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<p><b>Abstract</b></p> <p>Internationalization of small and medium sized enterprises, SMEs, is an ongoing hot topic of economic and political discussion and debate in Finland. China, as the world leading economy in constant search for new high-end technology, has been considered as a potential new driver of Finnish SME internationalization growth. In particular, the cleantech industry has raised serious attention in the Chinese market, and Finnish SMEs have looked to tap into the market with the help of trade organization programmes. Also in Finland trade organizations have set forth various trade programmes, but the efficiency and effectiveness of those initiatives has not been studied intensively. The present study takes a holistic perspective towards the value creation networks of the Finnish cleantech SMEs in China. In particular the study seeks answers to how trade organisations can facilitate success at the market entry stage of the Finnish SMEs. Furthermore, the study takes view on long term business success as the true measurement of the market entry's success.</p> <p>The study presents a literature review on value co-creation, service systems, business models and SME internationalization and combines the key theoretical concepts into a theoretical framework. This framework concludes the key constructs of value co-creation networks, value sensing, configurational fit and business model development. The framework is then used as a structure for five separate case studies in which successful cleantech SME's China market entries and trade organizations' roles are analyzed. The data is analyzed in a cross case analysis and ten key findings are concluded. These findings at last are presented in the light of the existing literature on SME internationalization in order to build new platform for future research and discuss the generalizability of the case findings. Chinese market is found to be large but highly competitive. It was found that trade organizations are well on page on market entry stage support, but the focus should be aimed to boosting and accelerating SMEs internal strength and competence. It is concluded that Chinese market is considered the world's toughest, and the successful cases have typically improved their business operations holistically in order to meet the Chinese market needs. Last, a development structure for trade programme developers is presented.</p>			
Key words	value co-creation, SD logic, SME internationalization, Chinese market entry		
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**UNIVERSITY  
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Economics

**VALUE CO-CREATION BETWEEN THE  
SERVICE SYSTEMS OF TRADE  
INTERMEDIARIES, CUSTOMERS,  
PARTNERS AND FINNISH CLEANTECH  
SMES ENTERING CHINA**

Master's Thesis  
in Global Innovation Management

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## 1 INTRODUCTION

### 1.1 Context

The internationalisation of small and medium sized enterprises (SME) is an ongoing hot topic of economic and political discussion and debate in Finland. In the recent years the slowly developed and the highly export-dependent economy has suffered from the limited growth of the European Union as well as the structural changes in the domestic environment (Clement 2016, 3; Soini 2016). SMEs can be generally considered as one of the drivers of the future economic growth for Finland in the era of global competition. The changing dynamics in the traditionally strong mobile devices, forestry and paper industry have also set clear challenges for the Finnish economy. Concurrently Finnish SMEs have faced severe challenges in export market conditions in the decreasing opportunities to the traditionally crucial Russian market (Clement 2016, 2). Consequently, China, the world leading economy in constant search for new high end technology, has been considered as a potential new driver of Finnish SME internationalisation growth (Tolpo 2016).

On top of the specific and topical changes in export market conditions in the case of Finnish enterprises, the Finnish SMEs face similar limitations that SME organisations worldwide have been facing. Limitations such as lack of capability to take risks, lack of resources and lack of knowledge of the distant market are always present when analysing a case of a small or medium sized firm and an effort to open new markets. Throughout the history nations and governments as well as private business initiatives have formed supporting functions and institutions to help domestic companies to take the first steps in export and internationalisation. Also, in Finland the government funded trade organisations, Chambers of Commerce, export funds and investment collaboratives have been formed to guide SMEs in the global markets. The success and efficiency of such third party trade intermediaries have not been widely studied in the past literature and one of the key aims of this paper is to identify what functions and characteristics of a third party trade organisation can drive success in SME internationalisation. Should the trade organisations focus on filling the gaps with resources and knowledge limitations or is there more to contribute? Can trade organisations add deeper value to the value creation in export and market entry process of a Finnish SME?

The Chinese economy is at the stage of reforming from resource-driven to technology-driven economy. This change has led to "two-track economy", in which the basic manufacturing and traditional industries are experiencing challenges, while services, advanced manufacturing and consumer markets are taking the country to growth tracks (China's economic restructuring impacts ODI and FDI patterns, leading to more opportunities in high value added sectors 2016). This development has arguably escalated and directed Chinese companies' to research and form technology co-operation models with traditionally highly advanced technology-driven economies, such as Finland. This development was also underlined in the Chinese 13th Five-Year-Plan in March 2016 (National People's Congress 2016). In the Plan the Chinese government stated a clear direction for the nation to focus on productivity, high technology growth and innovation. These statements foster a promising opportunity for Finnish SMEs that are widely known highly competent in innovation and productivity. However, China as a distant market is still relatively unknown and hard to reach for Finnish SMEs.

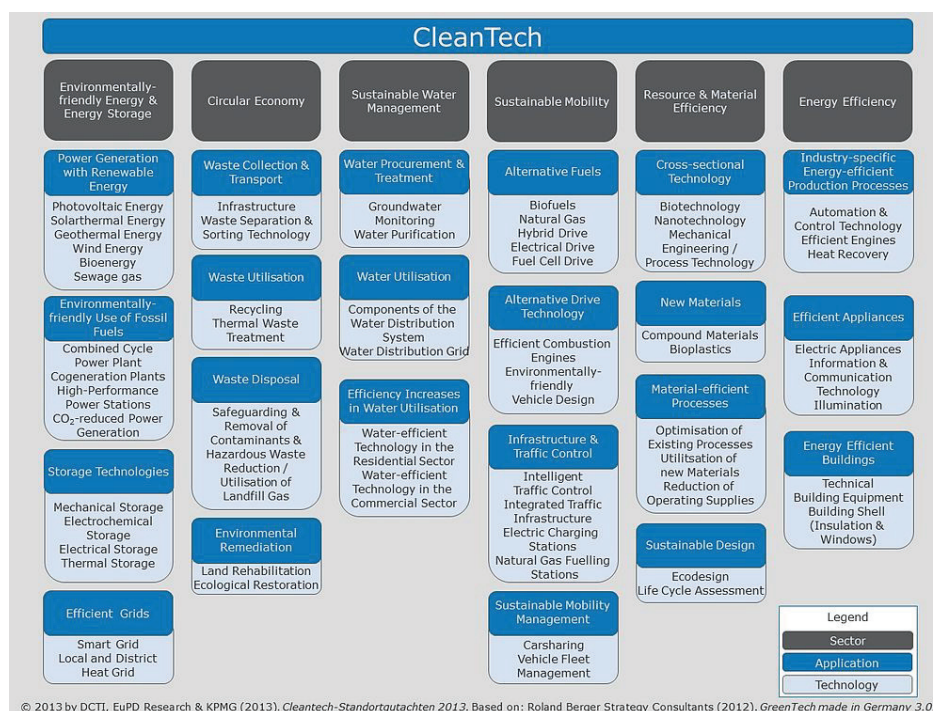
The business potential of a successful market entry to the Chinese market is considered significant in many SME organisations (see for example Boyd & Ulrich 2014) and thus, research of the success factors can be considered as a highly promising field that can contribute to both the academic literature and the business management. In this paper the context of the Chinese markets and market entry into the Chinese commercial environment was chosen to serve as the platform for Finnish SMEs and academics to tap into this new world of globalisation and export, when seeking opportunities and knowledge outside the traditional export markets in Russia, Germany and the Nordics.

This development of the Chinese commercial environment has also been identified by the Finnish public authorities. "With the world's biggest population, rapid economic growth and vast opportunities, China will continue to be one of Finland's most important trading partners." (Team Finland in China 2015). Finnish SMEs come from a country with high legacy for innovation and technology, and with a technically skilled talent pool of 99,000 cleantech & renewable energy professionals. Finland has been ranked highly relating to such areas throughout the 2000s (Invest in Finland 2015). Finland is ranked the 6<sup>th</sup> innovative country globally (Dutta, Lanvin & Wunsch-Vincent 2015) and Bloomberg ranks Finland on the 3<sup>rd</sup> place in research and development, and 1<sup>st</sup> place in the area of research personnel in the world (Bloomberg 2015). With close co-operation with major research

institutes and universities, a large number of Finnish engineering companies are equipped with high innovation capabilities and marketable innovations.

These Finnish products and technologies can be seamlessly integrated into large environmental projects. Most of the Finnish cleantech firms can offer cost efficient solutions featured with latest process and environmental technologies to their clients (Invest in Finland 2015). In particular, China's recent policy developments have shown the country and the Chinese companies are pursuing environmental improvements. The current policies are open to foreign companies to supply the domestic technology gaps in areas of green and environmentally friendly technologies. When these measures are combined with the productivity and innovation seeking 5 Year Plan of the Chinese commercial environment, it becomes visible that the opportunities in China for Finnish SMEs to market clean technologies, cleantech, are significant. Also, it is an opportunity to attract Chinese investment to Finnish cleantech firms. Leveraging the country's favorable industrial policy, the Chinese government can provide capital and support for projects that are aligned with their strategic interests (Zhang 2014).

Products or services that can be considered as cleantech are the ones that can improve operational performance, productivity, or efficiency while reducing cost, inputs, energy consumption, waste, or environmental pollution (Mitsubishi, Ueda & Kimura 2008, 120). Figure 1 illustrates the general classified cleantech definition by DCTI, EuPD Research & KPMG (2013, 12). It explains that cleantech involves areas such as environmentally friendly energy & energy storage, circular economy, sustainable water management, sustainable mobility, resource & material efficiency and energy efficiency. Companies that are related to the mentioned areas are in the context of this study considered as cleantech firms.



**Figure 1 Cleantech Industry Explained (DCTI, EuPD Research & KPMG 2013, 12).**

As highlighted, considering the size of the majority of Finnish SMEs, when going from Finland to a country with a large business and cultural gap, market entry usually involves more parties, such as trade intermediaries. The co-operation between SMEs and intermediaries is based on projects or services exchange. The intermediary can be governmental, non-governmental, or both. The intermediaries are needed to bridge over the gap between the Finnish sellers and the Chinese buyers or market actors. In this study we focus in particular on the trade organisations, that are founded and developed to accelerate and develop national export by offering support services for export-seeking SMEs.

There are many active Finnish governmental trade support organisations that incubate and support Finnish business with internationalization. With governmental organizations such as Tekes (the Finnish Funding Agency for Technology and Innovation), VTT (Technical Research Centre of Finland), Finpro (helps Finnish SMEs go international, encourages foreign direct investment in Finland and promotes tourism), and Finnvera (specialized financing company owned by the State of Finland and the official Export Credit Agency of Finland), Finnish firms are supported by funding, technology, and internationalization approaches. Governmental platforms such as Finnvera and Finnpartnership (Finnish Business Partnership Program) offer Finnish firms business partnership support, matchmaking and

advisory services. In addition, firms can seek different opportunities through governmental hubs. Cleantech Finland network, which was founded by Finpro and Team Finland, and its project Beautiful Beijing are one example of a programme to get in touch with China, but such initiatives are also along those that have received the public criticism for the true results and effectiveness of the programmes. During the present study the Finnish government decided to merge key programmes of these, namely Finpro, Tekes and Team Finland, into a one collaborative function called Business Finland (Ministry of Economic Affairs and Employment 2017). In the present study all interviews and the research were carried out during the time of these type of trade organisations acting separately, and thus, experiences of the research cases on the merger impacts are not considered.

Diverse range of non-governmental intermediaries are available for firms to match with their respective internationalization strategies. Throughout this study, the type of non-governmental intermediaries that are suitable to co-operate with SMEs to deal with China entry problems are also of interest.

In the academic literature this study will prove to be topical due to its contribution to the service science and the value co-creation school of thought. Since the introduction of the Service Dominant Logic (Vargo & Lusch 2004), service dominant theories of firm and marketing have been widely debated between scholars. My research will contribute to this field by taking its own angle in integrating the existing SME internationalisation theories with the value co-creation theory.

## **1.2 Research purpose**

The purpose of this research is for academia to provide an integration of SME internationalization theories and the dilemmas faced in the unique characteristics of SME export business to the world of value co-creation. I provide supportive empirical study to support the integration and provide avenues for further research.

For managerial implications the purpose of this research is to first illustrate and explain the key concepts behind successful Finnish SME market entries to Chinese market, and then

thoroughly analyse the role of trade organization intermediaries in this success. I want to contribute to the existing public debate on the efficiency of the trade intermediary projects and provide with a framework to dig deeper into the actual results of these organisations. Last, I draw from the experiences of successful Finnish SMEs to propose further steps that can be taken to have stronger impact on the success of Finnish SMEs in entering China.

### **1.3 Research questions**

The empirical study will be formed around a main research question and five supportive research questions:

#### **Main research question:**

How can a third party trade organization efficiently support Finnish cleantech SMEs' entry to Chinese market?

#### **Supporting sub-questions:**

Q1a: What constitutes successful value co-creation in the business of Finnish cleantech SMEs entering Chinese market?

Q1b: How a trade organisation can contribute and facilitate interactions, knowledge flow and value co-creation between the service systems of Finnish cleantech SMEs and their Chinese market service systems?

Q2a: Can trade organisation improve their efficiency by becoming active counterparts by "value sensing"?

Q2b: How can trade organisations ensure and facilitate configurational fit of the Finnish cleantech SMEs when entering China?

Q3: How can trade organisations successfully and efficiently support Finnish cleantech SMEs in designing the market entry business models for Chinese market?

#### 1.4 Research overview

In the present study I seek answers to the above research problems and questions by first looking into the existing literature that would and could provide knowledge on key success factors of the SMEs in China. I have chosen to address the research questions from a theoretical perspective of the Service dominant logic of firm (see for example Vargo & Lusch 2004) and its supporting theoretical literature on service systems. In the literature review this section of the theoretical literature is addressed first. Second, I look into the literature on business model theories, which link to the SD logic. These theories bring up the theoretical constructs of value creation between service systems, value sensing and configurational fit. Third, I discuss the existing SME internationalization theories and any preceding studies considering Finnish SMEs entering Chinese market. I then move on to construct a theoretical framework and to design a qualitative in-depth interview based research design. In this phase the theoretical framework is turned into an operationalization plan that is used to carry out the case study interviews. After collecting primary data through case study interviews, the data is analysed first within each case and at last through a cross case analysis. Finally, after summarizing the findings, I conclude core propositions that constitute successful SME market entries and how trade organisations can impact and support value co-creation in these aspects. In the concluding chapter of the present study the key findings are finally also evaluated alongside with the existing literature on SME internationalization studies. Next, I start with reviewing the theoretical background of the study.



## 2 THEORETICAL FRAMEWORK

To grasp the nature and business concepts, where SMEs operate and build commercial competence in the Chinese market entry context, several schools of academic thought are required. First, it is crucial to understand the nature of such business settings, the relational connections and the networked systems – in which also the key target of the present study, the third party trade organization, is playing its role. In most cases it is crucial to understand what constitutes value in the market entry mode to Chinese counterparts – and thus, I move towards understanding the key thought of value and value creation (see for example Vargo & Lusch 2004; Prahalad & Ramaswamy 2000). More fundamentally, application of value creation, value-in-use and value co-creation theories into the networks understanding are important fields of study for the present paper (see for example Maglio & Spohrer 2008; Storbacka, Frow, Nenonen & Payne 2012; Edvardsson, Tronvoll & Gruber 2010; Möller, Rajala & Westerlund 2008). It is the prevailing service dominant logic, service systems theory and value co-creation theories that provide the theoretical foundation for this study.

As the present research aims not only to explain and illustrate the phenomenon but also to provide a tool and a structured approach in analyzing how trade organizations can systematically support Finnish SMEs in their market entry endeavors to China, a systematic framework that combines the factors of business success and the understanding of value co-creation is needed. Little marketing literature has focused on setting such frameworks in place (Storbacka et al 2012). Such framework for practical implications should be able to answer the questions on managing value co-creation, business success and economic returns. These elements constitute a format of business models, which have most widely been presented in the service systems concepts by Storbacka et al (2012, 63 – 69) and Zott and Amit (2008, 3–5, 19).

After building the pillars of a theoretical construct from the key elements of service networks and systems, value co-creation and business models understanding inside the service science paradigm, I shape and combine the literature with the existing knowledge on SME internationalization and market entry success. SME internationalisation has been widely studied for the past decades but in this study I focus in particular on the network theories on SME internationalization. The more traditional stage model theories will take their place in analyzing market entry modes and models, but with limited scope in this study.

This research paper will provide a unique approach to the existing literature as the highly contextual situation of a key third party actor in the value co-creation process is defined and studied thoroughly by combining value co-creation networks understanding together with the existing knowledge on the SME internationalization theories, in particular the network and relationship oriented approaches.

First, the existing debate of service-dominant logic, value co-creation and service system approaches are discussed. The theoretical framework and positioning in the academia is then constructed on top of the existing understanding of service systems. Second, business models as a constructive framework to provide managerial understanding on value creation is defined. Third, key SME internationalization theories and in particular the research stream of network-oriented theories is presented. Fourth, I will narrow the existing SME internationalization theories to the context of market entry and selection and staging market entry modes. This theoretical background will finally be formulated into a theoretical framework that 1) captures the core of value co-creation between actors as a driver of business, 2) understands the networks and service systems around the value co-creation, 3) applies the value co-creation theory into a context of an SME internationalization in market entry context and 4) defines the elements of a successful business model in such circumstances. In this framework I will then position a third party trade organization, whose role and capability to co-create value is the key research interest of this study.

## **2.1 Value co-creation**

The continuously evolving marketing literature got a new breeze from the marketing paradigm and concept of service dominant logic following an article by Vargo & Lusch (2004). Already, Prahalad and Ramaswamy (2000, 82) had combined the thought of companies and customers continuously – rather than transactionally – interacting and collaborating when the value of a good or service is consumed. The fundamental view that the SD-logic brought to the marketing academia was the challenging view against the traditional goods exchange driven marketing school of thought. Service dominant logic was structured around 10 originating premises that put exchange of service into the core. In its' simplest form Vargo & Lusch underlined that companies are found to facilitate value creation by developing goods

and services, but value is always created when the good or service is consumed (Vargo & Lusch 2004, 10–11). Thus, the customer is always a co-creator of value and goods and services are only a mechanism to distribute value (See Table 1). The SD logic publication got immediately widely received expanding and also challenging views.

**Table 1 Foundational premises of S-D logic (Vargo, Maglio & Akaka 2008, 148)**

Premise number	Foundational premise
FP1	Service is the fundamental basis of exchange.
FP2	Indirect exchange masks the fundamental basis of exchange.
FP3	Goods are a distribution mechanism for service provision.
FP4	Operant resources are the fundamental source of competitive advantage.
FP5	All economies are service economies.
FP6	The customer is always a co-creator of value.
FP7	The enterprise can not deliver value, but only offer value propositions.
FP8	A service-centered view is inherently customer oriented and relational.
FP9	All social and economic actors are resource integrators.
FP10	Value is always uniquely and phenomenologically determined by the beneficiary.

SD logic has received criticism, as the direct company-customer value co-creation assumption is considered being too straight-forward (Galvagno & Dalli 2014, 645–646). The actual value co-creation context is typically more complex and relationship, interaction and network approaches are important to explain the basic elements of value co-creation's structure and processes (Galvagno & Dalli 2014, 645-646). Broader context in which different actors, competing and complementary, are involved is needed (Vargo 2007, 107). This is also the main reasoning, why the original SD –logic premises as such are not adopted and accepted to form the foundation of this study. In the present study the focus is on Finnish SME firms that want to open their business in China and thus, want to reach out to a establish value co-creation processes to new customers in new market settings. In this context distinctly

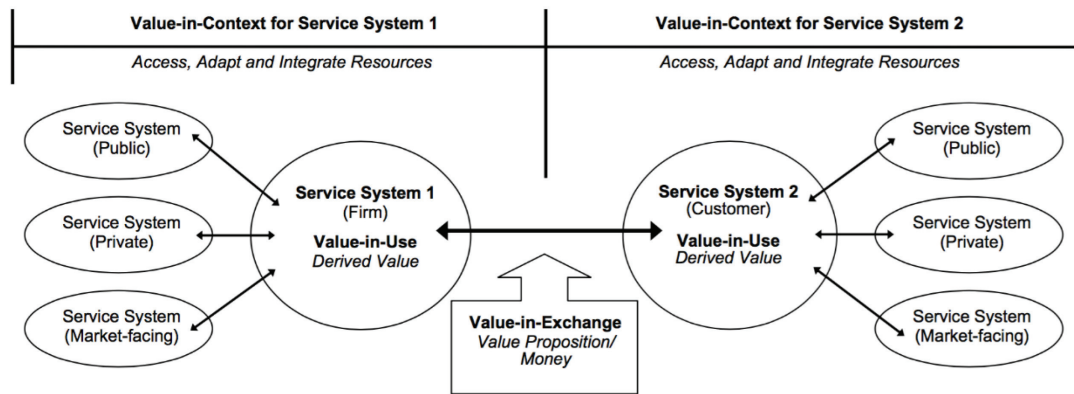
the firm, that can be defined as the focal actor (Storbacka et al. 2012, 55) is not directly entering a co-creation process with the end user or customer. It can be expected that for small and medium enterprises along this way and in the market entry stage several actors within the service environment impact the final co-creation process. It is of greatest interest to this study to analyse, how a third party trade organisation can support the value co-creation process occurring between the firm and the customer, who may not have a ready direct interaction or format of co-creation of value.

Service dominant driven school of thought has combined several side streams which can be identified into fully theoretical co-creation theories, relationship driven service science theories, service innovation by co-creating and the development of service science (Cavagnolo & Dalli 2014, 651–653). While the fully theoretical co-creation publications received at the early stages criticism for limited empirical evidence, the SD and service logic academia has still not fully been able to implement this theory into practice. Relationship-driven service science is the research stream where this study contributes to most distinctly by adding a specific empirical study on a third party's involvement in value co-creation within the service ecosystem.

