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University of Twente
School of Behavioral, Management and Social Sciences
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Master Thesis
**Purchasing in the public sector:
skills leading to success**

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Abstract

The thesis seeks to shed light on the skills purchasing professionals need to be successful purchasers in the public sector. Public procurement professionals face many challenges in their current work and to be able to deal with those challenges' procurement professionals need to have the right knowledge and skills. This study will provide an answer to which skills purchasers in the public sector need to firstly identify and acquire innovations in the market, secondly to change from a traditional buyer to a strategic business partner for the internal client and thirdly to be successful in the future. World Cafés with procurement professionals form the basis of this research. Beside identifying which skills public purchasing professionals need, this study will also identify if the World Café method is a reliable method for data gathering.

This research uses two types of measures, participant related information and stickers ("votes") that indicate the importance of the discussion points mentioned during the different World Cafés. The participants related information is collected using a questionnaire to see if possible variation between the outcomes of the World Cafés can be attributed to the differences in the research population per location. The second measure of this research consists of stickers that indicate the importance of the discussion points mentioned during the different World Cafés. Every World Café consists of three rounds and at the end of the third round, every participant was given 24 stickers ("votes") to place behind the discussion point they found the most important in answering the research questions. The number of stickers placed behind the discussion points indicate the importance of each discussion point from the participants perspective, making it possible to prioritize certain discussion points above others and conclude which the skills the participants find the most important per research question and location.

The research population consists of fifty-five professionals working in the field of purchasing and/or contract management in primarily the public sector. All participants responded to a call from Yacht to participate in a network session related to purchasing and contract management with the theme "Which skills do you need to be successful as a buyer?". Yacht is a HR service provider in seven different fields including supply chain

management and procurement.¹ Yacht helps their clients to find the best talent with the most relevant skills for their business and offers field specific training programs to ensure that the candidates of Yacht has the required skills and knowledge required for a job in both the public and private sector.² Yacht aims to use the results of this study to align their current supply chain management and procurement traineeship with the current and future requirements of the work field. In total, three different network session took place across Utrecht, Apeldoorn and Groningen in the Netherlands and during each network session one World Café took place.

The results of this research indicate that public procurement professionals need a combination of primarily interpersonal skills and strategic business skills to be able to identify and acquire innovation from the market, to change from a classical buyer to a strategic business partner for the internal client and to be successful in the future. To be successful in the procurement of innovations the public procurement professionals need to have courage, be creative and able to think outside of the box. Being social, communicative, organizational sensitive and able to involve purchasing in the process can help the purchasing professional in becoming a strategic business partner and for the public professional to be successful in the future he or she needs to be able to think in opportunities, translate vision and focus on sustainability. Combining all those skills suggest that the modern purchasing professional needs to have an entrepreneurial, communicative and strategic profile with primarily soft skills.

At the start of this research the hypothesis was formulated that the World Café methodology would provide consistent reliable data across multiple World Café sessions. The results indicate that the participants of multiple locations identify similar type of skills as important as indicated by the number of stickers placed by the participants. However, variation exists in which skills are mentioned during every World Café and which skills receive the greatest number of stickers (votes) per World Café. The maximum overlap between the top 10 skills per location is only 29,63 percent. This variation could possibly be explained by the difference in the participants per location, there is a significant difference in the participants place of employment across the three World Café sessions, and by the influence of the table

¹ See Yacht (2018), p.1

² See Randstad Holding nv (2018), p.10

hosts. However, the existence of this variation and the finding of a significant difference in the research population per World Café combined with the small sample size (n=55) and the small number of World Cafés (3) included in this research makes it impossible to either confirm or reject the hypothesis that the World Café methodology

This research contributes to the already existing literature by identifying which skills public procurement professionals need in specific situations and by being the first to research if the World Café method is a reliable method for data gathering. Additional research should be done to conclude if the World Café method is a reliable method for data gathering and to further identify skills public procurement professionals need to be successful in their work field. A better understanding of which skills public procurement professionals needs, enables the adaption of educational and training programs which ensures that procurement professionals have the right skills and knowledge to meet current and future requirements within the public sector.

1. Introduction

1.1 New strategic role of PSM asks for new skills

Over the last few decades the role of purchasing and supply chain management (PSM) in organizations has changed driven by a changing business environment. Increased globalization, technological advances, increasing demands by upper management, raising customer requirements, and a shift towards outsourcing all contribute to a changing business environment.³ This dynamic business environment impacts PSM, changing purchasing and supply chain management from an administrative to a strategic function. Professionals in PSM not only have to ensure safe, timely and sufficient supply but now also have to focus on supplier coordination, supplier development, market research, cost analysis, strategy formulation, risk management and internal outsourcing.⁴

For PSM to fulfill this new strategic role, firms need to employ purchasing professionals that have the necessary skills and abilities, indicating that purchasing professionals need to develop new strategic skills. A skill is defined as an ability gained by practice or knowledge⁵ and only purchasing professionals that have the necessary skills and abilities are able to maximize the purchasing function contribution to the goals of the organization and the firm's competitive advantage.⁶ Skill development has therefore become increasingly important in PSM.⁷

A skilled workforce contributes to the success of an organization and especially in a changing environment well trained and skilled professionals are essential.⁸ According to Mulder, Wesselink, and Bruijstens (2005)⁹ there are only a few educational programs focused on purchasing and many purchasing professionals are originally from different disciplines. The training and education of purchasing professionals therefore often occurs on the job or through internal/external corporate training.¹⁰ The identification of which skills

³ See Feisel, Hartmann, and Giunipero (2011), p.54; Giunipero, Handfield, and Eltantawy (2006), p.823; Tassabehji and Moorhouse (2008), p.56

⁴ See Feisel et al. (2011), p.54; Giunipero et al. (2006), p.824

⁵ See Carr and Smeltzer (2000), p.41

⁶ See Feisel et al. (2011), p.54-55; Giunipero et al. (2006), p.826;

⁷ See Carr and Smeltzer (2000), p.40-41; Feisel et al. (2011), p.55-57

⁸ See Thai (2012), p.109

⁹ See Mulder et al. (2005), p.186

¹⁰ See Feisel et al. (2011), p. 56-60; Lau (2010), p. 407; Mulder et al. (2005), p.186

purchasing professionals need is required for assembling training and educational programs¹¹.

1.2 The public sector has the highest potential for savings

Many different authors have specified skills that are important for PSM professionals.¹² However, most if not all of those authors have specified skills in an industrial setting. It is unknown if those skills are also required for purchasing professionals operating in public procurement. Public procurement differs in many aspects from private purchasing. Public procurement professionals do not only have to operate in a changing business environment but also have to adhere to governmental and European laws and regulations.¹³ The scope of the purchasing function within public procurement also differentiates from the private sector. Within the private sector the purchasing professionals is often tasked with purchasing one sourcing category while purchasing professionals in the public procurement are tasked with purchasing a wide range of public services.¹⁴ Public procurement can also be used to support secondary goals and policy initiatives, such as promotion of innovation, sustainability, and support for small- and medium enterprises.¹⁵ This all indicates that purchasing professionals in the public sector require different skills than professionals operating in the private sector.

Approximately 15-20 percent of the GDP of a European country is spend on the public procurement, accounting to 40-90 percent of the public budget.¹⁶ More specifically, the Organization for Economic Cooperation and Development (OECD) calculated in 2015 that the Dutch public sector spends around 134 billion euro per year, which is equal to 20.2 percent of the Dutch gross domestic product (GPD).¹⁷ For reference, on average OECD countries spend 12 percent of their GDP on public procurement.¹⁸ Allas, Barillà, Kennedy, and Spencer (2018) found that the public sector has the highest potential savings of any sector.¹⁹ Since a skilled workforce contributes to the success of an organization, identifying

¹¹ See Lau (2010), p.405

¹² See Giunipero et al. (2006), p.836-841; Giunipero and Percy (2000), p.8-12; Knight, Tu, and Preston (2014), p.273, 278-279; Shou and Wang (2017), p.7-11; Sohal (2013), p.430, 435-437; Tassabehji and Moorhouse (2008), p.59

¹³ See Basheka (2010), p.2; Nijboer, Senden, and Telgen (2017), p.449-451

¹⁴ See Erridge and Hennigan (2012), p.364

¹⁵ See Amann and Essig (2015), p.283; Obwegeser and Müller (2018), p.1

¹⁶ See European Commission (2018); Nijboer et al. (2017), p.451

¹⁷ See Ministerie van Financiën (2017), p.3, 63; OECD (2017), p.172

¹⁸ See OECD (2017), p.172

¹⁹ See Allas et al. (2018), p.2; Corydon et al. (2017), p.99

which skills public purchasing professionals need to maximally contribute to the purchasing function is crucial to achieve the potential savings. Weele and Raaij (2014) also indicate that more research should be done on the skills, abilities and experience of PSM professionals.²⁰

1.3 Procurement professionals need the right skills to deal with challenges in the public sector

As mentioned previously, public procurement is different than private sector purchasing. Purchasing professionals in the public sector must deal with many different challenges. Not only has PSM become more strategic, over the last few years, a growing trend of using public procurement to achieve strategic goals and policy objectives has been perceived.²¹ One of the areas that has gotten significantly more attention in scientific literature is the use of public procurement to stimulate and promote innovation.²² The procurement of innovation is a different discipline than procurement to fulfil a predetermined demand/supply and therefore asked for different abilities, knowledge and skills from the procurement professional.

Another challenge that procurement professionals may face, is the low status of the procurement department in the public sector.²³ A procurement department is only able to maximally contribute to the performance of the organization if there is an alignment of goals between the procurement and other organizational departments.²⁴ Communication with different organizational units and the (early) involvement of the procurement department by the specification of demand enables the purchasing department to have a bigger influence on what is purchased, which can lead to lower governmental expenditure.²⁵

The procurement professional does not only need the required skills to deal with current challenges within the public sector. There is also the need to anticipate and acquire the necessary skills to add value in the future. Demographic changes such as the increasing elderly population and the increasing digitalization of the procurement process are all challenges procurement professionals will have to deal with in the future.²⁶ To deal with

²⁰ See Weele and Raaij (2014), p.63

²¹ See Amann and Essig (2015), p. 283; Obwegeser and Müller (2018), p.1

²² See Amann and Essig (2015), p. 283-284; Edler and Yeow (2016), p.414; Harland, Telgen, and Callender (2013), p. 376; Nijboer et al. (2017), p.451

²³ See Harland et al. (2013), p. 385; Patrucco, Luzzini, Ronchi, et al. (2017b), p.269

²⁴ See Feisel et al. (2011), p.61-62; Patrucco, Luzzini, Ronchi, et al. (2017b), p.273

²⁵ See Patrucco, Luzzini, Ronchi, et al. (2017b), p.273

²⁶ See Corydon et al. (2017), p.8-9, 25, 114; Glas and Kleemann (2016), p.55-56

those current and future challenges procurement professionals need the right combination of knowledge and skills.

According to Mogre, Lindgreen, and Hingley (2017) public sector purchasing has been insufficiently studied and academics often overlook the competencies individuals need for public procurement.²⁷ Current skills research in public procurement is often focused on identifying a broad range of skills every purchasing and supply (chain) professional should have.²⁸ Beside focusing on the broad range of skills, previous research often focus on identifying skills, knowledge and/or abilities procurement professionals needed based on past or present requirement instead of focusing on future needs.²⁹ In contrast to previous research and to fill the gap in scientific literature, this study aims to provide insight into which specific skills public procurement professionals need to identify and to acquire innovations from the market; to transform from a classical buyer into a strategic business partner for the internal client; and to be successful in the future.

1.4 The World Café: an often-used method for data gathering

Public procurement professionals discussing at different tables during a World Cafe form the basis of this qualitative research. World Café is a methodology for creating dialogue around questions that matter and can be described as a specialized form of focus group research.³⁰ The World Café method has been applied in different sectors, organizations and contexts and is often applied in settings where collaborative dialogue, knowledge sharing and/or community participation is required.³¹ The World Café method brings different stakeholders together and is therefore a fitting methodology to investigate which skills public procurement professionals need according to the experts, procurement professionals themselves. However, no evidence of the reliability of the outcomes of the World Café method can be found in scientific literature.³² Therefore, this study also aims to provide insight into the reliability of the World Café methodology for data gathering.

²⁷ See Mogre et al. (2017), p.254

²⁸ See Eltantawy, Giunipero, and Fox (2009), p.925; Feisel et al. (2011), p.54-55; Giunipero and Percy (2000), p.4; Knight et al. (2014), 271-272; Tassabehji and Moorhouse (2008), p.59; Tatham, Wu, Kovács, and Butcher (2017), p.266-267

²⁹ See Knight et al. (2014), p.272

³⁰ See Schieffer, Isaacs, and Gyllenpalm (2004), p.2; Reichenbachs, Schiele, and Hoffmann (2017), p.357; Ritch and Brennan (2010), p.406

³¹ See Schieffer et al. (2004), p.2; Fallon and Connaughton (2016), p.45; Fouché and Light (2011), p.29, 36; Fullarton and Palermo (2012), p.111-112; Teut et al. (2013), p.277

³² See Fouché and Light (2011), p.36; Takahashi, Nemoto, Hayashi, and Horita (2014), p.88-89

1.5 Reading guide

The remainder of this paper is organized as followed. In the next section, an overview of the existing literature on the importance and different classifications of purchasing skills, the difference between public and private procurement, the current challenges in public procurement related to innovation and stakeholder management, future challenges in public procurement, and the world café methodology, which forms the basis of this research, will be provided. This is followed by the research design and the results of the research. This paper then provides a conclusion and a discussion of the results and the paper concludes with the implication of this research.

