policy

Organizational purchasing all starts with having a decent (integral) purchasing policy that sets out the purpose, principles and rules that guide the daily activities. Therefore a purchasing policy *“provides rules of guidance that staff should follow when doing certain activities. They point constraints on staff behaviour. They show how the purchasing function will work to achieve its strategic aims.”* (Monczka et al., 2010, p.136). A key point of policies is that they have to be designed carefully and typically start with a broad set of principles that are elaborated over time (Monczka et al., 2010). An integral purchasing policy includes all the directives and guidelines, both explicit and implicit, of how purchasing employees should act to realize the stated objectives. Occasionally, these policies are also called *“rules of action”* since they describe the procedures, process, regulations, and rules set by management. Usually the rules of action are written down in formal documents so everybody can read them. Yet, they could also be unwritten and developed overtime to eventually become part of the organizational culture.

A decent documented and compiled purchasing policy has various advantages. Main advantage is that it provides management the opportunity to communicate the purchasing function’s objectives to all layers within the organization. It clarifies and defines the organization’s overall objectives and sets out how purchasing contributes to achievement. Furthermore, it gives a framework that assures consistency in decision making and actions to take. This ensures that everyone within the organization acts consistent with management’s expectations (Monczka et al., 2010).

Yet, a purchasing policy has also disadvantages as mentioned by Monczka et al. (2010). First, implementation of (changed) policies can be difficult, especially in large organizations where it is difficult to communicate and enforce standards. Second, employees might view policies as a substitute for effective management. The purpose is to describe guidelines that outline management’s beliefs and view towards purchasing related matters, it is not meant to give hard imposed instructions on what to do in any specific situation. Third, if a policy describes exactly how purchasing employees should act it can restrict flexibility and innovations/improvements. Employees cannot or will not change their way of working, even when better alternatives are possible. Finally, the organization should control the number and scope of policies since it could easily lead to a burden instead of a helpful approach to organize the function.

Based on this discussion can it be concluded that an organization will benefit from having an effective integrated purchasing policy. Thereby Monczka et al. (2010) proposes the following elements of an effective policy:

- Action oriented, in terms that it guides/describes the way to perform activities.
- Guide employees towards desired behaviour.
- Relevant to the stated objectives and current operations.
- Clear, unambiguous, and easily understood.
- Timely and up-to-date (periodically reviewed).

By enforcing the integral policy, purchasing activities would be performed in a concise, effective and efficient, manner which helps the function to become more professionalized.

4.4 Purchasing process

The changing environment and the continuous search for an effective and efficient purchasing function require organizations to have or pursue a structured and formalized way of working. Literature commonly considers purchasing from a process approach in which the various steps are interconnected (Baily, 1993; Degraeve & Roodhooft, 1999; Monczka et al., 2010; Van Weele, 2005). The acquisition of products/services often follows a conventional method with a complete set of activities often referred to as the *“purchasing process”*: *“all the activities that a buyer performs to acquire material, from identifying a user’s needs through to paying for delivered material.”* (Monczka et al, 2010, p.33). The steps in the process are different for every organization and highly determined by the stated purchasing policy (section 4.3). Besides that, the steps in the process also depend on

the size of the purchase, its importance, available time, demanded quality, and whether it is a repeat or new purchase. However, a common thread exists to all purchases made. The two most common general purchasing processes are presented in table 4. As can be seen, both processes highly overlap each other and possess the same sequential order.

Purchasing process according to Van Weele (2005)	Purchasing process according to Monczka et al. (2010)
1. Determining the purchase order specifications	1. Recognize user need for materials
2. Supplier selection	2. Clarify needs
3. The purchasing contract	3. Identify and select a supplier
4. Ordering	4. Approval, contract and purchase order
5. Expediting and evaluation	5. Receive materials
6. Follow up and evaluation of the buying process	6. Measure and manage supplier performance

Table 4: Two common used purchasing processes

In this case, sequential order means that a following step should be started when the prior step has been concluded completely. This because the quality of the output of the preceding step(s) highly determines the output of subsequent step(s). The way this is done should be described and documented in the purchasing processes. Not having set a purchasing process usually results in a highly unstructured execution of the purchasing activities and could easily lead to various operational problems and/or high(er) costs (Van Weele, 2005). A purchasing process helps to structure decision making as well as other operational processes involved. This not only results in lower prices paid (hard savings), but also in lower operating costs and a higher level of productivity (soft savings). Degraeve and Roodhooft (1999) further state that organizations have major opportunities to increase profitability by an efficient organized purchasing process. This discussion might give the impression that every time a purchase is made the whole process needs to be passed through. This is not true, in practice most purchases involve more or less a straight or modified rebuy in which not all process steps are repeatedly conducted (Van Weele, 2005).

Various purchasing maturity models include the presence of a formalized and structured purchasing process, while others contain items that directly or indirectly can be linked to a process approach or specific process step (Keough, 1993; Chadwick & Rajagopal, 1995; Schiele, 2007). This indicates that having a purchasing process in place that is complied as defined, should lead to a more professionalized purchasing function. The sub-sections below discuss some particular process steps in more detail because they have found to be decisive in the journey to purchasing professionalism.

4.4.1 Supplier selection

A crucial steps in the purchasing process is the supplier selection, mistakes made here can be harming and long lasting (Degraeve & Roodhooft, 1999). It is found that in practice the supplier selection contains four consecutive steps (Baily, 1993; Van Weele, 2005)

1. Determining the method of contracting.
2. Preliminary qualification of suppliers and setting up the “list of potential bidders”.
3. Preparation of the request for quotation and analysis of the received bids.
4. Selecting the most appropriate supplier out of these bids.

The first step has three possibilities: internally produced, acquired from an existing supplier, or from a new supplier (Monczka et al., 2010). The first option may not need any purchasing input but more operational scheduling and planning, while the other options do require input of the purchasing function.

The actual supplier selection, step two, starts with the preparation of a long-list of potential suppliers that are considered to be able to deliver the required purchase. A variety of sources may be used to generate this list including company representatives, existing suppliers, historical suppliers, advertisements, known suppliers of competitors, etc. (Monczka et al., 2010).

Step three is to decide on the suppliers short-list. To do this, a purchaser should use various selection criteria: expertise, historical performances, commitment to quality, financial security, costs, flexibility, etc. These criteria are different for every situation and the criteria to consider should be picked carefully. Suitable suppliers are selected and will end up on a short-list of pre-selected

suppliers. In practice it is common to identify three to six potential suppliers for the short list (Monczka et al, 2010; Van Weele, 2005). Purchasers now have two options to select the best supplier: competitive bidding or negotiation. When competitive bidding is applied, all short-list suppliers are invited to a request for quotation. The collected quotes are evaluated based on a predetermined list of criteria and the best quote will be selected. This might sound easy, but practice shows that it could be quite difficult to make a clear comparison on the submitted quotes. When it is (for various reasons) not possible to come up with a short-list containing enough suppliers organizations usually apply negotiation. In this case a very small number or single supplier is asked to come up with a proposal on which both parties will negotiate to come to a final agreement/contract.

Selecting suppliers through a process approach is crucial for organizations to have a professional purchasing function. Schiele's (2007) maturity model explicitly asks for the presence and compliance of a documented process of selecting suppliers. By selecting suppliers in a process approach, transparency and integrity are guaranteed which should lead to the selection of the best supplier based on financial and/or non-financial criteria. Purchasers also benefit from this process since they gain knowledge of market conditions and what to consider when making a purchase. During this process step, premature commitments towards a particular supplier should be avoided because this could easily lead to selecting a supplier which may not be the best available. Taking the stated process steps should assure this and will lead the organization towards having a more professionalized purchasing function (Van Weele, 2005).

4.4.2 Supplier performance evaluation/measurement

The final step of the purchasing process is the performance evaluation/measurement of suppliers (or vendor rating) with whom the organization is doing business with. The overall purpose of a supplier performance evaluation/measurement is to improve both the supplier's performance as well as the overall process and activities of the buying organization. Organizations increasingly recognise the need to evaluate the performance of suppliers to be able to efficiently manage the resources spent (Monczka et al., 2010). The absence of an effective monitoring and evaluation of supplier's performances has a disabling effect on purchasing employees since they do not know how well their suppliers perform and if they fulfil the contractual obligations. Carr and Smeltzer (1999) found a positive relationship between evaluating suppliers and performances. Performance measurement overtime allows to assess the effectiveness and efficiency of suppliers, notice changes over time, compare performances of suppliers, ensure that the agreed targets are met compared to norms, identify areas of improvement, and anything else that relies on objective measures to assess supplier's performances (Monczka et al., 2010).

Various decisions have to be taken when developing a supplier evaluation/measurement system or procedure, including what to measure as the most obvious one. The type of indicators and degree of importance varies among purchases, organizations and industries. Yet, practice indicates that the most common measures to judge the performance of a supplier are measures of cost, quality, and delivery (Monczka et al., 2010). Reporting and sharing knowledge about the actual performance of suppliers is a major source of added value contributed by the purchasing function (Van Weele, 2005). This information can easily form the input for the purchasing process (supplier selection) to assemble for example the suppliers short-list. By using the gathered information in this way, purchasing is able to concentrate resources and efforts among fewer, more capable suppliers. Literature, including maturity models, therefore suggests that organizations should have a system or procedure to capture/measure supplier performances (Keough, 1993; Monczka et al., 2010; Schiele, 2007; Van Weele, 2005). Possessing a supplier performance evaluation/measurement system or procedure is therefore deemed to lead towards a more professionalized purchasing function.

4.5 Contract management

A perfect world would not ask for any contracts, deals will be closed by a handshake of acceptance from all parties involved. Since we do not live in a perfect world are contracts, especially in

purchasing, an important element in the relationship between the buying organization and its supplier(s). Contracts define the conditions, responsibilities, and roles on which parties have agreed to conduct business on. In business-to-business markets, purchases are often made based on a legally binding agreement (contract) resulting out of an offer and its acceptance (Monczka et al., 2010). Depending on the industry and type of purchase, a contract can refer to additional terms/conditions that differ for every agreement (Van Weele, 2005). Before the contract is established, various steps have been passed by and the actual execution starts after these are completed. From that moment on it is the responsibility of the purchasing function to ensure that the agreed terms and conditions are fulfilled.

Frequently, organizations are looking for partnerships and alliances with suppliers for a duration of a year or even longer (e.g. maintenance, price agreements). Organizations set-up binding contracts defining business agreements, thereby these form the basis for a long-term business relationship. This sounds nice, however these long-term contract bring in their own problems, especially when (market) conditions change quickly and unexpectedly (Monczka et al., 2010). Imagine for example a multiple year contract which is automatically renewed at conditions that are the same or even worse. Therefore it is essential to manage all the organization-wide contracts in a contract management system/register that is accessible by at least all employees involved in the purchasing function (Van Weele, 2005). Purchasers of different departments can see what agreements are made and take their advantage of this information, such as buying at lower prices, information about the market, pooling of demand, buying from the same contract-supplier to create economies of processes (no need to go through the whole purchasing process), etc. An organization-wide contract management system/register enables the organization to easily oversee its contractual agreements and amend or terminate on time. In maturity models the presence of a contract management system/register is seen as a necessity (Schiele, 2007; Keough, 1993). Therefore actively managing a contract management system/register will lead to more professionalism within the purchasing function.

4.6 Purchasing portfolio analysis

Organizations often have lot of suppliers and purchasing categories, often facing major differences in amount spent and its strategic importance. It is obvious that not all the suppliers and the categories are to be dealt with in the same way. Differentiation between them is helpful and possibly needed. The need for differentiation between suppliers and categories requires a grounded classification in such a way that efforts and resources are spent wisely. In purchasing's journey to become a strategic function, Kraljic (1983) suggested the use of a comprehensive purchasing portfolio approach. This approach uses a two-by-two matrix that classifies purchasing categories/suppliers based on two variables (Kraljic, 1983; Van Weele, 2005):

- **Impact on the bottom line (high-low):** in terms of costs, volume, percentage of total purchase, impact on product quality, etc. The more money involved, the higher its impact.
- **Supply risk (high-low):** in terms of current/future availability, number of potential suppliers, switching costs, competitive market structure, substitution possibilities, make or buy opportunities, etc. Dependence on one supplier indicates a high supply risk while availability of many suppliers/alternatives indicates a low supply risk.

The two-by-two matrix with four quadrants helps determining the strategic importance of each supplier or purchase category as in figure 7 (see appendix II for a description of each category). Kraljic (1983) stated that each quadrant requires a different strategic approach. The leverage and strategic quadrant offer an organization the greatest opportunities to improve performances (Monczka et al., 2010). Logically, the efforts of the purchasing function should be spent at the suppliers/categories classified in these two quadrants. Some scholars have introduced comparable models, although these show more similarities than differences. Kraljic's approach has been described as a major breakthrough in the development of the purchasing function. Many authors refer to it as the

dominant approach to improve the function's operational professionalism (Behr, 2004; Caniels & Gelderman, 2005; Gelderman & Weele, 2005; Monczka et al., 2010; Van Weele, 2005).

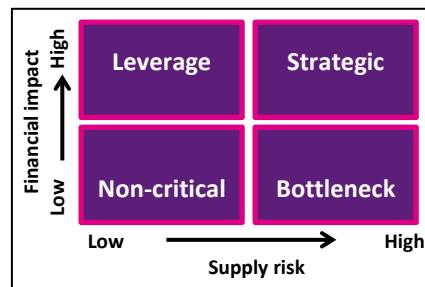


Figure 7: Kraljic's purchasing portfolio matrix
Source: Kraljic (1983)

Kraljic (1983) already described the experiences and usefulness of his approach in four large organizations. On top of that, Gelderman and Van Weele (2005) found that the portfolio analysis is a powerful tool to:

- Coordinate the purchasing patterns of fairly autonomous strategic business units within an organization, resulting in leverage and synergy benefits.
- Differentiate the overall purchasing strategy, with different strategies for different suppliers and purchase categories.
- Discuss, visualize, and illustrate the possibilities of developing differentiated strategies.
- Configure and manage relationships with suppliers including the consideration of various interdependencies and trade-offs between the relationships.