Maglio & Spohrer (2008, 18) developed and focused the marketing thoughts of SD logic towards the concept of value and value co-creation in service systems. They concluded that 'service systems are value-co-creation configurations of people, technology, value propositions connecting internal and external service systems, and shared information'. The conceptual frameworks of service systems are particularly relevant to a research around SMEs and their third party relations due to their key principles. Service is seen as an exchange and application of competences, such as knowledge, skills and networks (Vargo, Maglio & Akaka 2008, 145-146). Value is co-created between actors (Storbacka et al. 2012, 53), who are not limited to the company itself and its customer but rather the wide network of service systems around the company, the customer and the value co-creation process (Vargo, Maglio & Akaka 2008, 148–149). Edvardsson et al. (2010, 333–334) concluded that institutions, social forces and actors always affect value co-creation. Markets can be seen as configurations to which companies' value creation processes need to fit (Storbacka & Nenonen 2011, 241). Now, that it is evident that a third party actor, a trade organisation, influences and affects the value co-creation, the system network or relationship space of the value co-creation needs to be broadened.

Vargo, Maglio & Akaka (2008, 149) also elaborated the concept of service systems into a framework of value co-creation between service systems (Figure 2). Value co-creation happens not only on a firm to firm level. Firms in different business areas but under the same business context can combine their strengths together to create mutually beneficial value, which takes value co-creation to a broader level. By creating value-in-context, service system by different firms is conducted. Moreover, value exchange between service systems can also be established through sharing the same value proposition. Service systems on both sides of value-in-use consumption include the public and private service systems and the market and the environment. These service systems are connected by the value proposition of the benefits, and potential value co-creation opportunity, as well as the perception and evaluation of such propositions (Spohrer, Vargo, Caswell & Maglio 2008, 6).

Figure 2 will serve as the starting point of understanding the presented phenomenon of value co-creation between a Finnish SME and Chinese customers and partners at the market entry phase. Both sides will have their own service systems that are influenced by active and non-active actors. The Finnish SME serves as the focal actor with a mission to open a new co-creation process and maximise the value of co-creation process of the end customer in China. Finnish cleantech SME, governmental organization, and intermediaries, can work together to form a service system when working on Chinese market entry. Such service system can engage itself to the service systems in China side by sharing the same value.



**Figure 2 Value co-creation among service systems (Vargo, Maglio & Akaka 2011)**

In 2012 Wieland, Polese, Vargo & Lusch (2012, 20–21) further discussed the model of service systems in a wider concept of services ecosystems perspective on value creation. They concluded that essentially all parties in the service ecosystems, the actors, are aiming for the same – to create value for themselves and others. Service ecosystems are highly dynamic and complex systems of service exchange and thus, their recommendation is to view the exchange functions as Actor-to-Actor exchange. In this research actor to actor value co-creation inside the service ecosystems will provide the key theoretical foundation. A key assumption is that a third party trade organisation can only contribute to the success of a Finnish SME by successfully contributing to the value co-creation processes in the service ecosystem. Even more, the success of its actions and concrete elements on how to contribute, should be measurable or visible. Thus, I move to the analyses of business models frameworks that give some of the few managerial frameworks for value co-creation environments (Storbacka et al 2012, 55). A second key assumption is that SMEs which find business success in value co-creation processes have been able to setup successful business models in place for the market entry to China. Thus, the trade organisation should be successful in supporting set up of such business models.

## 2.2 Business models in value co-creation systems

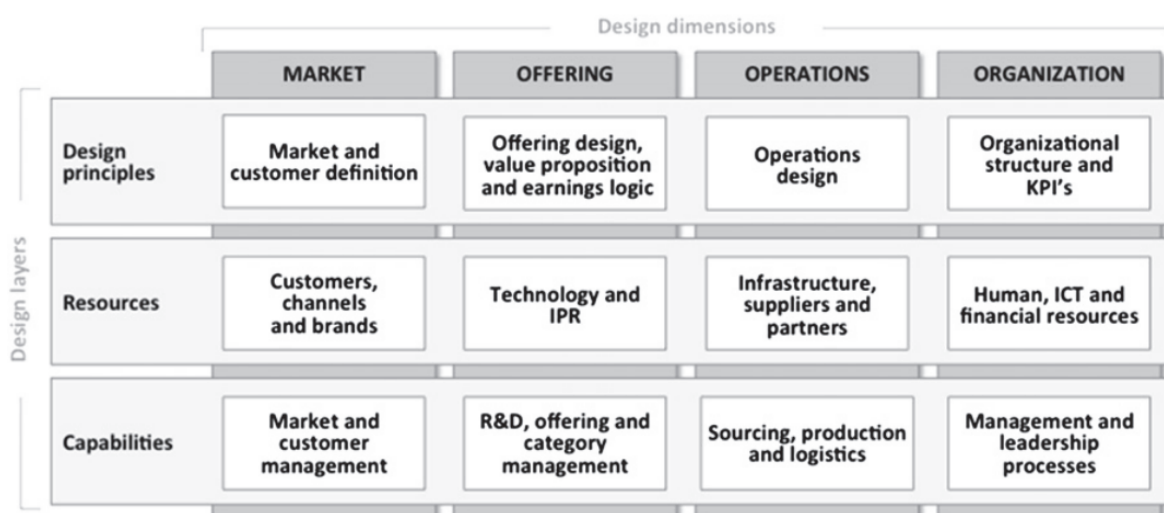
While the SD logic and its research streams have been criticised for lack of empirical evidence, the need for such has been identified (Cottam & Leadbeater 2004, 35–36). The key question from managerial perspectives is, how companies, or focal actors (Storbacka et al

2012, 53), can create meaningful value-co-creation and engage customers – or the wider value creation system – into it. Development of such frameworks has been limited to product development and innovation with the customer (Hoyer et al 2010, 3) or purely the relationships between the actors (Payne et al. 2007, 86). As I do not want to limit the potential outcomes of means how a third party trade organisation can contribute to the success of the Finnish SME, both of these thoughts are adopted but they do not form the holistic framework for business planning. Moreover, this study will build on top of the existing work and the business model concepts introduced by Zott and Amit (2008, 7–10), Storbacka & Nenonen (2011, 248) and Storbacka et al. (2012, 61) as these articles underline that business model grasps the wide variety of mechanisms, interactions and value co-creation between variety of actors within the market setting and context. This thought is fully adopted in the present study. I build on the assumption that a Finnish SME that can create a successful value-creating and value-co-creating business models can find success in the market entry to Chinese market. This assumption gathers under its umbrella the fundamental understanding that markets, environments and context are different – value can only be created through co-creation between the actors and service systems.

Storbacka et al. (2012, 55) moved on to develop a managerial framework that would compile the key elements of business model theory and value co-creation theory into a practical framework to return managerial implications. Important elements for these business models is not only the holistic view towards firms, the focal actors', operations but also the configurational fit to the market and context where the business model is applied (Storbacka & Nenonen 2011, 250). 'Value creation, or 'value facilitation' (Grönroos 2008, 310–311) is no longer perceived to reside within the firm boundaries; but rather, value is co-created between the actors in a network (Storbacka et al. 2012, 69).

Business model theory has emerged very recently in the management literature. While Osterwalder (2004, 2) introduced the notion of business model canvas around the notion of value proposition and Teece (2010, 191) defined business models as the design of value creation, delivery and capture mechanisms, majority of the academic thought heavily follows the understanding of customer value creation (Storbacka et al. 2012, 53). In the context of this study, it is crucial to understand that the interest is in particular in the third party trade organisations capabilities and role in supporting a focal actor and customer in value-creation between their service systems.

To examine concrete areas which form a successful business model Storbacka et al (2012) introduced three design layers and four design dimensions. This matrix is also a key element in building the theoretical framework of this study and later the framework for the empirical in-depth interviews to identify success of Finnish SMEs. First layer includes design principles which link very directly to the strategic fundamental decision-making within the firm. The firm needs to define the market and the customers – the service systems that it aims to connect with for value co-creation. It needs to make the decision on the value proposition – the service or offering – and their configurations for the market and context fit as well as the earnings logic. Operational design will guide the company to identify how they operate the business in the new value co-creation ecosystem. Which parts they do themselves, what is outsourced? Organisational structure and KPIs finally build the management system for measuring and developing the value co-creation business model. Figure 3. illustrates the framework in full.



**Figure 3 A framework for Business Model Design (Storbacka et al 2012)**

Finnish SMEs do not in all circumstances know the new Chinese market or the customers in the market. Defining the targeted service systems to provide value propositions and create interactions is of interest of this study. Can the third party trade organisations play a pivotal role in developing this understanding?

Resources form a significant second design layer. Existing customer base and brand form a market dimensional layer. Technology and IP are an important driver behind value

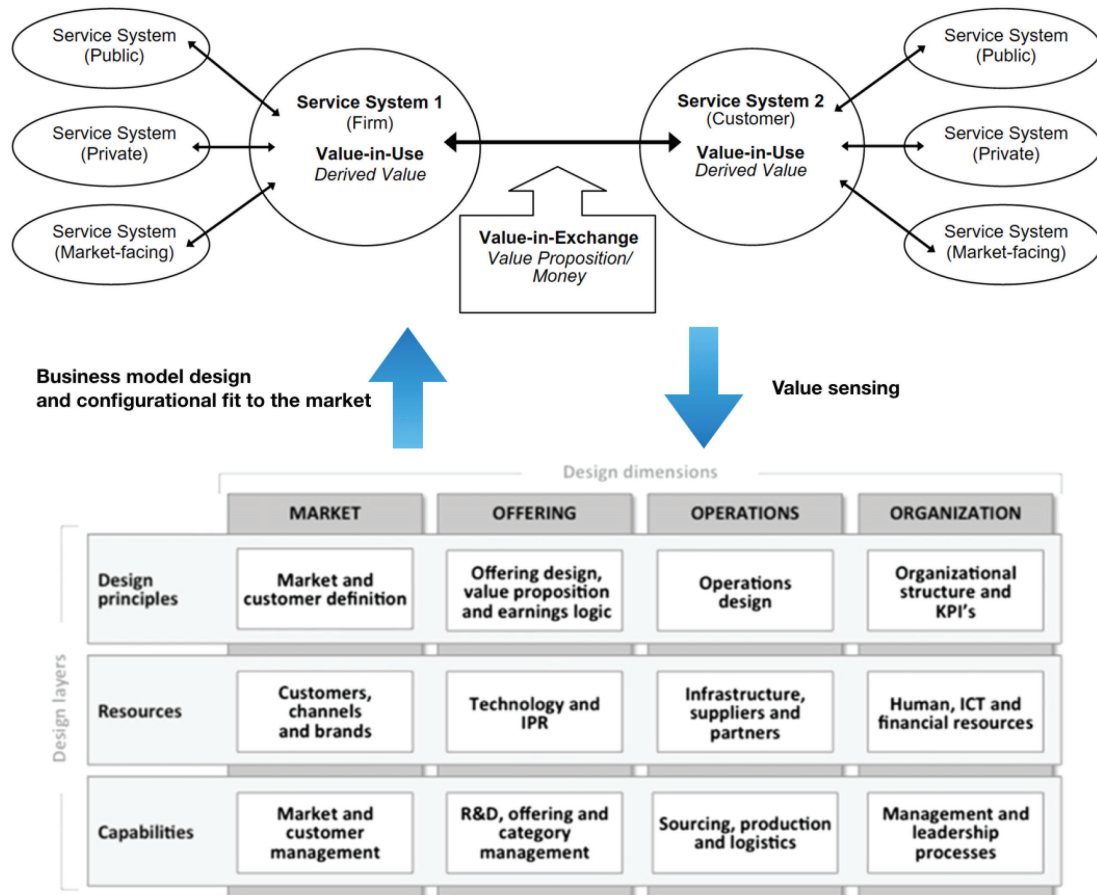


propositions and the firm's capability to co-create value. The IP strategy and core technologies in the offerings of Finnish SMEs can be expected to be in the core of market entry processes of cleantech companies. What could be the role of trade organisations in drafting and facilitating value co-creation with the technology provided. Infrastructure, partners and suppliers as an operational design layer provide a focus area on understanding the physical infrastructure and IT but also the core supplier and partner networks that the company needs to design in market entry opportunities. This provides a clear assumption dilemma for the present paper, should the trade organisations be treated as an actor within the Finnish firm business model design or as an active player themselves in contributing to the success of the SMEs? To have a thorough understanding of the phenomena I have chosen the latter approach, which will further be explained later. Final components of the resources layer are the organisational human, ICT and financial resources, which often become an obstacle for small enterprises taking new risky steps in their business.

Storbacka et al (2012, 63–64) continue that the third design layer of successful business models consists of the general capabilities. These capabilities are utilized in the actors value creation process and, thus, play an integral role for co-creating value-in-use with the counterparts' service systems. In this layer, market insights and knowledge, R&D ability, sourcing and offering production capabilities and leadership and people management skills are considered. It is a fundamental question of this study, how the third party trade organizations can contribute and enhance these capabilities but also, can they identify capabilities that can facilitate value creation in Chinese market in circumstances not seen in the Finnish or past business environments of these companies.

Storbacka et al (2012, 65–70) make one more, and arguably the most important statement regarding business model design in value creation networks. The configurational fit of the business model must be understood and found to form a basis of successful business opportunity. Storbacka & Nenonen (2011, 251) introduced the concept of value sensing, that underlines actors ability and actions to identify value creation in the markets. I adopt the concept of *value sensing* into the core framework of identifying ways and alternative approaches, if and how a trade organisation can act as a value sensing actor to identify new value creating opportunities. As a hypothesis, export projects and programmes such as the Beautiful Beijing organized by Finpro with pilot case studies for Sino-Finnish company interaction can be a form for value sensing. However, I want to dig in deeper, whether the

project facilitation has been the driver of success of SME market entries, or should trade organisations contribute to value sensing in alternative and more impactful ways.



**Figure 4** Theoretical construct of the present study (modified from Vargo, Maglio & Akaka 2011, Storbacka et al 2012 and Storbacka & Nenonen 2011)

By applying the business model framework introduced by Storbacka et al. (2012, 61) and the value sensing principle (Storbacka & Nenonen 2011, 251) into the predefined value creation network the theoretical framework of the present study starts to shape (Figure 4). What is missing is the context of an SME environment and internationalisation as well as the characteristics of the market entry to China.

## **2.3 Internationalisation of SMEs**

Next, the surrounding theories of the study context, internationalisation of SMEs are discussed. The key existing literature includes Stage model theories (2.3.1.), Network based theories of internationalisation and theories on market entry modes.

### **2.3.1 Stage models**

Management literature have given a significant focus on SME internationalisation in the past and the theories have also been supported with significant empirical research. In broad the SME internationalisation theories can be divided into stage models, foreign direct investments and network theories (Coviello & McAuley 1999, 225). A supporting concept of international entrepreneurship (e.g. Bose 2016, 90; Ruzzier et al. 2006, 111) can be seen as a fourth paradigm within the sphere of SME internationalisation. Wide popularity in the academic literature has been given to stage models of which arguably the most cited and influential was the Uppsala Model developed by Johanson and Wiedersheim-Paul (1975, 321) and Johanson & Vahlne (1977, 26). The Uppsala model as all stage model approaches focus on the managerial learning and companies moving in internationalisation by stages, from early less risky steps towards higher involvement in distant previously unknown markets. The stage models can be considered highly firm driven, and thus, I do not adopt the theory as such for the present research. However it is important to bear in mind that Finnish SMEs entering Chinese markets may well be at different stages of their internationalisation movements. Drawn from the stage model theories, the managerial element of forming early-stage export business models with limited risk is considered throughout the research.

### **2.3.2 Network Theory**

When focusing on the internationalisation efforts of the Finnish SMEs', limitations in financial and inter-organisational resources are set as a hypothesis that will serve as a boundary for the following research. It may be argued that Finnish medium-sized enterprises can carry out powerful market entry strategies, but to serve the wider public debate of the Finnish economic and political debate, I find it more relevant to focus on the SMEs that need to

acknowledge the requirement for partners and networks around. I limit my research on the companies that need to consider and form networks, alliances and clusters (Bose 2016, 90). Value co-creation is always occurring within the service ecosystems (Wieland et al. 2012, 13) and in the context of a small SME even more often there are significant active partners in contributing to the value co-creation exchange between the SME firm and the end customer. This sets a new challenge for the theoretical foundation, as business linkages, joint ventures, alliances and subsidiaries play an important role in increasing export activity (Gumede & Rasmussen 2002, 168). When the technology and innovation management literature is combined to the existing network-driven internationalisation schools of thought, also linkages such as licensing partners, technology partners and mergers are becoming a distinct model for SME export (Bell et al. 2003, 357). It is reasonable to argue that these models are also common among high technology fields such as cleantech that form the cases of this study.

Network theories of SME internationalisation see firms as interacting actors and the focus is heavily on business-to-business relationships between the firm and its partners within the network (Blankenburg et al. 1996, 481). These studies compile a series of challenges in the relationships between firms in opening new markets. Trust, control, resourcing and interdependency between companies are found as strategic considerations in these relationships (Blankenburg et al. 1996, 483). A crucial finding by Jaklic (1998, 382) concludes that network and relational approaches can be in particular suitable for SMEs entering catching up economies, such as China, where technology and knowledge may not yet be at the level of the market of origin.

Network theory also carries a clear stream of publications focusing on the social aspects of networking and the role of individuals and their impact in SME internationalisation (Davidsson & Honig 2003, 325). Single individuals tend to impact SMEs ability and activity in expansion (Hoang & Antonic 2003, 166). However, in the present paper our approach is to focus systematically improving and enhancing SME internationalisation capabilities of the Finnish firms – thus, individuals' role will not be adopted into the framework with a deep focus. My aim is to provide concepts that a trade organisation can support. As a conclusion I set a hypothesis, that also the companies under this study have seen the impact of such export-driven individuals. Ciravegna et al (2014, 921) conclude that business internationalisation through traditional buyer-supplier networks are often less long-term and less

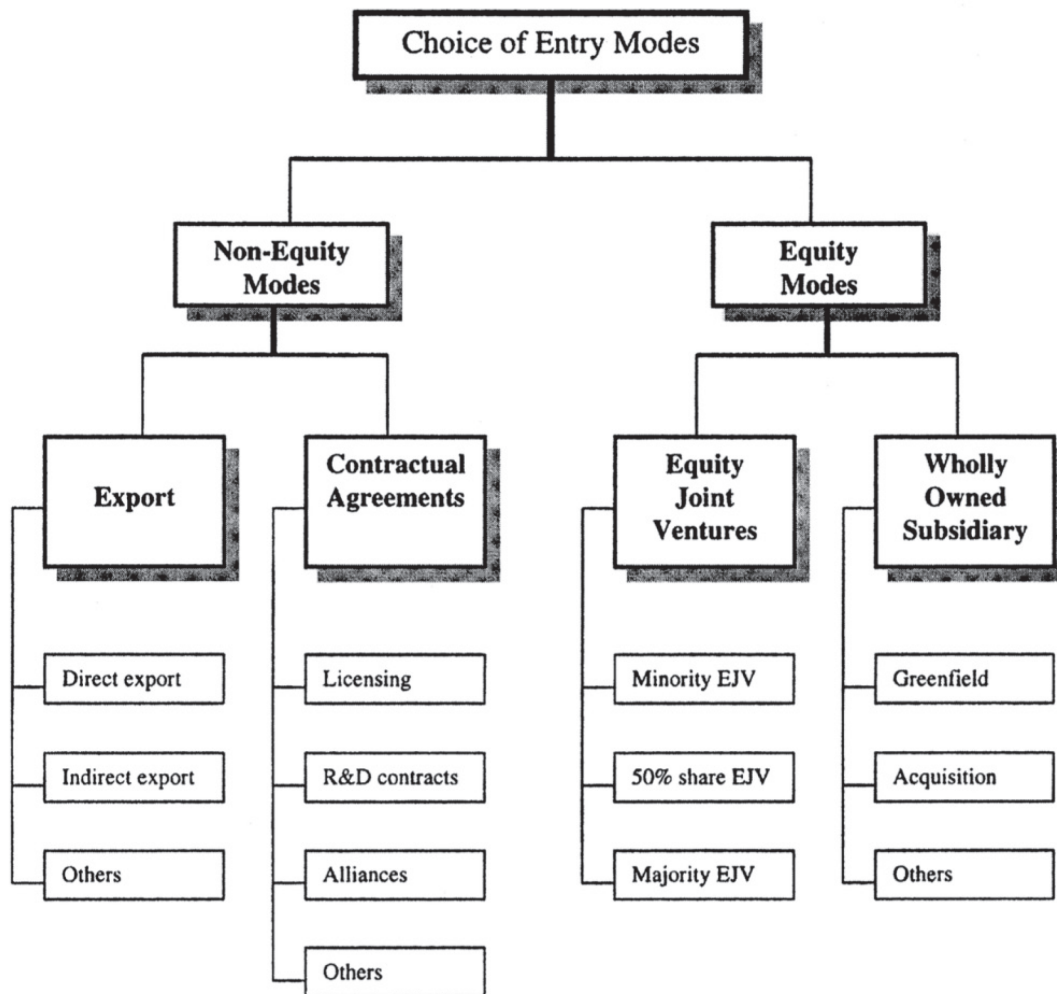
strategic moves, while export efforts through personal relationships provide stronger and more longer term export business. Also, when the focus of this study is in analysing the market entries into the Chinese market, personal relationships can be expected to play an even more important role. In Chinese business environments an ever-rising term is Guanxi (Davies et al. 1995, 209). Guanxi, a relationship in Chinese, can benefit SMEs for example with a greater and smoother access to information, resources and more straightforward transactions (Davies et al. 1995, 213). While I do not focus specifically on the guanxi-term and the guanxi construct in this study, guanxi is considered under the concept of value co-creation between networks. It is hypothesised that one of the key success factors for the successful Finnish SMEs has been access to partners and the right networks.