2. The importance of skills in public procurement

2.1 The implementation of strategic PSM is dependent on the skills of the professional

Purchasing and supply chain management (PSM) is concerned with the management of external resources including goods, services, capabilities and knowledge that are necessary for operating, maintaining and managing the processes of a firm.³³ Traditionally, PSM has an administrative and transactional role within organizations, with a primary focus on cost reduction.³⁴ However, changes in the business environment such as increased globalization, technical advances, demand by upper management, changing customer patterns, a greater awareness of social responsibility and an increase in outsourcing has made the management of worldwide supply chains more challenging.³⁵ Changes in the purchasing function were needed to effectively handle this challenge and to maintain competitive as an organization. Core processes were expended with more strategic processes, indicating a shift in PSM from a traditional administrative and transactional role, towards a more strategic role.³⁶ This strategic role extends the purchasing function with new strategic tasks, including supplier selection, development and coordination, market research, cost analysis, strategy formulation, risk management and internal outsourcing.³⁷

³³ See Weele and Raaij (2014), p.57

³⁴ See Feisel et al. (2011), p.54-55; Weele and Raaij (2014), p.57

³⁵ See Feisel et al. (2011), p.54; Tassabehji and Moorhouse (2008), p.56

³⁶ See Feisel et al. (2011), p.54; Tassabehji and Moorhouse (2008), p.56

³⁷ See Feisel et al. (2011), p.54; Giunipero et al. (2006), p.823

Strategic purchasing is the process of planning, executing, controlling and evaluating purchasing decisions in an effort to meet a firm's goals.³⁸ According to the resource-based view, firms can gain and maintain a competitive advantage by managing its resources.³⁹ Since PSM is concerned with the management of external resources, a well-functioning PSM function can contribute to the firm's competitive advantage. One way firm's can obtain and maintain a competitive advantage is by hiring or maintaining employees that have superior or alternative skills.⁴⁰ A skill is defined as an ability gained by practice or knowledge either to perform a specific behavioral task or to perform a specific cognitive process that is related to a particular task.⁴¹

The importance of skilled purchasing professionals is also supported by Schiele (2007). His research indicates that there is a positive relationship between purchasing maturity and a firm's financial performance. One way to increase the level of professionalism in the purchasing function is by increasing the skills of the purchasing staff.⁴² The implementation of strategic PSM and the extent to which PSM can execute its new strategic role is also dependent on the skills and knowledge of the PSM professionals.⁴³ Identifying which skills are required of purchasing professionals is thus essential for organizational success.⁴⁴

2.2 Public procurement differs in many aspects from private purchasing

Public procurement is accountable for a large part of the total Dutch governmental budget and the country's GDP. Since public procurement plays such a significant role in a countries economy⁴⁵, it is subject to European Union (EU) and national governmental laws and regulations in order to secure that goods and services are acquired at competitive prices.⁴⁶ The EU directive on public procurement make explicit that all public purchasing and contracting above a certain monetary value are required to follow specific rules and regulations.⁴⁷ The monetary boundaries for public procurement depends on what is purchased work, deliveries and services or social and specific services and by who, the

³⁸ See Carr and Smeltzer (2000), p.41

³⁹ See Carr and Smeltzer (2000), p.41-42

⁴⁰ See Carr and Smeltzer (2000), p.41

⁴¹ See Basheka (2010), p.1; Carr and Smeltzer (2000), p.41

⁴² See Schiele (2007), p.277-278/283

⁴³ See Carr and Smeltzer (2000), p.41; Feisel et al. (2011), p.54-55;

⁴⁴ See Carr and Smeltzer (2000), p.41; Cousins, Lawson, and Squire (2006), p.779; Schiele (2007), p.277/283

⁴⁵ See Knutsson and Thomasson (2014), p.243

⁴⁶ See Stentoft Arlbjörn and Vagn Freytag (2012), p.204

⁴⁷ See Roodhooft and Van den Abbeele (2006), p.495-496

central or decentral government.⁴⁸ The rules are based on several principles, including non-discrimination, free competition and objective selection and award criteria.⁴⁹ Transparency of the whole purchasing process is also crucial to ensure a fair and open competition in the market.⁵⁰

Public procurement amounts to a great share of the public sector's overall budget and the total purchasing volume might even be higher than many private companies. The difference in purchasing volume and value is not the only difference between public and private sector purchasing, public procurement also has a wider objective than private purchasing. Public procurement has the objective to effectively deliver a wide range of public services, including health, law and order, education, transport, defence and social services and is not focused on a single company's profit.⁵¹ In terms of diversity and needs of the customers, the scope of the procurement function in public organizations is much wider than the scope of private organizations.⁵²

Public procurement demands are also greater and more varied than demands on private purchasing⁵³. Public procurement needs to meet three competing demands, commercial, regulatory and social. Respectively, public procurement needs to meet demands related to value of money, efficiency and effectiveness, demands related to transparency, competition and equality and demands related to public interest, economic development and environmental policy.⁵⁴

Not only the demand is greater and more varied, public procurement can also be used to contribute to several, sometimes conflicting policy goals. Over the last few years significant attention has been given to the ways public procurement can be used not only to fulfil the needs and demand of public administration, but also to support secondary goals (the so called strategic goals) and policy initiatives.⁵⁵ Those goals and initiatives can include the promotion of innovation, green and sustainable procurement, support for small- and medium enterprises

⁴⁸ See (PIANOo, 2018), p.1; Van Weert, Boneschansker, Geurts, and Lopulalan (2016), p.10

⁴⁹ See Roodhooft and Van den Abbeele (2006), p.496

⁵⁰ See Stentoft Arlbjörn and Vagn Freytag (2012), p.204

⁵¹ See Erridge and Hennigan (2012), p.364; Stentoft Arlbjörn and Vagn Freytag (2012), p.204

⁵² See Stentoft Arlbjörn and Vagn Freytag (2012), p.204

⁵³ See Telgen, Harland, and Knight (2012), p.17

⁵⁴ See Basheka (2010), p.2

⁵⁵ See Amann and Essig (2015), p. 283; Obwegeser and Müller (2018), p.1

and regional economic growth.⁵⁶ Here secondary procurement goals such as advancement of environmental protection and the promotion of innovation represent competing priorities compared to the more traditional goals of cost efficiency and legal conformity.⁵⁷ All those differences make public procurement more complex than private purchasing.

2.3 Skills required of public procurement professionals

2.3.1 Different skills taxonomies exist in literature

In the literature about skills development, several authors have identified skill that are required in PSM in the industry. Giunipero and Percy (2000) identified the five most important skills purchasing professionals need (1) interpersonal communication skills, (2) ability to make decisions, (3) ability to work in teams, (4) negotiations, and (5) customer focus. Those skills are all needed to facilitate and effectively manage the interactive, cross-functional and dynamic nature of the purchasing function⁵⁸. Giunipero and Percy (2000) also identified seven different skills categories that all world class purchasers should have, (1) strategic skills, (2) process management skills, (3) team skills, (4) decision-making skills, (5) behavioral skills, (6) negotiation skills and (7) quantitative skills.⁵⁹

To facilitate the movement to more strategic PSM Giunipero et al. (2006) identified five skills: (1) team building skills, (2) strategic planning skills, (3) communication skills, (4) technical skills and (5) broader financial skills. All those skills require in-depth expertise that is focused on value adding activities⁶⁰, and are comparable to the skills categories identified by Giunipero and Percy (2000)⁶¹ and Carr and Smeltzer (2000)⁶². According to Carr and Smeltzer (2000) firm's seeking to increase their strategic purchasing need to developed technical skills and skills techniques, such as communication skills, negotiation skills and problem-solving skills by their employees.⁶³

⁵⁶ See Amann and Essig (2015), p. 283; Obwegeser and Müller (2018), p.1

⁵⁷ See Amann and Essig (2015), p. 284

⁵⁸ See Giunipero and Percy (2000), p.12

⁵⁹ See Giunipero and Percy (2000), p.8-12

⁶⁰ See Giunipero et al. (2006), p.836

⁶¹ See Giunipero and Percy (2000), p.12

⁶² See Carr and Smeltzer (2000), p.45-47

⁶³ See Carr and Smeltzer (2000), p.45-47

Carr and Smeltzer (2000), Giunipero and Percy (2000) and Giunipero et al. (2006) are not the only ones to have researched skill development and many skills identified by the different authors overlap. Therefore, Tassabehji and Moorhouse (2008) consolidated all the different taxonomies and nomenclatures found in the literature on skills development into a new consistent and coherent taxonomy.⁶⁴ Over the years, the skills required of procurement professionals have changed, increasing the emphasis on more generic and management orientated skills applied in a procurement context. This is represented in the new taxonomy that classifies the procurement skills into five categories that mirror the current requirements of procurement professionals.⁶⁵ Those five skills categories include specific procurement skills, that are a core requirement of procurement professionals combined with more general managerial skills honed for procurement.⁶⁶

Tassabehji and Moorhouse (2008) have classified the procurement skills into technical skills (TS), interpersonal skills (IS), internal enterprise skills (IE), external enterprise skills (EE) and strategic business skills (SB).⁶⁷ Technical skills are the fundamental and basic administrative skills any purchasing professional needs and include product- and technical knowledge, total-quality-management (TQM) and knowledge of laws and regulations. Technical skills also include skills such as category management, project planning and e-procurement. Interpersonal skills are skills necessary for the interaction with other people in teams or on individual level and include spoken and written communication, conflict avoiding behavior, influencing, leadership, problem solving, recognizing group dynamics and interpersonal and cultural awareness. IS are required at every level of the organization for effective procurement management.⁶⁸

Internal enterprise skills and external enterprise skills focus more on the organization. Internal enterprise skills focus on the overall business and how different functions interact and work together in the overall business while external enterprise skills relate to the suppliers, supply chain and its stakeholders. Strategic business skills is the last skill category identified by Tassabehji and Moorhouse (2008). Skills within this category are related to

⁶⁴ See Tassabehji and Moorhouse (2008), p.59

⁶⁵ See Tassabehji and Moorhouse (2008), p.59

⁶⁶ See Tassabehji and Moorhouse (2008), p.59

⁶⁷ See Tassabehji and Moorhouse (2008), p.59

⁶⁸ See Tassabehji and Moorhouse (2008), p.59

broader strategic issues and on how procurement can impact the overall value creation in the organization, such as planning and managing strategic partnership and alliances and risk management.⁶⁹

2.3.2 Current literature does not specify which specific skills are needed to procure innovations in the public sector

The literature used to consolidate Tassabehji and Moorhouse (2008) taxonomy mostly included information about skills development in the private sector.⁷⁰ As already mentioned, the public sector is significantly different from the private sector.⁷¹ Public procurement professionals not only need to operate in a changing business environment but also need to be able to purchase within the governmental and EU regulations, deal with the wide scope of public procurement, balance the three competing demands, and support secondary goals and policy initiatives through their procurement activities. With all those differences between public and private procurement and the increasing complexity of public procurement, it is reasonable to assume that the skills procurement professionals need to be successful in the public or private sector differ from each other.

The public sector is a large buyer of a broad range of goods and services and plays, with its large purchasing volume a significant role in the economy of a country.⁷² Attention to how governments can use this purchasing power to support secondary goals and policy initiatives has grown over the years. One area that has been given an increasing amount of scientific interest is the use of public procurement to promote innovation.⁷³ Public procurement of innovation can be defined as “purchasing activities carried out by public agencies that lead to innovation”.⁷⁴

According to Yeow and Edler (2012) a distinction can be made between two types of public procurement of innovation “(1) responsive procurement of a novel service or product that is offered by suppliers to the market and (2) procurement that triggers the development of a

⁶⁹ See Tassabehji and Moorhouse (2008), p.59

⁷⁰ See Carr and Smeltzer (2000), p.43, 45-47; Cousins, Lawson, et al. (2006), p.779,787-788; Giunipero et al. (2006), p.826-827, 836; Tassabehji and Moorhouse (2008), p.59-60

⁷¹ See Telgen et al. (2012), p.1, 4

⁷² See Knutsson and Thomasson (2014), p.243

⁷³ See Amann and Essig (2015), p. 283-284; Edler and Yeow (2016), p.414; Harland et al. (2013), p. 376; Nijboer et al. (2017), p.451

⁷⁴ Amann and Essig (2015), p. 282; Rolfstam (2012), p.303

new product or service, necessitating a clear definition of functional specificities to spur innovation creation by suppliers".⁷⁵ Large governmental demand for new products can stimulate research and development and product and process innovation.⁷⁶ Empirical studies have even shown that public procurement can trigger stronger innovation impulses than subsidies on research and development.⁷⁷

Nevertheless, the public sector as a big market player with its power to stimulate private investments in research and innovation, public procurement of innovation also faces many challenges⁷⁸. According to Edler and Yeow (2016) "the most important challenges for the public procurement of innovation are related to:

1. understanding and assessing the market and its opportunities, both in terms of what is already offered and in terms of what the market could deliver if asked for by the public buyer;
2. being able to understand one's need and the fundamental improvements possible through innovation;
3. establishing incentive structures that reflect the risk-reward distribution, to ensure that those organizational units that bear the risk also share some of the efficiency or reputational gains associated with innovation. Moreover, innovation procurement needs capabilities and procedures to overcome risk aversion through risk management approaches;
4. being able to implement the innovation and change organizational procedures, routines and capacities needed to do so".⁷⁹

Dealing with the challenges associated with procurement of innovation asks for internal skills, capabilities and incentive structures together with inter- and intra-organizational coordination.⁸⁰ Increasing the professionalism of the procurement staff is required to overcome potential barriers of procurement of innovation.⁸¹ Procurement professionals thus play an important role in the procurement of innovation.⁸²

⁷⁵ Yeow and Edler (2012), p.475

⁷⁶ See Knutsson and Thomasson (2014), p.242-245; Amann and Essig (2015), p. 282-283

⁷⁷ See Amann and Essig (2015), p. 282

⁷⁸ See Amann and Essig (2015), p. 282-283; Edler and Yeow (2016), p.415-417

⁷⁹ Edler and Yeow (2016), p.417

⁸⁰ See Edler and Yeow (2016), p.417

⁸¹ See Amann and Essig (2015), p. 290

⁸² See Knutsson and Thomasson (2014), p.245-246

According to Amann and Essig (2015) procurement professionals need to possess the right competencies to manage the procurement process and need to have adequate skills to formulate tenders that provide room for innovation. The tender specifications need to provide sufficient detailed functional specifications but also needs to be broad enough to allow consideration of alternative solutions. Adequate skills to assess and evaluate the tenders based on the contract award criteria are also skills procurement professionals needs for the procurement of innovation.⁸³

While Amann and Essig (2015) have formulated areas wherein public procurement professionals need adequate skills to be able to procure innovations, they do not specify which specific skills are required of procurement professionals such as communication skills or market scanning skills⁸⁴. In current scientific literature, no attention has been given to identifying which specific skills are required from public procurement professionals to identify or acquire innovations in the market. To fill this gap the following research question was formulated:

RQ 1: “What skills does a public procurement professional need to identify and acquire innovations in the market?”

2.3.3 Current literature does not specify which skills can contribute to increasing the status of the procurement department

Since PSM in both the private as public sector has moved towards a more strategic role it is necessary that public procurement departments should also have the ability to formalize procurement strategy and define strategy components, content and processes. When the strategic role of the procurement department increases, the department gains more complex responsibilities which increases the need for public procurement professionals with more mature skills and competencies.⁸⁵

The procurement function needs to achieve a certain level of maturity by improving the organisation performance, before it can make a significant contribution to value creation,

⁸³ See Amann and Essig (2015), p. 289

⁸⁴ See Amann and Essig (2015), p. 289-290

⁸⁵ See Patrucco, Luzzini, Ronchi, et al. (2017b), p.269

secondary goals and/or policy initiatives.⁸⁶ Ideally, the public procurement department cooperates and interacts with other departments to achieve organization wide goals and to increase public procurement performance. Cross-functional integration, alignment between public procurement decisions and other departments' strategies is therefore essential in improving procurement performance. Increasing the procurement department status is crucial to be perceived as an equal partner for other departments.⁸⁷

Within this research status is defined as "the extent to which procurement can act as a value-adding function, as a consequence of several factors, including recognition from other departments, the position in the organisation hierarchy, and the involvement in strategic planning".⁸⁸ As previously mentioned, public procurement is moving from its more traditionally tactical and administrative role towards a more strategic role to achieve specific governmental objectives.⁸⁹ Nevertheless, the procurement departments in the public sector are likely to have a relatively low status within the own organisation.⁹⁰ It seems to be important to increase this perceived status in order to transform from an operational procurement function into a business partner to the other departments and to contribute maximally to the organisation goals. However, up to date not much is known about the status of the procurement department in the public sector and which skills public procurement professionals need in order to possibly increase the status of the procurement department and to become a strategic business partner for the internal client.⁹¹ This leads to the following research question:

RQ 2: "What skills does a public procurement professional need to change from a traditional buyer to a business partner for the internal client?"

⁸⁶ See Patrucco, Luzzini, Ronchi, et al. (2017b), p.269, 272; Schiele (2007), p.277-278/283

⁸⁷ See Patrucco, Luzzini, Ronchi, et al. (2017b), p.269, 274

⁸⁸ Patrucco, Luzzini, and Ronchi (2016), p.745

⁸⁹ See Patrucco, Luzzini, and Ronchi (2017a), p.232; Feisel et al. (2011), p.54; Patrucco, Luzzini, Ronchi, et al. (2017b), p.269; Tassabehji and Moorhouse (2008), p.56;

⁹⁰ See Harland et al. (2013), p. 385; Patrucco, Luzzini, and Ronchi (2017a), p.233;

⁹¹ See Patrucco, Luzzini, Ronchi, et al. (2017b), p.272-273

2.3.4 Procurement professionals need to have the rights skills to deal with upcoming challenges in the public sector

In this study the first two research question focus on identifying skills public procurement professionals need to effectively identify and acquire innovation from the market and to become a strategic business partner to the internal client. Increasing the skills of procurement professionals in those areas increases the ability of the procurement department to contribute to the goals of the public sector and should ultimately lead to a lower purchasing expenditure on public goods and services.