The use of a portfolio approach is associated with the level of purchasing sophistication (maturity) since it provides a differentiated strategic action for heterogeneous suppliers/categories. The approach can make the difference between an unfocused/ineffective function and a focused/effective one (Gelderman & Van Weele, 2005). Due to the fast changing environment nowadays, supply and demand patterns could shift rapidly and affect the importance of suppliers/categories. Therefore should any purchasing portfolio classification be updated regularly (Kraljic, 1983).

Despite support, purchasing portfolio models also face criticism. It is argued that the complexity of business decisions cannot only be based on the two dimensions and their underlying thoughts. Furthermore, portfolio models fail to capture critical aspects such as interdependencies between categories, the concern of sustainable competitive advantage through inter-organizational relationships, and network contact (Gelderman & Van Weele, 2005). Nevertheless, these criticisms do not include experiences of practitioners who replied that no simple standardized blue-print exists for the application of portfolio models. Besides the fact that the portfolio approach motivates purchasers to think about their activities in a more strategic and systematic way, the approach also helps to structure activities and to better allocate resources/efforts. The portfolio approach is able to make purchasers aware of their position and guides them to improved performances. Despite the theoretical drawbacks, a portfolio approach helps organizations in practice to reach a higher level of purchasing professionalism and could considerably improve the performances.

4.7 Purchasing performance measurement and control

To see whether the purchasing function performs well or even improves over time organizations need to measure its performances (Monczka et al., 2010; Nollet, 2008; Van Weele, 2005). The measurement of the purchasing function's performances is found to be a major concern for organizations in various industries (Lardenoije, Van Raaij, & Van Weele, 2005). Purchasing performance measurement systems/procedures are helpful because organizations can assess and monitor the performances in order to improve these. This might sound easy, but practice shows that it is quite difficult to measure its performances and to find measures that exactly show how well the purchasing function performs (Easton, Murphy, & Pearson, 2002; Monczka et al., 2010; Nollet, 2008; Seuring, 2006). No uniform accepted measurement system exists, the way of measuring and

evaluating differs for every organization (Van Weele, 2005). One of the decisive factors that influence the way how organizations measure their purchasing performance is the view that management holds towards the role and importance of the purchasing function. The four most common management views are distinguished and discussed in table 5.

Management's view	Hierarchical position	Performance measures
As an operational administrative function	Low in organization	Number of orders, order backlog, purchasing administration lead time, authorisation, procedures, etc.
As a commercial function	Reporting to management	Savings, price reduction, ROI-measures, Inflation reports, variance reports
As part of integrated logistics management	Integrated with other materials-related functions	Savings, cost-reduction, supplier delivery reliability, reject-rates, lead time reduction
As a strategic function	Represented in top management	"Should cost" analysis, early supplier involvement, make-or-buy, supply base reduction

Table 5: Performance measures of the purchasing affected by management's view on purchasing
Source: Van Weele (2005, p.252)

Managers obviously need a variety of measures to assess performances. It is found that most measures used in practice fall into two broad categories: measures of effectiveness (doing the right thing) and measures of efficiency (doing the thing right) (Monczka et al. 2010). This is in line with Easton et al. (2002) who define performance measurement as *"the process of quantifying and analysing effectiveness and efficiency"* (Easton et al., 2002, p.126). All measures should have a target against which they are evaluated, just saying that measuring performance will lead to improvements does not make any sense, pre-established targets do. Measuring performance then shows if targets are achieved or at least have improved. Therefore measures require a target and time dimension to evaluate what and by when these should be reached (Monczka et al., 2010). This is deemed necessary because when an organization wants to use its performance measurement outcome effectively it must be able to translate measurement into management (Lardenoije et al., 2005). With the metrics in place, management sees which strategies work and which do not work, this thereby helps them to guide decisions.

The discussion above gave an array of reasons why an organization should measure the performances of the purchasing function. Besides the ability to monitor and assess the performance of the purchasing function, Van Weele (2005) described four main categories of benefits that an organization can derive from a systematic performance evaluation:

- **Better decision making:** it could lead to better decision making since an organization is able to identify differences between planned- and reached results. Analyses of these differences helps determining what caused these shortfalls and which action should be taken to prevent negative differences in the future.
- **Better communication:** it may lead to better internal communication between/with other functions.
- **Make things visible:** reporting actual versus planned performances enables employees to verify the expectations that have been realized. This provides employees with constructive feedback and the management with information regarding effectiveness and efficiency, resulting in recognition of the purchasing function.
- **Contribute to better motivation:** a properly designed evaluation system could meet personal and motivational needs. In this way it can be used effectively for constructive goal setting and motivational/personal purchasing development programs.

Altogether these benefits indicate that performance evaluation results in a higher added value of the purchasing function in terms of cost reduction, lower prices paid, better sourcing decisions, etc. (Van Weele, 2005). Monczka et al. (2010) mentions virtually identical reasons to measure performances: better decision making, better communication, provide performance feedback, and motivate/direct behaviour. Nollet (2008) agrees and adds that performance measurement basically becomes an exercise aimed at reinforcing appropriate behaviour or adopting better practices. Various maturity models include a controlling dimension which analyses the presence and execution of a controlling system/process (Cousins et al., 2006; Freeman & Cavinato, 1990; Paulraj et al., 2006; Schiele, 2007).

This all indicates the essence of a performance measurement system for the professionalism of the purchasing function, but literature also widely discusses problems that are faced when evaluating purchasing performances, such as: use of an inaccurate measurement system, lack of definition, inaccurate measurement, lack of formal objectives and performance standards, use of wrong/too much data, short term focus, etc. (Monczka et al., 2010; Nollet, 2008; Van Weele, 2005). Yet, these do not alter the fact that the presence of a performance measurement leads to a more professionalized purchasing function. The criticisms only highlight the pitfalls/problems which an organization should be aware of so that they can be avoided.

4.8 Conclusion

This chapter described several internal process oriented factors whose presence would lead towards a more professionalized purchasing function (in terms of effectiveness and efficiency) with reduced costs in perspective. The conducted literature review showed that a number of scholars developed purchasing maturity models to assess and improve the level of professionalism within and organization's purchasing function. Despite criticism, evidence of their usefulness predominates leading to the conclusion that these models are useful for the purpose of this paper.

Based on a combination of maturity models, other reviewed literature, and signals out of Welbions have seven factors been selected. The selected factors are deemed to be most beneficial (useful) to Welbions and should be minimally present in its purchasing function. Table 6 below presents a summarizing overview of the factors which should help an organization, in specific Welbions, to reach a more professionalized purchasing function with the ability to reduce/save costs. Thereby table 6 is classified as the "theoretical framework" (the "Soll-situation") of this paper.

Factor	Theoretical application ("Soll-situation")
Purchasing policy	Have and enforce a decent stated integral purchasing policy that guides the purchasing function based on the principles and objectives set by management.
Purchasing process	Have and pursue a structured and formalized purchasing process (determined by the purchasing policy) that guides the purchasing function during the execution of activities.
Supplier selection	Have, as part of the purchasing process, a structured approach of selecting and contracting a supplier to ensure that it is performed transparent and integer, organization-wide.
Supplier performance evaluation	Evaluate/measure, as part of the purchasing process, the performance of suppliers to assess if these perform well and if they fulfil their contractual agreements.
Contract management	Utilize and actively maintain an organization-wide contract management system/register that is accessible by at least all the purchasing employees.
Purchasing portfolio analysis	Analyse purchasing periodically by using a purchasing portfolio model (e.g. Kraljic's (1983) models) that determines the critical suppliers and purchase categories. Potentially, the portfolio model could become part of the purchasing policy.
Purchasing performance measurement and control	Have a purchasing performance measurement and control system/procedure that assesses, monitors and evaluates the performances of the purchasing function in order to improve these.

Table 6: Theoretical framework ("Soll-situation") to reach a more professionalized purchasing function

5 Purchasing practices at Welbions

This chapter is dedicated to analysing the current purchasing function and practices at Welbions. It aims to come up with sound recommendations to reach a more professionalized purchasing function and furthermore focusses on Welbions' purchasing practices in terms of nature and volume. Thereby it answers the third and fourth sub-question: *“How can the purchasing function of Welbions be defined in terms of organization, nature, and volume?”* and *“What actions does Welbions have to take in order to improve the level of purchasing professionalism?”*

The first section shortly introduces this chapter. Section 5.2 discusses the practical application of the theoretical framework. This section also compares the identified “Ist-situation” with the “Soll-situation” leading to recommendations/actions that Welbions should take. Section 5.3 aims at the nature of Welbions' purchasing function, while section 5.4 specifically targets its volume. Striking features of these analyses are reported to strengthen the recommendations made and to show the necessity of professionalizing the purchasing function. Section 5.5 will estimate the savings potential for Welbions. The final section concludes.

Remark: *The discussion on the practical insight is only made in the light of organization (theoretical framework), nature, and volume. Practical Insights regarding the structural integration and coordination will be treated in Chapter 6 since these are considered to be influenced by the analyses, recommendations, and conclusions made here.*

5.1 Introduction

The on-going concerns of the housing sector (economic, financial, and regulatory stance) are triggers for the management to take a new look at the purchasing function. Nowadays, many organizations see purchasing as an untapped area to improve the financial performance and therefore as an attractive option to save/reduce costs. This is also the case within Welbions. Like many other organizations, Welbions appointed their purchasing function as an opportunity to save/reduce costs. Welbions already started in co-operation with KPMG the project called “Blok-Bestending”. One of the follow-up issues of this project is to see whether improvements regarding the organization-wide purchasing function are possible. In anticipation to this project and the current developments that initiated this research, the theoretical framework described in Chapter 4 can be used as a basis for professionalising Welbions' purchasing function. The framework (table 6) discusses the “Soll-situation” of different factors that should lead to a more effective and efficient (professionalized) purchasing function with a perspective towards reduced costs.

5.2 Organization of Welbions' purchasing function

This section discusses the practical applications of the theoretical framework. The analyses are based on conversations, conducted interviews, and various internal documents such as: procurement and purchase authorisation, (unfinished/intended) purchasing and procurement policy, multiannual budget, management statute, and treasury regulations. The description of this so called “Ist-situation” will be compared with the “Soll-situation” (theoretical framework). Results of this comparison are discussed and translated into a recommendation (action) on each particular factor in sub-section 5.2.8.

5.2.1 Purchasing policy

It is found that Welbions has various approved internal documents that are established to guide and control the activities performed by the purchasing function like for example: procurement and purchase authorisation, management statute, treasury regulations, and investment framework. These documents are intended to indirectly apply frames to the organization's purchasing function and its related activities. Nevertheless, these documents cannot be classified as an integrated purchasing policy as proposed by literature (section 4.3). The interviewed employees confirmed this and mentioned that they are not familiar with the existence of a stated unambiguous integrated policy that offers directives and guidelines. It is mentioned that there are some approved internal documents, for example the “procurement and purchase authorisation” which pre-scribes that

specific approval is needed when a purchase is beyond a certain value level. Hence, these are not checked or strictly complied organization-wide. Purchasing employees of various departments work with their own established rules to realize the, in their opinion, stated objectives. One interviewee for example stated that every contractual agreement can be concluded on better financial conditions (costs). Since Welbions did not agree on a set of principles and objectives, he conducts purchases based on the in his opinion stated objectives in which costs are not leading. On top of that, it is found that within the same purchasing categories employees do use different techniques to acquire products/services, no standards are set.

Steps, to come up with a documented and approved integral purchasing policy, were actually made in the past. Unfortunately none of these were isolated and therefore this document cannot be seen as an finished integral purchasing policy. It is only an attempt in the right direction. This indicates that Welbions not possess an integral documented and enforced purchasing policy set by the management and based on a set of predetermined purchasing principles/objectives. Due to this Welbions does not assure that all employees involved in the purchasing function act consistent and in line with the expectation of management.

5.2.2 Purchasing process

Within Welbions, the purchasing function is part of different business processes and departments. Analysis revealed that the procedures/processes used vary across departments and even among employees within the same department. However, the employees do actually follow a logic way of working that has been developed over time and became the "standard". The way of working includes steps that can be linked to the various steps of the purchasing processes proposed by literature (section 4.4). Unfortunately, this way of working is not documented, approved by the management, nor controlled for compliance. Some of the interviewees see the importance and usefulness of having and following a pre-established purchasing process, while others do not see its importance at all and rather prefer to stick to their own way of working. Employees in favour of a pre-determined process state that it should leave room for own initiatives and that it is not a set of imposed rules that exactly prescribe what to do in any specific situation. Furthermore, the internal maintenance team and neighbourhood development have agreed on a documented procedure when work is outsourced to third parties. Yet, this document only describes a work-procedure and cannot be classified as being a purchasing process as proposed by literature. Therefore it can be concluded that Welbions has no organization-wide purchasing process. This causes that the organization not performs the purchasing activities in a decent, unambiguous, pre-established way throughout the organization. This situation can easily lead to an unstructured way of conducting the purchasing activities, operational problems, and higher costs involved.

5.2.3 Supplier selection

A critical step in the purchasing process is the selection of a supplier. Within Welbions is during the selection of a supplier the delivered quality found to be a decisive selection criterion while the price paid is in the majority of the purchases less decisive. Reason for this is that when Welbions concentrates too much on the price paid, this could easily lead to a short-term focussed supplier. In turn, this could easily lead to overdue maintenance which especially in case of real estate should be avoided since it directly influences the residual lifetime.

When looking at passing through the four steps, it is found that the supplier selection process at Welbions is executed as proposed by literature (section 4.4.1). Yet, the actual execution of these individual steps is found to be different and varies across departments, employees and even purchase. This is not of concern when the organization pre-determined how employees should handle the different types of purchases and possess a supplier selection procedure. Unfortunately this is not the case within Welbions and therefore could this situation easily lead to an inadequate supplier selection. It is for example found that Welbions works in the different maintenance processes with co-makers (see section 5.2.3). These suppliers are selected based on experiences in terms of historical performance, relationship, delivered quality, and to a lesser extent on costs. Welbions concludes annually on an average hourly rate that will be paid per type of work. The

establishment of this hourly rate can be questioned since the approved co-makers are the same for multiple years and yearly increase the rate with an annual indexation, even when the list of co-makers has been further reduced in 2013 and the power balance has changed in favour of Welbions (current market conditions in de the construction industry disregarded, see also section 5.2.6). Other point is that if a purchase is beyond a certain value it is required to do a request for quotation. It is found that the number of quotations requested for is not clearly determined nor controlled. Therefore can it be concluded that the supplier selection varies throughout the organization and no standardized documented supplier selection process/procedure exists.

