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**Integrated Marketing Communication in Connecting
Buyer and Seller Prior to Selecting the Supplier of
Industrial Capital Goods**



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Integrated Marketing Communication in Connecting Buyer and Seller Prior to Selecting the Supplier of Industrial Capital Goods

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ABSTRACT

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Keywords Capital goods, IMC, buyer information sources, marketing communication channels, industrial buyer behavior, action research

Knowing preferred buyer information sources is of utmost importance to any marketer for planning marketing communication to make buyer and seller meet on the information arena prior to supplier selection. This applies also to industrial capital goods marketers focusing both on established and emerging markets. Thus understanding buyer behavior in search of information in multiple buying centers is critical for success.

Studies concerning industrial buyer behavior in complex decision making are mainly from the time before the Internet, and studies on integrated marketing communication, IMC, have focused on a single market and mainly on consumer goods in Western countries. Also these have been studied separately. Integrating marketing communication and buyer behavior is important for the industrial capital goods seller in a global context.

This study explores first the buyer information sources used by multiple buying centers in different market areas prior to supplier selection, and then the influence of these on IMC processes for industrial capital goods. To identify how buyer information sources and marketing communication channels interact prior to supplier selection and how multiple simultaneous buying centers in different market areas influence IMC development of the capital goods seller, a single case study was applied. Multiple methods, based on action research were used for data collection.

The main finding of this research is that for an industrial capital goods seller there are multiple extended buying centers searching for information simultaneously, thus behavior of the members and the interactions within the members needs to be understood for developing integrated marketing communication. Another finding is that the selection of information sources used vary by numerous influences e.g. geography, information search target, market maturity, familiarity with solutions, product and

supplier, culture, and issue in question. Three most preferred sources are the Internet in a broad context, word-of-mouth (WOM), and references, while advertising is almost neglected, and personal selling valued in established markets more than in emerging markets as an information source. Finally, findings of this research suggest that the buyer information sources equal marketing communication channels and thus the extended buying centers form the core for developing IMC for capital goods in a global context.

The academic contribution of this research can be divided into IMC, capital goods purchasing process, and action research in marketing. This research increases our knowledge on IMC definition for industrial marketing. For capital goods, IMC is a constant, circular process taking into account strategies and stakeholders, and IMC programs are governed by multiple influences differing from one buying center to another. Thus it can be said that the buyer insight leads implementation of IMC. Capital goods purchasing process definition takes one step forward in this research. The role of external members is crucial especially in emerging markets and the need leading to the purchase of capital goods may originate from beyond the customer's customer. Also the taxonomy of buyer information sources, due to the Internet has changed.

For practitioners, this research gives guidelines on development and implementation of IMC in industrial capital goods industry, and in global context. And, as a consequence managers would be able to better justify and defend marketing communication activities and budget. Because references and WOM have been identified among the three most important information sources, managers also need to pay attention to brand building and relationship development. Finally, proper use of marketing communication channels support personal selling leading prospects into action. Socially, this research makes implications that political organizations and other decision makers should in order consider to generate more export for small and medium sized companies.

This research being a single case study would be taken as pre-study for future studies on capital goods marketing and marketing communication in general and in a broad perspective. Defining IMC for industrial marketing involving different kinds of capital goods and their markets should be taken further, through research both on academic and practical levels. Also it would be beneficial to know more about the influences affecting the active information search in all emerging markets, the BRICS countries, and in all stages of the purchasing process. And finally, a suggested avenue for further research would be to study the overall importance of the Internet as buyer information source for capital and other industrial goods.

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Lahti, May 16, 2013

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LIST OF ABBREVIATIONS

B2B	Business-to-Business
BRICS	Brazil, Russia, India, China, South-Africa, i.e. the countries, which are seen as major developing economies in the world
CIS	Commonwealth of Independent States
CoPS	Complex Products and Systems
F2F	Face-to-Face
IAR	Insider Action Research
IMC	Integrated Marketing Communication
IS	Integrated Systems
P1-P14	Person interviewed
SEO	Search Engine Optimization
SME	Small and Medium Sized Enterprise
SoMe	Social Media
WOM	Word-of-Mouth

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1. INTRODUCTION

This study deals with industrial capital goods marketing and purchasing. The focus is on the information sources used by buyer prior to supplier selection, and how the marketing communication by seller meets these sources. This is looked into from a global perspective. Knowing the preferred buyer information sources used is of utmost importance for the industrial seller to manage their marketing and communication. This is especially a challenge for a seller looking into the new emerging market. The results of this study aims to assist industrial capital goods sellers, especially Finnish SMEs, to utilize integrated marketing communication (IMC)¹ to increase sales in the global market.