One clear link between the present study and the individual's impact theories is a function of export talent resourcing. Can a trade organisation support companies in finding export talents that drive SMEs to foreign markets? These individuals and export-drivers are typically inside the company, their knowledge of the competence, business models and the strategic forces of the intra-firm are stronger than transactional parties in buyer-seller relationships (Antonic & Hisrich 2000, 36). I draw a question on, if the knowledge and the internal drive of the company's individuals and their networks play such a significant role in the success of SME internationalisation. How a third party trade organisation can enhance these capabilities or develop these relationships between the firm and its value co-creation networks? Even more relevantly this question arises in the context of Finnish technology SMEs and cleantech, as the common public assumption defines Finns as introverted engineers rather than outgoing internationalisation-seeking entrepreneurs.

### **2.3.3 Market entry modes**

Key boundary for the present study is the context of market entry into the Chinese market. It is evident that the scope of my research requires clear boundaries in terms of context to be able to fully understand the specific actions and the broad scale of opportunities that create Finnish SME export success and to which the trade organizations should be focusing on. Key literature for market entry context in the research is drawn from an article by Pan & Tse (2000). The market entry framework (Figure 5) concluded by Pan & Tse highlights that companies looking at a market entry think strategically between non-equity and equity

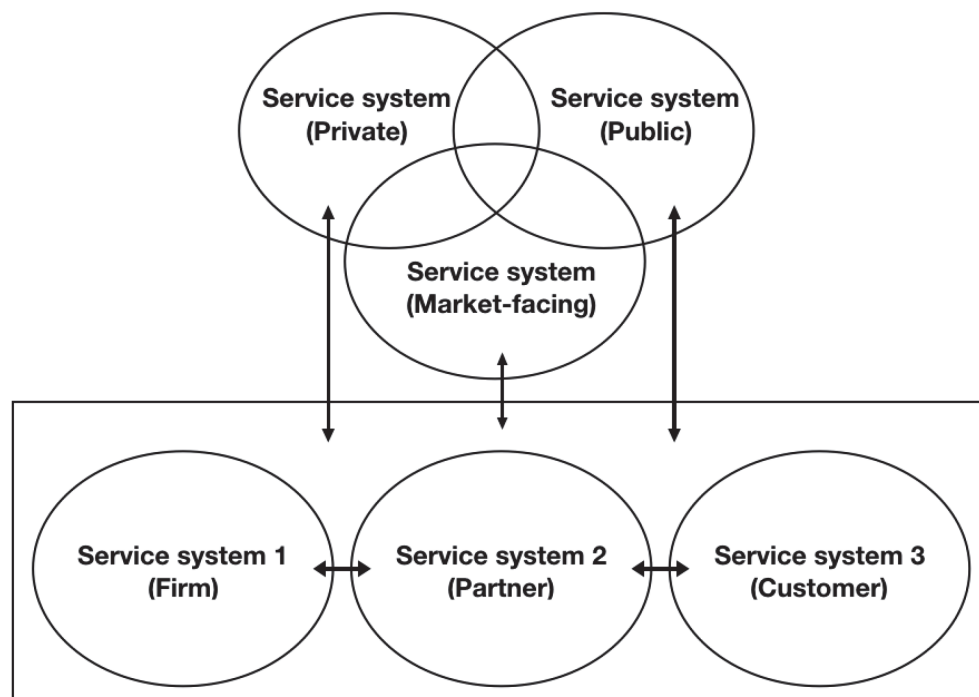
models of market entry. Equity modes are widely used by larger corporations and firms with serious financial backing. Also drawing from the Uppsala model described earlier that smaller or medium sized enterprises with limited resources may be entering the equity modes at later stages after receiving and gaining sufficient knowledge.



**Figure 5** A hierarchical model of choice to entry modes (Pan & Tse 2000, 538)

In the focus of this research non-equity entry models have been chosen into focus due to the expected higher relevance for SME companies with limited capability of financial equity. Non-equity models of market entry include export business related actions and contractual activities such as licensing and technology transfer, export through dealership networks and direct export. The use of non-equity market entry modes has also been evident

in the past research around Finnish SMEs (Ojala 2009, 50–51). The focus on the non-equity market entry modes sets another requirement for the theoretical framework of this study.



**Figure 6 Value co-creation between service systems in SME market entry (modified from Vargo, Maglio & Akaka 2011, 149)**

As the non-equity market entry modes commonly have partner actors in the middle between the focal actor and the end customer, the structure between value co-creation and value-exchange between the service systems in the exporting company and the new market needs to be assessed. Instead of a direct focal actor to end customer value creation process a third actor that distributes and co-creates value in the middle of these actors should be recognised (Figure 6).

#### **2.3.4 Research on Finnish SMEs internationalization**

Despite being a visibly clear point of interest in the public debate, existing literature on Finnish SMEs and their internationalisation success remains limited. This study aims to

contribute to the literature by drawing from the success stories of Finnish clean technology SME firms and in particular focusing on the role of the trade organisations in this success.

Ojala (2009, 57) focused on knowledge-intensive software firms and their entry to the physically distant markets. It was found that the important relationships and entry catalysts were actually in several cases good relations to non-profit government-owned consulting firms who acted as the partners or middle agents. Ojala also stated that the selection process of the markets and the market entry modes of Finnish SMEs is typically explained by strategic reasons, also to be interpreted 'business model design' (Storbacka et al. 2012, 61), rather than the informal networks and connections. However constant activity was seen as a combining element among the software firms that had entered physically distant Japanese market.

Forsman et al (2002, 2) examined Finnish firms with below 500 employees on their internationalisation models. Contradictory to Ojala's notions they suggested that SMEs, at least based on their managerial opinion, prefer direct export models over partner companies, as the partners in the middle increase distance between the local firm and the customer. Both Ojala (2009, 58) and Forsman (2002, 9) called for further research in the field of Finnish SME internationalisation and for example value co-creation science has not been integrated with the SME theories in-depth. This study aims to fill that gap with empirical evidence from successful Finnish export-driven SMEs.

### **2.3.5 The role of trade organisations and export intermediaries**

Last fundamental theoretical element of this study is the role of trade organisation, that also can be referred as export intermediary (see for example Peng & York 2001, Balabanis 2001, Peng & Ilinitch 1999) or export programmes (Francis and Collins-Dodd, 2004). After the turn of the millennium, studies around trade organisations have been limited and in the context of Finnish business environment, academic world has not contributed with vast number of studies. However, at the same time we have an ongoing public debate on the actual efficiency or inefficiency of trade organisations and their support networks. This is the real world knowledge gap to which the present paper aims to contribute.



The existing literature notifies key principles for successful operations of export intermediaries being decreasing the firms' negotiation costs, lowering the search costs and ability to lower clients' monitoring costs (Peng & Ilinitich 1999, 613–615). Peng & York (2001, 340) also concluded that while the success and ability to decrease the mentioned transaction costs is important, it is also crucial to identify outcome- and behavior-based signals to understand and distinguish efficient trade organisations from the ones with limited actual business capability. Importantly, Gencturk & Kotabe (2001, 66) examined and concluded that the trade organisations' export programs are not in full waste of resources, nor are they clear efficiency boosters. This sets a very interesting starting point for my study – the public debate has a clue on the potential waste of resources, but the academia has already proven also successful models of export organisations, for example, in the areas of lowering export marketing costs and providing platforms for export sales success (Gencturk & Kotabe 2001, 67–68). A fundamental finding of the studies on export support programmes highlights that success in these programs requires visible and emphasised support on developing and promoting the key competences of the exporting firms in the programs. I adopt this thought, and elaborate the finding into a hypothesis that a successful trade organisation must be capable of identifying distinctive competences of their client firms, the Finnish SMEs. These concepts are outlined in the theoretical framework of the present study as value sensing and configurational fit (see Storbacka & Nenonen 2011 & Storbacka et al. 2012). As most of the export intermediary and trade organisation research was conducted before the rise of the value co-creation paradigm, no peer-reviewed literature on directly focusing on the role of the export trade organisations from the value co-creation perspective has been conducted.

## **2.4 The theoretical framework**

The existing literature on value co-creation, SD logic and service science constitutes the foundation of the theoretical framework of this study. I adopt the constructs of value co-creation between market and actor service systems, the concepts of value sensing and configurational fit as well as the concepts of business model development and merge these constructs into the context of Finnish SMEs entering Chinese market. In this framework the key focus is the role of the trade intermediary – a partner – in the value co-creation process.

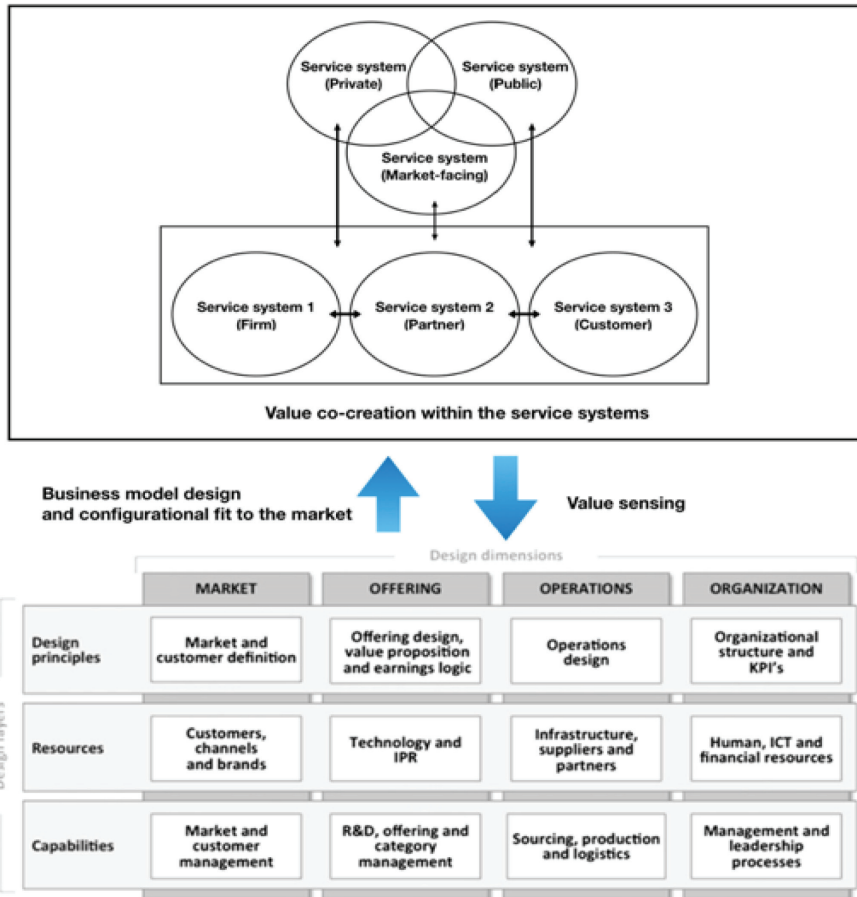
The key assumption is that a successful market entry will require that all above mentioned constructs are systematically considered, as long term business establishment will require a holistic approach. The theoretical framework is illustrated in Figure 7.

With the first research question I seek answers to understand, what have been the key success factors behind successful Chinese market entries executed by Finnish cleantech SMEs. The first research question is elaborated from the value co-creation perspective by exploring understanding on how SMEs value co-creation between the service systems, its partners, customers and intermediaries interacts and creates value in the environment of public, private and market conditions. This correlation is illustrated in the top part of the Figure 7. In the center of the value co-creation processes are also partners, such as intermediaries, and their service system.

In the lower part of the framework the two key constructs – value sensing and configurational fit – are brought into picture. While, understanding that successful value co-creation is the pillar for successful market entry, this framework explores, can the partners, the intermediaries, sense value creation opportunities in the market environment, customer environment and for example in the political environment – the value creation service systems in Chinese market. Similarly I explore the role of the trade intermediaries to assess the Finnish SMEs and understand their ability to create value in the Chinese value creation service systems. A key construct and role for the intermediary is to analyse and support

Q1a: What constitutes successful value co-creation in the business of Finnish clean-tech SMEs entering Chinese market?

Q1b: How a trade organisation can contribute and facilitate interactions, knowledge flow and value co-creation between the service systems of Finnish clean-tech SMEs and their Chinese market service systems?



Q2a: Can trade organisation improve their efficiency by becoming active counterparts by "value sensing"?

Q2b: How can trade organisations ensure and facilitate configurational fit of the Finnish clean-tech SMEs when entering China?

Q3: How can trade organisations successfully and efficiently support Finnish clean-tech SMEs in designing the market entry business models for Chinese market?

### Figure 7 Theoretical framework of the present study

the SMEs to develop their business models, process and structures in a way that they are capable to co-create value in the market service systems in China.

Third research question and the bottom part of the framework takes the above-mentioned constructs into business planning by reviewing the pillars of business model design. Ultimately, the assumption is that a successful SME has to design its processes, operations and business models to meet the service systems in the Chinese market in order to create and

co-create value. The business model matrix highlights the firm's capabilities, resourcing and the design principles of the company. If a specific business process or model alteration is explaining parts of the successful SMEs, it can be suggested that trade intermediaries can look to strengthen these areas of the SME business operations. This framework acts as the basis for an extensive qualitative case study. The process and design of this qualitative research is next outlined.

### **3 RESEARCH DESIGN**

Present study has been designed to explore in-depth knowledge surrounding the topical public debate agenda - the trade organisations and their impact in the business success of Finnish cleantech SMEs entering China. To understand a complex problem that will in most cases gather also subjective views and subjective opinions, and to dig into the underlying factors, a qualitative research design has been selected. Research design of the present study has been tailored to generate a two-way iterative research process, that moves between the existing theory, data drawn from in depth interviews on 5 different cases with different network partners and setting hypotheses from the data. Finally the data is analysed in the light of existing SME internationalisation and trade intermediary literature. This iterative qualitative research is described and defined next.

#### **3.1 Qualitative research approach**

This study is positioned in the field of case study oriented qualitative research. Qualitative research design is most suitable for conducting research that aims to explain, solve or deepen the knowledge of complex phenomena (Tracy 2012, 5). Originally developed for social sciences, qualitative research is commonly used to explore business environment topics that have not been understood well (Eriksson and Kovalainen 2008, 4). In these forms of research methods we aim to answer questions such as how, why and what, rather than seek numeric data that would give a definite figure (Eriksson & Kovalainen 2008, 5). Eriksson and Kovalainen also continue that the qualitative study approach can be used to analyse specific contexts in detail, which is the core of the present paper. Qualitative research can in these circumstances generate new knowledge that can at later stages be quantified for example through quantitative survey methodologies (Johnson & Onwuegbuzie 2004, 18–19). Such methods fall into the paradigm of mixed methods research, which could be applied also in the context of the present study, but are not in the resource scope in this paper. The number of successful cleantech SME market entries to China from Finland is limited, and thus, a qualitative understanding of the patterns is found sufficient level of new knowledge in this study. Quantifying the findings would in fact need a great number of respondents in a systematic numerical way. This is left for the future research directions.

Inside the field of qualitative research paradigm I have selected an interpretive approach to address the topic. Interpretive approach seeks to identify flow of actions in systematic patterns that could explain the phenomena and the meanings around it (Eriksson & Kovalainen 2008; Nordqvist, Hall & Melin 2009, 304; Tracy 2012). The present study aims to identify overlapping systematic themes in the data that would help us to explain the success of the SMEs that have entered Chinese market.

In interpretive research view also researchers' view on the topic and the world around us can impact the drawn conclusions (Myers 2013, 60, 187). That is why it is crucial to also consider the criticism of the selected research method. Qualitative research is criticised for its sensitivity for inaccuracy and subjective conclusions as well as vulnerability for researcher bias (Tracy 2012, 39). The key tool to avoid the inaccuracies caused by the selected qualitative methods is researcher's attention to systematic data collection and analysis and following a systematic and critical view in theorizing and generalizing from the conclusions of the found data (Eisenhardt 1989, 536–538).

## **3.2 Research process**

### ***3.2.1 The multiple case study method***

For this study a multiple case approach has been chosen as I try to find common patterns explaining the complex phenomenon. A case study method is a recommended option in research where a researcher is seeking how and why answers, cannot have much control over the case incidents and actions and where the research focuses on contemporary events (Yin 2014, 6). Now, when choosing my approach within the case study method, I rapidly concluded that a single case analysis would potentially not offer much of new conceptual knowledge in the field. In single case circumstances it would be likely that the individual events, individual companies' actions would play much more important role in the success of the market entry case. Thus, to minimize this challenge, I decided to approach the research problem with a multiple case study from two different perspectives – from the SMEs perspectives and from the point of view of public and private trade organisations. While this setup demands more from the researcher in systematic analysis of the data, multiple

case method is often used to aim for understanding causal relations that follow a certain pattern around the phenomenon (Fletcher and Plakoyiannaki 2011, 184–185; Stake 2006, 12–13). In this study I aim to find common denominators from the successful SME cases and potential gaps in between the minds of the trade organisations and SMEs. This result can only be achieved with discussing the theoretical framework with multiple case companies and institutions. A definite strength of case study research method is empirical validity, as the linkages stem from true world empirical cases (Eisenhardt 1989, 548).

A multiple case study approach can be led towards a theory and implications through various means. Welch, Piekkari, Plakoyiannaki & Paavilainen-Mäntymäki (2011, 745) categorise the schools of thought for theorizing models from case studies as, inductive theory (e.g. Eisenhardt 1989), natural experiment (Yin 2009; Yin 2014), interpretive sensemaking (Stake 2006) and contextualised explanation (Ragin 1997). These schools are summarized in Table 2. While I do see the inductive approach as a potential future direction in intensifying the present research design, this study falls into the sphere of natural experiment and interpretive sensemaking. In this research all individual cases are first handled separately with letting each case to highlight subjective views on the true actors and actions that have been influencing the phenomenon. This in-case analysis and research interprets each participating individuals conclusions into explaining the success of those individual cases. Later on, moving towards cross-case analysis this study falls into the category of natural experiment as, when analysing all cases jointly, I seek causal relations, cause-effect linkages as well as any conclusions that could be taken away from an individual case context. Should this research be extended in the future, a more inductive approach would take the researcher back to the cases after the natural experiment analysis, and in this inductive stage the conclusions from this research could be further elaborated. Even major and exhaustive case studies are hardly capable of providing generalizations that can be taken into wider population (Eriksson & Kovalainen 2008, 121) so the new knowledge developed with the methods of this research remains to be considered as an illustration and explanation of the phenomenon only. While the illustrations can provide solid ground for managerial and governmental implications, the key implications for academia is expected to be a set of theory founding hypotheses that can later on be quantified and validated through quantitative and inductive approaches.

**Table 2 Four schools of thought on building theory from case studies (Welch et al 2011, 745)**

<i>Dimension</i>	<i>Inductive theory building</i>	<i>Natural experiment</i>	<i>Interpretive sensemaking</i>	<i>Contextualised explanation</i>
Philosophical orientation	Positivist (empiricist)	Positivist (falsificationist)	Interpretive/ constructionist	Critical realist
Nature of research process	Objective search for generalities	Objective search for causes	Subjective search for meaning	Subjective search for causes
Case study outcome	Explanation in the form of testable propositions	Explanation in the form of cause-effect linkages	Understanding of actors' subjective experiences	Explanation in the form of causal mechanisms
Strength of case study	Induction	Internal validity	Thick description	Causes-of-effects explanations
Attitude to generalisation	Generalisation to population	Generalisation to theory (analytic generalisation)	"Particularisation" not generalisation	Contingent and limited generalisations
Nature of causality	Regularity model: proposing associations between events (weak form of causality)	Specifying cause-effect relationships (strong form of causality)	Too simplistic and deterministic a concept	Specifying causal mechanisms and the contextual conditions under which they work (strong form of causality)
Role of context	Contextual description a first step only	Causal relationships are isolated from the context of the case	Contextual description necessary for understanding	Context integrated into explanation
Main advocate	Eisenhardt	Yin	Stake	Ragin/Bhaskar

Eisenhardt (1989, 534) further explains that while a case study method is an ideal method for seeking emergent concepts, a key step in analysing the cases is the comparison to existing literature. While I have built the theoretical framework of this research design with extensive literature on SME internationalisation, value co-creation and business models in value co-creation, I have also adopted Eisenhardt's notion in the analysis phase of the present study. To maximise generalizability of the conclusion of the multiple case analysis, I will after cross case analysis revisit the existing literature on trade organisations and export programmes in SME internationalisation. In this part of the research the existing literature is once more used to validate and find common support for the case conclusions of the present paper. This chapter of analysis further strenghtens the credibility to the conclusions drawn from the study, as when common causalities are found, it provides a good step to move towards recommendations to managerial and governmental or political level.

In this research I first reviewed the key literature surrounding the themes of value co-creation, SME internationalisation and their success factors and business model concepts of value co-creation. Second, I selected a qualitative reserch paradigm to explore the specific



phenomenon of trade organisations impact in successful Finnish cleantech SME companies' market entries to Chinese market. Third, I decided to address the qualitative research with case study method, and in particular a multiple case study method, to be able to view the phenomenon from various angles and ideally, to find common causal relations and denominators between the cases. Fourth, I proposed that due to the inefficiencies of the case study method to be able to provide generalizations to wider population, the conclusions that drawn from the present study can be validated and broadened through inductive and quantitative approaches. Last, to aid this future research and the managerial implications, in the scope of this research, I seek validation for this paper's key findings from the existing SME literature also in different contexts than the Finnish cleantech SMEs China entry. Next, the methods to select cases, collect and analyse data are explained.