5.2.4 Supplier performance evaluation

Assessing and evaluating suppliers on their delivered performances is found to be beneficial to organizations. Analyses revealed that Welbions assesses the contractual obligations and performances of suppliers at various places in the organization. Both different departments as well as employees do (to some extent) control the supplier's delivered performance and obligations. Suppliers that fail to meet their contractual obligations or who underperform are contacted and informed about their deficiencies. If a supplier repeatedly not meets his obligations, this will eventually lead towards the disposal and termination of the relationship. Nonetheless, it is found that there is no documented or structured process/procedure for evaluating the supplier performances. Except for the departments housing and neighbourhood development are findings of the conducted performance evaluations not shared throughout the organization. These two departments share information since they often work with the same suppliers (co-makers) and use the information as input for the annual supplier evaluation meetings. Yet, the findings of these evaluations as well as the assessment of the obligations during the year are not formally documented. Based on this can it be concluded that Welbions does actually evaluates and assesses the performance delivered by their suppliers but does not possess formal process/procedure that prescribes a structured performance evaluation as proposed by literature (section 4.4.2).

5.2.5 Contract management

Within Welbions various departments and employees conclude contracts or agreements with suppliers on which they do business for a particular duration. It is found that these contracts are managed by the department or employee who concluded on them. The way how these contracts are managed is found to differ among departments and employees. Some do have a clear view of the duration and expiration date and for example plan the expiration of various contracts on the same date to create synergy benefits, while others do not have these insights. This could easily leads to an automatically renew of the contract as historical practices have shown. Due to this, some suppliers apply an annual price increase on the based contracts without a regular review of the market conditions by Welbions. The concluded contractual agreements are not or poorly shared throughout the organization, except for the yearly maintenance contracts/agreements with co-makers that are recorded and monitored in the project module of viewpoint (Welbions' integrated business information system). Therefore can it be concluded that Welbions not possess nor actively maintains an organization-wide contract management system/register that all the employees can consult and benefit from as literature did propose (section 4.5).

5.2.6 Purchasing portfolio analysis

The purchasing portfolio model of Kraljic is, except for the staff-department control, found to be barely known nor applied within Welbions' purchasing function. The department control once performed portfolio analysis back in 2011 in an attempt to include portfolio analysis in one of the intentions to establish an integral purchasing policy. Various interviews revealed that employees do have an idea about which suppliers and purchase categories are critical to the organization. It is therefore assumed that the majority of the resources are spent on those suppliers and categories that are in their view deemed critical. Furthermore, Welbions not distinguishes a purchasing strategy per different quadrant as proposed by the portfolio models. Thereby Welbions insufficiently uses their bargaining power in negotiations and can be seen as a too "kind" negotiation partner. The co-

makers list has for example been reduced substantially for the different types of work. This reduction in number of co-makers (see section 5.3.3) puts Welbions into a stronger position during negotiations since Welbions will outsource the same amount of work to fewer suppliers. Analysis showed that the hourly rate increased between 2011, 2012 and 2013 by an indexed percentage. Adding the current market conditions in the construction industry gives an even stronger impression that Welbions not optimal uses their (current) market position and bargaining power in negotiations. Based on this can it be concluded that Welbions does not formally applies portfolio analysis to analyse their suppliers and purchasing categories as proposed by literature (section 4.6).

5.2.7 Purchasing performance measurement and control

Purchasing performance measurement and control can considerably improve the performance of the purchasing function. Interviews revealed that Welbions not possess a procedure/process that prescribes a periodically evaluation of the purchasing function's performances. The only organization-wide management tool currently used to (partly) control the purchasing function is the established annual departmental budget and the multiannual budget. Nevertheless, these budgets are not specifically established in order to control/manage the performances of the purchasing function. Furthermore, it is found that within the department housing the performance of the non-systematic maintenance are measured based on the percentage of work performed by third parties. The internal maintenance service currently performs 65% of the non-systematic maintenance and is 35% outsourced to third parties, goal is to perform 70% of the work by the internal maintenance services. The current "tools" to control and evaluation purchasing's performances cannot be classified as a purchasing performance measurement/control procedure or process as proposed by literature (section 4.7). Therefore can it be concluded that Welbions not has a clear view on the performances of the organization-wide purchasing function. No formal system or process is in place to assess whether its performances deteriorate, remain the same, or improve.

5.2.8 Recommendations

Now that the practical application of the factors has been discussed, this will be compared with the theoretical framework. Comparing the "Soll-situation" (table 6) with the "Ist-situation" (section 5.2.1-5.2.7) revealed potential areas of improvement which are translated into recommendations as in table 7. This table provides a summarizing overview of the findings and recommendation. More details of the "Ist-" and "Soll-situation" can be found in the aforementioned sections.

Factor	Recommendation
Purchasing policy	Welbions not possess an integral documented and approved purchasing policy. It is recommended to continue the development of an integral purchasing policy as intended, while keeping in mind the common remarks and disadvantages. This policy should in beginning describe the fundamental principles and objectives that are in line with Welbions' vision- and mission statement. When the determined policy is documented and approved, Welbions should control the compliance to ensure that it is followed consistently. This assures that anyone within the organization acts in line with the objectives and expectations of the management.
Purchasing process	Welbions not possess a documented and approved purchasing process. It is recommended to compose an organization-wide documented purchasing process that guides the purchasing activities. It is advised to differentiate this process by the three main business processes (organizational support, maintenance, and property development, see section 5.3.1) since each is deemed to have different principles and objectives. The process describes the steps that have to be followed, established in imitation to the policy and should leave enough room for employees to come up with their own initiatives. In this sense, it would be a guiding "tool" that at some steps includes prescribed (hard imposed) requirements. If established, Welbions should control its compliance to ensure that activities are performed as intended.
Supplier selection	Within Welbions, the selection of a supplier is performed logically when looking at passing through certain steps. Yet, the execution of the various steps differs across departments, employees, and even purchase. It is recommended to determine a structured way of selecting a supplier preferably as part of the purchasing process. This ensures Welbions of having an organization-wide consistent and transparent supplier selection process. If established and approved, the organization should assure that it is complied as intended.
Supplier performance	Welbions actually evaluates the performances delivered by their suppliers. Unfortunately is this information not actively documented or shared (except for the housing and neighbourhood

evaluation	development departments who do share performance information of the co-makers) within the organization. It is recommended to structurally assess the performance of the (most critical) suppliers by pre-determined (objective) performance indicators. The gained information should be documented and shared within the organization as well as with the concerning supplier(s). Since Welbions has close working relationships with supplier, structurally assessing and sharing information on delivered performances can foster and improve these relationships.
Contract management	Except for the agreements with co-makers in viewpoint has Welbions no organization-wide contract management system/register. At various places in the organization are contracts and agreements concluded. The way these are managed is found to differ. It is recommended to develop and actively maintain a system/register in which all the organization-wide contracts and agreements are managed. This ensures that anyone in the organization has an overview of concluded contracts and agreements which could provide various benefits (see section 4.5). This enables the organization to easily oversee its contractual agreements and amend or terminate on time.
Purchasing portfolio analysis	Except for the staff department control (who included portfolio analyses in the concept integral purchasing policy) is Welbions not familiar with purchasing portfolio analysis. It is recommended to periodically perform portfolio analysis to analyse the different supplier/purchasing categories. This also motivates the organizational awareness of purchasing and the professionalization of the function. It is within this recommendation advised to incorporate the portfolio analysis in the purchasing policy to distinguish the (strategic) objectives per quadrant. In this way the application creates a uniform and transparent use of various purchasing strategies/objectives. On top of that helps it to allocate the scarce available resources more effective and efficient.
Purchasing performance measurement and control	Welbions not possess a procedure/process that prescribes a periodically evaluation of the purchasing function's performances. It is recommended to develop such a procedure/system when the organization finished and approved the aforementioned process and policy. It is advised to start with a periodically evaluation on the compliance of the stated process and policy. This is in line with the mentioned need of employees to have a process-based control on the compliance of the stated requirements. After this is achieved, Welbions should include objective measures that are based on the pre-determined purchasing objectives. Systemically evaluating could then lead to improved decision making and communication, more visibility of realized expectations, and increased motivation of employees.

Table 7: Recommendations based on a comparative analysis of the "ist-" and "soll-situation"

Each of these recommendations is deemed to lead Welbions to a higher level of maturity and/or a more professionalized purchasing function. A more mature/professional purchasing function is found to be better able to reduce costs involved (Schiele, 2007). Due to this, it is expected that when Welbions takes these recommendations for granted it will have a perspective towards reduced costs.

Step-wise implementation

Looking at a specific order of the above stated recommendations is it advised to start with the completion/development of the integrated purchasing policy. It is recommended to directly differentiate this policy based on the four quadrants of the Kraljic portfolio model. This ensures that the purchasing function has a clear understanding of the principles and goals that management requires from the particular purchasing categories/suppliers. After the policy is set, Welbions should establish a purchasing process differentiated on the three main business processes, following and in line with the fundamentals of the pre-stated purchasing policy. The established process should also include the procedure of selecting a supplier. After the complete purchasing process has been set, it is recommended to develop the performance measurement and control procedure/system to assess the performances delivered by the purchasing function. In beginning should it control and report on the compliance of the purchasing policy and process (including the supplier selection procedure). When the policy and process are sufficiently complied the purchasing performance measurement and control procedure can be extended with objective measures to assess the stated purchasing objectives. During the development of the performance evaluation is it advised to include periodically portfolio analyses of the different purchasing categories and suppliers to ensure the professionalization of, and organization-wide awareness of the purchasing function. The final step would be the incorporation of a structured way of evaluating the performances delivered by the suppliers. This factor is deemed to be less beneficial to Welbions than the aforementioned factors (more urgent) since Welbions, already evaluates the suppliers' performances to some extent.

The development and (actively) maintenance of an organization-wide contract management system/register is a separated issue of the consecutive implementation. Therefore this factor can be implemented parallel to the other factors right from the beginning.

By implementing the recommendations in a step-wise way as mentioned above ensures Welbions that the purchasing function is professionalized in a (logic) consecutive manner. The organization focusses on one or a few changes at a time and continues when the previous changes are integrated and complied. Yet, it is recommended to plan the implementations with time-bound goals. This should ensure that the journey towards a professionalized purchasing function is achieved as planned.

5.3 Nature of Welbions' purchasing function

Following the description on the organization of Welbions' purchasing function and comparison with literature, this section describes some typical features regarding its nature.

5.3.1 Purchasing categories

Purchasing is found to be performed at different places in the organization. It is part of five different business processes: daily non-systematic complaints and mutation maintenance, systematic maintenance, lifetime extending major maintenance/renovation, real estate development, and operational support. Based on these business processes and analyses of purchasing data are the following three main purchasing categories distinguished:

1. **Purchases for support of the internal operations (exploitation)**, such as: canteen/office supplies, consultancy/accountancy services, temporary employees, cleaning, utility facilities, insurances, vehicle fleet, sales costs, administrative/management costs, etc.
2. **Purchases for maintenance and renovation of current property (not lifetime extending)**, such as: painting, facade maintenance, isolation improvements, bathroom/kitchen renovations, structural components, central heating, etc. Subdivided into:
 - a. Purchases for non-systematic complaints/mutation maintenance of usually single properties (including materials in stock).
 - b. Purchases for systematic maintenance projects of usually multiple properties.
 - c. Purchases for contractual maintenance services, such as: cleaning, glass damage, garden maintenance, fire protection/safety, unclogging, etc.
3. **Purchases for development of new property and major maintenance/renovation (lifetime extending)**, subdivided into:
 - a. Purchases for the development of real estate that delivers new property.
 - b. Purchases for major maintenance/renovation projects (usually after 40 years) to extend the lifetime of the property and which are activated on the balance sheet as investments.

Table 8 provides an overview of departments that are accountable for the particular categories.

Category	Accountable to
1	Director, Control, Strategy, human resource, Operations, Housing, and Neighbourhood development
2a	Housing (and Neighbourhood development in case of outsourcing)
2b, 2c, 3a and 3b	(Mainly) Neighbourhood development

Table 8: Departments accountable for each purchasing category

5.3.2 Procurement legislation

Procurement (or tendering) is a key step in the purchasing process and especially during the supplier selection phase. The Dutch upper House (eerste kamer) has accepted a legislative proposal regarding the procurement legislation. In beginning this acceptance has no consequences for the way how housing corporations perform their purchases (procurement). It only applies to organizations belonging to the "contracting authority" (aanbestedende dienst) or to a particular group of organizations, such as utilities. Housing corporations are (since 1995) private institutions, indicating that Welbions is classified as a private contracting authority. This means that the accepted procurement legislation not applies to Welbions. Nevertheless it does provide Welbions with some

reference point to take a closer look at their own procurement/tendering policy since it cannot be ruled out that Welbions will be classified as a contracting authority in the near future. Various lawyers state that if housing corporations become (in one way or another) dependent on the government, for example in the event of funding, supervision, or control, they become part of the contracting authority. The chance that this will happen in the near future is not implausible. Therefore this possibility strengthens the establishment of a documented purchasing process which could (and probably should) also contain steps in the direction of this procurement legislation so that the organization is already prepared.

5.3.3 Co-makers

One of the main sources of supply is delivered by the so called co-makers. Co-makers are approved, renowned (preferably local) suppliers that deliver high quality work based on their historical performances. Welbions already works with these suppliers for many years and during these years close relationships have been developed. The co-makers are in particular active in the maintenance and renovation (sub-) categories (2a, 2b, and 2c). Over the years and as a result of the merger in 2008/2009 the co-maker list became increasingly longer until Welbions realizes that the list contained too many suppliers. In 2012 the co-makers list was therefore reduced to approximately 60 suppliers covering different types of work. Currently (2013), the list contains of 27 approved suppliers that are linked to various specific complexes on which they are pre-selected to work on. The co-makers are scaled into seven different types of work in which they are specialized: building contractor (6), cleaner (2), Installation (8), electrician (1), painter/glazier (5), roofer (2), paver (1), and central heating (2). A complete overview of the 2013 co-makers list can be found in appendix III.