As previously mentioned, public procurement has the objective to deliver a wide range of public services, including health, law and order, education, transport, defence and social services.⁹² Over the last years the total governmental spending in the Netherlands has increased, to approximately 277 billion in 2018.⁹³ Especially the expenditure on education and healthcare has risen substantially over the years.⁹⁴ In the coming years it is expected that the spend on healthcare will continue to rise and if savings cannot be achieved in other areas, the total governmental spend is expected to increase even further.⁹⁵

The trends that have increased public spending in the last few years, such as increase in expenditure on healthcare, education, social services/security are likely to intensify in the coming years, which will increase the need and importance of a well-functioning procurement function.⁹⁶ Demographic changes such as the aging population can have a profound impact on a country's economic growth and tax revenues. The world's population of over 60 years is expected to nearly double over the next 35 years, decreasing the ratio of working-age adults to retirees, and increasing expenditure on social services and healthcare. Productivity, in both the public and private sector, needs to increase to compensate for this demographic shift.⁹⁷

Upcoming digitalization can also play an important role in PSM in the future. The use of information technology (IT) is however not new in procurement, the concept of

⁹² See Erridge and Hennigan (2012), p.364; Stentoft Arlbjørn and Vagn Freytag (2012), p.204

⁹³ See Rijksoverheid (2017)

⁹⁴ See Ministerie van Financiën (2017), p.61-63

⁹⁵ See Ministerie van Financiën (2017), p.61-63

⁹⁶ See Corydon et al. (2017), p.5, 9; Ministerie van Financiën (2017), p.61-63

⁹⁷ See Corydon et al. (2017), p.5-12

eProcurement is well known and established. eProcurement can be defined as the use of IT for facilitating operative procurement processes as well as sourcing and strategic tasks.⁹⁸ While eProcurement supports procurement processes, complete automation of the procurement process occurs in Procurement 4.0. Procurement 4.0 is a smart system that automatically recognized a demand for a certain material and can independently generate and communicate an order to the respective supplier. In this whole ordering process no human interaction occurs and Procurement 4.0 is therefore similar to Industry 4.0.⁹⁹

In contrast to Industry 4.0, Procurement 4.0 focusses on process efficiency; improving the organizational supply chain to satisfy demands as efficiently as possible.¹⁰⁰ Procurement 4.0 is not yet established, but implementation of Procurement 4.0 requires a change in the current skills and abilities of purchasing professionals.¹⁰¹

Skills research in the public sector is often overlooked by practitioners and academics and if research is done on skills in public procurement it often focuses on identifying past or current skills and/or abilities required of purchasing professionals.¹⁰² However, procurement professionals operate in a changing business environment which means that professionals continually need to update their skills to effectively contribute to the procurement function and the success of their organization.¹⁰³ Procurement professionals do not only have to adapt their skills and abilities to the increasing digitalization of the purchasing function but also to changes within society such as the demographic changes and increasing expenditure on healthcare and education. No previous research has been done to identify which skills procurement professionals in the public sector will need to deal with the upcoming challenges; therefore, the third research question of this study is formulated as followed:

RQ 3: “What skills does a public procurement professional need to be successful in the future?”

⁹⁸ See Glas and Kleemann (2016), p.58

⁹⁹ See Glas and Kleemann (2016), p.58-59, 62

¹⁰⁰ See Glas and Kleemann (2016), p.59, 62

¹⁰¹ See Glas and Kleemann (2016), p.62-63

¹⁰² See Knight et al. (2014), p.272; Mogre et al. (2017), p.254

¹⁰³ See Oke, Ogunsemi, and Adeyelu (2017), p.2-3; Tassabehji and Moorhouse (2008), p.57

2.4 Identification of skills essential for education and training of professionals.

The success of an organization is largely dependent on the collective knowledge, experience, skills and abilities of its employees.¹⁰⁴ Procurement professionals are expected have undergone a specific training and need to be able to provide in-depth analysis of sourcing decisions.¹⁰⁵ Well skilled procurement staff are required to be more knowledgeable about new tools and techniques designed to increase the supply chain efficiency and effectiveness, the needs and desires of internal customers and supply market trends.¹⁰⁶

The skills, knowledge and abilities of public procurement professionals are a critical success factor for strategic PSM. Since PSM contributes to the competitive advantage of a firm, the training and education of well skilled procurement professionals should be a central focus point for education and training institutes.¹⁰⁷ However, only a few educational programs exist in the field of procurement, indicating that many procurement professionals are originally from different disciplines.¹⁰⁸ Those procurement professionals are either trained on the job, participate in a trainee program or receive a professional education from purchasing training bodies or institutes.¹⁰⁹

Identifying which skills are essential for public procurement professionals is required before any targeted education or training can take place.¹¹⁰ The results of this study can be used by Yacht to develop a specified training program to educate public procurement professionals in the skills they need to be successful in their field. Yacht Group Nederland bv, subsidiary of Randstad Holding nv, is a HR service provider in seven different fields including supply chain management and procurement.¹¹¹ Yacht helps their clients to find the best talent with the most relevant skills for their business and help candidates in finding a job and developing their skills in order to have a meaningful career.¹¹²

¹⁰⁴ See Lau (2010), p.401; Ogden, Rossetti, and Hendrick (2007), p.4

¹⁰⁵ See Ogden et al. (2007), p.4

¹⁰⁶ See Ogden et al. (2007), p.4

¹⁰⁷ See Lau (2010), p.401

¹⁰⁸ See Mulder et al. (2005), p.186

¹⁰⁹ See Feisel et al. (2011), p.60; Lau (2010), p.407; Mulder et al. (2005), p.186

¹¹⁰ See Lau (2010), p.405

¹¹¹ See Randstad Holding nv (2018), p.9; Yacht (2018), p.1

¹¹² See Randstad Holding nv (2018), p.10;

Skills development of candidates of Yacht takes place using training programs specified for the field and or business in which the candidate will be operating. The training program combines different forms of learning, are competency-based and focus on leadership, sales, job-related and soft skills.¹¹³ Field specific training programs, such as their supply chain management and procurement traineeship, also focus on operational knowledge and specific knowledge required for the job in that field.¹¹⁴ The results of the study can help Yacht in aligning their supply chain management and procurement traineeship to the current and future requirements in that field, ensuring that Yacht and therefore Randstad stays a global leader in the HR service industry.¹¹⁵

The results of this study are not only relevant for Yacht but can also be used by other companies, educational institutes, human resource management and/or training agencies to better align their education or training programmes to the requirement of the public sector. The knowledge about which skills public procurement professionals need to be able to identify and acquire innovations from the market, to change from a classical buyer to a strategic business partner and to be successful in the future are also relevant for the procurement professionals themselves. They can use this knowledge to ensure that their procurement skills meet the current and future requirements within the public sector.

3 The World Café method

3.1 World Café brings stakeholders together around questions that matter

The World Café method was created by Brown and Isaacs (2005) as a simple process that brings people together around questions that matter.¹¹⁶ The World Café can be described as a flexible, user-friendly process for promoting dialogue between partners, sharing mutual knowledge and discovering new opportunities for action.¹¹⁷ Because a World Café brings multiple stakeholder together, the World Café can be defined as a specialized form of focus

¹¹³ See Randstad Holding nv (2018), p.43

¹¹⁴ See Randstad Holding nv (2018), p.43; Yacht (2018), p.1

¹¹⁵ See Randstad Holding nv (2018), p.7,9

¹¹⁶ See Brown and Isaacs (2005), p. ix, 4; Schieffer et al. (2004), p.2

¹¹⁷ See Broom, Brady, Kecskes, and Kildea (2013), p.255; Brown and Isaacs (2005), p. ix, 3-4; Schieffer et al. (2004), p.2; Takahashi et al. (2014), p.88; Teut et al. (2013), p.277

group research.¹¹⁸ The World Café method is however different than focus group research, especially in its design “which distributes sub-research-questions to different tables, having participants randomly rotate between the tables and successively discuss each sub question in small groups”.¹¹⁹ This process allows for a change in composition in the discussion groups not found in classical focus groups, which stimulates the crosspollination of ideas, leading to a richer data collection.¹²⁰

World Café can be used as a methodology when the goal is focused on using dialogue to encourage productive relationships, collaborative learning and collective insight and is founded on the assumption that people, no matter who they are have the capacity to work together.¹²¹ World Café brings people together to jointly discuss and possibly take action on particular topics, classifying World Café as a Large Group Method (LGM).¹²²

Every LGM has several common characteristics that set them apart from other methods. Large group methods allow for conflict to be management, focus on common ground rather than differences and promote a flat hierarchy where participants can come from different stakeholder groups but are encouraged to work together, have a say and interact with each other.¹²³ Those LGM characteristics are partially represented in the seven World Café design principles.

The seven design principles of World Café have been developed to ensure the power of conversation for business and social value is harnessed. The seven principles are (1) setting the context, (2) creating a hospitable space, (3) exploring questions that matter to the participants, (4) encouraging everyone’s contribution, (5) cross-fertilizing and connecting diverse perspectives, (6) listening together for patterns, insights and deeper questions, and (7) harvesting and sharing collective discoveries.¹²⁴

¹¹⁸ See Jorgenson and Steier (2013), p.393; Reichenbachs et al. (2017), p.357; Ritch and Brennan (2010), p.406; Takahashi et al. (2014), p.88

¹¹⁹ Reichenbachs et al. (2017), p.357

¹²⁰ See Fouché and Light (2011), p.46; Reichenbachs et al. (2017), p.357

¹²¹ See Brown and Isaacs (2005), p.ix

¹²² See Jorgenson and Steier (2013), p.400; Takahashi et al. (2014), p.88-89

¹²³ See Fullarton and Palermo (2012), p.111

¹²⁴ See Brown and Isaacs (2005), p.40; Teut et al. (2013), p.277; Broom et al. (2013), p.255

3.2 During a World Café the sub research questions are spread across different tables and knowledge sharing is encouraged.

While setting up a World Café it is important to create a relaxed atmosphere, encouraging conversations between participants.¹²⁵ During a World Café, different topics are distributed across several tables present in the room. To stimulate the conversation no more than six people sit at each table. Participants randomly rotate between the tables in several discussion rounds to discuss successively each topic in a new small discussion group. The participants build open each other's ideas, knowledge and experience. During each discussion round the participants can record their ideas on paper tablecloths, allowing the participants to see and track the conversations as they occur. The tablecloths remain on the table throughout the World Café, creating a record that captures the changing conversation as participants add and modify their ideas and illusions.¹²⁶ There is no limit on the number of tables or the number of rounds that can occur during a World Café.¹²⁷ In general, a World Café consists of three rounds lasting approximately twenty to thirty minutes.¹²⁸

Each table has a volunteer host who remains at the table throughout the discussion round. The host has several tasks during a World Café including helping the participants to focus on the discussion question, encouraging each participant to contribute to the discussion and using colored pens to capture the ideas of the participants on the tablecloths participants.¹²⁹ The host also serves as a connector and link for all discussion rounds by updating the arriving participants at the start of a new discussion round on the previous discussion, reviewing the tablecloth during the process.¹³⁰ It is however, essential that the table host doesn't interfere in the open discussion.¹³¹

End the end of the World Café the different table cloths are reviewed with the whole group and each participant is encouraged to distribute points ("votes"). Points can be given in the form of stickers to the discussion points mentioned on the tablecloths to indicate their

¹²⁵ See Broom et al. (2013), p.255; Brown and Isaacs (2005), p.x; Fullarton and Palermo (2012), p.111-112

¹²⁶ See Schiele, Krummacker, Kowalski, and Hoffmann (2018), p.11-13

¹²⁷ See Brown and Isaacs (2005), p.4; Fullarton and Palermo (2012), p.112

¹²⁸ See Broom et al. (2013), p.255; Brown and Isaacs (2005), p.166; Fullarton and Palermo (2012), p.112; Jorgenson and Steier (2013), p.394; Takahashi et al. (2014), p.90; Teut et al. (2013), p.277

¹²⁹ See Brown and Isaacs (2005), p.166-171; Jorgenson and Steier (2013), p.393; Reichenbachs et al. (2017), p.358; Schiele et al. (2018), p.11-13

¹³⁰ See Broom et al. (2013), p.255-256; Schiele et al. (2018), p.11-13; Teut et al. (2013), p.277

¹³¹ See Broom et al. (2013), p.255-256; Reichenbachs et al. (2017), p.358; Schiele et al. (2018), p.17

importance to the participants.¹³² This will provide a clear indication which discussion point are most important as seen from the perspective of the participants of the World Café.

This research wishes to explore which skills public procurement professionals need to in three specific situations. The World Café methodology were “participants randomly rotate between tables and successively discuss each sub research question in small groups”¹³³ stimulates the crosspollination of ideas, which leads to richer data collection.¹³⁴ The World Café methodology also brings different stakeholders together and ensures knowledge sharing and collaborative dialogue, where conversations are linked to previous conversations leading to the discovery of emerging themes and patterns.¹³⁵ Those themes and patterns emerging from the World Café during the open, yet topic-focused discussion should provide an indication to which skills public procurement professionals need according to experts in the field of public procurement.

3.3 World Café is an effective way of generating input - there is no evidence of the reliability of the method.

The World Café method has been applied in various settings, including different sectors, organizations and contexts and is proven to be an effective way for generating input, simulating innovative thinking and knowledge sharing.¹³⁶ By running multiple rounds, the validity of the emerging constructs is ensured.¹³⁷ However, no scientific literature exist that investigates the reliability of the World Café method.¹³⁸ Although reliability and validity are distinguishable from each other, they are also related because validity presumes reliability. This means that a method cannot be valid if it is not reliable.¹³⁹ Using a homogenous group and consistent topics across multiple World Café session therefore should lead to reliable and consistent outcomes, leading to the following hypothesis:

¹³² See Reichenbachs et al. (2017), p.358; Schiele et al. (2018), p.18

¹³³ Reichenbachs et al. (2017), p.357

¹³⁴ See Fouché and Light (2011), p.29; Reichenbachs et al. (2017), p.357

¹³⁵ See Schiele et al. (2018), p.11-13

¹³⁶ See Broom et al. (2013), p.255; Brown and Isaacs (2005), p. ix, 3-4; Fallon and Connaughton (2016), p.45; Fouché and Light (2011), p.29, 36; Fullarton and Palermo (2012), p.111-112; Reichenbachs et al. (2017), p.358; Ritch and Brennan (2010), p.406; Schieffer et al. (2004), p.2; Schiele et al. (2018), p.11-13; Teut et al. (2013), p.277

¹³⁷ See Reichenbachs et al. (2017), p.358;

¹³⁸ See Fouché and Light (2011), p.36; Takahashi et al. (2014), p.89

¹³⁹ See Bryman and Bell (2015), p.168-173

Hypotheses 1: The World Café methodology will provide reliable consistent outcomes across multiple World Café sessions.

4. Methodology

4.1 Purchasing professionals across the Netherlands participated in a World Café

The research population consists participants that responded an invitation from Yacht to participate in a network session related to public procurement with the theme “Which skills do you need to be successful as a buyer?”. In total, this research includes the results of three different World Café sessions that took place in the three different cities in the Netherlands (Utrecht, Apeldoorn and Groningen) on three different dates in May and June 2018. The research population (n=55) consists of professionals in the field of procurement and/or contract management within the public sector (n=49) and moreover the invitation to join the World Café sessions on public procurement skills also attracted six participants from the private sector, which were interested in the topic. These six private purchasing professionals were spread over the sessions Utrecht (n=2), Apeldoorn (n=1) and Groningen (n=3).

4.2 Measures

This research used two types of measures, participant related information and stickers that indicate the importance of the mentioned discussion points during the different World Cafés.

4.2.1 Participant related information was collected to distinguish if different outcomes of the World Cafés are related to population differences

During the network session participant related information was collected to be able to distinguish if any possible difference between the outcomes of World Cafés are related to differences in the research population per location. Information about the participants was collected in four different categories, namely (1) basic information, (2) work experience and current function, (3) ranking of the importance of six purchasing goals in their current function, and (4) and the degree to which they contribution to the achievement of the six purchasing goals in their current function.