### 3.2.2 Case selection

Case selection for case study research is aimed to minimise selection bias and aims at gaining quality data with accuracy in selected cases (Seawright and Gerring 2008, 295–296). It can be argued that random selection, of any cases that would meet the research scope, provides the most randomised representation of the population, but as Seawright and Gerring (2008, 295) note, what a researcher might find random, is hardly ever a random selection, and a researcher bias is always present. However, in the scope of this study, pragmatic and resource-related criteria had to be considered when selecting the cases. The limited number of Finnish SMEs operating in China, access to in depth knowledge, time and financial resources can be listed as pragmatic criteria behind the selection of the cases for this research. At the same time the number of trade organisations actively supporting Finnish SMEs in internationalisation are very limited in this context and most commonly are linked to each other (Ministry of Economic Affairs and Employment 2017).

Alongside the pragmatic reasons behind the case selection companies and organisations, in the present study also other systematic measures were applied to select cases for in-depth analysis. Seawright and Gerring (2008, 297) categorises case selection methods into *typical*, *diverse*, *extreme*, *deviant*, *influential*, *most similar* and *most different*. Typical cases are often suitable for a phenomenon that is well understood already from the existing knowledge and where researcher wants to focus in detailed understanding of a single case

(Seawright & Gerring 2008, 299). In the context the present study I wanted to find cases that would each be in the proximity of the same field and which can contribute to each other in cross case analysis. Thus, a more diverse approach for case selection was adopted. The case company supply source was limited, so in order to maximise output from the cases, I sought to find cases that 1) can provide knowledge and explain the previously not fully understood phenomenon, 2) each differ from each other with some key consideration, such as the size and scale of the company's business, and 3) all relate to the same field, cleantech, and have been well established in the context – the Chinese market. Naturally company size and stage of China entry were used as a screening out factors to limit the focus of the cases to SMEs that have succeeded in China market entry. Now, it is general public knowledge that amongst the Finnish SME environment a fair number of companies try to use trade organisations and consultants in their early stages of market entries, and this was also brought up in the case company interviews at early stages. Due to the focus of the present study, I took the influential approach in selecting the trade organisations that with most likelihood had been influencing the market entry of our case companies. The goal of an influential case approach in case selection is to explore cases that may be influential in the cross-case theory analyses. After company case interviews it became evident that selecting the Intermediary A and the Intermediary E would with most likelihood contribute to the cross case analyses as they were said to be influencing the selected cases.

Approximately 400 companies from Finland operate in Chinese market (Vuori 2017). Thus, the total source base for selecting successful cases into the scope of this research is limited. I proceeded with the aforementioned, diverse case method, to screen out companies B, C and D which all represented a different stage, a different scale company, but that all had been able to launch successfully in China and were well established. In particular it was crucial for the study that at least one of the companies had already long term been able to develop their business in China and that Chinese market is in the core of their annual financial performance. To understand the phenomenon from the other point of view, a trade organisation view was achieved with the arguably most influential government run trade organisation, Intermediary A. It became evident in the course of the study that companies would also seek assistance from private sector trade organisations and consultancies. To understand if the government funded export programmes would differ from private sector run intermediary programmes and if the private sector consultants would provide additional knowledge, Intermediary E, was screened out as a Chinese market specialised organisation.

### 3.3 Data collection

For collecting sufficient in-depth understanding on the phenomenon, a theme interview method was selected as the primary data source of the study. Primary data was throughout the research process supported by secondary data from organisations' websites and public news media as well as from the existing literature on the phenomenon.

#### 3.3.1 *Primary data – theme interviews*

In-depth interviews were used as the primary source of data for this study. As the phenomenon was expected to require significant amount of in-depth experiences from the decision-maker level, the interviews were arranged with the CEOs and Managing Director level executives of the case organisations. Typically highest level of executives can provide the most holistic perspectives on the study topic, but availability of these interviewees is typically challenging. To conduct the interviews, thus a phone interview is typically offered as an option. However, in the present study the interviewees were first contacted via phone, to arrange a suitable face-to-face interview opportunity in a suitable time and location for the interviewee. Only in one case, face-to-face interview was not possible, and the interview was carried out as a phone interview.

Typically face-to-face interviews give the researcher more tools for extending and collecting the data pool for the research (Eriksson & Kovalainen 2008, 78). In face to face interview the researcher can easier understand if the interviewee has not fully understood the question and also it makes it more natural for the interviewee to ask more guidance in answering the research questions. For a theme based semi-structured interview, face-to-face interview gives a lot of opportunities to elaborate discussion with the interviewee.

The in depth interviews were carried out within a time frame of 1 month and all interviews were recorded. Later on, the interviews were transcribed in order to have accurate records of the interview data. Before the interview process the research questions were turned into a operationalised questions using an operationalisation plan. This plan and framework was designed to turn the research questions into language that simplifies the interviewees understanding of the research and helps them to answer in real-world language, to the more

scientific research questions. Before each interview, the interview structure with the theme listing was sent to the interviewees in advance, so that they could familiarise themselves with the themes.

A common pitfall for qualitative theme interviews is researchers' bias, which comes from the researcher directing or leading the interviewee to a specific direction (Eriksson & Kovalainen 2008, 168). To minimize this sort of bias, the interview structure was based on themes that were drawn from the operationalised researched questions based on the existing literature on the phenomenon. These themes were used as the interview topics, the headlines, for an open-ended discussion on the phenomenon. During this research it was chosen, not to ask the interviewees to elaborate or talk specifically on certain methods that trade organisations could offer them, but instead discuss and study the themes, that had been crucial for the case organisations in their successful experiences in Chinese market entry. Along these lines, the interviewees were then asked to elaborate, what sort of role the intermediary organisations had played in these processes.

All interviews were completed in a precise manner and the length of the interviews varied between 45 minutes to 2 hours and 15 minutes. All interviews were adopted as valid and insightful interviews for the analysis phase. In between different interviews no changes to the interview structure were made, but the existing theoretical literature was continuously observed in order to identify commonly rising themes that may need further explanation in the remaining interviews.

After all 5 interviews were completed the transcribed interviews were placed for a structured analysis using a within case and cross case analyses. Similarly, the interview data was placed against the existing theoretical knowledge and the secondary data.

### ***3.3.2 Secondary data***

The key secondary data sources for this study were governmental trade organisations' websites, intermediary programme websites and the case company websites. In addition, trade organisations have been under great media exposure throughout the study and the public media publications were used to highlight the topical phenomena under the study and

observe potential changes and actions taken by the intermediary organisations in the field of Chinese market entry support. First and foremost, the secondary data was used to understand the range of intermediary initiatives that are available for export SMEs. Naturally, it was also of great interest under the study, if the available programmes were known by the export-driven SMEs under study.

### ***3.3.3 Preparation for in depth interviews***

Before contacting the interviewees the interview structure was formatted in order to minimise researcher bias and unclarity. The interview analysis process can often become a highly abstract process, if the structure of the interview is not predesigned carefully. In the present study a method of *operationalisation plan* of the research problem (see for example Maxwell 2008, 230–231) was used to simplify and clarify the phenomenon and the interview structure. In the operationalisation plan the research questions were reformatted in operational equivalent formats. The operationalised research questions were then followed by the themes drawn from the existing literature and the theoretical framework. All in all the operationalisation plan proved to be an interview structure that turned the research framework into a structured step-by-step interview protocol. The operationalisation plan was kept unchanged throughout the interview process and then again, in the analysis phase, the findings were imported back as the data answering the research questions of the study. This method has also been characterised as mapping method or matrix method (Castillo-Montoya 2016, 812). In general this method has been used to ensure the alignment of different case interviews and interviewee approaches in order to deliver as comparable data as possible. Before the actual interview, a test interview was carried out to make sure the operationalisation plan and the themed questions are guiding interview to an aligned direction. As, the test interview was carried out, the researcher self-assessed the interview structure using the Activity Checklist introduced by Castillo-Montoya (2016, 825). For the test interview an SME Managing Director from a similar industry was selected from the researcher's personal network. Following the pilot interview the operationalisation plan of the research questions and the theme interview themes were finalized and the interview arrangements started.

The final operationalisation plan of the interviews is presented in the Table 3 and the full interview sheet in Appendix 1.

Table 3 Operationalisation plan of the present study

The research question	The sub research questions	The operational equivalents	The main themes of the interviews
How can Finnish trade organizations in the value co-creation networks facilitate the success of Finnish cleantech SMEs' Chinese market entry?	What contributes successful value co-creation in the business of Finnish cleantech SMEs entering Chinese market?	How different parties facilitate success of Finnish cleantech SMEs entering Chinese market?	Finnish cleantech SMEs
			Intermediaries
			Chinese partners/customers
	How trade organizations can contribute and facilitate interactions, knowledge flow and value co-creation between the service systems of Finnish cleantech SMEs and their Chinese market service systems?	How are Finnish cleantech SMEs supported by trade organizations?	Resources
			Networks and platforms
			Knowledge flow
			Approaches
			Interactions
			Risk management
	How can trade organizations improve their efficiency by becoming active counterparts by value sensing?	How are Chinese market information and needs gathered and utilized?	Communication with Chinese organizations and customers
			Identify opportunities
		How are Finnish cleantech SMEs' unique value gathered and utilized?	Screening of partners
			Sharing of information
			Identifying distinctive competences
			Screening of cleantech SMEs
	How are Finnish cleantech SMEs' competences matched with Chinese firms, organizations, and customer needs?	Matching process and structure	
		Judgment and measurement of the value matching	
	How can trade organizations ensure and facilitate configurational fit of the Finnish cleantech SMEs when entering China?	How can Finnish cleantech SMEs adapt to Chinese business environment and circumstances with trade organizations' facilitation?	Business cultural difference
			Business structures and processes
			Business partnerships
How can Finnish trade organizations successfully and efficiently support Finnish cleantech SMEs in designing successful entry business models for Chinese market?	How to ensure successful design for business models in market entry?	Market	
		Offering	
		Operations	
		Organization	
	How to develop business models that fit the Chinese market in entry modes?	Specific requirements of the market	
	Role of trade organizations		

### 3.4 Data analysis

After collecting the interviews, the data was analysed both within each case company and also in between cases, in a cross case analysis. In particular, the operationalisation plan was used to understand potential gaps between the case organisations. Cross case analysis was implemented to understand causalities and common denominators of the successful endeavours of the participating case organisations.

#### 3.4.1 *Within-case analysis*

Within case analysis is an analysis method in a case study project, where data from each case is analysed in a structured approach either against theoretical hypotheses or the theoretical framework of the study. In this in-depth analysis phase the researcher seeks to find critical findings that the data provides for each theme under the phenomenon. Often a comprehensive within case analysis involves detailed case-study descriptions transcribed first, after which insights can be concluded (Eisenhardt 1989, 540). This protocol was followed in the present study as all case interviews were transcribed and the researcher of the present study did not interrupt the content drawn from the transcriptions to the within case analysis section. All interview transcriptions were stored and included in the background material storage of the study.

In this study within case analysis meant thorough highlighting of each interview transcript, in a process, in which the researcher sought key success factors from the case companies, key support activities from the trade organisations, and underlying meanings of the answers that case organisations from different sides expected from the other side. The analysis was done in a structured format based on the theoretical framework of the study, which was already for the interviews reformatted into an operationalisation plan. This operationalisation structure gave the study a structured theme-based analysis tool to conduct first a within case analysis, and later on a cross case analysis.

The analysis sought to generate an exhaustive list of the elements how the interviewees had experienced the China market entry process and the trade organisations' role in these. Similarly a list of activities and success elements seen from the trade organisations' perspective

was generated by analysing these case organisation interviews. Throughout the within case analysis the main themes of the operationalisation plan were held as the list headlines, in order to simplify placing this data into the theoretical context of the study, and thus, to find common denominators for the research questions. After the within case analysis a more thorough and generalizable analysis phase – cross-case analysis – followed.

### *3.4.2 Cross-case analysis*

Cross-case analysis was placed into core of the present study. The selected case companies were at different stages of their Chinese market entry, and two of the case organisations were intermediaries – one from a publicly-funded sector and one from private sector. Thus, it was the initial hypothesis that the factors that these organisations would provide, would give several alternative explanations for their successful Chinese market entry experiences. Similarly, it was expected that the intermediary organisations would offer an alternative view to similar success cases, as well as a range of varied explanations of cases in which they have participated. Thus, it became evident and mandatory to carry out a comprehensive cross-case analysis, and this analysis was given significant role in drawing conclusions from the present empirical study.

In the cross-case analysis all findings of each separate case were structured based on the operationalisation plan. One tactic is to select categories or dimensions, and then to look for within-group similarities coupled with intergroup differences (Eisenhardt 1989, 540). After this these causalities and similar denominators as key success factors of the successful cases were analysed. A cell-based approach for cross-case analysis was adopted in the present study, similarly to the notions of Bourgeois and Eisenhardt (1988, 820). Similarly supporting action toolkits presented by the intermediaries in primary and secondary data were analysed in the light of the identified success factors. This gave the researcher an opportunity to analyse, 1) which factors are brought up often when a successful Chinese market entry is discussed, 2) which of these factors are identified also by the intermediaries and 3) which of these factors are actually currently supported by the intermediaries. It was the assumption that these causalities would open new knowledge on the successful intermediary support for Finnish SME market entries and also direct future research to intensify specific factors.



Findings from the cross-case analysis were at last concluded together with the existing knowledge built in the literature review on SME internationalisation. Any drawn conclusions were placed along with the empirical findings of the existing literature on the phenomenon. This analysis phase was carried out to increase the generalizability of the findings and recommendations drawn from this study. It was expected that causalities between the empirical cross-case findings of this study and the existing literature on SME internationalisation would give the strongest new basis on proposing managerial and theoretical implications from this study.

However, as discussed earlier in this study, the phenomenon of Chinese market entry in the context of Finnish SMEs is not widely researched. Thus, all conclusions drawn from the cases of the present study are included in the final conclusions of the presents study, even in cases where previous literature support for these factors was not found. This sort of new conclusions are a good platform for future hypothesis for future research as well as good starting point when managers are drafting development plans to further develop SME China market support activities for intermediary organisations.

### **3.5 Evaluation of the study**

When evaluating any academic research key components to evaluate the generalizability of the results and findings, are validity and reliability as well as the generalizability of the study (Eriksson & Kovalainen 2008, 291–292). In addition, researchers have to evaluate ethical considerations of their studies and this is in particular important when handling sensitive business knowledge, business information or even in some circumstances business secrets provided by the interviewees or the case companies. A solid and profound evaluation also always acknowledges the limitations of the study at hand. The present study is carried out in the form of an academic Master's degree, with limited resourcing and scope, but with comprehensive insight on specific cases – in this chapter I discuss the limitations that were needed to focus the present study on the actual phenomena within the resource limitations of the study.

### 3.5.1 *Validity and reliability*

In academic research validity and reliability are two key concepts under which the conclusions and findings of the research are evaluated (Eriksson & Kovalainen 2008, 291–292). Validity refers to the truthfulness of the results while reliability refers to the replicability of the research results. While validity is evaluated by asking – are these results really truthfully descriptive of the case, reliability is about would these results be the same if the same research would be carried out another time.

In the nature of in-depth interviews with human interviewees the date and context of the interview can always change. This sets a serious challenge for the validity of the research as the data is collected in qualitative person-dependent format, and later on the primary data is concluded and analysed by the researcher. Thus, there is always potential for both researcher and interviewee bias, in circumstances where the interviewee wants to draw a certain image of the phenomenon the way they see it. To minimize impacts of the interviewee bias, in the present study a total of five case organizations were interviewed. Two of these organizations were from the other side of the phenomenon, as trade organisations, and three of these organizations were from the business side of the phenomenon, namely cleantech SMEs who have entered China. All interviews were carried out separately. Researcher bias was minimized by following a structured format in first, compiling the theoretical framework from the existing literature and second, following the detailed operationalisation plan as the basis for the interviews. All interviews were recorded and transcribed and later on the operationalisation plan was used as the structure for the data analysis. This way the researcher's role was made as minimal as possible to make choices of which input of from the interviewee is concluded as primary data in the study.

However the analysis of in-depth interviews is always subject to researcher's decisions, what he or she finds key points that have been brought up during the case interviews. To increase transparency, in the present paper first within case analyses were written open based on the interviews, using also direct quotes from the interviewees. Second the cross-case analysis was outlined in order to really conclude topics and themes that were repeated in several cases.

The researcher seeks to increase the reliability of the present study by explaining in full the theoretical framework and the process of drawing an in-depth interview structure from the theory. This interview structure is described in a detailed operationalisation plan, which in any replicate study would act as a strong basis to actually deliver the same results in alternative studies as well.

At last, the generalizability of the study was considered by completing a cross-case analysis to find common causalities between all the cases. In discussion section of the present paper all common factors are then tested and evaluated to the existing literature to split the conclusions into potential new knowledge and into factors that have found strong support also in the previous studies. The factors that are categorised as potential new knowledge could then be proceeded into further tests with either quantitative or qualitative research on Finnish SME internationalisation.

### ***3.5.2 Ethical considerations***

Ethical considerations of this study include in particular the handling of the sensitive corporation and organisational information. While all interviewees granted the right to use their real company and participant names, the researcher made the decision to handle all data anonymously. This was found important, especially due to the sensitive nature of feedback relating to the public debate surrounding the trade organisations funded by the Finnish government. Any sensitive business data and input has been left out from the final paper.

The key ethical concept to respect of the interviewees and participants (Eriksson & Kovalainen 2008, 69–74) was followed strictly throughout the process. Also all interviewees were given the right to choose the time, place and method of their interviews. Also, referencing and citations of the previous academic work has been followed throughout the study. Similarly, it was decided that any non-argued criticism towards organisations was neglected and the transcribed interviews were stored safely for any future questions or commenting on the material.

### 3.5.3 *Limitations*

While the present study seeks to explore and understand the complex study in detail, the resource and time-constraints limit the scope of the present study. As the present study is a Master's Thesis, no additional funding was obtained for the completion of this study. This can be seen at least in three key limitations for the scope of the study.

First, the study was limited to focus on the successful market entries of Finnish SMEs. While all the case organisations represent a slightly different stage of a Chinese market business, or a different role in the intermediary-SME relationship, these case organisations are used to analyse the key elements why their market entry projects have been successful. Similarly the non-governmental and governmental intermediaries are analysed focused on the specific phenomenon of the market entry of Finnish cleantech SMEs to Chinese market. A specific selection of only startup-stage, with turnover less than 1 M, or for example only developed-stage companies, that turnover over 10 M euros, would have possibly provided different insights compared to the now selected case companies. However, it was my specific decision to use a range of case companies, in order to get most comprehensive illustration and exploration of the phenomenon.

Second, the research approach was to carry out extensive literature review and follow the literature review with in-depth interviews. With further resources, the in-depth interview stage could be further developed with grounded theory methods (Eriksson & Kovalainen 2008, 156). For example throughout the research the researcher could return back to the theory and continue with a new interview round after developing the theoretical framework further. In the scope of the present study this sort of approach was not possible, and instead the interviews were carried out at once after which the concluding analysis phase followed. After the analysis phase, however, some references from the theoretical background were brought in to find support for the empirical findings.

Third, subjectivity of the interviewees comments and insights is always present in in-depth interview studies. There is always uncertainty relating to what a specific CEO or a Director of a case organisation wants to share, and what type of image do they want to draw. To minimize the subjectivity, the researcher used total of five case organisations and the existing literature to find common factors into the implications and conclusions of the study.

However, the input received from the empirical study should be always considered limited to certain persons personal view, how they see their organisation.

## 4 DESCRIPTION OF THE CASES

### 4.1 INTERMEDIARY A, Trade organisation, public sector governed intermediary

Intermediary A is in public sector. It is a limited liability company wholly owned by the state of Finland, which has over 80 years of history. It helps Finnish SMEs in the areas of internationalisation and attracts foreign direct investment and travels to Finland. The size of the company was around 300 professionals who were distributed in 31 countries. In China, the company has 4 offices, which are located in Beijing, Shanghai, Guangzhou, and Hong Kong. (Intermediary A, 2017)

By the time I started the research, the company was managing 40 significant Growth Programs. One of the company's growth programmes was focused on fostering sustainable growth of Finnish SMEs in cleantech area. According to the company's figures, over 1/3 of the Finnish public R&D funding went into clean tech. More than 250 Finnish cleantech companies joined the program as members. Corresponding to the highly demanded Chinese environmental situation by then, the growth program established a sub-program in 2015 to promote Finnish cleantech expertise to China. The sub-program mainly focused on five areas: air quality, construction and design, energy, industrial solutions, and water solutions (Intermediary A's cleantech growth program, 2017)

Considering the company's absolute authority in Finland and its vast coverage in the chosen industry, I decided to interview the head of the sub-program in Beijing, China. Also, I selected the case cleantech companies from the growth programme's membership list and from the news that were published on the Intermediary A's China programmes.

Intermediary A had a lot of preparation work to do. Eventually, the interview was carried out via overseas phone calls. The entire interview took around 40 minutes. The data was first recorded, then transcribed into text, and finally allocated under each of the designed research question. During the research, Intermediary A is merged into a newly established comprehensive public organisation. The sub-growth program for China was ended by 2017.