Despite the fact that the list has been reduced over the past years, analyses of the purchasing file (2012) revealed that Welbions still works with far more suppliers for the various types of work (approximately 100 suppliers). Reason for this could be that the list is reduced during 2012, yet the number of suppliers per type of work is still much higher than the 2012 co-makers list (60 suppliers). Welbions is willing to even further reduce the number of co-makers which is also recommended since it provides a potential to create various synergy benefits. However, these are only created when Welbions uses its (new) bargaining power during negotiation. On top of that, a reduced co-makers list will also create an improved allocation of resources since these are spent on fewer suppliers. This also strengthens the need for a transparent supplier selection process and a periodic execution of portfolio analyses to make employees aware of their position during negotiations.

5.4 Volume of Welbions' purchasing function

This section focuses on the volume of Welbions' purchasing function and reports the striking findings of the analyses made. The analyses are based on the purchasing documentation over 2012 since this is the latest complete available purchasing year. Due to the fact that this file is retrieved from the financial administration (covering all annual costs) contains it various data lines that cannot be influenced by the purchasing function or are not related to purchasing at all, there these are filtered out. An overview of the changes made in the purchasing documentation can be found in appendix IV.

5.4.1 Volume spent and top suppliers per category

In 2012 generated Welbions an annual purchasing volume of € 62.936.001,- which is over 90% of the annual revenues (rental and sale) in 2012. The total volume can be divided into the different purchasing categories which gives a total expense (volume) per category as in table 9 below.

Appendix V shows the top-5 suppliers (based on amount spent) of each particular main- and sub-category. Majority of these suppliers are found to be co-makers (list 2013). Remarkable finding is that these top-5 suppliers represent large percentages of the total volume per category, varying from 28.6% to 92% of the total amount spent (see appendix V). This indicates that Welbions has a small group of very large suppliers which will be further investigated next.

Purchasing category	Volume
1 Support internal operations	€ 8.111.258
2 Maintenance/renovation	€ 21.307.929
a <i>Non-systematic/mutation maintenance</i>	€ 7.828.813
b <i>Systematic maintenance</i>	€ 11.711.247
c <i>Service maintenance</i>	€ 1.767.869
3 Real estate development and major maintenance/renovation	€ 33.516.814
a <i>Development of real estate</i>	€ 28.484.861
b <i>Maintenance/renovation</i>	€ 5.031.953
Total annual spent in 2012	€ 62.936.000

Table 9: Total volume spent per main purchasing category

5.4.2 Supplier analysis

After the purchasing file has been cleaned, there remain in total 842 suppliers where Welbions did business with in 2012. The top-50 suppliers of 2012 are presented in appendix VI, this appendix revealed that these 50 suppliers account for 83% of the total volume. To give a more detailed impression of the volume of each supplier are they classified into eight ascending scales in table 10. The analysis revealed that the majority of the suppliers generated a purchase volume below €10.000,-.

Spending class	Number of suppliers	Spending class	Number of suppliers
≤ € 1.000	314	€ 50.001 – € 100.000	39
€ 1.000 – € 10.000	276	€ 100.001 – € 500.000	49
€ 10.001 – € 25.000	87	€ 500.001 – € 100.0000	16
€ 25.001 – € 50.000	50	≥ € 1.000.001	11

Table 10: Number of suppliers per spending class

Supplier ABC-Pareto analysis

The ABC-analysis classifies suppliers (or items) into three categories to see which suppliers are in terms of volume critical to the organization. The analysis is based on Pareto's law. This law says that 80% of the purchase volume is generated by 20% of the suppliers, also known as the 80/20 rule (Monczka et al., 2010). Usually there are three categories: A, B, and C. Category A are the suppliers that generate the top 80% of the annual purchase volume, category B are the suppliers that generate the following 15% of the volume, and C are the suppliers that generate the last 5% of the volume (sorted in descending order).

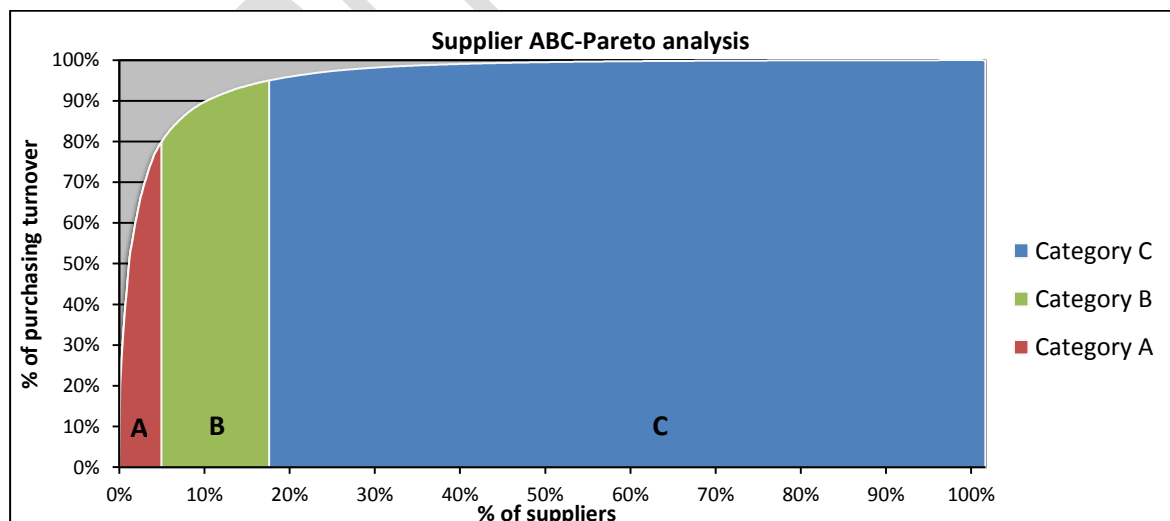


Figure 8: Supplier ABC-Pareto analysis of Welbions' 2012 purchasing data

Large differences are found in Welbions' spent per supplier, varying from a few euros to almost 13 million (20% of the total volume). The ABC-analysis on the spending per supplier reveals that the 80/20 rule not applies to Welbions. The following classification is found for Welbions (see figure 8):

- **Category A:** the top 4,9% (41) suppliers account for 80% of the total volume.

- **Category B:** the following 12,4% (105) suppliers account for 15% of the total volume.
- **Category C:** the last 82,6% (697) suppliers account for only 5% of the total volume.

Based on this classification and analyses can it be concluded that Welbions has a few very large suppliers and many small suppliers. Reducing the number of suppliers should provide a potential to create various synergy benefits (hard- and soft savings). Performing the ABC-Pareto analysis on each particular category as well as its underlying sub-categories does not reveal any additional insights: the 80/20 rule does not apply on one of the identified (sub-) categories due to the large magnitude of some suppliers in the various purchasing categories.

Overlap of suppliers between various categories

It was found that Welbions did business with 842 suppliers in 2012. Analyses of the suppliers in each purchasing category revealed that some suppliers are present in more than one category, see table 11 for the number of suppliers in each (sub-) category. The three main categories contain in total 1.048 suppliers compared to 842 unique annual suppliers. The sub-categories of category 2 contain in total 348 suppliers (232 unique suppliers) while the sub-categories of category 3 contain 201 suppliers (171 unique suppliers).

Purchasing category	Number of suppliers
Overall	842
1 Support internal operations	645
2 Maintenance/renovation	232
a <i>Non-systematic/mutation maintenance</i>	195
b <i>Systematic maintenance</i>	78
c <i>Service maintenance</i>	75
3 Real estate development and major maintenance/renovation	171
a <i>Development of real estate</i>	143
b <i>Maintenance/renovation</i>	58

Table 11: Number of suppliers per purchasing main- and sub-category

Further research into these overlapping suppliers revealed that 662 suppliers fall in one unique category and 180 suppliers are found in more than one category. Table 12 presents an overview of how many suppliers overlap in the different categories. This table shows that 4 suppliers are present in all six distinguished (sub-) categories.

Number of categories	Number of suppliers
1	662
2	87
3	45
4	32
5	12
6	4
Total	842

Table 12: Number of suppliers that overlap with the various categories

Appendix VII provides a more detailed overview of the top-50 suppliers that are found to overlap in one or more categories. The top-50 selection is based on total volume per supplier (> € 100.000), no additional insight were discovered when the complete list of 180 suppliers was taken into consideration. In this appendix, the co-makers (list 2013) are highlighted. The overview provides Welbions two potentials to reduce costs (hard and soft). First, there is a potential to combine the demand of the various categories in one overarching contract or agreement to create synergy benefits. Take for example the co-makers who are mainly contracted for and by systematic maintenance (category 2b), a closer look reveals that they also supply for large amounts in other categories. Second, many of the suppliers are found to deliver the same or equivalent products/services, combining demands into one/fewer suppliers should also lead to additional synergy benefits (economies of scale and processes).

5.5 Cost savings potential

The purchasing function of Welbions is defined and various analyses have been performed in section 5.2 to 5.4. The analyses indicated that Welbions has both the ability to reach a more professionalized purchasing function as well as the ability to create various synergy benefits (hard- and soft savings). This means that the organization should be able to reduce the costs involved. This section specifically aims to estimate the savings potential for Welbions in monetary terms.

Literature not contains any consensus or blue-print on a cost saving potential through the purchasing function. Keough (1993) for example stated that an organization can save up to 10% by moving from one maturity stage to another. His model consist five different stages in which an organization is expected to grow through in their journey to purchasing professionalism. Schiele (2007) found that the case organizations of his research identified a savings potential ranging from 0,3% to 18,3%, averaging 7,3%. The analysed organizations scored in practice a maturity level ranging from 36% to 55% of which the high developed organizations unexpectedly identified a larger savings potential. Creating larger volumes, for example through bundling of demand or co-operation can also bring considerable cost savings. Rozemeijer (2000) found that a considerable volume increase resulted in cost savings ranging from 1% to 15%. In the light of purchasing centralization, Vizjak (1994) estimated that an organization could achieve cost savings of up to 10% as a result of coordination of purchasing activities, the exchange of information, and concentrating of buying power (bundling of demand). On top of that, Nollet and Beaulieu (2005) mentioned that there is a general agreement that purchasing groups generate cost savings of between 10% and 15% while for some sectors and/or purchasing categories even higher savings have been found (20% to 35%). Guimaraes, Cook, and Natarajan (2002) stated that many organizations achieved substantial cost savings/reductions by reducing the number of suppliers in their supply base and deepening the relationship with the remaining suppliers. Furthermore, KPMG Advisory presented the results of various conducted purchasing professionalization projects within Dutch housing corporations in order to conduct such a project within Welbions. It became apparent that cost savings of between 4% and 15% are possible. These savings are actually achieved and are completely accountable to the conducted projects.

Since literature not contains a general agreement (which is actually not surprising), it is quite difficult to give a scientific grounded estimation of what savings potential Welbions could achieve by the analyses and recommendations previously made. Therefore a rough, step-wise estimation of a savings potential is made below.

First of all, the maturity level (level of professionalism) of Welbions purchasing function can certainly be improved as section 5.2 indicated. The recommendations in that section would definitely lead to better purchasing performances and an estimated structural cost reduction/saving of 2,5% to 5% on all three distinguished purchasing categories.

Second, a further reduction in number of co-makers (section 5.3.3) and a better utilization of the newly created negotiation position (bargaining power) should also lead to a structural savings potential on the hourly rate that is paid per type work. Since the co-makers are particular active in the maintenance and renovation categories (2a, 2b, and 2c), it is estimated that in purchasing category 2 an additional savings potential of 2,5% should be realizable when taking the magnitude of the co-makers in this category into account.

Finally, as found in section 5.4 is Welbions doing business with lots of suppliers of which the majority generated a volume of less than € 10.000,-. Pareto's 80/20 rule not applies to Welbions' total purchasing as well as any of its (sub-) purchasing categories. On top of that, it is found that 180 suppliers are present in more than one purchasing (sub-) category. Reducing the total number of suppliers (on top of the co-makers) and creating larger volumes should again lead to an additional savings potential. In monetary terms it is estimated that this will deliver an additional savings potential of up to 2,5% on each of the three purchasing categories.

The identified savings potentials are summarized in table 13. This table includes the minimum, maximum and average percentages as discussed above as well as the monetary estimation of this savings potential on the purchasing volume of 2012. As can be seen is a monetary savings potential of between € 2,1 million and € 5,3 million on an total volume of € 62,9 million estimated. This indicates a total estimated savings potential of between 3,3% and 8,3% resulting out of the analyses and recommendations made (2012 volume distribution).

Purchasing category	Volume 2012	Cost savings potential					
		Min	Max	Average	Min	Max	Average
1 Support internal operations	€ 8.111.258	2,5%	7,5%	5,0%	€ 202.781	€ 608.344	€ 405.563
2 Maintenance/renovation	€ 21.307.929	5,0%	10,0%	7,5%	€ 1.065.396	€ 2.130.793	€ 1.598.095
3 Real estate development and major maintenance/renovation	€ 33.516.814	2,5%	7,5%	5,0%	€ 837.920	€ 2.513.761	€ 1.675.841
Total estimated monetary savings potential (2012):					€ 2.106.098	€ 5.252.898	€ 3.679.498

Table 13: Estimated cost savings potential for the year 2012 (only hard savings included)

5.6 Conclusion

This chapter described the organization of Welbions' purchasing function guided by the seven factors of the theoretical framework. Comparison between the "Ist-" and "Soll-situation" revealed potential areas of improvement which are translated into actions/recommendations in order to achieve a more professionalized purchasing function. Furthermore, this chapter also focused on the purchasing practises in terms of nature and volume of which the striking features are reported. The analyses of this chapter are finally translated into an estimated savings potential for Welbions.

Table 14 provides on each particular factor of the theoretical framework an overview of the practical application followed by a recommendation (action) that should lead to a more professionalized purchasing function.