1.1 Background to the research

During the current financial turmoil, with the account balance at a deficit, the net sales of Finnish machine- and metal industry dropped from 32 to 24 billion Euros in just one year (2008), there is an obvious need for companies, especially SMEs (Small and Medium Size Enterprises) to improve their existing market and to look into new, emerging markets² for existence and growth. According to Eurostat (2010), shown in Figure 1, small and medium sized companies (those with 1-249 employees) in Sweden and Denmark share 37% and 44% of exports respectively. For Finland the figure is 26%. Also, the results of a survey: 'Business development areas in Finland' (The Federation of Finnish Technology Industries, 2010), suggest development in sales and marketing for increased competitiveness. One of the drivers of this thesis has been the situation illustrated above. The thesis is an effort to give tools for Finnish industrial SMEs in their international and even global marketing.

Marketing communication media has changed the landscape. The Internet has provided a new and effective source for customers (both existing and potential) all over the world to search information already before they contact the manufacturer or its local distributor.

¹Integrated marketing communication (IMC) is an audience-driven business process of strategically managing stakeholders, content, channels, and results of brand communication programs.

²Emerging market is an economy, nation in the process of rapid growth and industrialization. Often times they are transitioning to an open market economy with young and growing population. They are also in the early stages of building infrastructure. Brazil, India, China and Russia are typical examples of emerging markets. (e.g. www.forbes.com. www.investopedia.com)

This thesis tries to look what is needed to create an effective way to reach potential customers and their stakeholders influencing the decision making. In other words, the intention of the thesis is to help the Finnish SMEs to be able to get the inquiries soon enough and even in the phase when the potential customer is designing the industrial capital goods³ solution. It would be beneficial to have “company name or equivalent” mentioned in inquiry specifications.⁴



Figure 1. External trade by activities and size-classes by enterprises (Eurostat, EC, 2010)

For industrial capital goods sellers, who are present in mature established markets, entering emerging markets special challenges for marketing arise from two issues: they have to create not only demand among customers but also make the solution (e.g. using certain form of energy, type of paper, or as in this case building with precast concrete), and company known to a wide stakeholder group. From marketing communication point of view developing decision-making awareness in the pre-relationship stage is the main task for the seller (Andersen, 2001). Taking this into account, this study focuses on the early stages of the purchasing process (Figure 2), prior to the supplier selection. The capital goods purchasing starts with an initiation step (Figure 2) that includes need recognition and finding of general solution. This is followed by specification aiming at

³ Industrial capital goods are technically complex goods used to produce other goods. Throughout this study also capital goods mean industrial capital goods.

⁴ This is what happened in the large sale of Oilon burners to City of Beijing. There was mentioned in the inquiry specifications “the Oilon type or equivalent”.

finding the specific solution. After approval of purchase, a supplier search and evaluation steps take place ending into supplier selection. (Johnston and Bonoma, 1981). Thus for informing all the members involved in these early steps, their use of information sources must be known by the seller.

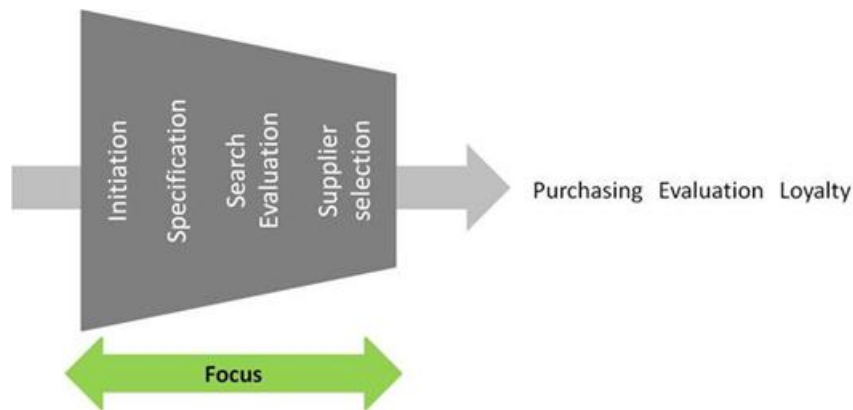


Figure 2. Purchasing process of capital goods (Johnston and Bonoma, 1981) and focus of this research

It seems that the Internet has changed the communication landscape also for industrial and industrial capital goods market⁵. Thus the information availability and the right channels of information have become of the utmost importance. The actual problem for the industrial capital goods seller is how to get information on the company, its products, services and end use solutions to all decision makers in all purchasing stages prior to the supplier selection both in established and emerging markets simultaneously. IMC, which strategically manages all stakeholders, contents, channels, and results of communication programs, is a strategic tool to cope with the marketing communication challenges mentioned afore. In this study, the question is looked from the buyers' and the IMC point of view utilizing a longitudinal case study with action research⁶ (more on methodology in Chapter 3).