## **4.2 COMPANY B, a cleantech SME, over 40M in revenue**

Company B is a family-owned cleantech SME, which was founded more than 50 years ago. Its business areas are in energy and environmental technology sector. The company manufactures and sells burners and combustion systems, industrial heat pumps and chillers, and ground source heat pumps for heating hoses. Its products are used in both large-scale facilities and private buildings. The company emphasises constant development of its technology efficiencies and environmentally friendly solutions. Its productions and sales offices are distributed in Finland, Russia, China and North America. In the year the interview was conducted, the company made over 50 million euros revenue (Company B website).

Company B entered China in the 1990s. It started from scratch and then kept developing the processes. In recent years, it is already a mainstream brand with its representative burner product and is awarded as the most influential burner brand and a special contributor for the Chinese boiler industry (Company B to win the awards at the annual Shanghai International Boiler Exhibition, 2013).

Company B is a representative of Finnish cleantech SME that is doing successful business in China. It is also a member of Intermediary A's cleantech growth programme. I contacted the person who managed Company B business for more than 20 years in China, the current CEO of the Company B, for a face-to-face interview. The interview was carried out at Company B's headquarters in Finland.

The entire interview took 2 hours and 15 minutes. The CEO of the Company B went through all themes in the research framework. He shared not only the company's market entry experience, but also his suggestions of how SMEs could utilise the current governmental intermediaries services to enter the China market. The data was first recorded, then transcribed into text, and finally allocated under each of the designed research questions.

## **4.3 COMPANY C, a cleantech SME, startup phase**

Company is a startup cleantech company in indoor air purification business. The core team of the company consists of around 10 professionals, including Chinese employees

(Company C website). The key technology innovators in the team contributed to solve the air quality problem of Finland in the 1970s. Seeing the recent years' air quality problem and the large market need in China, according to the CEO, the company was founded especially to provide indoor air purification solutions for the Chinese market. The Company C's turnover was below 1 M, but majority of the revenue was from the Chinese market.

Before the company was founded, the team traveled to China frequently to learn the market needs and product positioning. Knowing the highly competing market environment that is filled with domestic and international players, the product is fully designed to offer high quality air purification results. Also, while most of the players in the market target to families, Company C produces larger products to serve public space like companies, gyms, schools and hotels. By the time the interview was conducted, the company already established one dealership in China. According to the CEO, after the product was launched, it was positive to find out there are needs from other countries as well. Therefore, Company C started to take orders from other overseas markets at the same time.

Air pollution is the most crucial and obvious environmental problem that China is facing. The Chinese State Council launched a 5-year Air Pollution Prevention and Control Action Plan in 2013 (China State Council 2017), which has been called China's most influential environmental policy during year 2013-2017 and an important factor in significantly improving China's air quality by setting PM2.5 targets for key regions. Later in 2018, a Three Year Action Plan was launched by the State Council to continue the expired 2013 plan.

The CEO of the Company C happened to be in Finland during the time of the interviews and thus the interview was carried face to face. The CEO openly shared a lot of pre-market entry preparation experience and the way how he utilised governmental intermediaries to facilitate the business. The interview lasted 75 minutes. The data was first recorded, then transcribed into text, and finally allocated under each of the designed research question.

#### **4.4 COMPANY D, a cleantech SME, below 40M in revenue**

Company D is a clean tech SME that has been developing biogas technology to forest industry for more than 20 years. The company offers solutions to deal with certain industrial



plant waste in order to create an ecosystem that makes use of waste from the manufacture of the main products. The solutions are mainly in the areas of digestion and biogas utilisation. Its projects are mainly in Finland and there are two major projects in Asia. By the time the research started, Company D's revenue was below 40 million euros (Company D's website).

The company has a successful pilot project for sludge treatment in China, which was established in 2014. It is an industrial design project in cooperation with multiple local parties. Finnish and Chinese governments support the project. Company D is also a member of Intermediary A's cleantech growth programme. I chose Company D as a case company because it offers an industrial solution that takes a longer period to set up and requires more local cooperation. Its' technology was titled to solve a fundamental environmental problem that China's Yangtze River delta area has.

I emailed the CEO of Company D to introduce my research and called him to agree a face-to-face interview. The interview was conducted at one of the company's office. The interview lasted 45 minutes. The data was first recorded, then transcribed into text, and finally allocated under each of the designed research question.

#### **4.5 INTERMEDIARY E, trade organisation, privately-run**

Intermediary E is a privately run bridge organisation, which is established by several Chinese investment parties and in cooperation with a local Finnish team. With its vast capital and industrial network, the company aims to introduce suitable Finnish projects and solutions to the Chinese market. It was prepared for 2 years and established in 2016. The company actively seeks cooperation with local governmental organisations and business incubation platforms to engage B-to-B networks for project and solution sourcing.

Knowing that one of the company's interest areas is environmentally friendly technologies, I contacted one of its founders and a board member to interview about the Chinese investors' point of view and how they through Finnish government intermediaries look for projects to bring to China.

The interview questions were sent in advance to the interviewee and we had a face to face meeting to go through all the questions. The interview lasted 45 minutes. The data was first recorded, then transcribed into text, and finally allocated under each of the designed research question.

## 5 EMPIRICAL FINDINGS

In this chapter the empirical findings of each case are described. While the main research questions seek answers to intermediaries actions and impact in the success of the case companies' market entry, the empirical data refers in lot of the context to key success factors of these company cases, even when the intermediary had no significant role in it. This is due to the fact that the present paper seeks to find answer on the critical success factors of the case companies Chinese market entries, and thus, by identifying the success factors and what the companies have done well, we seek to be able to propose also actions that intermediaries should consider in their actions, even if they are not serving those factors at the moment. The public debate is criticizing a lot of governmental run intermediaries, so we seek to explain what elements then constitute the successful market entries. In the cross case analysis and the conclusion chapters these findings are then drawn into proposals and a structured approach to build sustainable intermediary and trade organisation programmes that can more efficiently generate success stories with Finnish cleantech SMEs entering Chinese market.

### 5.1 What contributes successful value co-creation in the business of Finnish cleantech SMEs entering Chinese market.

#### 5.1.1 *Intermediary A*

The development of Intermediary A's customer projects and the success of those varies widely. In particular the projects in cleantech sector were described as complex, as the value creation is often dependent on the infrastructure surrounding it. This would be the case in air quality and power plants. Intermediary A described that "*cleantech is extremely competitive area, where companies need to produce high value equipments to be able to compete*" (Interview A 2017). This directly directs the responsibility of successful market entry to the companies' themselves. Quality against competition and business processes must be fully made to be able to compete as "*This probably is one of the toughest market because it's growing and everybody wants to be here.*"

Intermediary A has also understood that small and medium enterprises typically do not have the capabilities to compete with global corporations in the same field. Even less is this possible in the Chinese market. Collaboration between SMEs is seen as a key method to form clusters and compete with full solutions.

In Chinese market also, the government-support from the Chinese political landscape plays an important role for the success of a specific technology boom to enter the market.

*”I represent the governmental pro programs you probably have heard. When the government was put in place they have certain target like clean tech, bio economy, wood... so when they get additional funding, they set up certain projects. So that’s why we can have a slightly different approach than the directly advisory type of work.” (Interview A 2017).*

This insight links directly with the Chinese market value creation systems’ and in particular the public sector service system. Governments support and accelerate certain industries, prioritise certain technologies, and Intermediary A has identified this factor. This was also evident on the public discussions around the time of the research as the Intermediary A provided Finnish SMEs with a range of trade programmes targeted to for example clean energy and winter sports, which were highlighted by the Chinese government as short term priorities. For the Chinese customers and Chinese partners importing government-pro technologies to China also creates strong public support in other fields of business and thus, this adds on the value creation perspectives in their local service systems.

Last, Director of Intermediary A highlighted the importance of the company itself:

*“It seems to be this way of in Finland we are a little bit hesitant to go abroad. And we are quite happy with the Finnish market. It would be good to go out and they have to be more aggressive. But one thing what happens.... actually my friends say it quit well, that China is extremely expensive hobby. If you wanna come in there and start doing business, then you need to put full effort into it.” (Interview A 2017).*

The expectation on the SMEs themselves was present in all interviews. In particular Director A emphasized the proper financing and internal activity of the company – the SMEs own value creating service system in Finland and in Chinese market with the environment and their partners.

### 5.1.2 *Company B*

Company B described that the key role in the successful Chinese market business activity in all circumstances is within the company itself. While the intermediaries are capable of facilitating success and providing support, it has to be in the core interest and the DNA of the company itself to make the leap. The company has to have a very strong internal drive to build success in China.

*“We had this idea that China will be a very important country in the coming years. It was clear for us for some reason. - - China will grow, grow, grow and grow and we have to be somewhere there.” (Interview B 2017).*

Before entering the Chinese market Company B had been actively operating in the Scandinavian and Russian markets. The development and decision to enter China, followed because of the assumed high market potential. As in all technology manufacturing businesses, the companies’ need to seek volumes and China was presumed to offer that. A key step to build the ground for the success was to develop networks and connections by the company and its management itself:

*“I built the business connections in China totally from scratch. I found a couple of dealers and we chose one” (Interview B 2017)*

From intermediary services Company B saw benefits from a market study that was purchased from a government-run intermediary export organisation. It was the market study from where the Company B understood that *“the potential is huge” (Interview B 2017)*. No further consultation services were needed at the launch stage, as the Company understood that it was *“time to act”*. So the intermediary firm’s consultative information not only gave them information but also a boost and encouragement to act. Later on the company used a

commercial councillor in Hong Kong, who spread the information that the Company B is seeking partners to cleantech industry. This led to *"a lot of requests"*.

Company B emphasised that the critical success factor for their market activities in China has been the constant activity and meetings of people and the capability to be of high quality and price-competitive at the same time.

*"I think the most critical factor has been, to learn to be active, so active that it is enough in China" (Interview B 2017).*

Company B had put intensive effort and resourcing in its own value creation systems in China. A major driver had also been key individuals, including CEO B, who had built extensive networks with his own activity. This could raise a question should the value creating systems framework in the SME context also be extended with a construct of *"Individual's service systems"*.

### **5.1.3 Company C**

Company C's Chinese market entry stemmed from a governmental friendship city delegation visit in Finland. The company got in touch with a green sector delegation of a Chinese city and furthermore developed the relationship with this particular city development team (Interview C 2017). A government and public sector intermediary setting played a serious role in getting the setup started. Since then, the Company has built knowledge on the market itself internally rather than utilizing the intermediary services.

*"We were the only western company to participate bidding. We purchased the bidding documents and we worked with this middle company so that they were our local partner in the bidding."*

Later on, government-run funding, *"a soft loan"*, was supporting Company C to launch its activities with the project. However turning the project from the initial contact into a concrete launched project took 8 years. A crucial partner company – a consulting firm, who

benefits if Company C technology is recommended, is the key partner in China. They execute marketing and promote the technology, and this is also the partner's financial interest.

A key element in Company C's cleantech business success in China has been that the government in China truly cares and wants to push green technologies. The local partner is also merging a range of technologies and integrating these resources into commercial projects. With the current business Company C sees a great benefit that they have an existing strong reference case in the business and believe this will generate significant business further should the company launch a Chinese office:

*"During this project there is already a lot of customers visiting the KunMing plant. And because of that we have already got an inquiry for sludge treatment for Suzhou." (Interview C 2017)*

#### **5.1.4 Company D**

Company D is closer to a start-up organization, but has developed its business in China from the very beginning. Air purification business was expected to be booming in Chinese market when the company entered and the competition is currently fierce. However, the company had established its operation in China, because the solution was needed by Chinese customers of Company D's sister company.

*"Well actually we could be considered as a spin off company. There is --- a company from Tampere, they are concentrate on doing sensors for air climate. [The sister company] went to China or started to go to China something like 2010, 2011, 2012.... and basically the message they got from China is that 'Okay you have a really good sensor, and clearly there is a big problem here, but would you also have some kind of solution for this?' (Interview D 2017)*

CEO of the Company D did emphasise that for them intermediaries' events have been a great way for networking but business-wise most important has been the activity and persistency of the company itself. Regardless of being a start-up the company had from the

beginning kept recruiting Finnish employees who had done China business as well as Chinese employees who could assist with high level influencer meetings.

*“I definitely think there is a role for this kind of organisations [trade organisations]. But also i think that what they can do is of course provide help and provide possibilities but of course the companies need to be active themselves. Other wise it’s not gonna work.”*

To truly succeed in the Chinese market Company D emphasized a local office and local Chinese employees. For recruiting the Company had not used the help of intermediaries but one of the Chinese employees joined the company at the very beginning and recruited the later ones.

*“I think one crucial thing is that you need to have Chinese personnel. Without it’s really really really hard. I think that’s one thing you need.”*

Recruitment of local employees in the theoretical perspective fits into the constructs of business model and operations design but also in the configurational fit element. The local employee-driven operations enhance the company’s ability to fit in the market service systems in China and thus, increase and facilitate successful value creation and co-creation. Last, sufficient resources were highlighted by the CEO of the Company D. In China establishment and getting cashflow takes time, and thus the Company D underlined the need of solid financial, employee and time resourcing at the back.

### **5.1.5 Intermediary E**

Intermediary E as a private intermediary and they run fully on private financial interests. Thus, their ultimate ambition is to successfully assist the SMEs with China market entry, and benefit of it financially as well. Director of Intermediary E emphasised that to be successful in Chinese market, the Finnish SMEs will need strong partner network, sufficient capital support and they need both political level support and private side business partners (Interview E 2017). The key for success are the Chinese side partners, who have to have serious access to the right market for the right SME’s technology.



*“The key is to make right match for Finnish companies and Chinese companies with the shortest communication time.” (Interview E 2017).*

According to Director typically a Finnish company does not have the right access to the right decision-makers (Interview E 2017). While the Finnish platforms offer introduction to general collaboration projects, the key would be to offer Finnish SMEs direct link and contact to major corporations in China. In circumstances where the technology the Finnish SME is offering, is among the priorities of the Chinese government, with the right Chinese partner successful business can be achieved.

## **5.2 How trade organisations can contribute and facilitate interactions, knowledge flow and value co-creation between the service systems of Finnish cleantech SMEs and their Chinese market service systems?**

### **5.2.1 Intermediary A**

In the beginning of the case study, it was highlighted that trade organisations have been under great public debate on their efficiency and actions that are actually taken to promote export business.

*“I think the biggest issue is the expectation management. And also what is the value of time and prospect. The SME’s time. How long do they actually expected to take that to develop the infrastructure here in China for their operations. That usually takes much longer than their expectations. So the expectations are sometimes not realistic.”*

Intermediary A has in particular chosen five industrial themes under which it is seeking specific projects that could be turned for business by the Finnish companies. The SMEs are gathered to interact in events and meetings – typically in smaller settings with a specific focus. The company also sets up training for managing Chinese business interactions in their Finnish offices (Interview A 2017).

For cleantech the organisation recognizes major construction and infrastructure corporations as key players for the service systems and value creation. Thus, the organization tries to form networks with the key Chinese construction and infrastructure corporations.

*“That’s a lot of network and that’s a lot of network. So we discuss we try to get close to large companies like Wanda, like China Construction. Then we talk ministries like for wood the Ministry of Environmental protection. See if we can find there some resource.” (Interview A 2017)*

To be successful with the market entry to China, in particular the cleantech sector needs to be sufficiently funded. The cleantech projects at an early stage were found to be money-losing, and thus, the SMEs should have strong financial backing and company’s internal priority in order to match with the cleantech business opportunities in China.

### **5.2.2 Company B**

The key resources in Company B’s China market operations have been the 15 – 20 people from Finland who have travelled to China constantly as well as the first key employees and the management team recruited in China. They sought their dealer partners and key employees directly by themselves instead of using intermediaries and furthermore and the key networks were developed by constant activity in the market by the company B itself. At an early stage the governmental commercial councillor service was used to spread the message of partner search, and one partner was found through this service.

From a resources perspective the company used a government-run intermediary investment company Finn-Fund as a co-owner for the company’s early stage plant, when production was started in China.

*“Because we wanted to lower the risk so it is not 100% on us” (Interview B 2017).*

The company adjusted its products depending on the market needs, and the knowledge to do so was gained from the customers. In the beginning selling the products was hard and concluded with several changes of dealers.

*”Because also they kind of got exhausted when they were meeting people but the business was not in the beginning very easy.”*

Continuous activity and discussions directly with the end customers not only improved their product line but also made year after year selling easier. Company B did not see a role for intermediary organisations in transferring this knowledge from the customers.

The value creation for end customers has been developed in detail and with an extensive scope, jointly with the end customers and the dealers, which Company B had to replace several times in order to get sales developing. Similarly, failures with dealerships forced the company to redevelop the offering and the success can now be seen, as the brand of the Company B is starting to generate also *”easy sales”* for the dealers (Interview B 2017).

To prepare for the cultural interactions with the Chinese the company did not specifically use any forms of intermediary consultancy, but instead learned by doing by *”being active”* throughout their market entry. Price negotiations were found to be the tough part of interaction, but all other interactions in networks, seminars and exhibitions to Company B has seen pleasant and positive. Also the company sees the key influencer meetings valuable, but the role of intermediaries in setting these meetings has not been topical for the Company B.

*”You have to be present in all important events, so that people really see you in exhibitions, and seminars and so on.”*

*”Then we have met the environmental people in very high level in Beijing , then we have met the design institutions in every big city, because they are very important in realisation of the process.” (Interview B 2017)*

The key influencer networks and the activity in stakeholder meetings and events were, thus, constantly highlighted by Company B. The company had understood that these key

individuals, whether they are environment office representatives or directly business partners, play significant role in the value co-creation process in the Chinese market. In the right opportunity a key influencer may connect the right public-private and market facing service systems with the SMEs', its partners' and customers' service systems.

### 5.2.3 *Company C*

Company C mentioned that the key resources gained from the governmental intermediaries were financing of the initial steps with a soft loan. At the moment the Company C is seeking private-side financing for the establishment of their own local operations in China, which would be the only sustainable way to start winning project bids in the market. For this Company C has also considered governmental financing.

The service systems of the Company C require a range of partners to coordinate jointly with each other. The nature of project-based environment plants require a range of technologies, investments, marketing and project management to be in place. In the case of Company C the privately run consulting company partner in China has acted as a focal partner who integrated a range of resources into one offering to deliver value to end users. Trade organisations did not specifically participate in this process, but the Company C's connection to this service system was initiated by the trade organisation's friendship city programme (Interview C 2017).

Company C had participated in export programmes such as Cleantech Finland, but had not seen serious benefits for the current stage of their business. Company C seeks to meet real technology experts who are the influencers in their field, such as biogas, biowaste treatment and so on. The industrial consultants do play a significant role in the governmental cleantech projects in China. Company C itself had not participated actively in exhibitions or networking seminars for the industry.

### 5.2.4 Company D

Company D has been actively participating with the events and meetings organised by the Finnish governmental trade programmes. The CEO of the Company D mentioned he does visit the local trade organisation offices everytime he visits China and the trade organisations, namely also Intermediary A, have been sometimes successful to arrange meetings to right people in the Chinese service system (Interview D 2017).

Company D's key partner in their Chinese service system is a distributor, which they found in an Intermediary A's organised networking event. For the actual discussions and negotiations Company D did not highlight a role for intermediaries but instead underlined a key nature of partner interaction at the negotiation phase.

*“...based on my own experience and our experience with the distributor, I've heard it many times that this story from the beginning that people usually say in China yeh the discussions can take quite a long time, but suddenly things can move really fast forward. I already started to think that it is true? But then without distributor then really happened. So actually we met them few times and then in the end it turned really fast forward. So I think that's the great thing in China. That's maybe getting the discussions open or starting can take more time than Europe but then the actual decision making and actual things happening can be much more fast than Europe.”*  
(Interview D 2017)

While the distributors' service system in China ultimately is the network where Company D's products get sold, it became evident to run through discussions on how to maximize the sales for the distributor. This included continuous discussions on products and business terms with the partner. Similarly to the initial connection building with the distributor, the Ambassador, the Consulate General and the both countries embassies between China and Finland had provided Company D with help and support to enter the networks needed to grow the business:

*“I think any time if we have the possibility to meet a Chinese company or Chinese people, we try to do it. And another thing in my opinion is in China you never know who knows somebody and who might lead to something. It's really hard to say.”*

In brief, the intermediaries continuously arrange events, expos and visits which all built Company D's connections to their Chinese side service systems at the initial stage and the Company's D own business visits helped them to develop the sales prospects for the niche market. After the initial stage, the development and value creation in Chinese market has been mainly driven by the Company D's own employees working in close collaboration with the distributor and the end customers. The Company D itself understood at an early stage that to succeed in China they do have to have a complete company ready for the market, not only one technology that the customers asked for.

### 5.2.5 *Intermediary E*

Intermediary E is operating as the focal actor to lower communication costs between the Chinese and Finnish counterparts. They describe their intermediary model as first screening through a pool of technology companies and then directly matching the successful companies with their existing pool of business partners.

*"We have a platform to which we have attracted over 40 members from China from the areas of banking, insurance, enterprises and municipal governments. We can directly speak to the CEOs of all these organisations who are onboard. We are more like a B-to-B platform. We prefer to connect business and business. But at the same time, we also have governmental organizations as members."* (Interview E 2017)

The Intermediary E described that their successful cases typically have been first found valuable in the Chinese side, in these circumstances the pre-screening is done the way the members of the platform intermediary also invest capital into launching the SME's China operations.

*"We have our pool of investments available but on the other hand, if a Finnish SME does not attract capital from our members then the company kind of just is trying their luck in China. Our platform is also a self-check for the company's potential in China"* (Interview E 2017)

The Intermediary E emphasises that interaction with the Finnish SMEs should start with governmental or association-based local platforms. The number of SMEs even in small countries is large, and thus, this sort of screening for a private intermediary firm is not possible.