Factor	Practical application ("Ist-situation")	Recommendation
Purchasing policy	Welbions does not have a completed/approved integral purchasing policy that guides the purchasing activities and sets out its objectives.	Continue with the development of the integral purchasing policy that describes the fundamental principles and objectives set by the management team.
Purchasing process	Welbions not possesses an organization-wide documented and approved purchasing process.	Compose a documented purchasing process that is based on the principles of the purchasing policy and preferably differentiated on the three main business processes.
Supplier selection	Welbions selects its suppliers in a logic step-wise manner. Yet, the actual execution of the steps differs across departments, employees, and even purchase.	Determine, as part of the purchasing process, a structured way of selecting a supplier which is preferably differentiated based on the three main business processes.
Supplier performance evaluation	Welbions evaluates the performances of supplier at various places in the organization. Yet, the findings are not documented nor shared throughout the organization (except for the co-makers).	Structurally (as part of the purchasing process) assess, document, and share the performance of key suppliers through a pre-determined set of objective performance indicators.
Contract management	Welbions not possess an organization-wide contract management system/register. Contractual agreements are managed by the employees who concluded on them, the way this is done differs.	Develop and actively maintain a contract management system/register in which all the concluded contracts and agreements are managed, organization-wide.
Purchasing portfolio analysis	Except for department Control (intended to include it in the purchasing policy) is Welbions not familiar with portfolio analysis. The organization not performs purchasing portfolio analysis.	First, perform purchasing portfolio analysis periodically to identify the key suppliers and purchasing categories. Second, incorporate and distinguish the purchasing policy based on the portfolio analysis' classification.
Purchasing performance measurement and control	Welbions not possesses a procedure or process that prescribes a periodically evaluation of the performances delivered by the purchasing function and to assess the (not yet) stated objectives.	Develop a procedure/system to control and periodically evaluate the performances of the purchasing function. It should start with evaluating the compliance of the stated policy and process before objective measures are included to assess the stated purchasing objectives.

Table 14: Practical application and recommendation on each particular factor

Each of these recommendations is deemed to lead Welbions towards a higher level of purchasing maturity as well as a more professionalized purchasing function. If implemented, Welbions should have reduced cost in perspective.

Based on Welbions' business processes and purchasing documentation are three main purchasing categories distinguished: support of internal operations, maintenance/renovation, and development of real estate and major maintenance/renovation. Welbions is currently classified as a private contracting authority, meaning that the procurement legislation not applies to housing corporations. Yet, housing corporations will directly fall in this legislation as they become in one way or another dependent on government which in the near future is not implausible. This strengthens the essence of having a purchasing process that contains the directives of this procurement legislation. Analyses furthermore revealed that one of the main sources of supply is delivered by the co-makers. The selection of co-makers and the establishment of the average hourly rate that is paid per type of work can be questioned. This strengthens the need for a transparent supplier selection process and a periodic execution of portfolio analyses to make employees aware of their position during negotiations in order to negotiate better terms (e.g. financial).

Analysis of the purchases made revealed that Welbions generated in 2012 an annual purchasing volume of € 63 million, accountable to 842 unique suppliers. Various analyses revealed that the majority of these suppliers are small suppliers (< € 10.000). This indicated that reducing the number of suppliers provides a potential for both hard- (synergies) and soft savings (logistic costs, less invoices, etc.). Analyses furthermore revealed that that many suppliers (180) are present in more than one category, varying from two (sub-) categories to even all six (sub-) categories. This again provides two potentials to reduce costs. First, by bundling the demand of the various categories in overarching contracts or agreements should create synergy benefits (economies of scale). Second, many of the suppliers in the list are found to deliver the same or equivalent products/services. Reducing the number of suppliers should again provide a potential to create more synergy benefits (hard- and soft savings).

Literature not contains any (monetary) consensus or blue-print on a cost savings potential through the purchasing function. Due to this, it is quite difficult to give a scientific grounded estimation of what savings potential Welbions could achieve by the analyses and recommendations previously made. Therefore only a rough, step-wise, estimation of this savings potential is made. Taking together the recommendations, analyses, and the suppositions of literature, resulted in an estimated savings potential for Welbions of between € 2,1 million and € 5,3 million (based on the 2012 volume). Translated in percentages indicates this an overall estimated savings potential of between 3,3% and 8,3% (2012 volume distribution).

6 Structural integration and coordination of the purchasing function²

This chapter will go into the structural integration and coordination of the purchasing function in an organization, Welbions in specific. It identifies which integration and coordination mechanism fits Welbions to manage their desired, professionalized, purchasing function. Thereby this chapter answers the last sub-question: “Which integration and coordination mechanism fits Welbions to manage a professionalized purchasing function?”

The first section shortly introduces this chapter. Section 6.2 identifies and discusses mechanisms that can be used to integrate and coordinate the purchasing function while it sequentially elaborates each mechanism’s main advantages. Section 6.3 reports findings of different researches aimed to identify which mechanism is used in practice. The fourth section identifies factors that are found to influence the decision between the identified mechanisms. Section 6.5 specifically aims at the integration and coordination of Welbions’ purchasing function. The final section concludes.

Remark: This paper focusses on both, the purchasing function’s internal processes/activities as well as its structural integration and coordination. Where the previous chapters aimed on processes/activities, this chapter is specifically dedicated to the structural integration and coordination of the purchasing function. This issue is discussed separately since it is deemed to result and influenced by the analyses, recommendations, and conclusions made previously.

6.1 Introduction

The impact of purchasing on the competitiveness of an organization is increasingly being noted. The purchasing function moved from being an operative function towards a more strategic one (Paulraj et al., 2006) This trend caused management of many organizations to give more attention to their purchasing function often leading to restructuring of the function and a continuous search for optimization in terms of processes, activities, and structure (Karjalainen, 2011). Johnson, Leenders, and Fearon (2006) found that purchasing has substantially grown in corporate status and influence between 1987 and 2003.

Inherent to these developments, organizations increasingly struggle with the question: how should the purchasing function structurally be integrated and coordinated? The considerations that help to answer this question have widely been discussed in literature. Furthermore, various maturity models also see the structural organization of the purchasing function as a key dimension and factor that determines its level of professionalism (maturity) (Chadwick & Rajagopal, 1995; Keough, 1993; Paulraj et al., 2006; Schiele, 2007).

6.2 Mechanisms to integrate and coordinate the purchasing function

Literature widely agrees on a distinction between three main mechanisms to structurally integrate and coordinate the purchasing function within an organization: centralized, decentralized, and hybrid (Baily & Farmer, 1993; Johnson et al., 2006; Monczka et al., 2010; Munson & Hu, 2010; Trautmann, Turkulainen, Hartmann, & Bals, 2009; Van Weele, 2005). Some of these authors argue and mention supplementary mechanisms, such as pooling structure, logistic pipeline, commodity teams, cross-functional sourcing teams, line management organization, etc. Since these mechanisms are not widely accepted and mainly derived from one or a combination of the three main mechanisms, these are not discussed in the context of this paper.

Within these three mechanisms, it is the question “What are the considerations for organizations to decide on a particular integration and coordination mechanism?” that prevails. Therefore this section elaborates on each of the three mechanisms individually. Each mechanism has its own advantages and disadvantages that should be taken into consideration. Generally speaking are the advantages of one approach the disadvantages of another. Therefore only the main advantages of each alternative are discussed and no exceptional attention is given its disadvantages which logically can be understood by reversing the advantages of the other mechanisms.

² This chapter sometimes uses part(s) of the organization or organization(al)-part(s), instead could also have been written department(s), business unit(s), division(s), entity(ies), etc.

6.2.1 The centralized mechanism

Centralization is one mechanism to structurally integrate and coordinate the purchasing function. In the context of purchasing, centralization means that the majority of the purchasing activities and decisions are performed/made at a central place in the organization (e.g. headquarters or an appointed department). Stated differently, an organization possesses a centralized purchasing function if a purchasing executive/department has the authority over the majority of the activities and decisions (Baily & Farmer, 1993; Monczka et al., 2010; Van Weele, 2005). Figure 9 presents a simplified example of a centralized purchasing function.

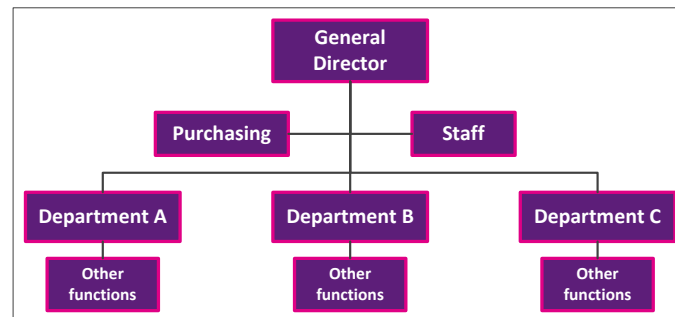


Figure 9: Example of a centralized integrated and coordinated purchasing function
Source: Van Weele (2005, p.235)

Advantages

A centralized purchasing function can provide various advantages to the organization of which most refer to synergies (see section 3.5). Below, a point wise overview of the main advantages is discussed (Baily & Farmer, 1993; Johnson et al., 2006; Monczka et al., 2010; Van Weele, 2005):

- **Economies of scale by consolidating volumes (bundling of demand):** ability to consolidate volumes from multiple parts of the organization to create economies of scale and more power during negotiations could (and probably should) lead to more favourable conditions.
- **Economies of process/staffing:** it secures a common way of working that leads to standardization and uniformity of internal processes, procedures, forms, standards, and specifications. Organization-wide are for example the same consistent ordering process, supplier evaluation, purchasing training manuals, and communication protocols used. It also refers to standardization of purchases, meaning that the same products/services are bought organization-wide. Furthermore, centralization reduces the duplication of purchasing effort since various activities are the same throughout the organization and centralized purchasing would only perform these once (or at least less often).
- **Economies of information, learning, and expertise:** through the dedication of staff and resources, an improved level of knowledge and expertise is created. In this case the purchasing function becomes more specialized in for example negotiations, legal issues, quality management, purchasing performances, lean operation methods, supplier development, etc. Furthermore, it creates a uniform understanding of the market through market research and exchange of information.
- Besides synergy benefits, centralization also brings other advantages which cannot directly be linked to the above mentioned synergies:
 - **Improved coordination of policies and systems:** ability to (1) coordinate the purchasing policy, process, and systems, (2) link the corporate mission/vision into unified purchasing plans and strategies, and (3) coordinate, design, and integrate purchasing systems that should work together to ensure business efficiency.
 - **Better management of stock and utilisation:** ability to manage the organization-wide stock and utilisation of products/services.
 - **Uniform attitude towards suppliers:** it assures the same organization-wide attitude towards suppliers.
 - **Ability to manage organizational change:** it is more likely that changes regarding purchasing succeed more often since all the staff is centrally located and coordinated.

A centralized purchasing function is specifically effective when several parts of the organization buy comparable products (Van Weele, 2005). Effective centralization does not imply a mandate that is dictatorial in nature, any employee may directly or indirectly be involved in the decision making. It therefore not implies that the (central) appointed authority dictates which products/services are bought. The best effect will be reached when the purchasing function is involved right from the beginning and facilitates purchasing related matters (Baily & Farmer, 1993).

6.2.2 The decentralized mechanism

Decentralization, the contrary of centralization, means in the context of purchasing that the majority of the purchasing activities and decisions are performed/made at various lower organizational parts. Stated differently, an organization possesses a decentralized purchasing function if each department has its own autonomy over the majority of purchasing activities and decisions. A major characteristic is that the manager of the specific part of the organization is often responsible for the purchasing activities and decisions of his department (Baily & Farmer, 1993; Monczka et al., 2010; Van Weele, 2005). Figure 10 presents a simplified example of a decentralized purchasing function.

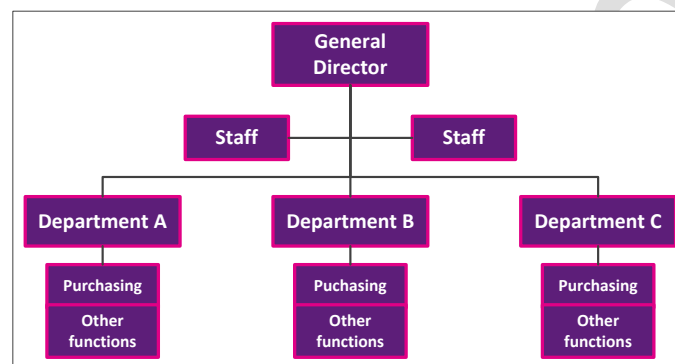


Figure 10: Example of a decentralized integrated and coordinated purchasing function
Source: Van Weele (2005, p.234)

Advantages

A decentralized purchasing function can provide various advantages to the organization of which most are based on its flexibility and local knowledge to respond fast to local conditions. Below, a point wise overview of the main advantages is discussed (Baily & Farmer, 1993; Johnson et al., 2006; Monczka et al., 2010; Van Weele, 2005):

- **Better understanding of internal needs and local environment:** (local) purchasers have better knowledge of the local needs, suppliers, and logistic facilities. Purchasers create a stronger orientation towards the internal customers and become familiar with their requirements, processes, products/services, and business practices. This often facilitates buyers to anticipate on their needs and develop sound relationships with (local) suppliers.
- **Direct communication between (local) suppliers and purchasers:** purchasers directly communicate with local suppliers. Closer working relationships are promoted which facilitates increased opportunities to manage the total cost of ownership associated with the purchase made.
- **Greater sense of responsibility:** it provides an intangible advantage regarding the feeling of employees. Employees are more supportive when they are more/earlier involved in the purchasing activities of their organization part. Additionally, a responsible manager has a greater feeling of ownerships, especially when he operates as a profit centre. Therefore he will have more control over the purchasing related decisions within his responsibilities.
- **Less need for internal coordination:** coordination is arranged within the various parts of the organization and no specific central coordination is needed.
- **Improved speed and responsiveness:** it allows the purchasing function to respond more quickly to emerging situations due to shorter lines of communication and greater awareness of local circumstances.

- **Less bureaucratic purchasing procedures:** in line with improved speed and responsiveness, less bureaucratic procedures are needed. This leads the purchasing function to respond quicker to various circumstances like for example requests from internal customers.