The basic information consists of the gender, age, educational level and individual roadmap of the participants. An individual roadmap of the participant dictates to which table the participant needs to move to during each round of the World Café. This ensures that every table has a minimum number of participants per round, that every participant contributes to the discussion around all three different research question and it facilitates a smooth transition of participants between rounds.

The second category asked the participants about their total work experience and their work experience in purchasing in both the public and private sector measured in years. Participants were also asked to indicate which subdivision of the public or private sector they are currently working in, what their function is and how long they have fulfilled this function.

For the third category the participants of the World Cafés were asked to rank six well known purchasing goals.¹⁴⁰ Those six goals consist of (1) lowering costs, (2) improving quality, (3) purchasing innovation, (4) improving delivery times, (5) sustainability, and (6) supplier satisfaction. The participants were asked to provide a top three of goals that in their opinion are the most important for their current work function. In the final category the participants are asked to indicate, using a five-point Likert scale to what extent they contribute to the six goals in their current work function.

4.2.2. Which skills are the most important is measured by stickers placed by the participants of the World Café?

As previously mentioned, the World Café forms the basis of this research. The World Café method consist of multiple discussion rounds were participants move randomly from table to table through which collaborative dialogue, knowledge sharing, and crosspollination of ideas can be achieved.¹⁴¹ By applying this method, open yet topic-focused discussions took place with each participant to explore which skills public procurement professionals need according to the experts, procurement professionals themselves.

The second measure of this research consists of stickers (votes) that indicate the importance of the mentioned discussion points and statements during the different World Cafés. At the

¹⁴⁰ See Stek (2017), p.9-11

¹⁴¹ See Brown and Isaacs (2005), p.3-4; Reichenbachs et al. (2017), p.357

end of the third and last round of every World Café, every participant had twenty-four small, coloured, round stickers to its disposal to indicate and to vote which discussion outcomes would be most important. Participants were free to choose how many stickers to use and to distribute across the large paper sheets with the three research question-outcomes.

While the World Café is a qualitative method, incorporating the stickers into the World Café methodology enables a certain level of quantification of the data. The number of stickers/votes behind each discussion point indicate the importance of each discussion point from the participants perspective making it possible to prioritize certain discussion points above others. The stickers also provide an indication about which of the three topics they find most important in the public sector; the procurement of innovation, strategic business partner or future success.

4.3 Data was collected during three different network session arranged by Yacht

Data collection took place during the three different network sessions arranged in May and June of 2018 by Yacht in Utrecht, Apeldoorn and Groningen in the Netherlands using both quantitative and qualitative methods, respectively by using a questionnaire and the World Café methodology. During each network session one World Café took place.

The network session had a similar setup at all three locations. Before the start of the network session all the table host were instructed in the World Café methodology and their role during the World Café as described in chapter 3.2. Across the three different locations, there were 11 different table hosts. Each table host was given both a verbal and written instruction to ensure that they had all the knowledge to successful lead the discussion during the World Café rounds.

After welcoming the participants present at the network session all the participants were asked to fill in the previously mentioned questionnaire. After filling and handing in the questionnaires the World Café started.

During the World Cafés in Apeldoorn (n=21) and Groningen (n=19), the three different sub-research-questions were distributed across six different tables in two parallel sessions in order to limit the number of participants per table to a maximum of five per table. In Utrecht

(n=15), the sub-research-questions were distributed across three different tables because of a lower number of participants. Every World Café consisted of three rounds and participants moved according to a prescribed personalised plan (individual roadmap) from table to table to ensure that every participant contributed to the discussion around all the three research questions. The first round lasted 20 minutes and the second and third round lasted 15 minutes.

After all the three rounds of the World Café were finished, the sheets of paper present at every table with the results of the three rounds were displayed across the room. The table host then summarized the discussion points mentioned during the three different rounds to all the participants. Following this short presentation, the participants were provided with 24 stickers. The participants were invited to place the stickers to 'vote' for the 'most important' discussion points and statements that were written down on flip-over paper sheets. Participants were free to choose how many stickers of the twenty-four they wanted to use and how they wanted to distribute them across the three topics; the procurement of innovation, strategic business partner and future success. These sheets with the votes are the basis for the further analysis.

After the participants placed their votes/stickers behind the different discussion points, the participants were given feedback on two of the measures mentioned in the questionnaire; the ranking of the six purchasing goals in their importance for the participants current work function and to which degree the participants contribute to the achievement of the six purchasing goals in their current work function. For every research question, the discussion points that were given the most stickers were also shortly discussed with the participants. The feedback provided at the end of the network session gave the participants an indication in how they differed from the participants of the other locations and provided the participants with immediate feedback about the main results of the evening.

4.4 The results of the different World Cafés were analyzed per research question

The data collected by the questionnaire and the results the different World Cafés were digitalized for further analysis. Before any analysis was performed on the outcomes of the different World Café's, the mentioned discussion points were checked on similarities. For every research question, coding was used to group similar discussion points together into

one discussion point or statement. To limit the influence of the different table hosts (n=11) on the formulation of the different discussion points, coding took place per research question. Variation in terminology used by the different table hosts and participants were subject of discussion during the plenary presentation of the flip-over sheets. Coding of the different outcomes of the World Cafés was conducted after all World Cafés were performed.

Analyses were performed to provide an overview of all the different discussion points and the number of votes the discussion points received per location and research question. To provide an answer to the three formulated research questions and to test the hypothesis that the World Café methodology will provide reliable consistent outcomes across multiple World Café sessions a top ten of the discussion points/skills with the most stickers (votes) was made per location and research question.

The discussion points were also classified using the taxonomy described by Tassabehji and Moorhouse (2008) to identify if the participants of the three locations identify the same type of skills as important in relation to three formulated research questions.¹⁴² Although the taxonomy of Tassabehji and Moorhouse (2008) is a measure to categorize skills in private purchasing and supply management it has been chosen for two reasons. Firstly, a public procurement skills taxonomy is not available in scientific literature. Secondly, it is probably the most elaborate model and is in line with other research in purchasing and supply management skills.¹⁴³

The data derived from the questionnaires was then used to identify whether differences in the top-10 skills per location could be explained by differences in the research population per location. Based on the type of information that was collected, both continuous and categorical variables, a one-way ANOVA and Pearson Chi-square statistical test was performed to identify group differences. An ANOVA analysis was performed to identify significant difference between the participants age and work experience per location. During the one-way ANOVA missing values were excluded analysis by analysis.

¹⁴² See Tassabehji and Moorhouse (2008), p.59

¹⁴³ See Carr and Smeltzer (2000), p.46; Cousins, Giunipero, Handfield, and Eltantawy (2006), p.836; Cousins, Lawson, et al. (2006), p.787-789; Feisel et al. (2011), p.55-56; Giunipero, Denslow, and Eltantawy (2005), p.604, 609-612; Tatham et al. (2017), 269-270, 280-281

In addition to the ANOVA, a Pearson Chi-Square analyses was performed on the categorical variables gender, educational level, current workplace, and the degree to which the participants contribute to the six purchasing goals to ensure all possible significant difference between the participants at the different locations were identified. The ANOVA and the Pearson Chi-square test make it possible to determine if the research population per World Café location significantly differ from each other on those continuous and categorical variables. Equal research populations are preferred to ensure that any variation in the top-10 skills per location cannot be attributed to the difference in research population.

5. Results

5.1 The research population consist of a diverse group of procurement professionals

Across the three network sessions organized by Yacht in Utrecht, Apeldoorn and Groningen, 55 professionals that work in the field of purchasing and contract management participated in three different World Cafés. The demographics of the research population per location are provided in table 1. During every network session various age groups were represented by the participants, with the participants age ranging from 28 to 66 years with an average age of around 45 years across the three locations. Most of the participants were male and almost all the participants completed an HBO education or higher. The participants have specialized in many different areas during their education, only 14 participants indicated to have a formal education in procurement.

While the research questions of this research are focused on the skills procurement professionals need to operate in the public sector, not all the participants are currently working in the public sector. From the 55 participants included in this research, six participants work in the private sector and two participants indicated to work both in the private and public sector. Most of the participants that are currently working in the public sector work for the municipalities or government as shown in table 16 of appendix 1. When the participants were asked to describe their current work function, 33 different titles were mentioned indicating a very diverse work field.

In the questionnaire, the participants were also asked about their work experience in procurement. While all the participants have work experience, not all of them have experience in either public and/or private sector purchasing; 39 participants have experience in private sector purchasing and 49 participants have experience in public sector procurement. A more detailed overview of the participants education, current place of work, work function and work experience can be found in appendix 1.

Table 1

Demographics of the research population per location

		Utrecht	Apeldoorn	Groningen
Age (in years)	Minimum	32*	28*	28
	Maximum	66*	58*	62
	Mean	47,92*	44,52*	43,10
	Std. dev.	11,24*	9,50*	11,25
Gender	Male	12	12	16
	Female	3	9	3
Highest completed education	Vocational	0	1	0
	University of Applied Sciences	9	13	12
	Academic BA of Bsc	2	0	2
	Academic MA of Msc	4	5	5
	PhD	0	2	0

* Missing data

5.2 The participants find improving quality the most important purchasing goal and contribute the most to supplier satisfaction

At the end of every network session, the participants were provided with feedback about how the current (and previous) participants ranked the six purchasing goals based on their importance for the participants current work function. Across all the three locations, Utrecht, Apeldoorn and Groningen the participants indicated that improving quality is the most important purchasing goal in their current work function; it was mentioned the most by the participants in the top three most important purchasing goals as shown in figure 1. The purchasing goals lowering costs and purchasing of innovations complete the overall top-3 of most important purchasing goals in the current work function of all participants.

The purchasing goals improving quality, lowering cost and purchasing of innovation together also form the top 3 most important purchasing goals in the current work function

for the participants present in Utrecht and Groningen. The participants in Apeldoorn have formulated a slightly different top-3 of most important purchasing goals in their current work function. The top-3 of the participants of Apeldoorn consist of the purchasing goals improving quality, sustainability and lowering costs. The participants vary too much in their current work function to provide a possible explanation why this difference exists. However, it seems that the purchasing goals improving quality, lowering cost are important goals regardless of the participants current work function.

Participants were also provided feedback on the degree to which they contribute to the achievement of the various purchasing goals. The participants in Utrecht and Groningen indicate that they contribute the most to the achievement of supplier satisfaction, while the participants in Apeldoorn contribute the most to improving quality closely followed by supplier satisfaction as shown in figure 2. Improving quality is also the purchasing goal the participants in Utrecht and Groningen contribute to the most besides supplier satisfaction. Therefore, it seems that across all the locations the participants contribute the most to supplier satisfaction and improving quality in their current work function.

The difference in the participants contribution to achieving the six different purchasing goals could possibly be attributed to the difference focusses of the participants per location. For example, most of the participants in Apeldoorn work in the healthcare sector. Since quality is very important in healthcare, it seems logical that the participants in Apeldoorn contribute more to increasing the quality of the purchased goods with their suppliers.

Figure 1

Percentage of how many times a purchasing goal is ranked in the top 3 most important purchasing goals by the participants per location

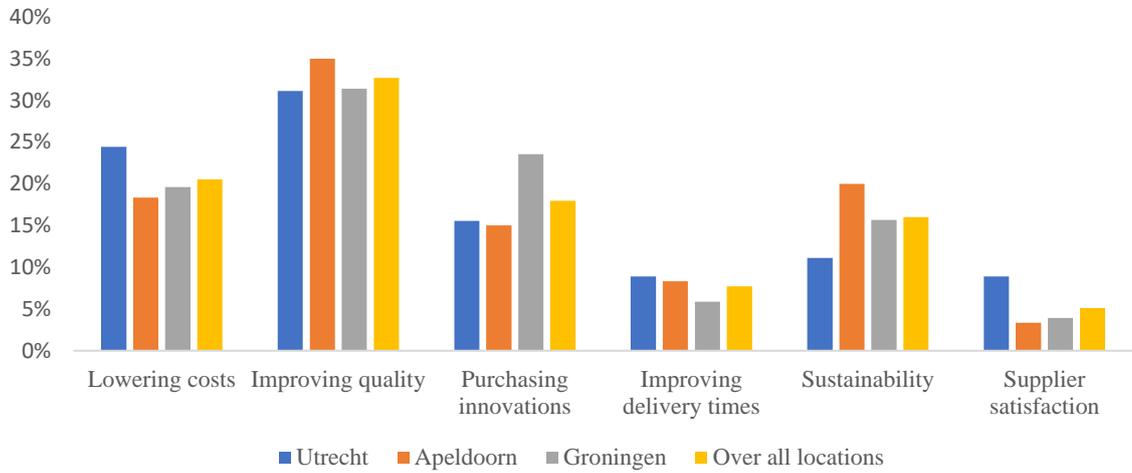
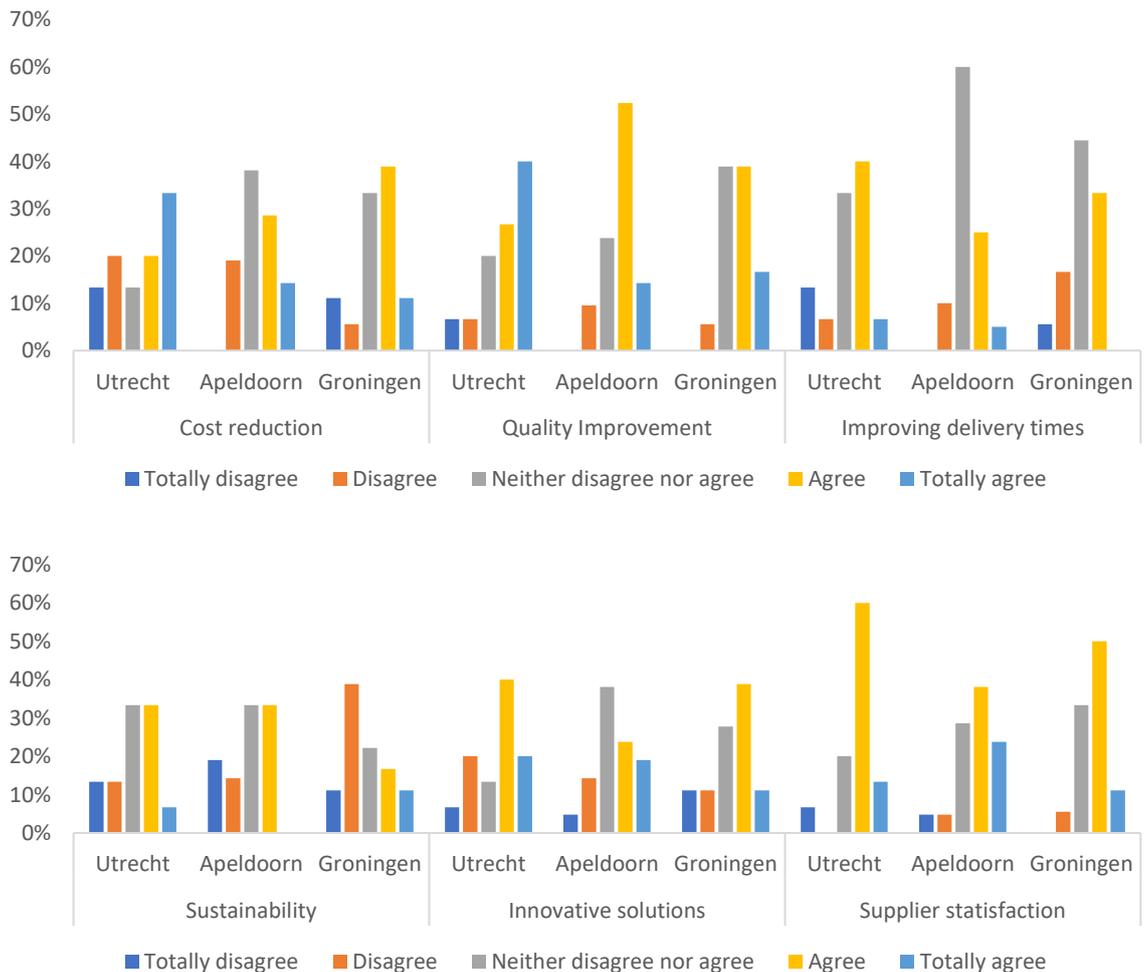


Figure 2

Distribution of participants contribution to the six purchasing goals in their current work function.