*”The communication with SMEs should start from Finnish associations. Because associations have a big impact in Finland. From my perspective, I cannot find hundreds of SMEs and visit them one by one. Thus I need associations to recommend SMEs. There are also SMEs who want to drive to maturity, these kind of SMEs usually go to apply for fundings from Tekes, thus I take Tekes as my partner”* (Interview E 2017).

The Intermediary E sees that key service systems in Finland should include both government-run associations and intermediaries, financially healthy SMEs with concrete technology that has market potential in China. Similarly the Chinese side service systems for truly successful market entry should always include financial institutions, governmentally run support but most of all the right b-to-b business partners.

*”When Finnish SMEs come to China, they cannot distinguish who is a good partner to work with. Every one tells that they are good in a way. It makes the Finnish SMEs confused. So you have to help them to analyse... it comes to the communication cost. We all are busy people. The best way to improve communication efficiency is to work with professional and direct institutions, to locate SMEs themselves correctly into the market.”* (Interview E 2017)

Intermediary E links the above quote to the communication costs in transferring value, knowledge and information between the service systems in the market – from the SME to the Chinese market service systems of the partners, environment and customers, and back to the SME. The SMEs must be able to find the market opportunities where their unique technologies, business processes and value creation capabilities will contribute to the local environment and the local customers, this comes with a cost, and Intermediary E sees its role in lowering these costs.

### 5.3 How can trade organizations improve their efficiency by becoming active counterparts by value sensing?

#### 5.3.1 Intermediary A

Intermediary A had restructured its operations quite recently in 2015 in order to focus on the key 5 industrial themes, where they wanted to find focus.

*“We started to look at where we can actually add value. And especially to the SMEs. The SMEs do not have time or personnel or resources to go around China to try to find projects. They have to find projects. So that’s the difference between us. We try to kind of like do the first tests to see if there is actually can become a project.”*  
(Interview A 2017)

The organization has a fundamentals analysis tool, which they use to pre-screen potential project opportunities within the industry themes. For the real projects they try to then bring SMEs to the platform to launch projects as actual business initiatives. The organization closely follows the political environment of the Chinese market, and for example cleantech solutions that are linked to winter sports complexes, were on their list during the time, when the Chinese government started to emphasise winter sports activities development in the country (Interview A 2017).

In the initial project scoping the organization does not involve the Finnish companies, but instead try to save time from the SMEs which don’t have that much resources of tracing down varied project opportunities. Later on, the SMEs are invited to come with proposals into the specific projects:

*“So what we try to do is a small event where we actually invite companies that has already some kind of projects. And then they can start talking and presenting their projects. And they can start talking to each others.”*

Even more the ambition of the organization is to be a true value bridging organization, by first screening out ready real projects, and then taking these pre-checked projects for the Finnish companies to evaluate.



*“We actually do it the other way around. We actually try to find the Chinese projects then we can bring to the Finnish companies: “here are this kind of opportunities”, “this has been checked”, “so if you are interested, come to China come to talk to these companies”. That’s the other way around than “this is the Finnish product and who is willing to buy it”.” (Interview A 2017).*

Traditionally intermediaries are trying to assist SMEs with the top-down approach, from Finland helping the SME to the market. Director A refers in the above quote to their approach of instead being actively inside the market ecosystems in China and introducing ready opportunities to the chosen SMEs, whose value creation capabilities they are aware of. Naturally, the following questions are then, what are the real capabilities of the intermediary to address a specific SME value creation resources – which SMEs should these projects be introduced to?

### **5.3.2 Company B**

When Company B initially entered Chinese market there were not as visible and active programmes to support with market entry activities. The company identified its own competitive advantages through the constant and active conversations with the customers. This sort of active collaboration with the customers’ service system and their value creation processes, can be expected to be a very sustainable but resource consuming approach.

”That was very easy because we had so good contacts with the clients. They were saying to us that “hey do this...”. So “okay, we do, we do”. So we just follow the advice.” (Interview B 2017)

For the role of intermediaries the CEO of the Company B was concerned regarding the time resources and intensity of the intermediaries. It was a concern whether such trade programme organisations would actually have time to get to know the companies first before seeking to match and bring these companies to Chinese market. Company B had not been in any sort of matching event, but instead the ambition and courage stemmed from the market study and the management’s general vision that Chinese market will be crucial in the

cleantech industry.

“Do they [trade organisations] really have time to learn the client before they get them to China? If they don’t learn the client well, then it is something which travel agencies can do.”

The CEO of the Company B also emphasized that he would see a serious benefit if the trade intermediaries would focus on solving specific problems for their Finnish SME clients or alternatively for Chinese partners through Finnish technologies. This ultimately matches the theoretical notion of value sensing, but as mentioned, that would require time and focus-capabilities from the intermediary organisations.

From an information perspective, a Chinese intermediary company operating a new business development zone, was very influential and supportive when the Company B was establishing its production operations in China. In this case Company B itself contacted the local authorities operating the new business development zone with their needs and received strong support in actually launching operations there. Also, the company internally sought the right development zone areas, where similar industries would operate and where the location would be suitable in the light of the key customer regions. This sort of industrial site matching was not brought on the table from any Finnish governmental intermediaries, when Company B was establishing in China.

### **5.3.3 *Company C***

Trade organisations’ role in matching the right companies with the right counterparts in China had some importance in the early stage of the Company C’s start up in China. While the initial talks were started at a delegation visit from China to Jyväskylä, the company was invited to introduce their technology for the delegation. The delegation was in search of green technologies and solutions for specific problems. Thus, discussions and 8 years of feasibility studies followed and finally Company C launched a project in China.

Since the early stages, the role of value sensing has fallen to the partner firm operating in Shanghai purely for its own business interests. The company seeks and searches right

technologies for their projects and later combines these into a business proposal for Chinese projects. Company C sees the importance of establishing its own office in China, to fully tap on these market opportunities.

The Company feels they do have the right technology, but are seeking real projects that are actually going forward and can utilize their solutions.

*“Of course we have some parts in our process that we do R&D, but when we are talking about straight forward sludge treatment, bio gas purification, and digesting. Now we are talking about bio waste, pre-treatment... the technology is already there, we know how to do it. We plan to find the project that are actually going forward. Not anymore make an initial contact.” (Interview C 2017)*

At the same time cleantech industry between China and Finland is compiled with a lot of project proposals with limited actual progress.

*“In this land of business, there is a lot of government initiatives in Finland, in China, for creating something new. You know. And unfortunately there is context that they have bring out to us is not related to real projects. It’s relating to this kind of getting money from the Chinese government. This initiatives to create cleantech in China. And we are not anymore interested about it.” (Interview C 2017)*

It can be argued, that trade organisation with local market understanding could be capable of screening out the real-world projects from the consultative business papers. This would be also of interest for Company C.

#### **5.3.4 Company D**

CEO of the Company D mentioned that everytime he visits China he seeks to meet with Intermediary A representatives to catch up the most recent development in the political landscape on cleantech industry. This is obviously a straightforward way to use an intermediary specialist organization to identify market opportunities and value creation opportunities. Furthermore Company D was initially even founded around a need described by a

Chinese customer organization, and later on, jointly with the distributor the technology request was developed into a full product offering to deliver value in China.

*“Yeh basically they brought back the need for this kind of purification or better technology, and then some people from [sister company] and other people joined and then we started Company D with the idea. So yeh basically [sister company] brought the need, the information that there is a big need in China.”*

In the case of Company D, value creation opportunities were also boosted and introduced by the Company D’s sister company, which is an example of the complexity of the market entry stage service systems that affect the successful launch. The sister company has ready access to the value creation networks in China, and thus, can elaborate on the specific needs in the customers’ or partners’ service systems. Company D, a born-China SME, was then founded to fill that gap.

*“That’s one thing of course which we realize in the very beginning that although we knew our technology will be very good, we also realize that yes there is a lot of competition, and of course we are a small company, we cannot do so much marketing, and there are big companies like Haier or Samsung who can basically put millions to marketing, so of course we realize that even we have good technology, we do need to do some other decisions as well, that’s why we also choose to do the world’s only design purifiers because there is a very niche market that we are targeting.”*

It is fair to conclude that Company D, being basically born for the Chinese market, already at an initial stage understood that it would not be sufficient to compete in a highly competed market without having the full plan for the offering in place. The technology is seen as a key distinctive competence but it needed to be supported with smart positioning with design elements, because of the fierce competition. Design was mentioned as a key element to differentiate the product line before launching in the market. Company D mainly interacts directly with its distributors and customers, to understand the value they can provide, but underlines that in China also governmental connections are key with cleantech industry:

*“But I do understand that in order to ... usually when you go to China, and if you go there so that you have Intermediary A and you have the companies... It’s much*

*easier to organise in China when you meet at the same time government people and you meet the companies.” (Interview D 2017)*

### **5.3.5 Intermediary E**

Intermediary E described their background network as their key resource to assist Finnish SMEs. Industry experts and business owners from a range of industries are used to pre-test all Finnish SME technologies that are introduced to the Intermediary E (Interview E). The Intermediary emphasises that Finnish SMEs normally have great technologies but often they need to be slightly adjusted and tailored for the specific Chinese user cases. For this action Intermediary E sees an intermediary’s role significant. However, also the SME’s internal interest to match and create specific differentiated value for the Chinese markets is needed.

*”To improve our society's influence, I want to make one or two big cases to show our commitment on doing business in Finland. Comparing to some societies that are doing "everything", our approach is carefully select some area to introduce to China one by one. We select the best matches.” (Interview E 2017)*

The Intermediary E’s B-to-B platform operates in principle, from the direction Finland-to-China, rather than value sensing vice versa. Their key approach is to screen out Finnish technologies and the SMEs behind them. If the technology and company is found promising, their technology is presented to the partner network in China. This pre-test serves as the validation of the actual value.

*”Often our partners end up coming back with a specific question on how the technology can solve a specific problem they have. If this can be adjusted, the technology typically has a great potential in creating value.” (Interview E 2017)*

Intermediary E with the above discussion described their approach how their partners’ seek to adapt the SMEs’ technologies and value creation into their Chinese market systems, and processes. For a private intermediary the main challenge is that their focus is on the specific partners in their network rather than the range of Chinese service systems and partner

networks as a whole. If an SME does not fit to the plans of their partners' value creation systems, and cannot add value, the door may remain closed.

## **5.4 How can trade organizations ensure and facilitate configurational fit of the Finnish cleantech SMEs when entering China?**

### **5.4.1 Intermediary A**

According to Director A (Interview A 2017) trade organisations typically act as promotional platforms for ready products and technologies. The new approach adopted by the Intermediary A's China office, was about focusing on five key industrial themes, seeking concrete stepping-in projects for SMEs that the organisation would search after the initial project mapping.

A key configurational fit challenge for the cleantech SMEs was raised as a concern by the Intermediary A. Cleantech projects typically take years to complete and first years these projects are expected to loss-making. Thus, the partners are expected to make serious investments and steps to actually be able to tap into these opportunities.

*"Finland has an extremely high technical knowledge. But our companies are quite small in size. So that's why we try to kind of put them together and work them together on the large projects."*

To prepare the SMEs to fit into Chinese business culture, trainings and cultural coaching programmes are held at the Finnish office. For business networks the organisation sets up partnerships with the key corporations of the Chinese industry, arranges delegation visits and smaller scale focus group meetings in China. Active partners of the Cleantech Finland and Beautiful Beijing type of export programmes, can enjoy a range of these partnership building services. The Director A concluded that their new approach has been much more from China to Finland focused ready project introductions, in which the SME then has to present their capability to fit into that particular project.

Intermediary A also runs a Shanghai –based establishment service which provides SMEs with rental spaces, consulting and legal services for opening offices in the Mainland Chinese market. The office’s main role is to soften the entry but also assist with fitting the SME in the Chinese market from a legal and business perspective.

#### 5.4.2 *Company B*

The key differences outlined in the market dynamics of the Chinese market were outlined as volume manufacturing needs, price and quality requirements, tough competition that drives pricing, activity and social interactions with the people (Interview B 2017). Similarly constant recruitment needs and sudden changes in company structures also in established partner companies were mentioned as special characteristics.

Company B adapted its products to meet the Chinese market needs based on their own active interaction with the end customers. At the same time the competition and pricing pressure forced the company to use designers to redesign product looks more attractive and look for high volume and low cost production for quality products. All these challenges the company sensed through its active communication with the Chinese customers and dealer partners – rather than any information flow from intermediaries. With business partnerships a crucial element has been top managements’ personal connections.

*“We found one dealer who was supposed to be our dealer, but all in sudden, another company actually made an agreement with this dealer that they will change this to totally other business, catering business, from burner business. But some guys in that company said that “no I want to stay in burner company”, and they came to talk to me and our people. Then we employed him in 1997 to work in Shanghai. And that was kind of first start in China by ourselves.” (Interview B 2017)*

The own business in China was an important structural change for the company and it made faster delivery times possible as well as local sales and production capabilities. Business processes were altered towards selling and producing by volumes. Product designs were developed more attractive which was a key change for the company’s business, as these

changes were then adopted first to Chinese market but also adopted in other markets of the company's business because they made the products more competitive everywhere.

### **5.4.3 Company C**

Company C indicated that should they want to expand in China, the next step is to change their business structure to form a local office or a joint venture based in China (Interview C 2017). For the government projects Chinese competition has advantage in the bids, so the Company seeks financial resources to establish the Chinese operations. To conclude, Company C has performed one successful project for the market but to be competitive long-term in the government-run biowaste plant projects, Chinese local office is needed.

The existing customer reference case attracts a number of customer visits already and the consulting company operating as a middle agent is in charge of matching the configurations of the projects with the market needs. Expansion of the existing project is also needed. Cleantech projects in China are typically highly government-run development projects. To ensure the configurational fit, the companies need to also to be on the right side of the table and in cases, with the governmental trade organisation to receive the reliability status for the projects. This can be as a required setting for grasping the first opportunities and that was also the case with Company C's first China market entry (Interview C 2017).

### **5.4.4 Company D**

For the Company D, being basically born for the Chinese market, configurational fit was key from the get-go (Interview D 2017). The market need was the source of the product innovation, Company D management kept visiting and meeting Chinese counterparts actively already before they had a product in place, and the CEO met with also intermediary consultants to understand the latest events that affect his industry.

A major factor in the air purifier business was that it was highly competitive, and the Company D started from day one to restructure and position its product line to avoid the direct competition and instead aim for a positioned niche market. The indoor air quality topic was a booming industry topic when the company took its first steps in China. The Company D



is also preparing new product launches aimed for the Chinese market jointly with their distributors.

The initial contact to understand the Chinese market need did not come through a trade organisation but rather through the sister company's customers. Following this, the Company's business structures, networks and processes were from the get-go developed for the specific markets. Knowledge for key actions was gained through constant management visits and through the Company's Chinese partners. At the moment Company D sees the next major business structural change in establishing its own operations based in China.

#### **5.4.5 *Intermediary E***

Intermediary E sees they have a strong understanding and knowledge of how Chinese market differs with its business culture and knowledge and one of key services is to share this with the Finnish SMEs (Interview E 2017). Heavy business competition in the Chinese market requires adapting the business as a whole. More holistic and larger ready solutions are typically in the interests of the Chinese partners and customers. Chinese business interactions are highly social and networked, but Finnish SMEs need to be prepared for heavy price negotiations, for which the companies should be developed to also be highly price competent.

Chinese market is slightly differing compared to the other markets as fitting to the business systems needs observation and understanding of the current government supported activities. Businesses that meet the government pro industries and solve real issues in such sectors, are always of greatest interest for partners, purchasers and investors.

A major difference in value systems in China are the high volumes of products and service volumes needed. While the European market is often more about tailor-made solutions, Chinese market typically would need one tailored and holistic solution in high quantities (Interview E 2017). Intermediary E seeks to assist technologies and SMEs to tailor this type of solution packages and their production and business deliveries in larger volumes. Finnish SMEs are typically extremely small compared to key competitors and thus meeting the configurational fit and creating value, often also needs serious resourcing and financing.

*”We are seeking for some Finnish and Chinese governmental support as an enthusiasm private party. We want to assist government. We want to do good cooperations with Finpro etc. Our aim is to promote enhanced exchanges and cooperation between enterprises in China and Finland, including in the cultural field.” (Interview E 2017)*

Intermediary E as a private intermediary highlights the full range of service systems needed to contribute in the value creation processes of the SMEs that have entered China. Public sector intermediaries and governments, private sector partners and the country-level collaboration is needed when the intermediary launches with the SMEs technology in China. Collaboration in both Finland and China, between the various service systems is needed and intermediaries have an assisting role in this. Last, the Intermediary E emphasises that China is highly hierarchical business culture. To truly understand and match the market systems, in-depth understanding of the industry’s models in China are needed. Intermediary E offers its partner network’s top management for the help with the SMEs.

## **5.5 How can Finnish trade organizations successfully and efficiently support Finnish cleantech SMEs in designing successful entry business models for Chinese market?**

### **5.5.1 Intermediary A**

Main challenge with the business models of the Finnish SMEs is the dramatic difference between the product scopes and the size of the SMEs. While Chinese market typically expects ready full solutions, the Finnish SMEs normally only can meet and deliver solutions to a single problem in the whole solution (Interview A 2017). That is why Intermediary A reapproached the matching process to develop joint platforms for Finnish SMEs, so that jointly their business model would be possible to enter Chinese project bids.

German and American cleantech corporations competing for the same projects with at least similar quality levels were considered as a major competitors. The concern from the Intermediary A was that Finnish cutting edge technology is not always supported with the right

company's internal drive. In Chinese market business models must be properly resources and the right knowledge and local employees must be supporting the business development. Partner distribution for technologies is often needed due to the size of the SME. Thus, a platform-approach was selected by the Intermediary A to assist to fit the Finnish SMEs business structures to the Chinese market projects.

### 5.5.2 *Company B*

While Company B never really used the services of the intermediary firms its success story does provide insights of the key elements where intermediaries could be involved when their customer companies seek to design business models. A successful business model in this case required constant social engagement with end customers, understanding of pricing in their business model, restructuring their production operations and later on seeking a Chinese office and manufacturing location. Pricing and market opportunity related information would be possible for an intermediary to obtain and share, if they would know in more detail the customer companies business and product lines. In the successful case of the Company B after the initial market study, all active steps in China were taken by the top management of the company itself rather than support from export programmes (Interview B 2017). Resource and risk-sharing during the establishment of the China operations with government-run funding organisations was the most visible involvement of the public intermediaries, and the strong support from the Chinese-side intermediary company at the production plant location was helpful in practical establishment of the business operations in China.

*“We visited many of the development zones, and after select them many times, we found out that Wuxi is a good place, so we went to see Wuxi development zone people, and they organise all the permissions to start the production, permissions to have bank accounts, permissions to have foreign currency and permissions to have permissions.” (Interview B 2017).*

Notable is that the CEO of the Company B also brought up that the local office establishment services that Intermediary A is currently offering were not available at the time when the Company B sought support from the above-mentioned local private sector intermediary.

### 5.5.3 Company C

Main business model for Company C is a long term project business, which means that financing at the early stages is key for the business plan to succeed.

*“...you have to have a long enough secured finance for the company that it can run because it’s gonna make loss for the at least one or two years. Because this is that kind of business that there is not a business, so that it is continuous business. You have a project, then you have a lot of work to do and you have a good cash flow. But if you don’t have the project, it’s a problem for your cash flow.” (Interview C 2017)*

This model and establishment of the Chinese office has triggered ongoing negotiations with European private sector investors. The Company C sees its offering in sludge handling solutions to be of highest required quality in the Chinese market, but it has lost the tenders to local competitors (Interview C 2017). At the moment the new business development for Company C requires this funding to be sorted out.

In the market entry phase the feasibility studies and go-no-go analyses were of great importance for the Company C (Interview C 2017). The business model is currently based on a middle design company merging Company C’s offering to their projects and involvement of the Company itself is mainly dependent on the new funding. However, the strong customer reference case is an asset to build on.

### 5.5.4 Company D

Company D has developed its business model through a Finland based-production and distribution of the products is organised through distributor found in China. At the same time however, the Company D sees that they can talk directly to customers – who in most cases are distributors of interior technologies.

*“Well like I said currently we are mainly doing direct sales. So basically when we meet the customer we will tell this and we can show calculations and we can show*

*them and of course they can go through the information themselves then trust us. And then our distributor does the same.”*

Company D did not see having great resources for marketing as for indoor air quality markets they see competitors such as Samsung and Haier, thus the business model is based on specific design products in niche b-to-b markets. The growing online sales phenomenon in China, had been notified by the Company D, but not seen relevant for their current product offering.

Going forward the main change in the company structure would be the establishment of an own company office in China. CEO of Company D sees this as the next crucial step, and while the company is currently fully privately funded, resourcing and risk sharing of this establishment is a topic to consider also with the intermediaries.

### **5.5.5 Intermediary E**

After sensing and matching the value creation network in China and the right SME technologies in Finland, Intermediary E supports SMEs with business model designing. Typically this also includes investment rounds to facilitate the expansion to the Chinese market. Sufficient business resources are crucial for Chinese market volumes (Interview E 2017). Partner projects and joint venture type of arrangements to establish the business in Chinese market are also common.

The partner network of Intermediary E will provide the SMEs market entry project with business planning and operations support. As a key feature Director E emphasised putting resources on the current government-trending industries:

*”President Xi Jinping's visit to Finland is a good signal of no risk. He has elevated Finland as a strategic partner of China. The logic is through government guidance, policy support, we bring companies together.” (Interview E 2017)*

The company emphasise that as the Chinese partners do not always know enough of the business models and structures of the Finnish SMEs, a government supported industry, such as cleantech, is a safe area to partner with a promising SME.