A decentralized purchasing function is in particular attractive to large organizations that possess different business units, divisions, or entities which purchase products/services that are unique and remarkably different from each other. In this case, synergies created by combining common purchasing requirements would only create limited advantages (Van Weele, 2005). Despite the benefits that a decentralized purchasing has in that situation, research indicates that some level of centralization is still required to support its strategic initiatives (Johnson et al., 2006).

6.2.3 The hybrid mechanism

Hybridization is a combination of both centralization and decentralization and therefore also referred to as centralized/decentralized structure or line-staff structure (Van Weele, 2005). Within the hybrid mechanism, different application forms exist, such as: lead division buying, regional buying groups, global buying committees, corporate purchasing councils, corporate steering committees etc. A hybrid mechanism combines for example a centralized authority for products/services that are purchased by different parts of the organization with a decentralized authority for products/services that only one part of the organization purchase (Monczka et al., 2010). This explanation could indicate that a hybrid integrated and coordination purchasing function is only applicable for large organizations. Yet, practice shows that this is not the case. A hybrid mechanism is also applicable for small organizations of which the central authority is performed by one or a (small) group of controlling and facilitating employees. In fact, most organizations seem to practice a combination of centralization and decentralization (Munson & Hu, 2010 and section 6.3). Figure 11 presents a simplified example of a hybrid purchasing function.

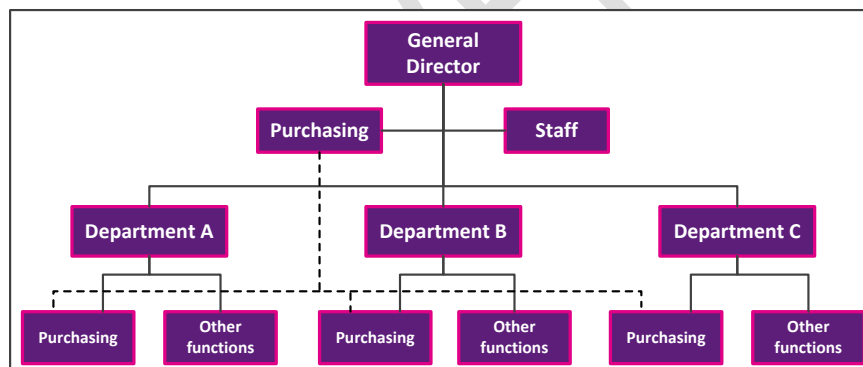


Figure 11: Example of a hybrid integrated and coordinated purchasing function
Source: Van Weele (2005, p.236)

Advantages

Literature not reveals a standard list of advantages that specifically applies to a hybrid purchasing function. Nevertheless, literature agrees on the fact that the primary advantage of a hybrid purchasing function is that it provides the organization the opportunity to combine key features (advantages) of both a centralized and decentralized mechanism (Baily & Farmer, 1993; Johnson et al., 2006; Monczka et al., 2010; Van Weele, 2005). In an attempt to capture the best aspects of both mechanisms, an organization can adopt different proportions of centralized/decentralized (Munson & Hu, 2010). The choice of proportion should be made deliberately and fit the particular organization. Yet, a central authority is in the hybrid mechanism inevitable and often found to be responsible for the following activities (Baily & Farmer, 1993; Johnson et al. 2006; Van Weele, 2005):

- Determination of policy, standards, procedures, and specifications.
- Negotiation and management of contracts (organization-wide contract management) for common used products and services.
- Collection of purchasing information and furnishing it into the organization.
- Development of purchasing/supply systems.
- Evaluation of purchasing performances and performing of portfolio analyses.

- Co-ordination of the stock (inventory).
- Development (training) and education of personnel, participation in personal matters.
- Purchasing's legal matters.
- Purchase of major plant/equipment and contracts regarding capital projects (if size permits).
- Contracts for the import and export of products/services.

6.3 Integration and coordination practices

It became apparent that organizations can adopt different mechanisms to structurally integrate and coordinate their purchasing function. The application (choice) of a particular mechanism is highly dependent on a set of organizational specific factors (see section 6.4). Various researches have been conducted to see which mechanism organizations use in practice. Giunipero and Handfield (2004) for example conducted a research in this area back in 2003. Based on previous research they conducted a survey in 25 major industries to see whether the mechanism used changed over time. Besides actual change over time, it also asked to forecast which mechanism organizations expect to use over a time horizon of seven years. Result (table 15) revealed that organizations prefer to have a hybrid purchasing function (1993: 47% and 2003: 54%). The results of the 2003 survey revealed a remarkable expected trend towards more centralization (42%), yet hybrid is still preferred (44%).

	1993	2000 (expected)	2003	2010 (expected)
Centralized	36%	36%	30%	42%
Hybrid	47%	47%	54%	44%
Decentralized	17%	17%	16%	14%

Table 15: Structural integration and coordination of the purchasing function in 25 major industries
Source: Giunipero and Handfield (2004, p.79)

Johnson et al. (2006) also conducted a research in this area at manufacturing and service industries. They report about a survey that has been conducted thrice in sixteen years: 1987, 1995, and 2003. As can be seen in table 16 both industries highly prefer a hybrid mechanism.

	Manufacturing			Service			Total		
	1987	1995	2003	1987	1995	2003	1987	1995	2003
Centralized	26%	20%	22%	41%	32%	31%	28%	23%	25%
Hybrid	60%	65%	69%	56%	65%	63%	59%	65%	67%
Decentralized	14%	15%	9%	3%	3%	6%	13%	12%	8%

Table 16: Structural integration and coordination of the purchasing function in manufacturing/service industries
Source: Johnson et al. (2006, p.37)

The study of Johnson, Leenders, and McCue (2003) compared the mechanism used in the public- (mainly governmental institutions) and private sector (21 different industry groups in manufacturing and service). Results, as in table 17, revealed remarkable similarities and differences between the sectors. Where the private sector prefer to apply a hybrid mechanism (51%) does the public sector applies a centralized mechanism most of the time (51%), closely followed by a hybrid purchasing function (47%). Only 2% of the respondents in the public sector apply a decentralized mechanism while this percentage is much higher for the private sector (22%)

	Public sector	Private sector
Centralized	51%	27%
Hybrid	47%	51%
Decentralized	2%	22%

Table 17: Structural integration and coordination of the purchasing function in public-/private sector
Source: Johnson et al. (2003, p.62)

Overall conclusion of these researches is that the results are in line with the changing importance of the purchasing function, organizations therefore tend to prefer some level of centralization. The hybrid mechanism is found to be the generally applied mechanism while there is a trend noticeable towards more centralization whereby complete centralization gains terrain. This finding is not outstanding since a hybrid mechanism combines the advantages of the centralized/decentralized mechanism. Other researches in this area (e.g. Fearon & Leenders, 1995; Rozemeijer, 2000) do not report any different insights and are therefore not reported here.

6.4 Factors that influence the integration and coordination of the purchasing function

A general agreement on which mechanism is best to integrate and coordinate purchasing cannot be found in literature. The choice between the mechanisms is highly influenced by a set of organization specific factors. Since each organization is unique on several aspects that should be taken into consideration, best practices do not exist (Baily & Farmer, 1993; Van Weele, 2005). Monczka et al. (2010) agrees but found that the choice between the mechanisms is also influenced by a time dimension. Back in the 70's many organizations adopted a centralized purchasing function while this changed again in the 80's when organizations realized that a centralized mechanism caused decision making to be slow and unresponsive, resulting in a trend towards decentralization. Currently, most organizations apply some kind of hybrid mechanism including an expected shift towards greater centralization due to new developments that improve communication and reduces the effect of distance between various organization-parts. Van Weele (2005) also stated that organizations often balance between the two extremes, leading to the application of a hybrid integrated and coordinated purchasing function.

The mechanism fits an organization is dependent on a set of organization specific factors that can be summarized in twelve main factors of influence (Monczka et al., 2010; Rozemeijer, 2000a; Van Weele, 2005):

- 1. Historical practices:** past practices and performances are perhaps the primary factor of influence. The purchasing function used to have a sub-ordinated position in the organization often resulting in a decentralized function. For organizations it is easiest to adhere to this situation. Although the importance of purchasing has increasingly being noted, many organizations still retain its historical practices.
- 2. Dependence/reliance on supply market:** some industries are more dependent on a reliable purchasing/supply then others (e.g. consulting versus car producer). When the organization is more dependent on supply, purchasing usually gets more attention. The purchasing function is likely to be centralized as the reliance on the supply market increases.
- 3. Total value:** value and volume of purchased products/services directly influences the position of the purchasing function. As the percentage of total costs spent is higher, a centralized function is preferred.
- 4. Ability to influence performance:** when purchasing is to a certain extent able to influence the corporate performance, a centralized purchasing function is preferred.
- 5. Management's view towards purchasing:** management's view will affect the tasks, authority, and responsibilities allocated to the purchasing function. When purchasing is still seen as an operational function is it likely to have a relative low, decentralized position. If purchasing is seen as an (competitive) factor of strategic importance is it likely that a centralized function is preferred. Management's view is to a large extent related to:
 - **Organization's financial position:** weak or negative financial performance requests greater accountability of purchasing related costs. In that case, the purchasing function often becomes more critical to the organization often resulting in a centralized function.
 - **Share in cost-price of product/service:** when the percentage of purchases in the cost structure of the product/service increases, a centralized purchasing function is preferred.
- 6. Geographic spread:** greater dispersion of the organization normally leads to a decentralized purchasing function since this ensures speed and responsiveness. Due to current technologies is decision making faster, regardless of the geographical spread. Still there could be (cultural) trading/management practices between countries around the world that has its influence.
- 7. Business strategy:** the corporate strategy often suggests which mechanism best fits. If the strategy is to be responsive to customers in different markets, it is preferred to possess a decentralized purchasing function. Conversely, a centralized function is preferred if the strategy is to be competitive through low costs and efficiency.
- 8. Similarities of purchases and requirements:** the greater the similarity of purchases and requirements of various parts of the organization, the more a centralized function is favoured.

- **Type of purchases:** related to this, the type of purchase also has its influence. Routine purchases of daily used products or services are different from one-time purchases of expensive or complicated items. Often dealing with such purchases favours a centralized purchasing function.
9. **Savings potential and price sensitivity:** some products/services are delicate to their volume. This means that if higher volumes are created this could immediately lead to cost savings. In that case, a centralized purchasing function is preferred. Furthermore, the price of some products/services strongly depends on its availability, the political-, and economic climate. If this is the case a centralized function is preferred.
 10. **Supply market situation:** sometimes organizations face a supply market which only has one or a few potential suppliers. In that case the power balance will be disturbed in favour of the supplier. To create a better balance, it is preferred to have a centralized purchasing function which is better able to bundle demands.
 11. **Expertise needed:** it could be that specific expertise of employees is necessary to perform the activities related to purchasing. If this is the case, a centralized function is preferred.
 12. **Customer's required demands:** sometimes customers dictate which products/services should be purchased. This influences the choice of mechanism in such a way that it is preferred to have a decentralized purchasing function since it possesses more speed and responsiveness.

The explanation of the factors is mostly aimed at the application of a particular mechanism, when the contrary is the case will this often lead to the preference of the contradicting (or hybrid) mechanism.

In addition to the twelve main factors concluded Rozemeijer et al. (2003) that the choice additionally depends on a combination of two factors: corporate coherence (the extent to which the different parts of the corporation operate and are managed as one entity) and purchasing maturity (the level of professionalism in the purchasing function). This resulted in a two by two matrix including four combinations which correspond to the different mechanisms (see figure 12):

- **Central-led (hybrid):** both corporate coherence and purchasing maturity are high.
- **Federal- or local-led (hybrid):** corporate coherence is low while purchasing maturity is high.
- **Decentralized:** both corporate coherence and purchasing maturity are low.
- **Centralized:** corporate coherence is high while purchasing maturity is low.

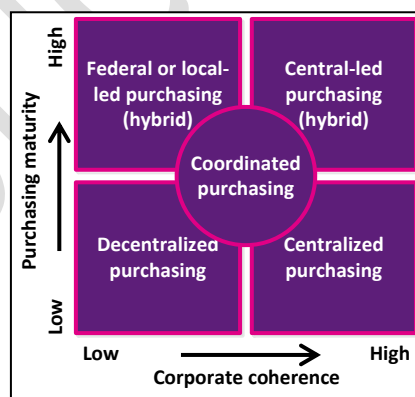


Figure 12: Rozemeijer's integration and coordination matrix
Source: Rozemeijer (2003, p.11)

6.5 Integration and coordination of the purchasing function within Welbions

Now that the main mechanisms, their advantages, application practices, and factors of influence have been discussed, this section will focus on the current and desired integration and coordination of Welbions' purchasing function. The recommendations of Chapter 5, which should lead towards more professionalism in Welbions' purchasing function, could lead to different insights regarding the desired integration and coordination of the purchasing function. Therefore are the conclusions previous made also seen as a decisive factor that led to the reconsideration of the current mechanism used. Within this reconsideration Welbions has three options:

1. Possessing a centralized integrated and coordinated purchasing function.
2. Possessing a hybrid integrated and coordinated purchasing function.
3. Possessing a decentralized integrated and coordinated purchasing function.

This section will further investigate which of these options fits to Welbions. It will first identify the current mechanism used and then analyse which mechanism fits the organization to manage a professionalized purchasing function.

6.5.1 Current integration and coordination mechanism used at Welbions

Based on the research within Welbions can it be concluded that the organization currently manages a decentralized purchasing function. The organization not possesses a central designated department or other authority that is specifically responsible for and dedicated to the execution of the majority of the purchasing activities. Analyses revealed that purchasing is part of various business processes which belong to different organizational-parts. Within these parts, the purchasing activities are mainly performed by pre-determined employees that belong to a specific process or project. These employees have established their own way of working which differs among departments, employees, and even purchase. Each organizational-part has its own autonomy to perform/take the purchasing function's activities and decisions which all fall underneath the specific manager's responsibilities. Yet, if a purchase is beyond a certain value the manager's authorisation and in some cases an approval by the general director/management team is required (as defined in the procurement and purchase authorisation document).