Although many researchers (e.g. Brossard, 1998) agree that understanding the information sources used by buyers is of major concern for any marketer, little research is available on the search for information in the case of a complex decision making

⁵ Plenary speakers Brian Halligan, CEO & Founder of Hubspot and Sean Burke, Global Chief Marketing Officer, GE Healthcare IT, both said "New media and other Web communication channels are already widely in use in practice, mainly in B2C, so this must also be studied in B2B sector academically" on ISBM Academic Conference (2010) of Advances in B2B marketing. The plenary speaker Hermann Simon, Chairman, Kucher & Partners was in the same line on Research Impacting Practice - Bringing Technology to Market Conference (2012).

⁶ The combination of research and management consultancy that involves intervention into process of decision making, implementation, and change is known as action research (Gummesson, 2000).

process involving several stakeholders, especially in a global context. Also most research in this field is from the time before the Internet, and the Web, and thus no longer fully applies to today's marketing communication practices that technology has changed. Although the potential of digital channels is obvious, it seems that companies in industrial markets rely mainly on email and traditional informative websites to promote their products and services. Face-to-face (F2F) communication, the main method of personal selling, is myopically seen as the only interactive, and thus the most effective means of marketing.

Marketing communication channels within industrial capital goods has received some interest in academic research (e.g. Jalkala, 2009; Foster, 2006; Smith et al, 2004; Patti, 1977) mainly focusing on seller insight and a single market leaving the global context nearly untouched. Also, according to the literature reviewed (Chapter 2), there is need for academic research on genuine insights into customers' needs and the value-creation process (e.g. Gummesson, 1998; Patti, 1977). According to Leszczynski and Zielinski (2010) it has not been empirically assessed how, according to buyers, the information should be provided by the supplier.

Although being fully aware, based on literature review in Chapter 2 (e.g. Spekman and Thomas, 2012; Luck and Moffat, 2010; Schultz, 2010; Wind and Thomas, 2010; Kitchen and Schultz, 2009; Kliatchko, 2008; Foster, 2006; Deeter-Schmelz and Kennedy, 2002; Johnston and Lewin, 1996; Moriarty and Spekman, 1984; Patti, 1977; Sheth, 1973), that each of the three areas 1)IMC 2)complex decision making in purchasing of industrial capital goods and 3)buyer information sources could be studied separately, to get a comprehensive view of the phenomena of this research, they need to be studied together. Anyhow, I focus on sources preferred by buyers to obtain information thus giving guide lines to the industrial capital goods sellers for building IMC.

In this study influences (e.g. age, geography, and information search target)⁷ that have impact in the selection of information sources are introduced and discussed. The preferred channel mixes are also presented.

⁷ Age is significant due to younger population in emerging markets than in established, and generation change detected in established market managers, geography due to the need to study different types of markets, and search targets being the two selected types of industrial capital goods, and suppliers. Geographical, cultural and product issues have been detected also by previous research (e.g. Sheth, 1973; Webster and Wind, 1972) as important influences.

1.2 Misfit in Information Sources in Purchasing of Capital Goods

The aim of this sub-chapter is to illustrate the misfit in information sources in purchasing of industrial capital goods. As a result the research gap is introduced.

Technically complex and expensive industrial capital goods⁸ are goods that produce revenue for many years (Sievänen, 2004). They are usually purchased directly from the manufacturer rather than through intermediaries. Several people from users to technical experts and top management may influence the buying decision. The long, complex purchasing process of capital goods involves professionals from several levels and functions of an organization (Brossard, 1998). In many capital goods market there are few and large buyers and seller-buyer relationships are close. Patterns of information sources vary in different purchase stages (Brossard, 1998). Although some research exists on the industrial capital goods purchasing process, research seems to be rare on industrial purchasing professionals' and other participants' behavior (Deeter-Schmelz and Kennedy, 2002; Kennedy and Deeter-Schmelz, 2001; Johnston and Bonoma, 1981).

Marketing communication in the industrial market is focused, tailored to varying requirements for gaining customers or sustaining relationships with customers and resellers (Anderson et al, 2009). Although relationship marketing and interpersonal relationships in industrial markets has received research attention (Finne and Grönroos, 2009; Cova and Salle, 2007; Iyer et al, 2006; Andersen, 2001), research on marketing communication channels and their mix preferred by buyers in industrial capital goods marketing, especially in the pre-relationship situation, seems to be missing. Also, according to Gilliland and Johnston (1997) there is a need to conduct research about industrial marketing communication practices and their effectiveness, in general. Further, Spekman and Thomas (2012) call for research on industrial buying centers (also decision making units) and needs and behavior of the members for developing IMC.