## 6 CROSS CASE ANALYSIS

In this section the empirical findings of the within case analysis are placed in the context of the other cases in the research. I illustrate each case analysis in a cross-table with research questions and themes in the Y axis and case company findings in the X axis. In the X axis all themes, concepts and key statements that were raised in each of the five cases, are illustrated in the Table 4. Following this, I continued to underline themes that were raised with more than one case study. As I had three case companies from the SME side and two cases from trade organization side, I bold themes and notes that were raised in the cases by both sides. Thus, all notions and themes that were underlined and bolded, were key findings that were raised in the study by both sides of the organisations and more than one case company. In the final conclusions and discussion chapter of this study I link all these findings from the cross-case analysis with the existing literature to find common denominators and recommendations for building SME success with China market entry, for recommendations in developing SME supporting trade organisations, and for future research fields.

In the table all key themes that were raised during the case interviews are listed. While, in most case interviews the same themes show up under a range of research question topics, these themes also are highlighted as they have a strong support in understanding the holistic concept of the main research question. At times, the case companies focused on discussing what really has driven them forward, and thus, in this research the interest in these themes is on, how the trade organisations could learn from those success experiences, and further assist new SMEs to succeed in China.

In this section, key themes that were found during the research are listed and explained. Also, conclusions on, how a trade organization can address the specific theme in their operations is discussed.

Table 4 Cross-case analysis table

	<b>ORGANISATION A</b>	<b>COMPANY B</b>	<b>COMPANY C</b>	<b>COMPANY D</b>	<b>ORGANISATION E</b>
What contributes successful value co-creation in the business of Finnish cleantech SMEs entering Chinese market?	<ul style="list-style-type: none"> <li>Financial capability for cleantech projects</li> <li>Ability to deliver ready full solutions</li> <li>Readiness for China market competition (price, quality)</li> <li>Company's own activity and drive for the market</li> </ul>	<ul style="list-style-type: none"> <li>Company's own activity and drive for the market</li> <li>Company itself must be active to form networks and connections</li> <li>High quality and price competitiveness</li> <li>High offering adaptation to the market</li> </ul>	<ul style="list-style-type: none"> <li>Right partner, who has a strong financial interest</li> <li>Existing governmental reference case opens new opportunities</li> <li>Own company and operations in China needed</li> <li>Financial capability for cleantech projects</li> </ul>	<ul style="list-style-type: none"> <li>Understanding of Chinese market needs</li> <li>High offering adaptation to the market</li> <li>Chinese key employees</li> <li>Company's own activity and drive for the market</li> </ul>	<ul style="list-style-type: none"> <li>Pre-screening for real market potential in China</li> <li>Financial capability for cleantech projects</li> <li>Access to real decision makers</li> <li>Focus on government pro industries</li> </ul>
How trade organizations can contribute and facilitate interactions, knowledge flow and value co-creation between the cleantech SMEs and their Chinese market service systems?	<ul style="list-style-type: none"> <li>Pre-screen projects with strong financial fundamentals behind</li> <li>Prepare the SMEs that <u>bottoming the system takes longer than anticipated</u></li> <li>Arrange smaller matching events with specific focus for the SMEs' technologies</li> <li>Networks to major infrastructure corporations</li> </ul>	<ul style="list-style-type: none"> <li>Market study from trade organisation</li> <li>Value of the offering development together with the end customer network</li> <li>Company has to be present in <u>at key stakeholder events</u></li> <li>Chinese intermediaries support for investing to China</li> <li>Solving specific problems</li> </ul>	<ul style="list-style-type: none"> <li>Networking event led to finding the first partner</li> <li>Local office operation</li> <li>Partner who integrates a range of technologies to a full offering that creates value</li> <li>Understanding of Chinese government pro-programms</li> </ul>	<ul style="list-style-type: none"> <li>Networking events for initial partner search are fruitful</li> <li>Trade organisation events help finding partners</li> <li>Ambassador and counsellor services to build governmental business</li> </ul>	<ul style="list-style-type: none"> <li>Real network to real decision makers needed</li> <li>Government pro-programms is the key</li> <li>Finnish trade associations in "government" role to support SMEs</li> <li>Financial institutions from China</li> <li>Minimize communication costs</li> </ul>
How can trade organizations improve their efficiency by becoming active counterparts by value sensing?	<ul style="list-style-type: none"> <li>First point screening for the projects that can work for Finnish firms</li> <li>Seek and screen SMEs who match Chinese government trend industries</li> </ul>	<ul style="list-style-type: none"> <li>Intermediaries assisting with solving specific problems in the Chinese market, would help to add value</li> <li>Constantly making yourself cost and quality competent to deliver the value that the Chinese expect</li> <li>Customer visits by the SME itself</li> </ul>	<ul style="list-style-type: none"> <li>First matching events</li> <li>Chinese side seeks technology, friendship city platform connected the firms</li> <li>Partner in China integrates technologies based on market needs</li> <li>Plenty of project opportunities that are actually not real projects are presented and should be screened out in value sensing</li> </ul>	<ul style="list-style-type: none"> <li>Meetings with the trade organisation representatives to update on current governmental trends</li> <li>Company was founded on Chinese needs</li> <li>Understanding that value needed in design and business elements</li> <li>Government theme sensing in China through Organisation A</li> </ul>	<ul style="list-style-type: none"> <li>Network of from the industry</li> <li>Application of the SMEs' technology to new user cases in China</li> <li>Intermediaries to carefully screen the right SMEs</li> <li>Full solutions to specific problems needed</li> </ul>
How can trade organizations ensure and facilitate configurational fit of the Finnish cleantech SMEs when entering China?	<ul style="list-style-type: none"> <li>Offer full solutions that the Chinese market seeks</li> <li>Heavy competition requires adaptation &amp; performance</li> <li>Trying to build a platform to put SMEs together in China</li> <li>Training on business settings in China organised</li> </ul>	<ul style="list-style-type: none"> <li>Need for larger volumes, high cost-competitiveness and being all in all great companies not only great technologies</li> <li>Business model and value proposition must adapt to the market</li> <li>Search for a niche where you fit</li> <li>Rapid changes in partner landscape expected, be ready</li> </ul>	<ul style="list-style-type: none"> <li>Existing customer references demonstrate the fit and show value</li> <li>Cleantech business models need government-drive and promotion, in many projects this is mandatory</li> </ul>	<ul style="list-style-type: none"> <li>Company business model from the scratch aimed to China</li> <li>Heavy competition requires adaptation, niche positioning</li> <li>Fit for the government pro industries</li> <li>Local partner and distributor is a key actor in adaptation</li> </ul>	<ul style="list-style-type: none"> <li>Heavy competition requires adaptation &amp; performance</li> <li>Minimize cultural and communication cost</li> <li>Fitting is easiest if the technology is government pro</li> <li>Adapting SMEs from tailor-made to large volumes</li> <li>Adapting SMEs from single technology to full solutions</li> </ul>
How can Finnish trade organizations successfully and efficiently support Finnish cleantech SMEs in designing successful entry business models for Chinese market?	<ul style="list-style-type: none"> <li>Size and resources an issue</li> <li>Government networks support building joint ventures and local operations for government pro industries</li> <li>Trade organisation establishes platform for real screened out projects</li> </ul>	<ul style="list-style-type: none"> <li>SME's own continuous social engagement with key stakeholders in China</li> <li>Market study helped understanding the True potential</li> <li>Chinese intermediary assistance for establishment of the own operations</li> </ul>	<ul style="list-style-type: none"> <li>Long term project businesses take time to develop</li> <li>Financing for long business projects</li> <li>Private sector investor search</li> <li>Feasibility studies support crafting the business model</li> <li>Establishment of own China operations</li> </ul>	<ul style="list-style-type: none"> <li>Direct contact to customers and distributors is the sales model</li> <li>Harsh competition forces to focus on niche business models</li> <li>Establishment of own local operations needed</li> <li>Financing</li> </ul>	<ul style="list-style-type: none"> <li>Establishment of presence in China (SMEs own operations or joint ventures)</li> <li>Financing for successful business models</li> </ul>



*F1 Highly competed market needs holistic performance from the SME*

Support found on: Case A, Case B, Case, D and Case E.

While China is often seen as a market of great opportunities, it became very evident in the case studies that those great opportunities have attracted probably the world's heaviest competition. Cleantech industry or specific cleantech technologies are not protected from the competition in any form, but instead a small Finnish cleantech SME will face in China competition from the global-wide multinational corporations, from local Chinese players and global-wide expanding SMEs. Finnish cleantech technological reputation is strong, but so is the reputation of German and American technology companies (Interview A 2017). Thus, the SMEs shall always be prepared to develop their business processes, business models and capabilities holistically, only technology is not sufficient to succeed long term in China. Company B, which was the most long-term established cleantech SME in China, they emphasized that the heavy competition in China had improved their company's cost-competitiveness, quality and design competitiveness across all of its markets.

Trade organisations' role in this aspect is informative or consultative. In circumstances where the trade organisations have limited resources for optimal effectiveness, priority should be aimed towards SMEs who have capabilities, willingness to develop and technologies that can meet the requirements of the Chinese market. A range of case companies mentioned they had used trade intermediaries to assist with competition and market studies as well as cleantech projects' feasibility studies. These can well serve as the starting point for the SME to evaluate if they really can start aiming to the Chinese market. The Chinese intermediary in the case study, Intermediary E, also raised the concern that SMEs often imagine that technology itself is enough to attract local partners and investors in China. While this may be possible in some single cases, this underlying assumption was criticized to be false. Trade organisations and associations have a significant informant role in assessing the healthy and competitive SMEs, and their assumptions on the Chinese market.

*F2 Government-pro industries are a healthy way to enter*

Support found on: Case A, Case C, Case D and Case E.

In the Chinese market government support and politically positive environment towards an industry, will boost healthiness of that particular field more than in arguably in any other major business markets. During the time of the study Chinese government had strong willingness to improve clean environment technologies and winter sports related technologies with the Finnish government. These type of government-pro fields, were highlighted by several of the cases as a healthy way to enter Chinese market. Trade organisations were seen as a key intermediary in engaging with the political debate and sensing the current trends. Case organisations A and E both underlined that they particularly focus programmes around the government-pro industry trends. Under these fields entering China was expected to be faster and face less obstacles.

*F3 Trade organisations as the “government support” and reliability builder*

Support found on: Case A, Case C, Case D and Case E.

Government-sector was also seen key in a form of gaining respect and reliability for the SMEs. Four of the cases brought up the theme of in particular governmental trade intermediaries providing the SMEs with a government-backup, which in Chinese market is seen as a label of good quality, good operations and strong performance. When an SME is considered to be contributing to one of the Chinese government-supported trend industries, and belongs to a Finnish-government supported trade programme in that field, the likelihood of finding long-term partners and network was seen easier than in other cases.

Notable is that Company B did not highlight the trade intermediaries role in governmental support. Company B was, among the cases, the most long-term established SME in China and had built its network and reliability with its own active actions. The CEO of the Company B described how he actively built connections and networks with the key decision makers in public and private service systems – including governmental authorities dictating environmental protocols that are favorable for the Company B’s industry.

*F4 Networking events in both private and governmental sector are fruitful at the initial stage*

Support found on: Case A, Case B, Case C, Case D and Case E.

Trade organisations see their roles as networking organisations as well. Cases C and D had both found their initial partners and first business projects through a networking event organized by trade programmes. In Case B the company emphasized that stakeholder events, whether trade programme –based or directly B-to-B, are crucial in clean-tech industry. Case organisations A and E saw bringing real decision makers to the same tables with the Finnish SMEs as the key step to open discussions for SMEs market entry.

*F5 Company's internal drive and management individuals' activity and networks is crucial*

Support found on: Case A, Case B, Case D

Sometimes in the public debate criticizing the trade organization programmes that are government-funded, the debate forgets the impact of the SMEs itself. The most long-term successful case company B, emphasized that their top management has been widely and constantly active in China from the very first day onwards. The whole company has adopted that China is a key market and the company wants to excel in China. Consequently, the company sees their development and business in China highly successful. It was also brought on the table by two of the other cases, that the SME itself must have strong persistency and internal drive to constantly develop to meet the Chinese market needs and to build and establish long-term business in China. In the early stages, companies often expect business opportunities to open faster than anticipated and at these time a small SMEs have to have strong drive to truly enter the market.

While Company C and the Intermediary E did not highlight the internal drive of the companies specifically in the theme interviews, this finding has been kept as a core proposition of the study. Company C had focused its attention on first solving the financial resourcing for the expanding China business, and thus, the financial resourcing being the topical theme, the company's own activity in value creation was not on the table actively. At the same time, the nature of Company C's business is longer-term project business, and for example the first business project establishment took eight years for the company to complete. This naturally, affects how actively the company's

internal activity was raised in the discussions. Intermediary E's approach was more straightforward towards Finnish SMEs. The Intermediary E highlighted that a range of SMEs have ready technologies and assumed to only look for the SMEs which have willingness to China. One major factor affecting Intermediary E's insights was that the intermediary had not been building long-term projects or market launches for several years yet. Thus, it can be expected that the activity levels of the Finnish SMEs will affect their business in the future more than in the initial stage, where the Intermediary E has ready partners for exploitation in China.

*F6 Solving the SMEs size issue through platforms and partner networks*

Support found on: Case A, Case C, Case E.

Both trade intermediaries in the study described one major difference between Chinese and European markets. While Europe was seen more as a tailor-made specialized technology market, the Chinese market was seen as a market where the buyers want to buy larger volumes and fully ready solutions to their problems. It was remarkable that this was not brought up as a theme by the SMEs, except with the Case Company C, whose Chinese business distributor is combining fully ready solutions from a range of technology providers. The SMEs themselves did focus on finding their position in the market niches and developing their market offering from a holistic solution perspective. Companies B and D had a clear focus on their core competences in the market and their active development was aimed in executing and growing business with their core competence. The companies had understood the need of local partners, but they did not particularly highlight the challenges in competition against being from the scale of their operations. In other cases, as the Chinese market competition was also seen coming from strong multinational corporations, it can be argued that for truly long term success, the SMEs should find their position against these economies of scale. One explanation to Cases B and D not highlighting this can be that these companies have found their position through differentiation and cutting-edge technology. If the customers and market buyers are purchasing full-scale solutions, the SMEs should look how they can offer them against multinationals. The trade organisations in the study had seen this market need, and were building platforms where either SMEs collaborate to form full solutions, or the SMEs can meet local major corporations to supply their technologies to such solution parties.

*F7 Establishment of China operations to be made easy*

Support found on: Case A, Case B, Case C, Case, D and Case E.

While the current study focused on the market entry stage of the companies, I did put the market entry into a broader scope when analysing the success of the market entries. Successful market entry is expected to deliver longer term business than only a single market-entering business transaction. All three SMEs emphasised that to truly win tenders and customers, you must be local with your own office and operations. Intermediary E also mentioned joint ventures as an option, but mainly the feedback from the case companies underlined need for own fully run offices in China. Case companies C and D were looking at proper resourcing and the right time to establish their China office, while company B had executed and performed already well with their local operations. Establishment of China operations becomes topical for SMEs very rapidly and in all cases the role of Chinese employees were considered significant in driving the company forward internally and network-wise.

Trade programmes and organisations are seen as a key platform to simplify the establishment of China operations. Intermediary A had a Shanghai-based easy-landing office service platform for the Finnish SMEs. This service rents out first office rooms for SMEs, offers legal and consulting services for own operations establishment and thus, makes it simple to open the office. Company B had used a Chinese intermediary in assistance for opening their production and commercial plant in China, but mentioned that Intermediary A's new service in Shanghai would have been actively used at the time when they opened their China office.

*F8 Adaptation capabilities to Chinese market needs*

Support found on: Case A, Case C, Case D and Case E.

Trade organization A described their approach to first screen out fundamentally viable projects for Finnish cleantech SMEs and then matching these with the SMEs technologies. All SMEs had the experiences for modifying their products, design and business processes to meet the needs of their Chinese partners or customers and Intermediary E takes their SME customer cases first to their partners for evaluation. Company D's

whole business plan had started from a modification request from a Chinese party. Adaptation to the specific market needs is visible and constant for the SMEs that want to enter China and trade organisations can help by both screening potential opportunities and matching them with the right partners as well as by providing partner networks that can then provide validity checks for the SMEs.

Adaptation for the Chinese market was also described the way that getting adapted to the social interaction landscape, to economies of scale and getting the product pricing adjusted is crucial. Trade organisations market studies and cultural training programmes can support with this.

#### *F9 Market studies and opportunity screening*

Support found on: Case A, Case B, Case C, Case D

In general a more traditional service provided by trade intermediaries is a market research and opportunity screening service. All three case companies as well as Intermediary A discussed the theme during the interview. A range of service utilization was also found in secondary data. Market studies and research can act as motivational factor that boosts the company's own initiative (Case B), help the SME to assess feasibility of a specific cleantech project (Case C), help the SME to adjust their pricing, positioning or business model (Cases B, C, D) or find partners or key projects (Cases A, B, C, D, E).

#### *F10 Financing resources*

Support found on: Case A, Case B, Case C, Case D, Case E

Chinese market entry was found to require time and resources. Alternative methods for financing were brought up, as the government soft loans (Case C), new production plant development loans (Case B) and private side funding (Cases C, D and E) were seen crucial for establishing, growing and opening business in the Chinese market. For truly offering broad wide-scale solutions in the larger quantities in the market both trade organisations described that in their process they try to build network for the Finnish SMEs to major multinational corporations in China.

Last, across all above core propositions, the same theme kept raising up in different forms. Both the SMEs underlined that companies must be active, invest heavily and actively and the trade organisations can bridge communication gaps. Trade intermediaries kept raising their role to minimize communication costs or prescreen projects, to minimize Finnish SMEs waste of resources. All these actions link to the same concept of minimizing the costs for the SMEs, when they establish, develop and communicate value to their Chinese partners, customers and partner networks. It was evident, that the SMEs adapt and adopt, create new and develop existing, communicate and share knowledge, learn and listen. In all these processes actors are manifold. In the complex environment of the Chinese market entry, keeping the costs of this sort of knowledge and value transfer and communication down and resources in effective use, is becoming a key theme for successful organisations. In the final discussion chapter I link these findings to the existing literature and draw recommendations for both SME and trade programme development.

## 7 DISCUSSION AND FINDINGS

In the final concluding chapter I link the 10 key findings with the existing SME market entry literature, discuss the theoretical and managerial implications of these findings, present a three stage development plan for governmental trade organisations and last open the floor for new research in the field to deepen the findings with more in-depth studies.

### 7.1 Theoretical discussion

In the present study I first introduced the topical theme and public debate around the efficiency and effectiveness of in particular government-run trade organisations and export programmes. From a theoretical perspective market entry models, SME internationalisation and value creation networks in export markets were then discussed. Key theoretical notions under these theories that were adopted in the present study were *the concept of value co-creation between service systems* (Vargo, Maglio & Akaka 2008), *a framework for business model design and configurational fit* (Storbacka et al 2012), *concept of value sensing* (Storbacka & Nenonen 2011) and *SME internationalisation theories* widely (see for example Storbacka et al 2012, Ojala 2009, Hoang & Antonic 2003, Jaklic 1998; Bell et al. 2003; Antonic & Hisrich 2000).

These key theoretical foundations were then built on a theoretical framework for the empirical case study, which involved three case companies, namely Finnish-based SMEs, and two trade organisations, one from the governmental and one from the private sector. The theoretical framework was then turned into an operationalisation plan, to carry out in-depth interviews with the key directors and decision-makers of the case organisations.

Through primary data, in-depth interviews, and through secondary data, first a within-case analysis to identify key output of each case was carried out. Later, a cross case analysis completed to find common factor, common themes and common denominators that drive Finnish cleantech SME success in Chinese market entry and to which the trade organisations contribute or can contribute to in a variety of ways. These findings



were summarised in 10 fundamental findings (10Fs). Last, it was my interest to assess these findings in the context of other SME market entry studies. The context of Finnish cleantech SMEs market entry to China was not widely researched before the present study, so to improve and broaden the visibility regarding generalizability of the 10 findings, I assessed the range of existing literature on SME market entries and trade organisations to find literature and case studies that had either opposing or complementing views on the same findings. Due to the limited existence of Finnish SMEs to China context studies, I have included a few of the existing Master's Theses around the phenomenon in the table. These findings are listed below in Table 5.

Contrary to the present study Ulrich et al. (2012) in their study on Danish SMEs Chinese market entry did not find that Chinese market competition would be raised as a key topic by the SMEs. This was given a highly opposing view in the present study as all the case organisations emphasised the competitive nature of the market. The government pro industry trends and the government relationships' importance in Chinese market have also had opposing views, as Sheng et al. (2011) concluded that government-dependent projects and businesses are highly vulnerable as the shift in government approaches is more than common. They emphasised companies to focus on developing their own business to business networks rather than business to government relations. Last, Forsman et al (2012, 9) found alternative view on the partner importance, as they concluded that most successful SMEs try to build as direct approach to customers as possible. Naturally this is highly context-related notion and the Chinese market context may well be the explanation in this sense.

To the field of value co-creation studies and service systems studies this research provided with a new empirical research application exploring the full complex nature of value creation networks, service systems, relationships and business models in the context of SME market entry to China. In this field, I also took the approach of placing a third party incubator in the middle of the value creation network and tried to assess its impact on the value creation in the context as a whole. The context was proved to be a good foundation for value creation related studies, as the SME market entry to China involves both governmental and private sector value creators, third party operators, key employees, end users and infrastructure facilitators. This context could well serve as a

fruitful platform to build future research on value creation networks and service systems.