Main reason to manage a decentralized purchasing function is that Welbions like to have responsibilities at lower organizational levels. By putting the decision making low in the organization, Welbions intends to give employees their own responsibilities to achieve more effectiveness and efficiency. Interviews additionally revealed that Welbions already questioned their current integration and coordination mechanism. Nonetheless, (for various reasons) nothing has changed and the organization retained its historical practices since the merger in 2008/2009.

6.5.2 Desired and suitable integration and coordination mechanism for Welbions

Both, previous chapters as well as the first sections of this chapter provide enough reasons and information to reconsider the choice Welbions once made to possess a decentralized purchasing function. As discussed in section 6.4, the choice of a particular mechanism depends on twelve organization specific factors. The practical application of these factors for Welbions is analysed in table 18 below. Based on this application, each factor can be linked to the mechanism preferred by the specific factor. Some are scaled in only one mechanism, while others in two or all three mechanisms. When scaled in more than one mechanism indicates this that Welbions is no better off by adopting either a centralized, hybrid, and/or decentralized purchasing function.

The factors in table 18 indicate that Welbions prefers a certain level of centralization in its purchasing function of which a complete centralized function is most favoured.

It is furthermore found that the advantages of a decentralized purchasing function (section 6.2.2) do not specifically hold for Welbions. The organization has a relative small, non-geographically spread purchasing function compared to large (international) organization for which the majority of the advantages certainly apply. On top of that, each purchasing function will need a certain level of "bureaucratic" processes/procedures, be it either a centralized, decentralized, or a hybrid function. Except for lower level responsibilities (mentioned as the main reason for managing a decentralized purchasing function), is it concluded that Welbions not specifically benefit from possessing a decentralized purchasing function,. Nevertheless, the low eleven responsibilities advantage can also be questioned since Welbions not possess a purchasing performance measurement system/procedure. Therefore employees do not know whether they perform their purchasing activities good or bad (no objectives are set nor assessed, so employees think that they perform their activities well anyway, their performances are not measured objectively).

Factors of influence	Practical application within Welbions	Mechanism		
		Centralized	Hybrid	Decentralized
1	Historical practices			X
2	Dependence/reliance on supply market	X	X	
3	Total value	X		
4	Ability to influence performance	X		
5	Management's view towards purchasing	X	X	
6	Geographic spread	X	X	
7	Business strategy	X	X	X
8	Similarities of purchases and requirements	X	X	
9	Savings potential and price sensitivity	X	X	
10	Supply market situation	X	X	
11	Expertise needed	X	X	X
12	Customer's required demand	X	X	X

Table 18: Practical application of the twelve main influencing factors

To identify which mechanism fits Welbions to manage a professionalized purchasing function should the previously made conclusions/recommendations also be taken into consideration. These conclusions and recommendations are found to be highly related with the activities that the central authority performs in case of a hybrid purchasing (see section 6.1.3). The identified potentials to reduce costs (e.g. number of suppliers and overlap) are better noticed and utilized when a central authority controls the organization-wide purchasing. In addition, interviews revealed that employees do not have any confidence in a complete centralized purchasing function and state that this is not in line with the organization's principle to have responsibilities at lower organizational levels. Some of the interviewees even mention that the current situation is still feasible and Welbions should retain its current, decentralized purchasing function. Nevertheless, valid reasons and arguments for their position stay out except for the statement to have lower responsibilities and that the organization is used to managing a decentralized purchasing function. Others state that a central control of purchasing will be helpful and even necessary to possess a professionalized function. The function is currently too unstructured and faced by a lack of standardization. This is in line with Van Wee

(2005) who stated that the advantage of a central purchaser (coordinator) lies in his ability to act as a facilitator for the organization-wide purchasing function.

Consequently, can Welbions be scaled as an organization that desires to have a high level of purchasing maturity (professionalism) and a high corporate coherence (currently both low). This combination leads in Rozemeijer's (2003) two-by-two matrix (figure 12) to a central-led purchasing function. A valid comment would be that this paper did not focus on corporate coherence, yet by professionalizing the purchasing function as intended will the corporate coherence not stay behind and certainly follows, especially when the purchasing function becomes more central integrated and coordinated.

6.5.3 Recommendation

Given the practical application of influencing factors, arguments against the advantages of a decentralized purchasing function (for Welbions in specific), and suggestions of literature can it be concluded that the current decentralized mechanism not fits Welbions to manage a professionalized purchasing function. It was found that the organization needs a more central integrated and coordination function, be it either through a complete centralized or a hybrid mechanism. On top of that, Welbions decentralized purchasing function is deemed to be unable to capture cost reduction potentials as identified in Chapter 5. An overall overview of the organization-wide purchasing function is missing.

So, analyses indicate that both a centralized as well as a hybrid integrated and coordinated purchasing function fits Welbions to manage their desired, professionalized purchasing function. Despite the identified preference towards complete centralization in table 18 (factor 3 and 4), is it based on the other analysis of the previous sub-section concluded that a hybrid integrated and coordinated purchasing fits Welbions better then a complete centralized function. It is therefore recommended to move towards a hybrid integrated and coordinated purchasing function. This recommendation is based on the following set of arguments:

- A hybrid mechanism provides Welbions the opportunity to combine the key features of a centralized/decentralized purchasing function, including an overall organization-wide overview.
- The conclusion and recommendations made in Chapter 5 are highly related to the proposed activities of the central authority in case of a hybrid purchasing function (see section 6.2.3). This means that this central authority develops, implements, and secures the compliance of processes, procedures, policies, and standards.
- Based on Rozemeijer's (2003) two-by-two matrix in figure 12 and the desired combination of purchasing maturity (professionalism) and corporate coherence (both factors are desired to be high), can it be concluded that a hybrid (central-led) mechanism fits best to Welbions.
- A hybrid mechanism is more in line with the principle of Welbions to have responsibilities at lower organizational levels in order to have employees feel oneself responsible.
- A hybrid mechanism is favoured by employees. They stated the need for a central authority which acts as a controlling/facilitator of the organization-wide purchasing function.
- Finally, the culture of the organization and behaviour of employees determine the success of the improvement project. Moving towards a complete centralized purchasing function is found to be undesired and therefore likely to face more problems during implementation. A hybrid mechanism is deemed to face less resistance by employees since activities remain performed at lower, decentralized, levels. Moving towards a hybrid integrated and coordinated purchasing function can therefore be seen as a feasible intermediate step towards greater or even a complete centralization on the longer-term.

Following this recommendation it is advised to have the purchasing function coordinated by a central authority that facilitates the activities which remain performed at decentralized levels. The employee(s) of this authority should be held responsible for the stepwise implementation and execution of the various recommendations made previously (section 5.2.8). It is to Welbions to determine which other activities this central authority should perform. Section 6.2.3 already

proposed a set of activities for which the central authority is in general responsible. In addition to these should the central authority at least search for and realise additional potentials to reduce costs on both the short- and long-term.

6.6 Conclusion

This chapter described which integration and coordination mechanism fits Welbions to manage a professionalized purchasing function. Review of literature identified three main mechanisms to structurally integrate and coordinate the purchasing function: centralized, decentralized, or hybrid. Each of these mechanisms possesses its own set of advantages which should be taken into consideration. In practice organizations are found to prefer a hybrid integrated and coordinated purchasing function and the majority of organizations do actually apply this mechanism. Yet, no blueprint exists and the choice from a particular organization is found to be influenced and dependent on a set of twelve main organization specific factors.

Welbions currently possesses a decentralized mechanism to integrate and coordinate its purchasing function. Practical application of the twelve factors of influence indicates that a centralized purchasing function is preferred. On top of that, the main advantages of a decentralized purchasing function do not specifically hold for Welbions. It is therefore concluded that Welbions should possess a more centralized purchasing function. Despite the preference towards complete centralization, it is recommended to move towards a hybrid integrated and coordinated purchasing function. This recommendation is based on the set of arguments which prove that a hybrid integrated and coordinated purchasing function fits to Welbions to manage a professionalized purchasing function. A hybrid purchasing function is deemed to fit better because:

- It provides the opportunity to combine the key features (advantages) of both a centralized as well as a decentralized purchasing function, including an overall organization-wide overview.
- The conclusions and recommendations made in Chapter 5 are in line with the task/responsibilities in general performed by the central authority in case of a hybrid integrated and coordination purchasing function.
- The desired combination of purchasing maturity and corporate coherence indicates that a hybrid purchasing fits best to Welbions (based on Rozemeijer's (2003) two-by-two matrix).
- It is more in line with the principle of Welbions to have responsibilities at lower organizational levels in order to have employees feel oneself responsible.
- Purchasing employees stated the need for a central authority which acts as a controlling/facilitator of the organization-wide purchasing function.
- Moving towards a complete centralized purchasing function is found to be undesired and therefore likely to face more problems during implementation. A hybrid mechanism is deemed to face less resistance by employees since activities remain performed at a lower, decentralized organizational level. A hybrid purchasing function can therefore be seen as a feasible intermediate step towards grater or complete centralization.

Within this recommendation is it advised to have the purchasing function coordinated by a central authority which facilitates the activities that remain performed at decentralized levels. The employee(s) of this authority should be held responsible for the stepwise implementation and execution of the recommendations made previously. It is to Welbions to determine which other activities this central authority should perform next to searching for and realising additional cost reductions/savings on both short- and long-term.

7 Conclusions and future research

After Chapter 1 introduced this research and described the case organization, Chapter 2 elaborated on the design aspects. Sequentially, Chapters 3 to 6 all treated and answered at least one of the stated research sub-questions. This final chapter is dedicated to the overall conclusion of this research. Thereby this chapter answers the main research question of this paper.

The first section starts with answering the research sub-questions. Based on these answers, this section subsequently formulates a summarizing answer to the stated main research question. Section 7.2 discusses the limitations of this research and concludes this paper with an exposition of the identified directions for future research.

7.1 Answers to the research questions

Organizational purchasing is found to differ remarkably from consumer purchasing. Chapter 3 therefore aimed to get an extensive understanding of the notion “purchasing”. It was not only limited to defining the notion, but also elaborated on purchasing’s role and importance for organizations. It thereby answered the first sub-question: ***“What is meant by the notion “purchasing” and why is it important for organizations?”***.

Although many definitions of the notion purchasing are found, literature not agrees on a single accepted definition. Yet, the identified definitions are highly related and often overlap with each other on different aspects. Since the definition of Van Weele (2005) best fits to the overall purpose and goal of this paper has the following definition been chosen to understand purchasing throughout this paper: *“Purchasing is 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 favourable conditions (Van Weele, 2005, p.12).* The importance of the purchasing function to organizations is found to be related to the increasing percentages of revenues spent, its on-going change from an operative function towards a strategic one, and its ability to attain competitiveness and business success. An organization can obtain various benefits when it possesses a purchasing function that performs/fulfils its activities/objectives effectively and efficiently. Majority of these benefits can easily be translated into potentials to reduce/save costs savings. Therefore it is concluded that the importance of the purchasing function lies in its ability to considerably improve the overall performances of an organization.

Reaching a higher level of professionalism within the purchasing function is found to be highly related to its ability to achieve cost reductions through purchasing. Chapter 4 finds out how an organization can professionalize (in terms of effectiveness and efficiency) its purchasing function with a perspective towards reduced costs. It thereby answered the second sub-question: ***“In which way can an organization professionalize its purchasing function with the ability to reduce costs?”***

Review of literature resulted in the discovery of various internal factors whose presence is suggested lead towards a professionalized purchasing function. Interesting finding of this review is that purchasing maturity models have been developed to assess and improve the level of professionalism within the purchasing function. Despite criticism on the usefulness of these models, evidence on their usefulness predominates. Based on a combination of maturity models, other (practical oriented) literature, and signals out of Welbions seven factors have been selected. The selected factors are deemed to be most beneficial (useful) to Welbions and should be minimally present in its purchasing function. Table 19 below presents a summarizing overview of the factors which should help an organization (in specific Welbions) to reach a more professionalized purchasing function. Thereby this table formed the theoretical framework of this paper.

Factor	Theoretical application ("Soll-situation")
Purchasing policy	Have and enforce a decent stated integral purchasing policy that guides the purchasing function based on the principles and objectives set by management.
Purchasing process	Have and pursue a structured and formalized purchasing process (determined by the purchasing policy) that guides the purchasing function during the execution of activities.
Supplier selection	Have, as part of the purchasing process, a structured approach of selecting and contracting a supplier to ensure that it is performed transparent and integer, organization-wide.
Supplier performance evaluation	Evaluate/measure, as part of the purchasing process, the performance of suppliers to assess if these perform well and if they fulfil their contractual agreements.
Contract management	Utilize and actively maintain an organization-wide contract management system/register that is accessible by at least all the purchasing employees.
Purchasing portfolio analysis	Analyse purchasing periodically by using a purchasing portfolio model (e.g. Kraljic's (1983) models) that determines the critical suppliers and purchase categories. Potentially, the portfolio model could become part of the purchasing policy.
Purchasing performance measurement and control	Have a purchasing performance measurement and control system/procedure that assesses, monitors and evaluates the performances of the purchasing function in order to improve these.

Table 19: Theoretical framework ("Soll-situation") to reach a more professionalized purchasing function

The previously developed theoretical framework ("Soll-situation") can be used by Welbions to professionalize its purchasing function. Chapter 5 aimed to define the purchasing function of Welbions in terms of organization (theoretical framework), nature, and volume. It additionally analysed what actions Welbions should take in order to reach a more professionalized purchasing function. The analyses made in this chapter are finally translated into an estimated savings potential for Welbions. Thereby this chapter answered the third and fourth sub-question: ***"How can the purchasing function of Welbions be defined in terms of organization, nature, and volume?"*** and ***"What actions does Welbions have to take in order to improve the level of purchasing professionalism?"***

Comparing the purchasing practices of Welbions ("Ist-situation") with the theoretical framework ("Soll-situation") indicated that Welbions has an ability to improve the professionalism of its purchasing function. Table 19 provides on each factor a summarizing overview of the practical application followed by a recommendation (action) to Welbions in order to achieve this.