5.3 Three World Cafes took place - 361 different skills were mentioned

As previously mentioned, during the network session in Utrecht three tables were set-up across the room. During the evening all participants contributed to the discussion of all three tables and the participants were asked to distribute their stickers across the three sheets of paper with the discussion points mentioned during the three different rounds of the World Café.

In Apeldoorn and Groningen six tables were set-up across the room. During the evening the participants contributed to the discussion of three different tables, with each another topic. Since this research includes three research question, the participants contributed to the discussion around all three research questions. After the rounds of the World Café, the participants were asked to place their stickers across six different sheets of paper; two sheets of paper for each research question. Since the participants in Apeldoorn and Groningen were not separated in two different World Café's and the participants were free to place their stickers across all sheets of paper, only one World Café took place. This research thus includes the results of three different World Café sessions.

The different World Café's resulted in five different sheets of papers full of discussion points that are important for the procurement of innovations, to change from a traditional buyer to a strategic business partner for the internal client and for a public procurement professional to be successful in the future.

Table 2 and 3 indicate that 361 individual discussion points were written down by the table hosts during the three different World Café's and that 1.277 stickers were placed behind those 361 discussion points by the participants to indicate the importance of the discussion point toward answering one of the three research question. Overall, the number of discussion points and stickers (votes) are relatively equally distributed across the three topics. However, there are differences in the number of discussion points that were written down per location and the number of stickers/votes that are placed by the participants per location. This can be attributed to the difference in the number of participants and the number of tables that were used in Utrecht compared to Apeldoorn and Groningen. The distribution of stickers across the different discussion points will be examined further in section 5.4.1.

Table 2

Total number of discussion points written down per World Café and per research question.

	Procurement of innovation	Strategic business partner	Future success	Total
Utrecht	23	30	17	70
Apeldoorn	42	54	46	142
Groningen	37	49	63	149
Total	102	133	126	361

Table 3

Total number of stickers placed behind all discussion points per World Cafe and research question.

	Procurement of innovation	Strategic business partner	Future success	Total
Utrecht	125	116	114	355
Apeldoorn	168	158	150	476
Groningen	139	155	152	446
Total	432	429	416	1.277

After the initial analysis of the discussion points and the distribution of stickers open coding was used to group similar discussion points together. Over all the three locations, 64, 88 and 95 different discussion points/statements were mentioned related to respectively the three research topics; procurement of innovation, strategic business partner and future success.

5.3.1 To procure innovations professionals need to have courage, entrepreneurship and to be able to think outside of the box

During the World Cafes 64 different discussion points related to the procurement of innovation were mentioned, of which 54 discussion points received stickers by the participants. Table 4 provides an overview of the top-10 discussion points that have gotten the most stickers/votes by the participants across all three locations. The discussion points in this top-10 received 255 stickers, which is equal to 59,03% of all the stickers placed behind the discussion points related to the procurement of innovation.

The top-10 mentioned in table 4 shows that a public procurement professional first and foremost needs to have courage and a sense of entrepreneurship to be able to identify and acquire innovations from the market. The professionals also need to be able to hold a dialogue or open discussion with the market and needs to have certain salesmanship skills to sell purchasing to the market and other interested parties. Another important skill that the

public procurement professional needs to identify and acquire innovation from the market is the ability to be creative and to think outside of the box. Outside of the box thinking creates room for innovation, indicating that outside of the box thinking together with creativity and early procurement involvement are needed to enable the procurement of innovation. Furthermore, the public procurement professional needs to be persuasive, have sufficient communication and networking skills and knowledge about laws and regulations.

Table 4

Top-10 skills public procurement professionals need to identify and acquire innovations in the market

	Discussion point	Percentage of stickers	Classification
1	Courage, entrepreneurship	12,27	IS
2	Dialogue/ open discussion with the market. Challenging and experiment	5,79	EE
3	Early procurement involvement	4,86	IE
4	Out of the box thinking	4,86	IS
5	Communication skills	4,86	IS
6	Organization sensitivity	4,63	IS
7	Creativity	4,40	IS
8	Knowledge of laws and regulations	3,70	TS
9	Networking skills	3,47	IS
10	Persuasiveness	3,47	IS
11	Salesmanship, ability to sell purchasing	3,47	IS
	Total percentage	59,03%	

5.3.2 To become a strategic business partner, professionals need to be proactive, decisive, curious and able to identify the real need

During the three World Café's 88 different discussion points were written down by the table hosts around the research question which skills public procurement professionals need to change from a classical buyer to a strategic business partner for the internal client. Of those 88 discussion points, 63 received votes by the participants.

Table 5 provides an overview of the discussion points that have received the highest number of votes/stickers across all the three locations and thus provides an answer to the question

which skills public procurement professionals need to change from a classical buyer to a strategic business partner for the internal client. This table indicates that the procurement professionals need to have a proactive attitude and take initiative while working with the internal client. Having the knowledge and skills to be able to distinguish the real need is also very important for the public procurement professional. Being decisive, curious and thorough when asking the client about their needs can help in identifying the real need of the internal client. Public procurement professionals also need to be able to be creative and have knowledge about the possibilities to color outside the lines. Courage and a sense of entrepreneurship to implement their creativity is also needed when a public procurement professional wants to change from a traditional buyer to a strategic business partner for the internal client.

The top-10 mentioned in table 5 also suggests that for a procurement professional to change from a traditional buyer to a strategic business partner for the internal client the procurement department and its professionals need to be seen as a worthy, strategic and/or full-fledged discussion partner by the internal client. This indicates that the status the procurement department has relative to the internal client needs to increase. A possible way to increase the status of the procurement department is by increasing the mutual appreciation between the purchasing professional and the internal client. This can be done by early involvement and communication between the procurement department and internal client, by working in multidisciplinary teams or by for example doing an internship by the internal client.

Therefore, for a public procurement professional to change from a traditional buyer to a strategic business partner for the internal client the professional doesn't only need the skills mentioned previously but also needs to be involved early in the procurement process and work in multidisciplinary teams.

Table 5

Top-10 skills public procurement professionals need to change from a classic buyer to a strategic business partner

	Discussion point	Percentage of stickers	Classification
1	Proactive attitude, showing/taking initiative	8,62	IS
2	Skills and knowledge to be able to distinguish the real need	6,99	IS
3	Working in multidisciplinary teams	5,59	IE
4	Decisive, thorough and curious when asking questions	4,20	IS
5	Early procurement involvement and communication	3,73	IE
6	Knowledge about the possibilities to step outside of the box	3,73	IS
7	Creativity, courage and entrepreneurship	3,03	IS
8	Being a worthy, strategic and full-fledged discussion partner	2,56	IS
9	Possibility to leave the desk, for example doing an internship within the company	2,56	IE
10	Stubbornness	2,33	IS
	Total percentage	44,64	

5.3.3. To be successful in the future, professionals need to have IT skills, be able to think in opportunities and to translate vision

During the three different World Cafés the research question about which skills public procurement professionals need to be successful in the future received the lowest number of stickers; 416 stickers were placed behind 72 of the 95 discussion points that were written down during the three different World Café sessions.

Combining all the similar discussion points mentioned during the different World provided the top-10 skills mentioned in table 6. This tables shows that a public procurement professional needs a diverse set of skills to be successful in the future including IT, analyzing, connecting, social and communication skills. Several different aspects of IT were mentioned and given stickers by the participants during the different World Cafés such as the ability to use artificial intelligence (AI) applications and blockchain but also the knowledge and ability to use data and the ability to direct IT processes. All those IT related discussion points were grouped together in one discussion point related to IT skills. This discussion point was given the highest number of stickers especially by the participants of the network sessions in Utrecht and Apeldoorn.

Beside the big variety of IT skills, the public procurement professional also needs to be able to translate the companies' vision into actions, see and think in opportunities and needs to be able to focus on sustainability and to think circular. Furthermore, the ability to adapt to different circumstances is very important if the public procurement professional wants to be successful in the future.

A discussion point that made the top-10 based on the number of stickers/votes but led to discussion among the research population is the merging of purchasing and contract management. During the short discussion with the participants after the stickers ("votes") were placed, the participants present at Apeldoorn and Groningen mentioned that they do not agree with the viewpoint of merging purchasing and contract management. However, this discussion point received the second highest number of votes after IT skills in Utrecht and therefore receives a place in the top-10 as a condition so that the public procurement professional can be successful in the future.

Table 6

Top-10 skills public procurement professionals need to be successful in the future

	Discussion point	Percentage of stickers	Classification
1	IT skills	13,70	TS
2	Thinking in opportunities, seeing opportunities	5,77	SB
3	Connecting skills	5,77	IS
4	Analyzing skills, ability to make connections	5,29	TS
5	Ability to go from risk-avoiding to risk-controlling	4,57	SB
6	Merging purchasing and contract management	4,09	IE
7	Ability to translate vision	3,61	SB
8	Social/ communication skills	2,88	IS
9	Focus on sustainability, ability to think circular	2,64	SB
10	Change management and adaptability.	2,64	IS
	Total percentage	50,96	

5.4 Three World Cafes took place with minimal overlap between the outcomes per World Cafe

5.4.1. Only 25,91 percent of all the discussion points/skills are mentioned at more than one World Café.

To be able to distinguish any difference between the discussion points that were mentioned and given stickers by the participants a thorough analysis of the discussion points and the distribution of stickers per location is needed. Table 7 provides an overview of the number of discussion points that are mentioned at one or multiple locations. This table indicates that on average 25,91 percent (std. dev. 4,93 percent) of all the discussion points are mentioned at more than one location. A discussion point can be mentioned at multiple locations; however, it does not mean that a discussion point also received votes from the participants of the various locations.

Of all the discussion points mentioned during the World Cafés around the topic procurement of innovation only 7,81 percent of the discussion points received votes from the participant of all three locations. This percentage is even lower for the topics strategic business partner and future success. For those two topics only three discussion points, respectively 3,41 percent and 3,16 percent of all the discussion points related to the topics strategic business partner and future success were given sticker by the participants of all three locations.

The discussion points that have received stickers by the participants of all three locations received enough stickers to be represented in the top 10 skills per research question. The participant of all three location are thus in agreement that certain skills are essential for the public procurement professional to identify and acquire innovations from the market, to change from a traditional buyer to a strategic business partner for the internal client and to be successful in the future.

In the distribution of stickers/votes across the different discussion points a pattern can be found. Across all the three research questions more than 50 percent of the total number of stickers placed behind the discussion points related to the topic, are placed behind discussion points that are mentioned at more than one location by the participants. This implies that more than 50 percent of the stickers are placed behind the minority of all the discussion points mentioned by the different participants, as shown in table 7. An ANOVA analysis

was performed to identify if the number of stickers placed behind the discussion points that are mentioned at multiple locations is significantly different (higher or lower) than the number of stickers placed behind the discussion points that are only mentioned at one location. The results of the ANOVA analysis, as shown in table 8 indicate that discussion points that are mentioned at multiple locations received significantly more stickers/votes by the participants. Those discussion points are therefore important in their contribution to answering the research questions.

The finding that discussion points that are mentioned at multiple locations receive more stickers than the discussion points that are only mentioned at one location is also supported by the overall top-10 of skills public procurement professionals need to firstly identify and acquire innovations from the market, secondly to change from a traditional buyer to a strategic business partner for the internal client and thirdly to be successful in the future as represented in table 4 till 6. On average 73,64 percent (standard deviation of 15,77 percent) of all the discussion points mentioned in those overall top-10 skills per research question have received stickers at multiple locations.

Table 7

Number of discussion points that are mentioned at one or multiple locations

	Total number of discussion points		Number of discussion points	
	Mentioned at multiple locations	Mentioned at one location	In the top 10 at multiple locations	In the top 10 of one location
Procurement of innovation	18	46	8	19
Strategic business partner	27	61	2	26
Future success	19	76	8	22

Table 8

Results one-way ANOVA, number of stickers given to discussion points mentioned at one location versus number of stickers given to discussion points mentioned at multiple locations

		Sum of Squares	p-value
Procurement of innovation	Between Groups	2300,000	0,000
	Within Groups	3054,000	
	Total	5354,000	
Strategic business partner	Between Groups	576,516	0,000
	Within Groups	3128,609	
	Total	3705,125	
Future success	Between Groups	1516,003	0,000
	Within Groups	3900,355	
	Total	5416,358	

5.4.2 Top-10 per location - less than 30 percent of the discussion points/skills correspond with each other

To identify if the participants of the various locations mention and give stickers/votes to the same discussion points a top-10 skills per location is derived for each research question. If the participants of the different World Café sessions mentioned and placed stickers behind the same discussion points, the top-10 skills per location should be comparable suggesting that the World Café method provides similar results at different locations. The top-10 skills public procurement professionals need to be able to identify and acquire innovation from the market per location is presented in table 9. Skills/discussion points that are represented in the top-10 in more than one location are highlighted in grey tones. Similar tables for the topic strategic business partner and future success can be found in appendix 2.

Table 9

Top-10 skills per location to identify and acquire innovations in the market

	Utrecht		Apeldoorn		Groningen	
	Discussion point	%	Discussion point	%	Discussion point	%
1	Courage and entrepreneurship (IS)	19,20	Communication skills (IS)	9,52	Early procurement involvement (IE)	17,27
2	Dialogue with the market. Challenging and experiment (EE)	16,00	Knowledge of laws and regulations (TS)	9,52	Courage and entrepreneurship (IS)	13,67
3	Out of the box thinking (IS)	8,80	Persuasiveness (IS)	8,93	Organisational sensitivity (IS)	5,76
4	Networking and relationship skills (IS)	8,80	Salesmanship skills (IS)	8,93	Creativity (IS)	5,04
5	Being realistic (IS)	8,80	Organisational sensitivity (IS)	7,74	Ability to make a problem and need assessment (TS)	5,04
6	Critical thinking (IS)	8,80	Courage and entrepreneurship (IS)	5,95	Make yourself a preferred customer (SB)	4,32
7	Creativity (IS)	6,40	Persistent in asking questions (IS)	5,36	Conscious incompetence (IS)	4,32
8	Ability to think along with others/market (IS)	5,60	Out of the box thinking (IS)	4,76	Dialogue with the market. Challenging and experiment (EE)	3,60
9	Consultancy skills (IS)	4,80	Creating commitment and support (IS)	4,76	Communication skills (IS)	3,60
10	Curious and willing to learn (IS)	2,40	Perseverance and endurance (IS)	4,17	Creating commitment and support (IS)	3,60
	Thinking in opportunities (SB)	2,40			Social skills (IS)	3,60
	Proactive attitude (IS)	2,40			Curious and willing to learn (IS)	3,60
					Ability to add value (SB)	3,60
					Ability to make risk analysis (SB)	3,60

The topics procurement of innovation and future success have the highest number of matching discussion points in the top-10 skills per location as indicated in table 9 and table 18 in appendix 2. For both topics, eight skills are represented in the top-10 of more than one location, which means that eight skills are either mentioned at Utrecht and Apeldoorn or Utrecht and Groningen or Apeldoorn and Groningen. Almost all the eight matching discussion points are represented in the overall top-10 skills public procurement professionals need to identify and acquire innovations and the overall top-10 skills public procurement professionals need to be successful in the future. For the topic strategic business partner only two discussion points are given enough stickers to be represented in the top-10 skills of multiple locations and in the overall top-10 skills public procurement professionals need to change from a traditional buyer to a strategic business partner for the internal client.