**Table 5 Empirical findings of the present study and their existing supporting and opposing literature**

FINDING	SUPPORT FROM THE PRE-SENT STUDY	SUPPORT FROM THE EXISTING SME INTERNATIONALISATION LITERATURE	OPPOSING VIEWS
<i>F1 Highly competed market needs holistic performance from the SME</i>	Case A, Case B, Case, D and Case E.	Arvela 2011 Räisänen 2015 Hollender et al 2016	Ulrich et al 2012
<i>F2 Government-pro industries are a healthy way to enter</i>	Case A, Case C, Case D and Case E.	Zhang et al 2009 He et al 2016	Sheng et al 2011
<i>F3 Trade organisations as the “government support” and reliability builder</i>	Case A, Case C, Case D and Case E.	Ojala 2009 Gao et al 2016 Blankenburg et al 1996	Sheng et al 2011
<i>F4 Networking events in both private and governmental sector are fruitful at the initial stage</i>	Case A, Case B, Case C, Case D and Case E.	Blackburne & Buckley 2019 Ojala 2009 Gao et al 2016	
<i>F5 Company’s internal drive and management individuals’ activity and networks is crucial</i>	Case A, Case B, Case D	Ulrich et al. 2012 Blackburne & Buckley 2019 Antonic & Hirsch 2000 Hoang & Antonic 2003 Gao et al 2016 Ciravegna et al 2014, Ojala 2009	
<i>F6 Solving the SMEs size issue through platforms and partner networks</i>	Case A, Case C, Case E.	Gao et al 2016 Ojala 2009 Gencturk & Kotabe 2001	Forsman et al 2002
<i>F7 Establishment of China operations to be made easy</i>	Case A, Case B, Case C, Case, D and Case E.	Ulrich et al. 2012 Blackburne & Buckley 2019 Sandberg 2013	
<i>F8 Adaptation capabilities to Chinese market needs</i>	Case A, Case C, Case D and Case E.	Buckley & Horn 2009 Hollender et al 2016	
<i>F9 Market studies and opportunity screening</i>	Case A, Case B, Case C, Case D	Räisänen 2015 Gao et al 2016 Peng & Ilinitsch 1999	
<i>F10 Financing resources</i>	Case A, Case B, Case C, Case D, Case E	Räisänen 2015	

SME internationalisation theories were structuring throughout the present study. The Uppsala model, explaining SMEs going abroad first with less risky options and adding investments later on, was not fully adopted to the theoretical framework but it became

evident that SMEs at different stages of their market entry to China, do follow the pattern in many ways. Table 6 illustrates and outlines the recommended managerial implications for decision-makers developing export and intermediary programmes. The three stages of the Table 6 do also illustrate the Uppsala model's typical pattern and thus, it could be suggested that in the modern world, where the physical distance barriers have gone down compared to the time of the introduction of the Uppsala model and more modern stage models and steps for the field could be suggested. The Table 6 proposes the three stages of 1) first introduction, 2) established business operations and 3) own intensive participation as the stages for SMEs new market entry. Similarly the partner actors' recommended support actions are presented. The pattern in the Table 6 also highlights the existing literature of market entry modes (Pan & Tse 2000), and while all the SMEs under study had gone through the non-equity modes, I found support that for long term success and establishment all the SMEs were looking at intensifying their equity impact on the market entry and thus, moving towards the equity modes.

For the marketing schools of thought, the SD logic, and for the service systems science paradigm the present paper contributed by giving a specific context for an extensive empirical case study. In the present paper I found clear support for the theoretical constructs that consider value creation to occur in and between the value creation service systems of the companies, partner, customer and the environment around (Vargo, Maglio & Akaka 2008). The Finnish SME cleantechs entering the Chinese market need to spot the right opportunities, the right customers, to whose value creation processes their unique offering can contribute to. Along the way to contributing to these value creation processes, the SME interacts and shares knowledge and service with a range of partners, also trade intermediaries, customers and the market environment. Furthermore the public sector and private sector service systems, such as government initiatives, influence the value creation processes in which the SMEs' value offering is consumed and utilized. This was in particular highlighted in the context of Chinese market entry, where the governmental programmes encourage local actors to enter into value co-creation networks that support the government's ideology. The complexity of the networks and the value co-creation between service systems found clear support in the present study. The illustrations on, how the Chinese market actors, adapt or adopt the Finnish cleantech offerings, also give support on the SD logic's basic foundation of a successful firm: company's role is to provide service that creates value when the service is used in the

user's service system. Similarly, for example public service system's value creation, such as the government ideology, adds value for a Chinese partner or a customer, when they use or utilize green technologies. The case companies highlighted examples, how the Chinese actors typically seek specific cutting edge technologies, and then request their adaptation to specific problems in the Chinese market. This raises the image of their company, the reputation and drives further business and investments to the Chinese actor. SD-logic's fundamental premise that value is created in-use, and several actors contribute to the value creation, co-creation, was thus clearly presented also in this case study, and in this context.

A specific factor that was raised in the study was individuals' and the SMEs' internal drive as such. While the company's own service system has been discussed and explored in the previous literature, in the context of an SME entering Chinese market the influence and value creation of key individuals – either from the SME employees, from the industry sector influencers or for example from the trade intermediaries representatives – has not been illustrated in the existing service science. This is most likely due to the nature of the SMEs under study – a small firm has key individuals affecting their performance, and value creation more distinctly than in multinational corporations. However, should the present study and its theoretical construct be taken further with SME studies in alternative contexts, the role and influence of *individuals' service systems* in the context should be recognised.

Service science has been elaborated with the extensive literature on business model design and their application as a operational equivalent for designing firms and business plans that add sustainable value to their customers value creation processes and facilitate value co-creation. These business model constructs gained a central position in the present study with the notions of configurational fit and value sensing. As a hypothesis configurational fit and value sensing were considered as key elements of trade intermediaries roles in supporting the SMEs. The explorative case studies found support and clear role for adaptation of the firm's business models and sensing the market value creation opportunities. Further research could be aimed towards these key constructs of the firm's role in the value creation environment. The theoretical framework which combined business model development and the value sensing and configurational fit with the value co-creation theories, would provide a framework to explore also the

business research on domains such as core competence theories and firms' sustainable value.

As value co-creation between the varied service systems in the market was recognised in the study, also a key challenge in the distant market entry context was raised and it should be brought to the theoretical discussion of value co-creation discussion. Intermediaries and SMEs discussed the challenges of moving the knowledge, and other operant resources, as in SD logic, between the value co-creation service systems. Several problems were raised during the case studies of the present research. These were such as, how does the intermediary have time to find the right SMEs, how to minimize communication costs between value creation systems, how and where does the SME sense how they need to adapt their operations and value propositions to truly participate successfully in value creation processes. For the theoretical domain of service science and SD-logic, this raises a new key theoretical construct of *service transfer costs*, which means time, resources, knowledge and money needed to transfer, communicate, and interact operant resources between the service systems. When the nature of the business environment is complex, these costs of transferring value and knowledge between the value creation service systems can prove to become a key element of a firm's business success. The business foundation is no longer built solely on creating value offering and value propositions, designing configurationally fit business models and offering, increasing value co-creation but it is also about *minimizing the costs of service, value and knowledge transfer between the value creation service systems*. This theoretical construct shall receive further investigation and a specific explorative study. It was found in the present study that minimizing this knowledge and service transfer cost is one of the key arguments for the existence of the trade intermediary partners and the required actions vary between the different stages and contexts of the SMEs market entry. Such actions are presented below in Table 6, when I move on to draw recommendations for SME and trade intermediary development.

## 7.2 Managerial implications

For managerial decision-making this study gives guidance for both SME managers and entrepreneurs as well as for decision-makers on trade organisation development.

### *7.2.1 SME development*

The 10 findings of the study all can provide SME managers with insights on how to prepare their companies for Chinese market entry, how to evaluate the opportunity and internal capabilities but also what sort of support they should and could seek from the trade organisations.

In particular I would direct the attention to the Finding 5 which has received strong support throughout the SME internationalisation studies. Key individuals and the company's own internal drive to build network and being persistent is crucial to develop successful China business. Company B with long term success in China well described how the company's top management is constantly visiting end customers, stakeholder events, government officials and local authorities in pushing forward their business and enlarging their network impact.

Second, in the present study SME managers did not highlight particularly the Chinese market needs from a holistic solution perspective, but this was emphasised by the market experts from the trade organisations in the study. The SMEs were more focused on their own niche products, but the main competition in China is offering full-scale solutions. To be able to enter this competition to truly unlock the Chinese market potential, the SME should adopt a strong expansion strategy and have significant expansion resources on developing these solutions.

Third, the present study presented high encouragement to adapt the SMEs offering to fit into one of the current government pro trends of the Chinese market. It was suggested that financing, partners and sales access for such products and technologies would be faster and less resource consuming than in other fields or industries.

Fourth, the heavy competition of the Chinese market can be seen both as a great opportunity to develop the company's offering as well as to see it as a threat and challenge. Case companies B and D had both developed their price and quality competitiveness to match the Chinese market competition and admitted that this had made their company significantly more competitive also in other markets. Market adaptation to Chinese

market uses resources, but can also deliver results across the company's global operations.

Last, firms, whether SMEs or large multinational corporations, shall seek to not only to develop offerings and value propositions that meet the Chinese market needs, nor shall they only focus on drafting their business models but also they shall look into their network operations in the market service systems. It is suggested that firms should seek to build processes that minimize the cost and resource consumption needed to transfer value and knowledge between the parties' service systems in the market environment. This was also found to be one of the key roles of the trade intermediaries. Next, I explain a development framework for trade organisation programmes.

### *7.2.2 Development framework for trade intermediaries*

The main research purpose and research question of the present study was to understand how the governmental and non-governmental trade organisations can facilitate success of Finnish cleantech SMEs when entering China. I approached the question from several theoretical angles, including value creation networks and service systems, business models, value sensing and configurational fit to the specific market. It was found that in all these aspects trade organisations can build support and resources that facilitate SME business growth in the new market. Furthermore, I found that long term success of the Chinese market entries, must be based on more sustainable methods rather than a successful networking event. In particular this was highlighted by the case companies, who all had used trade organisations services in the beginning of their Chinese market journey, but were now facing different challenges in building sustainable growth. I decided to conclude my ten key findings and trade organisations participation in those into a three phase journey framework which outlines the findings in an order that based on the present study should develop successful export programmes. This 3-Phase SME Journey framework is presented in Table 6.

Table 6 3-Phase SME Journey framework for intermediary development

<b>SME STAGE: Initial stage</b>	<b>SME STAGE: Market opened</b>	<b>SME STAGE: Growth and long term business</b>
<p>F1 Highly competed market needs holistic performance from the SME</p> <p>F2 Government-pro industries are a healthy way to enter</p> <p>F3 Trade organisations as the “government support” and reliability builder</p> <p>F4 Networking events in both private and governmental sector are fruitful at the initial stage</p> <p>F5 Company’s internal drive and management individuals’ activity and networks is crucial</p> <p>F9 Market studies and opportunity screening</p> <p>F10 Financing resources</p>	<p>F6 Solving the SMEs size issue through platforms and partner networks</p> <p>F7 Establishment of China operations to be made easy</p> <p>F8 Adaptation capabilities to Chinese market needs</p> <p>F9 Market studies and opportunity screening</p> <p>F10 Financing resources</p>	<p>F6 Solving the SMEs size issue through platforms and partner networks</p> <p>F7 Establishment of China operations to be made easy</p> <p>F10 Financing resources</p>
<b>RECOMMENDED TRADE ORGANISATION’S FOCUSED ACTIONS</b>	<b>RECOMMENDED TRADE ORGANISATION’S FOCUSED ACTIONS</b>	<b>RECOMMENDED TRADE ORGANISATION’S FOCUSED ACTIONS</b>
<ul style="list-style-type: none"> <li>- Bootcamps to develop SMEs to be able to compete</li> <li>- Bootcamps to motivate SMEs and their management individuals</li> <li>- Government-relations</li> <li>- Market information and specific market studies</li> <li>- Project and opportunity screening</li> <li>- Development and early stage funding</li> <li>- Networking for specific themes</li> </ul>	<ul style="list-style-type: none"> <li>- China-ready SMEs to build with Finnish and Chinese partners (clusters)</li> <li>- Fast-track services for opening China offices and recruitment</li> <li>- Product innovation and adaptation financing</li> <li>- New business opening financing</li> <li>- Promote the SMEs first customer success stories to new buyers</li> </ul>	<ul style="list-style-type: none"> <li>- Making China ready SMEs grow faster</li> <li>- Financing of acquisitions and steps needed to create economies of scale</li> <li>- Recruitment and financing support</li> <li>- Governmental support for major projects</li> <li>- Networks to large multinationals</li> </ul>



### 7.3 Future research opportunities

The present study contributed to the academic fields of value creation, service systems, business models and SME internationalisation by adding an in-depth empirical case study of 5 different Finnish SME internationalisation cases, 2 from trade organisations and 3 from SME companies. The study focused on analysing success factors and trade organisations' role in contributing to those success factors of SME internationalisation cases. SME internationalisation to China is still quite little researched topic and future opportunities exist.

First, this study was the first SME internationalisation study taking its theoretical construct strongly from the value creation and co-creation theories, acknowledging that SME internationalisation always includes a range of partners and networks in the field. With further resources and larger scope of a research this study itself would act as a natural next stage research platform as the research format can be applied for a range of industries and larger amount of SMEs. A quantifiable research with larger amount of data would be able to draw further conclusions from the findings that were indicated in this study. Similarly this study was not aimed to fully explain the most critical element of SME market success in China or other markets. This topic would be of great interest in quantitative research field with larger amounts of data.

The findings of the present study, propose future research also on the Chinese government programmes impact on SME or multinational corporations' entry and business success in China. Similarly, management literature would well benefit of further assessments on the notion of "Chinese buyers prefer full-scale solutions" which does actually impact SMEs opportunities significantly. From this study the amount and scope of data would not be sufficient to draw final conclusions on the matter, but either an extensive qualitative study or a quantitative study would be able to explain the explored finding further.

Last Finnish SME environment is still not widely studied in the academic world. Some Master's Thesis level studies do exist, but the next stage for this field would require more resourced and extensive scope of research. During this research in Finland for example several private sector-run export acceleration programmes expanded rapidly. Such

initiatives as KasvuOpen, or Slush would provide a very exciting field to study the phenomenon further, as this study emphasised the internal drive and motivation of the SMEs personnel in driving successful market entries.

To conclude, it is worthwhile to emphasise that this research has contributed to the public criticism on trade programmes with a neutral and in-depth view. While public media often seeks to criticise the lack of efficiency and effectiveness of the government-funded trade and export programmes, this study concluded that the Finnish trade organisations are well on the page for the key resources that SMEs need in their journey to China. They do offer a range of services that SMEs see invaluable and these services in cases also match the stages of the SMEs. With limited resources however it is crucial for trade organisations to focus their actions on the certain key elements, when servicing an SME at a specific stage. For this use the present study developed a 3-Phase SME Journey Framework that can be further developed in the future research in academia.

## 8 SUMMARY

SME internationalisation has become important in the fast-moving world for export-dependent countries such as Finland. In particular Finnish cleantech industry has shifted its sights towards the large Chinese cleantech market. In this process, also government and private-run trade organisations have been involved. In the public news a lot of discussion is aimed at the efficiency and the effectiveness of the trade organisations.

The purpose of this study was to explore and understand how trade organisations can more efficiently and effectively facilitate value creation in the service systems of the Chinese market and the Finnish cleantech SMEs' market entry stages. The research was carried out as a qualitative study focused on three SME cases of Chinese market entry and two trade organisation cases. First, a theoretical review on value co-creation, business model science and SME internationalisation was presented. Second, a theoretical framework to structure case studies was developed. Theoretical constructs of value creation between service systems, configurational fit, value sensing and business model restructuring were the foundation of the theoretical framework. Third, the primary data was collected through in-depth interviews with the case companies. The case studies were analysed separately as well as, through a cross-case analysis. The key findings were placed once more against the existing literature, to find support or opposing views on the key findings. The study concluded ten key findings that support SME management to develop their competencies and trade organisation management to facilitate more long term and sustainable value creation. In general, it was found that the trade organisations are well on page with several of the key functions that can support SMEs. However, long term sustainable China market entry needs more intensive focus from the SME organisations themselves, as the China was also found as a highly competed market. The Chinese market size and the government-pro industries, were found as fruitful platforms for SMEs to build on. Policy-makers can direct operations of the trade organisations towards sustainable business development, rather than only one-off projects. For future research this study combined service science and business model theory background and provided a concluding framework for further intensive studies on SME internationalisation, trade organisations and specifically Chinese market entry.

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### **LIST OF INTERVIEWS**

Interview A (2017), Director of Intermediary A. Phone interview. 28.3.2017.

Interview B (2017), CEO of Company B. Face-to-face interview. 21.3.2017.

Interview C (2017), CEO of Company C. Face-to-face interview. 24.3.2017

Interview D (2017), CEO of Company D. Face-to-face interview. 20.3.2017.

Interview E (2017), Founder and board member of Intermediary E. Face-to-face interview. 20.4.2017.

**APPENDIX 1 INTERVIEW SHEET TO TRADE ORGANISATIONS**

1. What contributes successful value co-creation in the business of Finnish cleantech SMEs entering Chinese market?
  - a. How different parties facilitate success of Finnish cleantech SMEs entering Chinese market?
    - i. How positive is big picture for Finnish cleantech SMEs to enter Chinese market?
    - ii. How do you see trade organization's role?
    - iii. How do you see the interactions among Finnish cleantech SMEs, trade organizations, and Chinese partners/customers?
    - iv. Where do you see gaps and challenges?
  - b. Can you tell me a couple of clear successful cases where the relationship among trade organizations, Finnish cleantech SMEs and Chinese market really worked?
    - i. What industry are these companies in?
    - ii. What kind of business are these SMEs doing in China?
    - iii. How are those companies doing now?
    - iv. How were the operations organized in terms of resourcing, networks and interaction?
    - v. What were the critical success factors in these cases?
  - c. How can trade organizations improve their efficiency by becoming active counterparts by value sensing?
    - a. How can trade organizations gather and utilize Chinese market information and needs?
      - i. How do trade organization form the understanding of local Chinese market needs?
      - ii. How do trade organization communicate with Chinese organization and customers?
      - iii. How do trade organizations identify Chinese market opportunities?

- iv. How do trade organization proactively seek and match opportunities in China with Finnish cleantech SMEs?
  - v. How can trade organizations gather and utilize Finnish cleantech SMEs' unique value?
  - vi. How do trade organization share Finnish cleantech SMEs' information to Chinese market?
  - vii. How do trade organization identify Finnish cleantech SMEs' distinctive competences to Chinese market?
  - viii. How do trade organization help matching Chinese market needs with screening Finnish technology companies and SMEs?
- c. How can trade organizations match Finnish cleantech SMEs' competences with Chinese firms, organizations, and customer needs?
- i. What kinds of matching structure and processes are used?
  - ii. What kind of marketing methods or activities are used to promote the matching services?
  - iii. How do trade organizations evaluate Chinese contacts when screening opportunities for Finnish cleantech SMEs' Chinese market entry?
  - iv. How is success of matching Finnish cleantech SMEs and Chinese market opportunities systematically measured?
  - v. How do the experiences of helping Finnish cleantech SMEs to enter China market contribute to trade organizations?
- d. How can trade organizations ensure and facilitate configurational fit of the Finnish cleantech SMEs when entering China?
- a. How can Finnish cleantech SMEs adapt to Chinese business environment and circumstances with trade organizations' support?
    - i. Overcoming the business cultural differences and regional differences
    - ii. Understanding the differences of business structures and processes in Chinese market
    - iii. Enhancing the business partnerships
    - iv. Product development and tailor-making for the Chinese market
    - v. Monitor and support Finnish cleantech SMEs to adapt their business models for the new market circumstances

## APPENDIX 2 INTERVIEW SHEET TO FINNISH CLEAN-TECH SMES

1. Overview
  - a. Decision for going China
    - i. How did you decide to go China?
    - ii. How did you find the opportunity?
  - b. Market in China
    - i. Which provinces or cities did you go?
    - ii. In which provinces or cities are you doing well and in which not? Reasons?
  - c. Product in China
    - i. What do you offer to your Chinese partner and the end customers?
    - ii. How was your company and products like when you entered China?
  - d. Knowhow about the market
    - i. How did you understand about the Chinese market before and after entered China?
    - ii. How do you think about the business environments' differences?
    - iii. How is your company doing now in China?  
What have been the critical success factors and main challenges?
2. Market entry
  - a. Partner screening
    - i. How did you find your key partners in China?
    - ii. Did you screen out your partners with third parties' help?
  - b. Networks and platforms
    - i. What kind of networks or platforms did you use for entering China?
    - ii. What were the most important resources that made it possible for your China entry?



- c. Support from trade organizations
  - i. How did the trade organizations help with information and knowledge about Chinese market?
  - ii. What kind of support did you get from trade organizations?
  - iii. Were the support offered through projects or any other structured ways? How were they offered?
  
3. Interactions with Chinese partners
  - a. How did you interact with your Chinese partners?
  - b. Were third parties involved in the interactions?
  - c. How did you match your needs with your Chinese partners' needs and Chinese end customers' needs?
  
4. Adaption to the market
  - a. How did you find out your products' distinctive competences?
  - b. Did you do product adjustments according to the Chinese market?
  - c. Were they done before you entered China or after?
  - d. What were the factors that made you to do the adjustments?
  - e. Where was the knowledge from?
  
5. Business model
  - a. How are your product marketed in China?
  - b. What kinds of operations were done from your side?
  - c. What is the organizational setting of your company since entered China?
  - d. Are there any specific requirements in Chinese market you need to fulfill?
  
6. Sustainability
  - a. Are there channels that help you with continuously finding new partners?
  - b. What kinds of services from trade organizations would be beneficial along your Chinese market entry?