Factor	Practical application ("Ist-situation")	Recommendation
Purchasing policy	Welbions does not have a completed/approved integral purchasing policy that guides the purchasing activities and sets out its objectives.	Continue with the development of the integral purchasing policy that describes the fundamental principles and objectives set by the management team.
Purchasing process	Welbions not possesses an organization-wide documented and approved purchasing process.	Compose a documented purchasing process that is based on the principles of the purchasing policy and preferably differentiated on the three main business processes.
Supplier selection	Welbions selects its suppliers in a logic step-wise manner. Yet, the actual execution of the steps differs across departments, employees, and even purchase.	Determine, as part of the purchasing process, a structured way of selecting a supplier which is preferably differentiated based on the three main business processes.
Supplier performance evaluation	Welbions evaluates the performances of supplier at various places in the organization. Yet, the findings are not documented nor shared throughout the organization (except for the co-makers).	Structurally (as part of the purchasing process) assess, document, and share the performance of key suppliers through a pre-determined set of objective performance indicators.
Contract management	Welbions not possess an organization-wide contract management system/register. Contractual agreements are managed by the employees who concluded on them, the way this is done differs.	Develop and actively maintain a contract management system/register in which all the concluded contracts and agreements are managed, organization-wide.
Purchasing portfolio analysis	Except for department Control (intended to include it in the purchasing policy) is Welbions not familiar with portfolio analysis. The organization not performs purchasing portfolio analysis.	First, perform purchasing portfolio analysis periodically to identify the key suppliers and purchasing categories. Second, incorporate and distinguish the purchasing policy based on the portfolio analysis' classification.
Purchasing performance measurement and control	Welbions not possesses a procedure or process that prescribes a periodically evaluation of the performances delivered by the purchasing function and to assess the (not yet) stated objectives.	Develop a procedure/system to control and periodically evaluate the performances of the purchasing function. It should start with evaluating the compliance of the stated policy and process before objective measures are included to assess the stated purchasing objectives.

Table 20: Practical application and recommendation on each particular factor

Each of these recommendations is deemed to lead Welbions towards a more professionalized purchasing function. If implemented, the organization is likely to have reduced costs in perspective.

Three main purchasing categories can be distinguished within Welbions: support of internal operations, maintenance/renovation, and development of real estate and major maintenance/renovation. Housing corporations are classified as private contracting authorities, meaning that the accepted procurement legislation not applies to Welbions. Yet, this legislation will directly be applied when housing corporations become in one way or another dependent on government. This strengthens the establishment purchasing process that already contains the directives of this legislation. Furthermore, it is found that one of the main sources of supply is delivered by the co-makers (approved, renowned suppliers that deliver high quality work based on their historical performances). The selection of co-maker and establishment of the average hourly rate per type of work can be questioned. This strengthens the need for having a transparent supplier selection process and a periodic execution of portfolio analyses to create organizational awareness of Welbions' position during negotiations.

In 2012 generated Welbions an annual purchasing volume of € 63 million accountable to 842 suppliers. Analyses indicated that majority of these suppliers are accountable for a relative small volume (< € 10.000). This indicated that reducing the number of suppliers provides a potential for both hard- (synergies) and soft savings (logistic costs, less invoices, etc.). In addition, many suppliers (180) show up in more than one category, varying from two to even all six (sub-) categories. This also provides potentials to reduce costs. Bundling the demand of the various categories in overarching contracts or agreements should create synergy benefits (economies of scale). Related to bundling of demand is reducing the number of suppliers which also should provide a potential to create more synergy benefits (hard- and soft savings) since many of the suppliers in the list are found to deliver the same or equivalent products/services.

Since literature not contains any consensus on a cost savings potential through the purchasing function is it quite difficult to come up with a scientific grounded estimation. This leads to the fact that only a rough estimation of Welbions' savings potential could be made. Taking together the recommendations, analyses, and the suppositions of literature resulted in an estimated savings potential of between € 2,1 million and € 5,3 million (based on the 2012 volume). Translated into percentages, this indicates an overall estimated savings potential of between 3,3% and 8,3%.

Purchasing becomes more a strategic function instead of an operative one. Thereby the purchasing function has grown (is growing) substantially in both corporate status and influence. This trend caused that many organizations give more attention to their purchasing function often function often leading to restructuring of the function and a continuous search for optimization. Chapter 6 aimed to identify which integration and coordination mechanism fits Welbions to manage a professionalized purchasing function. Thereby this chapter answered the fifth sub-question: ***“Which integration and coordination mechanism fits Welbions to manage a professionalized purchasing function?”***

Review of literature identified three main mechanisms to structurally integrate and coordinate the purchasing function: centralized, decentralized, or hybrid. Each mechanism possesses its own set of advantages that should be taken into consideration. Yet, no blue-print exists and the mechanism that best fits an organization is influenced by a set of twelve organization specific factors. Welbions currently possesses a decentralized purchasing function. Main reason for this is that the organization wants to have responsibilities at lower organizational levels.

Practical application of the twelve factors of influence indicates that a centralized purchasing function is preferred. Furthermore, the main advantages of a decentralized purchasing function do not specifically hold for Welbions. This indicates that, except for lower level responsibilities, the organization not specifically benefits from having a decentralized purchasing function. It is therefore concluded that Welbions should change the integration and coordination of their purchasing function towards a different mechanism. Despite the preference towards complete centralization, it is recommended to move towards a hybrid integrated and coordinated purchasing function. A hybrid purchasing function is deemed to fit better because:

- It provides the opportunity to combine the key features (advantages) of both a centralized as well as a decentralized purchasing function, including an overall organization-wide overview.

- The conclusions and recommendations made in Chapter 5 are in line with the task/responsibilities in general performed by the central authority in case of a hybrid integrated and coordination purchasing function.
- The desired combination of purchasing maturity and corporate coherence indicates that a hybrid purchasing fits best to Welbions (based on Rozemeijer's (2003) two-by-two matrix).
- It is more in line with the principle of Welbions to have responsibilities at lower organizational levels in order to have employees feel oneself responsible.
- Purchasing employees stated the need for a central authority which acts as a controlling/facilitator of the organization-wide purchasing function.
- Moving towards a complete centralized purchasing function is found to be undesired and therefore likely to face more problems during implementation. A hybrid mechanism is deemed to face less resistance by employees since activities remain performed at a lower, decentralized organizational level. A hybrid purchasing function can therefore be seen as a feasible intermediate step towards grater or complete centralization.

It is advised to have the purchasing function coordinated by a central authority which facilitates the activities that remain performed at decentralized levels. This authority should be held responsible for the stepwise implementation and execution of the recommendations made previously. It is to Welbions to determine which other activities this central authority should perform next to searching for and realising additional cost reductions/savings on both short- and long-term.

Main research question

Now that the answers to the sub-questions have been elaborated above is the required information collected to answer the main research question. The main research question was formulated as: ***"In what way can Welbions professionalize its current purchasing function in order to be beneficial to the organization?"***

Based on the answers to the sub-questions can it be concluded that Welbions definitely has an ability to professionalize (in terms of effectiveness and efficiency) their purchasing function in such a way that it will be beneficial to the organization. Comparing the developed theoretical framework ("Soll-situation") with Welbions' practical application ("Ist-situation") identified potential areas to improve the level of professionalism within the purchasing function. To reach this, the recommendations as in table 21 below are made on each particular factor. Each of these recommendations is deemed to lead Welbions towards a higher level of purchasing maturity and a more professionalized purchasing function.

Factor	Recommendation
Purchasing policy	Continue with the development of the integral purchasing policy that describes the fundamental principles and objectives set by the management team.
Purchasing process	Compose a documented purchasing process that is based on the principles of the purchasing policy and preferably differentiated on the three main business processes.
Supplier selection	Determine, as part of the purchasing process, a structured way of selecting a supplier which is preferably differentiated based on the three main business processes.
Supplier performance evaluation	Structurally (as part of the purchasing process) assess, document, and share the performance of key suppliers through a pre-determined set of objective performance indicators.
Contract management	Develop and actively maintain a contract management system/register in which all the concluded contracts and agreements are managed, organization-wide.
Purchasing portfolio analysis	First, perform purchasing portfolio analysis periodically to identify the key suppliers and purchasing categories. Second, incorporate and distinguish the purchasing policy based on the portfolio analysis' classification.
Purchasing performance measurement and control	Develop a procedure/system to control and periodically evaluate the performances of the purchasing function. It should start with evaluating the compliance of the stated policy and process before objective measures are included to assess the stated purchasing objectives.

Table 21: Recommendations to professionalize Welbions' purchasing function

Next to professionalizing Welbions' purchasing function, this paper also focussed on the structural integration and coordination of the purchasing function in order to manage a professionalized function. Since this issue is considered to be influenced by the analyses, recommendations, and conclusions made previously, is the structural integration and coordination of the purchasing

function treated separately. Analyses indicated that the current decentralized mechanism used by Welbions to integrate and coordinate its purchasing function not anymore fits to the organization. More centralization is needed to manage a professionalized purchasing function. It is therefore concluded that Welbions should change the integration and coordination of their purchasing function towards a different mechanism. Despite the preference towards complete centralization, it is recommended to move towards a hybrid integrated and coordinated purchasing function since this mechanism is deemed to fit better to the organization.

Furthermore, different quantitative analyses on the 2012 purchasing documentation were performed in order to define Welbions' purchasing function in terms of nature and volume. The analyses revealed typical features and striking findings which strengthen the recommendations made. In addition, these analyses identified different potentials to further reduce/save costs through the purchasing function.

Taking together the recommendations, analyses, and the suppositions of literature resulted in an estimated savings potential of between € 2,1 million and € 5,3 million (based on the 2012 volume). Translated into percentages, this indicates an overall estimated savings potential of between 3,3% and 8,3%.

7.2 Limitations and directions for future research

The results of this research give Welbions a good starting point to reach a more professionalized purchasing function with reduced costs in perspective. During the journey to achieve these results, limitations and directions for future research were identified. This last section first discusses and the identified limitations before it set out the directions for future research.

Limitations

No research is without any limitations, hence this research also has a number of limitations which are discussed next.

First, due to the demarcations did this research only focussed on internal oriented factors that should lead towards more effectiveness and efficiency in the purchasing function. Thereby it did not focus on external factors which are suggested by literature (Baily, 1993; Baily & Farmer, 1993; Van Weele, 2005; Zheng et al., 2007) to lead towards more professionalism and additional potentials to reduce the costs involved. It was decided to only include internal oriented factors since these where most beneficial to the case organization.

Second, within this internal oriented limitation, many more factors could have been selected than this research now did. The factors treated in this paper have proven to be minimally present to possess a professionalized purchasing function. The factors treated in this paper are considered to be most beneficial (useful) to Welbions and as a good starting point achieve a more professionalized purchasing function. Thereby this research could contain a selection bias regarding the treated factors: an organization that is identified as a more mature or already in the possession of a (more) professionalized purchasing function would definitely have selected other, more detailed factors or even did not focus on internal factor at all. Thereby the theoretical framework presented in this paper is not applicable for organizations that already possess a certain level of professionalism in its purchasing function. Yet, it is applicable to other organizations that classified into the same level of purchasing professionalism as currently faced by Welbions.

Third, this research heavily relies on findings and results of literature and combines these with the practical application within Welbions. This led to various recommendations that are expected to lead Welbions towards a more professional purchasing function. It did not empirically test whether these recommendations actually reaches these goals. Although literature proved that its findings and results are valid and reliable there still remains a chance that these are not generalizable to Welbions meaning that the expected results are not achieved. Furthermore, the identified savings potential is only a rough estimation based on the recommendations, analyses, and literary suppositions of

Chapter 5. Therefore it cannot be guaranteed that the identified savings potential will actually be achieved. Yet, the estimated potential is held low and in line with the identified literary frames.

Additional point regarding this limit is that the practical application is (partly) based on the conducted qualitative interviews and conversations with employees involved or related to Welbions' purchasing function. Since these employees knew the goal of this research prior to the interviews/conversations they could have responded differently since this research aims to come up with actions that will directly or indirectly have consequences on their job and the way they perform activities. This limit is tried to be obviated by interviewing different employees on the same topics.

Finally, this paper assumed that the structural integration and coordination of the purchasing function is influenced by the analyses, recommendations, and conclusions made in chapter 5. It could be that other conclusions have been drawn if this paper did not make this assumption and for instance assumed that first the structural integration and coordination of the purchasing function has to be treated before the internal organization of process and activities. Nevertheless, this assumption will also lead to the conclusion that Welbions has the ability to professionalize its purchasing function.

Directions for future research

Partly based on the above described limitations, this research identified directions for future research on the topic of this paper.

First, many authors (e.g. Baily, 1993; Baily & Farmer, 1993; Van Weele, 2005; Zheng et al., 2007) claimed that organizations should also focus on external organization. It is recommended to further investigate the application of external factors to reach more professionalism within the purchasing function. It would for example be worth to investigate whether it is beneficial to outsource business processes to third parties, like for example the internal maintenance service as other housing corporations already did. Another external factor mentioned by literature and the interviews/conversations is the collaboration with other housing corporation in order to create additional synergy benefits. Standardized products, such as office supplies, utility facilities, kitchens, bathrooms, etc. are delicate to their volumes. Therefore bundling the demands of various housing corporations should create more power at the supplier and thereby economies of scale which ultimately lead to lower prices paid.

Second, it was found that Welbions heavily relies on a small group of large suppliers (in terms of volume). Since Monczka et al. (2010) suggest that intense collaboration could lead to significant mutual benefits for both Welbions as well as its suppliers, would it be worth to investigate whether Welbions could gain more benefits from an intense collaboration and working relationship with these suppliers. Guimaraes et al. (2002) supports this and stated that many organizations have achieved substantial cost savings by reducing the number of suppliers in their supplier base and deepening the relationships with remaining suppliers.

Finally, analyses of the purchasing documentation indicate that Welbions has various potentials to reduce costs through its purchasing function. Since these analyses were mainly aimed to create a general overview, it is recommended to further investigate the purchasing documentation on additional potentials to reduce costs other than this paper identified. This would be an interesting assignment for a student which further investigates this during for example an internship.

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Appendixes

Since the appendixes contain confidential information, these are not included in this public version of the thesis.

PUBLIC VERSION