For the topic's procurement of innovation and future success respectively 29,63 percent and 26,67 percent of all the discussion points mentioned in the different top-10 skills per location correspond to each other. This percentage is lower for the topic strategic business partner; only 7,14 percent of all the skills/discussion points mentioned in the different top-10 skills per location are equal. The relatively low percentage of matching discussion points in the different top-10 skills per location suggests that discussion points mentioned in the different top-10 skills per location are not completely comparable with each other.

5.4.3 The same type of skills is mentioned by the participants of the different World Cafes
All the skills/discussion points mentioned in a top-10, either the overall top-10 that combines the discussion points and stickers across all three locations or the top-10 discussion points per location, are classified using the skills taxonomy described by Tassabehji and Moorhouse (2008). This taxonomy classifies procurement skills into five different categories; technical skills (TS), interpersonal skills (IS), internal enterprise skills (IE), external enterprise skills (EE) and strategic business skills (SB)¹⁴⁴ and is explained in section 2.3.1. A small recap of what the different skills entail can be found in Table 10.

¹⁴⁴ See Tassabehji and Moorhouse (2008), p.59

Table 10

Difference between the five categories of purchasing skills.

Technical skills (TS): Fundamental and basic administrative skills any purchasing professional needs and include product- and technical knowledge, total-quality-management (TQM), knowledge of laws and regulations, category management, project planning and e-procurement.

Interpersonal skills (IS): Interpersonal skills are required for effective procurement management and include skills necessary for interaction with other people in teams or on individual level.

Internal enterprise skills (IE): Internal enterprise skills relate to the overall business and how different functions interact and work together in the overall business

External enterprise skills (EE): External enterprise skills relate to the suppliers, supply chain and its stakeholders

Strategic business skills (SB): Strategic business skills relate to broader strategic issues and on how procurement can impact the overall value creation in the organization.¹⁴⁵

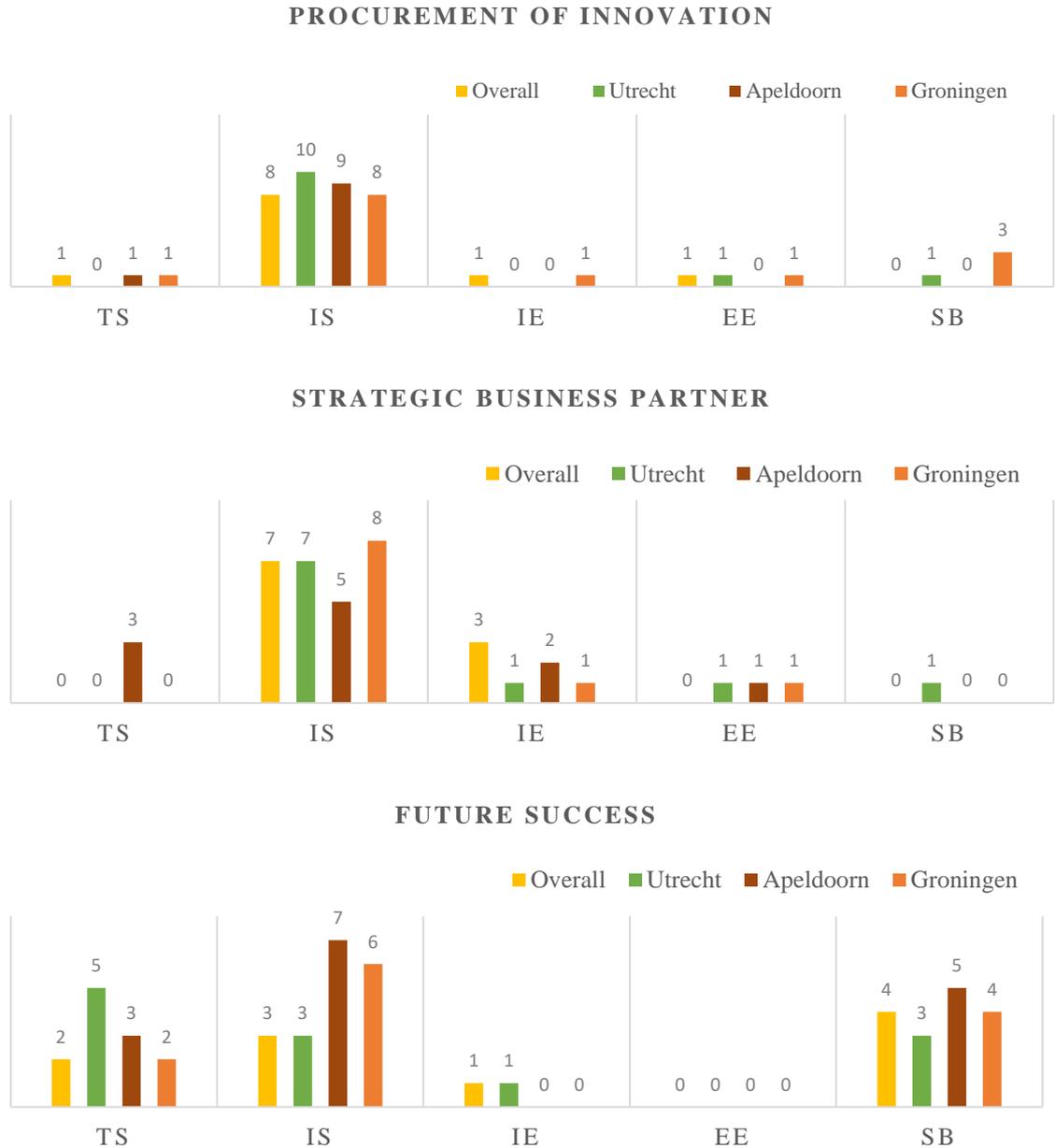
Figure 3 provides an overview of how often a skill was mentioned in the top-10 skills per location and the overall top-10 skills per research question. This figure shows that the topics procurement of innovation and stakeholder business partner can be linked with many interpersonal skills. Across all the three locations, the participants mentioned and gave the most stickers to interpersonal skills. Interpersonal skills are also mentioned the most in the overall top-10 skills public procurement professionals need to identify and acquire innovations from the market and the overall top-10 skills public procurement professionals need to change from a traditional buyer to a strategic business partner for the internal client.

For the topic future success, various skills are represented in the top-10 skills per location. Technical, interpersonal and strategic business skills are all mentioned in the top-10 skills at Utrecht, Apeldoorn and Groningen but there is a difference in which type of skill is represented the most in the top-10 skills per location. Interpersonal skills are mentioned the most in Apeldoorn and Groningen, while technical skills are mentioned more often in Utrecht. However, in the overall top-10 skills public procurement professionals need to be successful in the future, strategic business skills are mentioned the most. This all indicates that the participants find various skills important for future success.

¹⁴⁵ See Tassabehji and Moorhouse (2008), p.59

Figure 3

The number of times a skill category is mentioned in the top-10 skills per location and research question



5.4.4 The research population at the three locations significantly differ in their current place of employment

At every location, different discussion points were mentioned and given stickers/votes by the participants of the World Café. To investigate if those differences are related to the participants present at the three locations, participant related data was gathered by a questionnaire and analyzed using an ANOVA and a Pearson Chi-square test.

A one-way ANOVA was performed with the continuous variables age and years of work experience as the dependent variable and the location as independent variable. Table 11 provides an overview of the results which indicate that there is no significant difference between the continuous variables age, total years of work experience, years of work experience in private sector purchasing and years of work experience in public sector purchasing per location. Table 19 in appendix 3 also indicates that a MANOVA will not provide additional information about possible differences in the research population per location, indicating that there are no mean differences in the continuous dependent variables across the multiple locations.

After the one-way ANOVA, a Pearson Chi-square statistical test was performed on the categorical variables gender, highest completed educational level, education specialization, place of work and on the success the participants have in achieving the previously mentioned six purchasing goals. The results given in table 12 indicate that the categorical variables are independent of location except for the participants' current place of employment. According to the Pearson Chi-square there is a significant difference (p -value $<0,05$) in the participants' current workplace across the three different locations. As indicated in table 16 most of the participants of the World Café sessions in Utrecht work for the government, while most of the participants in Apeldoorn work in the healthcare sector and many of the participants in Groningen work for the municipality. Across all other categorical variables, the Pearson Chi-square test found no significant differences across the research population per location.

Table 11

Results one-way ANOVA

		Sum of Squares	p-value
Age	Between Groups	192,237	,434
	Within Groups	5549,455	
	Total	5741,692	
Total work experience in years	Between Groups	266,935	,321
	Within Groups	5974,992	
	Total	6241,927	
Years of work experience in private purchasing	Between Groups	115,071	,510
	Within Groups	4381,229	
	Total	4496,300	
Years of work experience in public procurement	Between Groups	62,546	,570
	Within Groups	2859,590	
	Total	2922,136	

Table 12

Results Pearson Chi-square

	Pearson Chi-Square		N
	Value	p-value	
Gender	4,235	0,120	55
Highest completed educational level	7,469	0,487	55
Education Specialization	44,930	0,273	46
Place of employment	49,711	0,040	55
Success in lowering costs	9,616	0,293	54
Success in improving quality	8,489	0,387	54
Success in improving delivery times	6,506	0,591	53
Success in sustainability	7,721	0,461	54
Success in purchasing innovations	4,360	0,823	54
Success in supplier satisfaction	4,370	0,822	54

* variables in which the condition for the Chi-square test was met

6. Conclusion

6.1. The modern public procurement professional primarily needs interpersonal skills

The skills require of purchasing professionals have changed considerably over the last few years. As a result of the increasing strategic focus of purchasing and supply chain management the role of a purchasing professional has increased to include activities such as supplier development, cost analysis, sourcing strategy formulation, outsourcing decisions and risk management.¹⁴⁶ Those changes make the development of different skills and competencies to manage the changes within the organizational environment essential.¹⁴⁷

Purchasing professional not only need to adapt their knowledge, skills and competencies to be able to handle the increasing strategic role of purchasing but also to deal with other challenges in the public sector. This research focuses on three different challenges public procurement professionals face in their work field. The first challenge public procurement professionals face is how to identify and acquire innovations from the market while adhering to the European rules and regulations imposed on public sector purchasing. This research has found that the public procurement professional need numerous interpersonal skills to be able to successfully identify and acquire innovations from the market. Interpersonal skill such as “communication skills”, “ability to have an open dialogue with the market”, “networking skills”, “courage and entrepreneurship”, “persuasiveness”, “organizational sensitivity”, “creativity” and “out of the box thinking” are all skills public procurement professional need. Early involvement of purchasing department and knowledge of laws and regulation are also important preconditions for the successful procurement of innovation.

The second challenge public procurement professionals face is the low status of the purchasing department within the organization.¹⁴⁸ The low status hinders the purchasing department in its contribution to the organizational strategy and goals but also in its contribution to overall cost savings and its service to the internal client. Therefore, it is important that the purchasing department becomes a strategic business partner to the internal client. The skills public procurement professionals need to change from a traditional buyer

¹⁴⁶ See Cousins, Lawson, et al. (2006), p.778-779; Feisel et al. (2011), p.54; Giunipero et al. (2006), p.824

¹⁴⁷ See Cousins, Lawson, et al. (2006), p.778-779

¹⁴⁸ See Patrucco, Luzzini, and Ronchi (2017a), p.233

to a strategic business partner also primarily include interpersonal skills. Professionals need to be “decisive, thorough and curious while asking questions”, “must be able to identify the real need of the internal client” and be “creative”, have “courage” and a sense of “entrepreneurship”. Working in multidisciplinary teams, early procurement involvement and the option of doing an internship at the internal client are all ways to increase the chance of becoming a strategic business partner for the internal clients.

The last research question does not focus on a current challenge public procurement professionals face but on future challenges. Changing demographics such as an aging population and increased digitalization are challenges the public procurement professional must deal with in the future. Knowledge about which skills professionals will need in the future increases the efficiency of training and educational programs but also enables the public procurement professional to anticipate and be more prepared to deal with those challenges when they arise, increasing their value on the job market. For public procurement professionals to be successful in the future they will need to combine strategic business skills with a mix of technical and interpersonal skills. IT skills, analyzing skills, connecting skills, social and communication skills are all skills public procurement professionals need combined with the ability to “translate the organizational vision”, “think circular and sustainable” and “see and think in opportunities”.

Combining the skills public procurement professionals need to identify and acquire innovations in the market, with the skills needed to change from a traditional buyer to a strategic business partner and the skills public professionals need to be successful in the future leads to a profile of the modern purchasing professional. This purchasing professional has an entrepreneurial, communicative and strategic profile. “Courage”, whether or not combined with “entrepreneurship”, “creativity”, “out of the box thinking” and “decisiveness” are skills that belong to the entrepreneurial profile of the modern purchaser in the public sector. The modern purchaser is “social”, “communicative”, “organizational sensitive” and knows “how to involve purchasing in the process”. The modern is also a strategist, who can “think in opportunities”, who can “translate vision” and who thinks “circular and takes sustainability into account”.

6.2 No conclusion can be given about the reliability of the World Café methodology

The results in this research are obtained using the World Café methodology. A World Café brings stakeholders, in this case purchasing professionals, together to share knowledge and to create dialogue around questions that matter.¹⁴⁹ The validity of the outcomes of the World Café method is ensured by doing multiple round per World Café¹⁵⁰, but no scientific literature exist that proves the reliability of the World Café method. Since a method cannot be valid if it is not reliable¹⁵¹ the hypothesis was formed that the World Café methodology will provide reliable consistent outcomes across multiple World Café sessions.

The results of the multiple World Café sessions indicate that the World Café method correctly identifies which skills the participants find important to either identify and acquire innovations from the market, to change to a strategic business partner to the internal client or to be successful in the future as indicated by the number of stickers/votes placed behind the skills mentioned during the three different World Café sessions across the three different locations.

Variation does exist in which skills the participants find the most important per location. As shown by the top-10 skills per location there is minimal overlap between the results of all three World Cafes. During the three World Cafés around the topic procurement of innovation and strategic business partner only one skill is given enough votes by the participants of all three locations to be represented in the top-10 skills of all three locations.

There is more overlap when the results of two World Cafés are compared with each other. However the percentage of overlap between World Cafés is not more than 29,63 percent, which indicates that the participants of the three different World Café mentioned and prioritized different skills when asked which skills public procurement professionals need to identify and acquire innovations from the market, to change from a traditional buyer to a strategic business partner for the internal client and to be successful in the future.

¹⁴⁹ See Brown and Isaacs (2005), p. ix, 4; Schieffer et al. (2004), p.2

¹⁵⁰ See Reichenbachs et al. (2017), p.358

¹⁵¹ See Bryman and Bell (2015), p.168-173

During the analysis of the participants across the three locations, it was found that the research population at the three different locations are not completely comparable with each other. The participants present at the three different location significantly differ from each other in their current place of employment. This significant finding is not sufficient to explain the variation across the three World Cafés.

The variation in the top-10 skills per location combined with the significant difference between the participants per location make it impossible to support the hypotheses that the World Café methodology provides consistent reliable results across multiple World Café session. However, the low number of participants and the low number of World Café sessions included in this research does not warrant the rejection of the hypothesis. Therefore, based on the results of this research, no clear conclusion can be given about the World Café method as a reliable consists instrument for explorative, qualitative research.

7. Discussion

7.1 The skills mentioned in this research complements and elaborated on previous research

According to Mogre et al. (2017) public sector purchasing has been insufficiently studied and often overlooks the competencies individuals need for public procurement.¹⁵² If research is done concerning skills in public procurement it is often focused on identifying a broad range of skills every purchasing professional should have based on past or present requirements instead of focusing on future needs.¹⁵³

This research identifies several skills as important for the public procurement professional to be able to firstly identify and acquire innovations from the market, secondly to change from a traditional buyer to a strategic business partner for the internal client and thirdly to be successful in the future. In contrast to previous skills research, this research focuses on identifying skills public procurement professionals need to deal with two specific current

¹⁵² See Mogre et al. (2017), p.254

¹⁵³ See Eltantawy et al. (2009), p.925; Feisel et al. (2011), p.54-55; Giunipero and Percy (2000), p.4; Knight et al. (2014), 271-272; Tassabehji and Moorhouse (2008), p.59; Tatham et al. (2017), p.266-267

challenges public procurement professionals face in their work but also on identifying which skills public procurement professionals will need in the future.

Identifying which skills are needed to identify and acquire innovations from the market originates from the challenge how public procurement can be used to stimulate and promote innovation. According to Amann and Essig (2015) public procurement professionals need to possess the right competencies to manage the procurement process and need to have adequate skills to formulate tenders that provide room for innovation.¹⁵⁴ This research identified skills such as creativity, out of the box thinking and courage that can help the public procurement professional in formulating tenders in such a way that it provides room for innovation. Early procurement involvement, organizational sensitivity and communication skills can also increase the professional's ability to effectively manage the procurement process. This research thus provide an elaboration on the research of Amann and Essig (2015) by specifying the skills public procurement professionals need to identify and acquire innovations from the market and thereby thus stimulate and promote public procurement innovation.

The second research question was formulated to identify skills public procurement professionals need to become a strategic business partner to the internal client and thereby increasing the status of the procurement department. According to Patrucco, Luzzini, Ronchi, et al. (2017b) increasing the status of the procurement department is crucial to be perceived as an equal partner by the other departments. They also mention that cross-functional integration and alignment between public procurement decisions and other department strategies is essential in improving procurement performance.¹⁵⁵ This research also validated that cross-functional integration is important if the procurement professional wants to change from a traditional buyer to a strategic business partner for the internal client and provides several skills public procurement professionals need to increase the cross-functional integration. Being able to work in multidisciplinary teams, to stimulate and obtain early procurement involvement and communication with the internal client as well as a possibility to for example do an internship with the internal client are all identified as skills

¹⁵⁴ See Amann and Essig (2015), p. 289

¹⁵⁵ See Patrucco, Luzzini, Ronchi, et al. (2017b), p.269, 272-273

public procurement professionals need to increase the cross-functional integration and alignment between the purchasing department and the internal client.

Other skills that procurement professionals need to become a strategic business partner for the internal client are having a proactive attitude, creativity, knowing the possibilities to color outside the lines and being able to distinguish the real need of the internal client. This research thus supports the findings of Patrucco, Luzzini, Ronchi, et al. (2017b) and provides an elaborated view on which skills public procurement professionals need to change from a traditional buyer to a strategic business partner for the internal client and thereby increase the status of the purchasing department.

The last research question of this research focused on future challenge public procurement professionals might face. Public procurement professionals operate in a changing business environment, meaning that procurement professionals continuously need to update their skills to effectively contribute to the purchasing function and the success of their organization.¹⁵⁶ Demographic changes such as an aging population can have a big impact on public procurement, increasing the expenditure on social services and healthcare and increasing the need for purchasing productivity.¹⁵⁷ Public procurement professionals also need to be able to handle the increasing digitalization of the purchasing process with the use of eProcurement and Procurement 4.0.¹⁵⁸ In this research, IT skills are identified as being the most important skills public procurement professionals will need to be successful in the future. To be successful in the future public procurement professionals will also need to be able to go from risk avoiding to risk controlling, be able to translate the organizational vision, think in opportunities and being able to focus on sustainability.

Since no previous research has focused on identifying skills public procurement professionals will need in the future, this research provides a unique view on which skills public procurement professionals will need in the future from the perspective of the professionals currently working in the purchasing field.

¹⁵⁶ See Oke et al. (2017), p.2-3, 8

¹⁵⁷ See Corydon et al. (2017), p.5-12

¹⁵⁸ See Glas and Kleemann (2016), p.59, 61-62

7.2 Comparison of the found skills set for public procurement with the skills profile of industrial procurement professionals.

As previously mentioned, this study formulates a set of entrepreneurial, communicative and strategic skills that are important for public procurement professionals. The skills found in this research do not only elaborate on previous research or provide an unique view on which public procurement professionals need, they also enable the comparison with the skills profile of industrial purchasing professionals as described in scientific literature.¹⁵⁹ Even though, Boyne (2002) states, “the dominant view in the public policy and administration literature is that public and private organizations are so different” that “management techniques cannot be exported successfully from one sector to another because of differences in organizational environments, goals, structures and managerial values”.¹⁶⁰

In industrial purchasing literature Giunipero and Percy (2000) and Knight et al. (2014), designed an comparable profile for a strategic industrial purchaser, with an emphasis on communication, entrepreneurial behavior, creativity, inquisitiveness, and decisiveness.¹⁶¹ Tassabehji and Moorhouse (2008) state that the findings from their “study suggest that today’s procurement professional must be a dynamic relationship manager creating and developing cross-functional strategies and must possess internal selling, change management, supplier relationship and partnership management skills”.¹⁶² The skill profile derived from this research specifically for public procurement professionals is to a certain degree comparable to the skills profiles found in industrial purchasing literature.

Another comparison that can be made is to compare the skills derived in this research with the results of the European Purchasing Skills Survey performed by Purchasing Education Research for European Competence Transfer (PERFECT). This survey is part of the PERFECT project which “aims to define what PSM knowledge, tasks and competencies are leading to professional PSM success”.¹⁶³ The European Purchasing Skills Survey was filled in by numerous participants originating from three different sectors; industry, service and public procurement. Based on the results of the survey Stek (2017) formulated a top-14 PSM

¹⁵⁹ See Giunipero and Percy (2000), p.9-12; Knight et al. (2014), p.278-279; Tassabehji and Moorhouse (2008), p.59

¹⁶⁰ Boyne (2002), p.118

¹⁶¹ See Giunipero and Percy (2000), p.9-12; Knight et al. (2014), p.278-279

¹⁶² Tassabehji and Moorhouse (2008), p.65

¹⁶³ Stek (2017), p.5

skills that lead to success.¹⁶⁴ This top-14 consist of a mix of technical knowledge, explicit knowledge and soft skills which means that "the best purchasing professionals has strong interpersonal communication abilities combined with strong substance understanding".¹⁶⁵

The results of this research are similar with the findings of the PERFECT survey in the aspect that both studies found that soft skills are important for a procurement professional to be successful. It seems that even though technical skills or strategic business skills are important for the success of procurement professionals, as validated in this research, the focus should be on increasing the interpersonal skills of the procurement professionals.

7.3 The World Café method identifies which skills are important but there are variations per location

Not only does this research elaborate on previous research and identifies specific skills public procurement professionals need, it also critically looks at the method used to gather the data used in this research. This research hypothesized that the World Café method would provide consistent reliable data across multiple World Café sessions.

The World Café methodology identifies which constructs the participants find the most important for answering the research questions as indicated by Reichenbachs et al. (2017).¹⁶⁶ While the participants of the three different World Cafés correctly identify which skills public procurement professionals need to firstly identify and acquire innovation for the market, secondly to change from a traditional buyer to a strategic business partner to the internal client, and lastly to be successful in the future, variation exists in which skills the participants find the most important per location.

The top-10 skills per location for every research question shows that there is variation in which skills the participants find the most important per location. The overall overlap between the three different World Cafés is not more than 29,63 percent, indicating that the participants of the various locations mentioned different skills and also prioritized different skills when asked which skills public procurement professionals need to identify and acquire

¹⁶⁴ See Stek (2017), p.10

¹⁶⁵ Stek (2017), p.10

¹⁶⁶ See Reichenbachs et al. (2017), p.358

innovations from the market, to change from a traditional buyer to a strategic business partner for the internal client and to be successful in the future.

There are many causes that could have led to the variation in which skills are mentioned and given stickers/votes by the participants per location. As the Pearson Chi-square test indicates the participants per location significantly differ from each other in their current place of employment. The participants of the network session in Utrecht primarily work for the government, the participants in Apeldoorn work mostly in the healthcare sector and most of the participants in Groningen work for the municipalities. It seems that the participants in Utrecht are more focused on governmental procurement, the participants in Apeldoorn on medical procurement and the participant in Groningen on municipally procurement. The difference in the participants focusses may have influenced the variation in the top-10 skills per location. Moreover, not only the difference in research population per World Café could have influenced the top-10 skills per location, other factors related to the set-up and execution of the World Café session could also possible have influenced the variation in the top-10 skills per location.

7.3.1 The table host could have influenced the results of this research

A possible explanation of the variation can be found in the role the table host has during a World Café. The table hosts could have influenced the results in many ways and in this section the influence of the table host on the results of this research are further examined. One way the table host could have influenced the results is by providing suggestions on which skills should be written down on the sheets of paper during the different World Café rounds. During the World Café rounds the participants mention many different skills and other aspects related to the research question. Before those skills or other aspects were written down by the table hosts, some table hosts summarized what the participants described and made suggestions on what type of skill should be written down on the sheet of paper. By providing suggestions the table hosts influenced which skills/discussion points were written down.

The table hosts also influenced how the skills/discussion points that were mentioned by the participants were written down; the table hosts influenced the formulation of the different discussion points. For example, some table hosts grouped certain skills together into one

discussion points while other table host wrote down every skill separately. Some table hosts also wrote down other aspects related to the research questions, while other table hosts only wrote down specific skills. This difference in the formulation of the discussion points increased the number of discussion points per World Café but also influenced the results of this research.

If different table host formulate certain comparable skills in a different manner or for example group certain skills together into one discussion point it impacts the ability to combine the similar discussion points mentioned at the different locations into one construct. The difference in the formulation of the different discussion points influenced the coding process and therefore the results of this research.

This research includes the results of three different World Café sessions. In Utrecht there was one table per research question, in Apeldoorn and Groningen there were two tables per research question, indicating that in total this research includes the results of 15 different tables. Almost every table was led by a different table host. As already mentioned, table hosts have their own way of formulating and writing down the different discussion points mentioned by the participants. Having different table hosts leading the World Café sessions thus enlarges the influence the table hosts has on the variation in which discussion points are written down, how the discussion points are formulated and on the eventual results of this research.

Another possibility as to how the table host could have influenced the results of this research is during the short summary the table host provided at the end of the World Café session. This presentation took place before the participants placed their stickers/votes and highlighted the skills that were discussed during the World Café. During this short presentation, some table hosts gave their opinion on which skills they found the most important in answering the research question, which could have influenced how the participants distributed their stickers/votes.

The previously mentioned explanations on how the table host could have influenced the results in this research are not the only ways the table host could possibly affect the results of a World Café. Table hosts have an important role during the World Café which include

letting the participants lead the discussion and making sure that every participant contributes to the discussion. In almost all those aspects, the table host could have influenced the results. However, no clear indication exists that the table host influenced the results of this research in other ways than already mentioned.

7.3.2 The different ways of distributing stickers/votes by the participants could have influenced the results

Another explanation of the variation in which skills the participants find the most important per location can be attributed to the set-up of the network sessions. After the World Café was performed the participants were asked to place up to 24 stickers/votes behind the discussion points mentioned on the sheets of paper to indicate which skills they find the most important in answering the research questions. The participants were free to distribute their 24 stickers across the three different topics and then across as many different discussion points as they wanted. In Utrecht the participants could distribute their stickers across three different sheets full of discussion points while in Apeldoorn and Groningen the participants could distribute their stickers across six different sheets with discussion points.

If a participant was so inclined, it could have made the decision to distribute the 24 stickers/votes equally across the three research questions. This means that the participant could only place seven stickers per research question. If the participant, then found multiple discussion points important the seven stickers could have been distributed across many different discussion points per research question. If multiple participants followed this thought process but found different discussion points important in answering the research questions many different discussion points could have received a low number of stickers.

This assumption about the thought process and subsequent distribution of stickers by the participants could possibly explain why many discussion points in this research have received a low number of stickers from the participants, especially in Apeldoorn and Groningen where the three research questions were distributed across six different tables. In Apeldoorn and Groningen, more discussion points were written down by the table hosts than in Utrecht which enabled the participants to distribute their 24 stickers across many different discussion points. Comparing the results of Utrecht, where the three research questions were only distributed across three tables, with the results of Apeldoorn and Groningen is therefore suboptimal especially with the low number of participants included in this research.

It is not possible to limit the number of discussion points that are written down during a World Café but an increase in the number of stickers per discussion point can be achieved by giving the participants 24 stickers/votes per research question. This could enlarge the difference in the number of stickers the discussion points receive by the participants, making it more clear which skills the participants find the most important.

Another way the participants could have influenced the results is by placing all 24 stickers/votes behind discussion points only related to one research question or by placing all the stickers behind one discussion point. Based on the distribution of stickers across the different research questions did didn't happen in this research or if it happened it was cancelled out by the way the other participants placed their stickers.

By placing many stickers/votes behind one discussion point individual participants have a big impact on the top-10 skills per location and on the overall results of this research. This impact increases when the research population consists of a low number of participants per location. Knowledge about how the participants distributed their stickers could provide additional insight, enabling the removal of the contribution of participants that have placed their stickers/votes in a significantly different manner than the other participants. This could provide a clearer view of what the majority of the participants really find important in answering the three research questions.

8. Implications of this research

8.1 Further research on the reliability of the World Café methodology can focus on many different aspects.

Caution should be applied when translating the results of this research to practical application. As previously indicated this research found that the hypothesis that the World Café methodology provides consistent reliable results across multiple World Café sessions cannot be rejected or confirmed. Further research is needed to provide a clear conclusion about the reliability and consistency of the World Café methodology for data gathering.

Further research can focus on many different areas. Since this research did not include an analysis of the influence of the participants background characteristics on the prioritization

of skills it is impossible to contribute all the variation across the multiple World Café sessions to a difference in the research population per location. Further research should therefore include a throughout (quantitative) analysis of the influence of the composition of the research population on the results and consistency of the outcomes of the World Cafés.

Additional research can also focus on other aspects that could have influenced the variation found across the multiple World Cafes sessions. Research could focus on the role of the table host in the World Café methodology or how the participants can influence the results by their pattern of distributing stickers/votes across different research questions and discussion points. All further research should also include the results of more World Café sessions and have a larger research population. The results of this research show that saturation of results does not occur when only three World Café sessions are held. Increasing the number of participants and the number of World Cafes should increase the generalizability of the conclusion of additional research to provide a clear answer about the reliability of the World Café methodology.

8.2 The skills profile found in this research need validation but can be used for training purposes

The number of rounds that occur as part of the World Café methodology ensure the internal validity of the constructs that arise¹⁶⁷; it ensures that this research correctly identifies which skills public procurement professionals need to identify and acquire innovations from the market, to change from a traditional buyer to a strategic business partner for the internal client and to be successful in the future. This research combines the results of several World Café sessions that took place in different areas of the Netherlands increasing the external validity of this research and providing a clear picture of which skills the public procurement professionals need in the Dutch public sector.

However, since it was not possible to conclude if the World Café methodology is a reliable method for data gathering, additional validation on which skills public procurement professionals need to identify and acquire innovations from the market, to change from a traditional buyer to a strategic business partner for the internal client and to be successful in the future is needed.

¹⁶⁷ See Reichenbachs et al. (2017), p.358

The skills identified to be important for public procurement professionals can be used for the education and training of public procurement professionals by official education institutes or by (in-house) training programs provided by other companies. Before the management of several public organizations start offering different kinds of skills and knowledge training managers should first focus on increasing the status of the purchasing department. The purchasing function should be taken seriously and early procurement involvement, validated in this research, is crucial for acquiring innovations and for becoming a strategic business partner. Therefore, it is important to combine skills development with the acknowledgement of the purchasing function by incorporating it in the organizational strategy.

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Appendices

Appendix 1: The results of the questionnaire

Table 13

Years of work experience and current place of employment of the research population

		Utrecht (N=15)	Apeldoorn (N=21)	Groningen (N=19)
Total years of work experience	Min.	6	6	3
	Max.	50	37	40
	Mean	25	22,14	19,37
	Std. dev.	12,82	8,82	10,84
Years of work experience purchasing private sector	Min.	0	0	0
	Max.	35	20	38
	Mean	8,33	8,19	5,21
	Std. dev.	11,45	7,2	9,25
Years of work experience purchasing public sector	Min.	0	0	0
	Max.	35	20	20
	Mean	10,66	8,09	8,55
	Std. dev.	10,15	6,31	5,86
Current place of employment	Municipality	0	3	7
	Government	9	2	1
	Education	1	2	3
	Province	1	0	0
	Healthcare	1	5	0
	Business	2	1	3
	Water			
	authority	0	1	1
Other	1	7	4	

Table 14

The different places of employment (work places) of the research population

	Utrecht (N=15)	Apeldoorn (N=21)	Groningen (N=19)
Municipality	0	3	7
Government	9	2	1
Education	1	2	3
Province	1	0	0
Healthcare	1	5	0
Business	2	1	3
Water authority	0	1	1
Other; independent	0	1	0
Other; semi-government	0	1	0
Other; housing corporation	0	1	0
Other; public sector	0	1	0
Other; decentralized government	0	1	0
Other; municipality, government, education and healthcare	0	0	1
Other; healthcare and education	0	0	1
Other; province and business	0	0	1
Other; ZBO RDW	0	0	1
Other; municipality and government	0	0	1
Other; municipality and education	1	1	0
Other; healthcare and business	0	1	0

Table 15

Education specialization of the research population

	Utrecht (N=11)	Apeldoorn (N=18)	Groningen (N=17)	Total
HEAO CE	2	1	0	3
Economics	1	0	0	1
Business administration	3	1	1	5
Industrial Engineering and Management	1	0	0	1
HRM	1	0	0	1
Law	1	1	0	2
Mechanical engineering	1	1	0	2
Purchasing	1	1	3	5
Commercial economy	0	1	0	1
Electrical engineering	0	2	1	3
Facility management	0	1	3	4
Business administration with specialization				
purchasing management	0	3	6	9
Commercial	0	1	0	1
Supply chain management	0	1	0	1
Occupational therapy	0	1	0	1
Psychology	0	1	0	1
Export management	0	1	0	1
Estate agent	0	0	1	1
Mechanical engineering and business				
administration	0	0	1	1
Civil engineering	0	0	1	1

Table 16

Different work functions of the research population

	Utrecht (N=15)	Apeldoorn (N=21)	Groningen (N=19)
Procurement advisor	1	2	3
Senior tender advisor	1	0	0
Contract manager	2	1	1
Tender project leader	1	0	0
Innovation advisor	1	0	0
Category manager	1	0	0
Interim finance professional	1	0	0
Buyer/ purchaser	2	0	1
Directeur	1	0	0
Program manager	1	0	0
Tender project manager	1	0	0
Senior buyer	0	5	1
Project manager	0	1	0
Procurement coordinator	0	2	0
Strategic buyer	0	1	1
Entrepreneur	0	1	0
Procurement team leader	0	1	0
Lawyer/ consultant	0	1	0
Project leader procurement improvement	0	1	0
Technical buyer A.I.	0	1	0
Tender specialist	0	1	0
Contract manager/ senior procurement advisor	0	1	0
Senior procurement advisor	1	1	0
Supplier and contract manager	1	0	0
Procurement advisor/ entrepreneur	0	1	1
Category advisor	0	0	1
Contract management advisor	0	0	1
Procurement advisor – social domain	0	0	1
Purchasing director	0	0	1
Buyer ICT	0	0	1
Procurement manager	0	0	1
Teacher	0	0	1
Contract manager ICT	0	0	1

Appendix 2: The top 10 discussion points per location

Table 17

Top-10 skills public procurement professionals need to change from a classical buyer to a strategic business partner for the internal stakeholder per location

	Utrecht		Apeldoorn		Groningen	
	Discussion point	%	Discussion point	%	Discussion point	%
1	Ability to identify the real need (IS)	20,69	Working in multidisciplinary teams (IE)	15,19	Knowledge to be able to think outside of the box (IS)	10,32
2	Being persistent and thorough when asking questions (IS)	9,48	Proactive attitude, taking initiative (IS)	10,13	Proactive attitude, taking initiative (IS)	7,10
3	Proactive attitude, taking initiative (IS)	8,62	Early procurement involvement (IE)	8,86	Stubbornness (IS)	7,10
4	Style flexibility, empathic ability (IS)	7,76	Creativity, courage and entrepreneurship (IS)	7,28	Possibility to leave the desk (IE)	5,81
5	Relationship skills (IS)	6,90	Chain collaboration (EE)	5,70	Collaborative skills (IS)	5,16
6	Integer (IS)	6,90	Connecting skills (IS)	4,43	Ability to think in chains (EE)	5,16
7	Make purchasing visible (IE)	6,03	Being a worthy, strategic, full-fledged conversation partner (IS)	3,80	Ability to go outside the usual paths (IS)	4,52
8	Humour (IS)	6,03	Legal knowledge (TS)	3,80	Ability to identify the real need (IS)	3,87
9	Customer oriented (EE)	5,17	Being critical, asking critical questions (IS)	3,16	Ambitious (IS)	3,87
10	Result oriented (SB)	5,17	Controlling contract compliance (TS)	3,16	Ability to celebrate successes (IS)	3,87
			Ability to have and keep overview “Helicopter view” (TS)	3,16		
Total		82,76		68,67		56,77

Table 18

Top-10 skills a public procurement professional need to be successful in the future per location

	Utrecht		Apeldoorn		Groningen	
	Discussion point	%	Discussion point	%	Discussion point	%
1	IT skills (TS)	28,07	IT skills (TS)	16,00	Ability to translate vision (SB)	9,87
2	Merging purchasing and contract management (IE)	14,91	From risk-avoiding to risk-controlling (SB)	12,67	Connecting skills (IS)	5,92
3	Thinking in opportunities (SB)	13,16	Change management and adaptability (IS)	7,33	Analytical skills, ability to make connections (TS)	5,26
4	Analytical skills, ability to make connections (TS)	12,28	Automation of decision-making (SB)	6,67	Taking visible (social) responsibility (SB)	5,26
5	Connecting skills (IS)	7,02	Thinking in opportunities (SB)	6,00	Listening/communicating and translating needs (IS)	5,26
6	Social skills (IS)	6,14	Courage, entrepreneurship (IS)	6,00	Ability to use the innovative capacity of the supplier (IS)	4,61
7	Leading role of the buyer (IS)	6,14	Connecting skills (IS)	4,67	Ability to have and keep overview “helicopter view” (TS)	4,61
8	Knowledge of laws and regulations (TS)	5,26	Social skills (IS)	3,33	Focus on sustainability (SB)	3,95
9	Developing knowledge (TS)	1,75	Focus on sustainability (SB)	3,33	Focus on innovation and efficiency instead of regularity (SB)	3,95
10	Selling purchasing to others, make added value of purchasing clear (SB)	1,75	Knowledge about law and regulations (TS)	2,67	Communication skills (IS)	3,29
11	Ability to identify risks/ opportunities at an early stage (SB)	1,75	Communication skills (IS)	2,67	Persuasiveness both internally and externally (IS)	3,29

12	Ability to understand processes (TS)	1,75	Emphatic skills (IS)	2,67	Courage to embrace innovations, being open to innovation (IS)	3,29
13			Ability to guide process change (TS)	2,67		
14			Relationship management (SB)	2,67		
15			Proactive attitude, taking initiative (IS)	2,67		
Total		100		82,00		58,55

Appendix 3: Additional results of the ANOVA analysis

Table 19

Results multivariate tests using exact statistics and alpha of 0,05.

Effect		Value	P-value	Observed Power
Location	Pillai's Trace	,066	,918	,179
	Wilks' Lambda	,935	,922	,176
	Hotelling's Trace	,069	,925	,174
	Roy's Largest Root	,051	,662	,185

Appendix 4: NEVI Deal! article

34 | Deal! | DECEMBER 2018 | From Experts |

| Deal! | DECEMBER 2018 | 35



Naam Shannon van Hoorn
Functie studeerde op onderhavig onderwerp af in 2018 aan de Universiteit Twente / Purchasing & Supply Management. Nu bezig met Master in Health Science.



Naam Klaas Stek
Functie promovendus aan de Universiteit Twente / Purchasing & Supply Management en promoveert in 2019 op succesvaardigheden van inkopers.

VAARDIGHEDEN DIE LEIDEN TOT INKOOPSUCCESS

Innovatiegericht inkopen, businesspartner worden en ook in de toekomst succesvol zijn: drie grote thema's voor overheidsinkopers. Onderzoekers Klaas Stek en Shannon van Hoorn zetten de benodigde vaardigheden op een rij.

In de Nederlandse publieke sector wordt jaarlijks zo'n 130 miljard euro aan publieke middelen uitgegeven. Er zijn nog veel kansen als het gaat om verbeteren en besparen bij overheden. Het succes daarvan is grotendeels afhankelijk van de kennis, ervaring en vaardigheden van de inkopers in de publieke sector. Om maximaal bij te kunnen dragen aan de inkoopfunctie in de publieke sector, is het van belang te bepalen welke kennis en vaardigheden inkoopprofessionals nodig hebben.

Verschillende uitdagingen

Inkoopprofessionals in de publieke sector moeten om kunnen gaan met verschillende uitdagingen. In de laatste jaren is het steeds normaler geworden om aanbestedingen te gebruiken om doelstellingen op gebied van duurzaamheid en innovatie na te streven. Het punt is dat de inkoper van innovatieve, duurzame oplossingen totaai andere kennis en vaardigheden nodig heeft dan de inkoper van

producten met vooraf vastgestelde specificaties. Een andere uitdaging voor inkoopprofessionals lijkt te liggen bij de vaak lage status van de inkoopafdeling binnen de overheid. De inkoopafdeling kan alleen maximaal bijdragen aan de prestaties van de organisatie als er sprake is van erkenning en ondersteuning van de inkoopfunctie door de verantwoordelijken (de businesspartners).

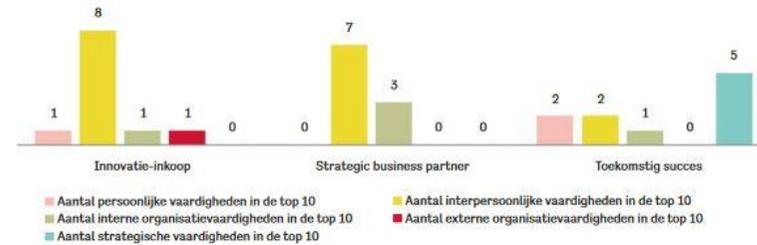
Benodigde vaardigheden

Inkoopprofessionals hebben niet alleen de juiste kennis en vaardigheden nodig om de huidige uitdagingen in de publieke sector het hoofd te kunnen bieden, maar ze moeten ook de juiste kennis en vaardigheden vergaren om in de toekomst van waarde te kunnen zijn. Daarom heeft de Universiteit Twente in samenwerking met detacheerder YACHT onderzoek gedaan naar de vaardigheden die inkopers in het publieke domein nodig hebben om innovaties in de markt te signaleren en te verwerven, te veranderen in een businesspartner voor de interne klant, en succesvol te zijn in de toekomst.

Profielen

Het onderzoek is gedaan door overheidsinkopers uit te nodigen voor workshops om te discussiëren over deze drie thema's. Deze representatieve groep met 55 professionals heeft in aan drie themafabels een profiel opgesteld van de moderne overheidsinkoper. Wat opvalt, is dat voor de thema's 'innovatie-inkoop' en 'strategische business partnership' met name interpersoonlijke vaardigheden nodig zijn, terwijl

FIGUUR: STRATEGISCHE VAARDIGHEDEN



Bron: Shannon van Hoorn, 2018.

voor 'toekomstig succes' strategische vaardigheden belangrijker lijken te zijn (zie figuur en tabel).

Van risicomidend naar risico sturend

In z'n algemeenheid heeft de competente overheidsinkoper een ondernemend, communicatief en strategisch profiel. Hij of zij moet als basis kennis van zaken hebben en heeft naast interpersoonlijke vaardigheden ook een aantal persoonskenmerken of karaktereigenschappen nodig, zoals lef hebben (al dan niet in combinatie met ondernemerschap), creativiteit, out of the box denken, doortastendheid en slagvaardigheid. Dit zijn vaardigheden die behoren tot het ondernemende profiel.

De moderne, communicatieve inkoper is sociaal, organisatiesensitief, in staat de vraag achter de vraag beantwoord te krijgen en inkoop vooraf betrekken in het proces. Die moderne inkoper is ook een strateeg, die kan denken in kansen, visie

vertaalt in acties, van risicomidend naar risico sturend beweegt en circulair denkt.

Kennis én vaardigheden

De sleutel tot succes bij overheden is een tweesporenbeleid te volgen door kennis én vaardigheden van inkopers verder te ontwikkelen. Daarbij is het zaak inkoop serieus te nemen door het vroeg te betrekken bij het aankopen of ontwikkelen van duurzame innovaties. Managementondersteuning en de ontwikkeling van individuele vaardigheden leiden samen tot succes. Vaardige inkopers die niet ondersteund worden, raken gefrustreerd en gaan op zoek naar een andere werkomgeving.

Persoonlijke eigenschappen

Gekeken naar de succesvaardigheden, valt op dat naast kennis veel persoonlijke eigenschappen belangrijk zijn. De toekomst zal gedomineerd worden door automatisering en informatie-uitwisseling tussen machines. De mens moet zich gaan onderscheiden van de machine. De machine ontbeert persoonlijkheidskenmerken om te verbeelden, creëren en out of the box te denken. ●

TABEL

TOP 10 DISCUSSIEPUNTEN, 3 KENNISVELDEN EN VAARDIGHEDEN PER KENNISVELD

	Innovatie-inkoop	Strategische business partner	Toekomstig succes
1	Lef hebben, ondernemerschap tonen (IV)	Proactief, initiatief tonen (IV)	IT-skills, kunnen omgaan met IT en het toepassen en benutten van data (PV)
2	Dialogoog kunnen voeren met de markt, lidtaden en experimenteren (EO)	Vaardigheden en kennis om de echte behoefte vast te kunnen stellen (IV)	Denken in kansen, kansen zien (SV)
3	Early procurement involvement (IO)	Werken in multidisciplinaire teams (IO)	Verbindende vaardigheden (IV)
4	Out of the box denken (IV)	Doortastend/slagvaardig, doorvragen (IV)	Analyserende vaardigheden en verbanden kunnen leggen (PV)
5	Communicatieve vaardigheden (IV)	Inkoop vooraf betrekken (IO)	Van risicomidend naar risico sturend (SV)
6	Organisatiesensitiviteit (IV)	Kennis hoe buiten de lijntjes te kleuren (IV)	Inkoop- en contractmanagement samen (IO)
7	Creativiteit (IV)	Creativiteit, lef en ondernemerschap (IV)	Visie kunnen vertalen (SV)
8	Kennis van wet- en regelgeving (PV)	Een waardig, strategisch en volwaardig gesprekspartner zijn (IV)	Sociale/communicatieve vaardigheden (IV)
9	Netwerkvvaardigheden (IV)	Mogelijkheid om achter het bureau weg te gaan, stage lopen bij andere afdelingen (IO)	Circulair denken, duurzaamheid (SV)
10	Overtuigingskracht (IV)	Eigenwijs (IV)	Verandermanagement en aanpassingsvermogen (SV)

Vaardigheden per onderzoeksvraag geclassificeerd in professionele (inkoop-)vaardigheden (PV); interpersoonlijke vaardigheden (IV); interne organisatievaardigheden (IO); externe organisatievaardigheden (EO); en strategische vaardigheden (SV). Bron: Shannon van Hoorn, 2018.