IMC in industrial marketing is a new field of research with only few reported studies (e.g. Talonen and Uusitalo, 2010; Heikkilä, 2009; Foster, 2006; Olander and Sehlin, 2000). IMC, as also applied to this study, is an audience-driven business process of strategically managing stakeholders, content, channels, and results of brand communication programs. The IMC process begins and develops from the thorough

⁸ Industrial capital goods categories are: capital equipment, complex products and systems (CoPS), and integrate systems (IS), e.g. Cova and Salle, 2007

understanding of target audiences, users, as a guiding principle in arriving at marketing and branding objectives and strategies (Kliatchko, 2008). In the context of this research IMC can be considered a strategic business function for the seller to receive inquiries already in the early stages of the purchase process of industrial capital goods. IMC, which in fact will be depending on the actual context and structure of the industry, has been mainly studied in the consumer market leaving industrial marketing untouched. This study focuses on IMC in complex decision making as is the case with industrial capital goods.

There is evidence which suggests that industrial marketers rely most heavily on personal selling in communicating with their customers (e.g. Andersen, 2001; Patti, 1977), although it has been suggested that personal selling may not be nearly as effective alone as it is when combined with other marketing communication tools (e.g. Smith et al, 2004; Andersen, 2001; Herbig et al, 1994; Patti, 1977). Interpersonal relationships, though, may be less critical in global industrial products marketing than literature would suggest (Iyer et al, 2006).

The marketing communication channel mix for B2B marketing referred by numerous researchers over time (e.g. Long et al, 2007; Foster, 2006; Kotler and Keller, 2006; Deeter-Schmelz and Kennedy, 2002; Moriarty and Spekman, 1984 Patti, 1977) seems not to be suited for capital goods global marketing. There has been relatively little effort to develop the actual marketing communication channel mix that industrial customers use, or to identify characteristics of purchase situations that affect how information sources are used in combination (Bunn and Clopton, 1993). Smith et al (2004) say that there is little research on issues that help marketers to develop a consistent, complementary and cost effective marketing communication mix. Same applies to development of IMC in industrial companies.

Based on the literature review, there seems to be a gap “how information sources preferred by buyers meet the channels used by the seller” in our knowledge of marketing communication of industrial capital goods in the early stages of purchasing process, prior to supplier selection. The research gap, the white arena where the buyer information sources used in purchasing of industrial capital goods meet the marketing communication channels used for seller’s IMC is presented in Figure 3.

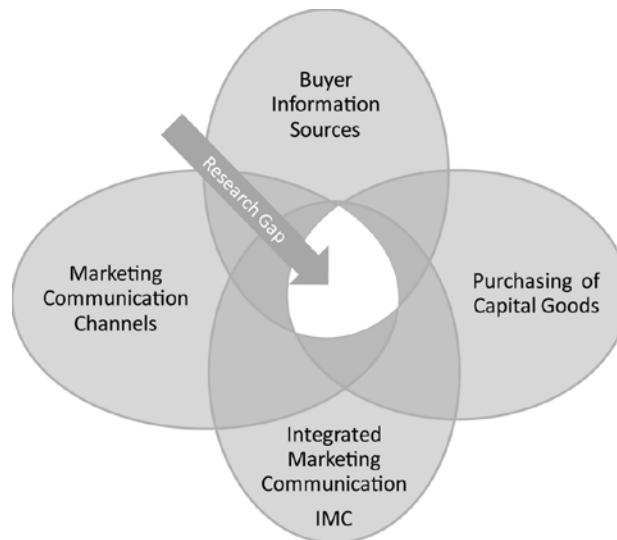


Figure 3. Research Gap

1.3 Objective of the Study and the Research Questions

The main objective of this research is to depict what are the ways for industrial capital goods sellers operating globally to manage marketing communication to influence the potential customers' decision making in the early stages of the buying process prior to supplier selection. This needs investigation on 1) purchasing process and buying centers in complex decision making, understanding of need generation and the role and behavior of different members of the purchasing process in search of information, 2) preferred buyer information sources for industrial capital goods in the early stages⁹ of the purchasing process prior to supplier selection (the focus is on influences e.g. geography, age, and information search target on preferred channel mix), and 3) industrial marketing communication channels, with a special insight into the Web from information search point of view, and how they are integrated simultaneously in emerging and established markets for industrial capital goods. Also 4) IMC and marketing communication channel mix for the early stages of the purchasing process for marketing of capital goods, especially complex products and systems (CoPS) need to be investigated.

⁹ Stage, also known as phase, is used as a generic term, while step is used to describe exact, named steps of a purchasing process.

Solution to the described objective is generated by finding answers to following research questions:

RQ 1: What are the preferred buyer information sources for industrial capital goods prior to supplier selection?

In order to study these, the following sub questions have been identified:

1. Who are the different members of the complex decision making process in a global setting?
2. By whom within the purchasing process is the information sourced?
3. What is the influence of geography, age, and information search target on preferred source mix and what other influences affect the selection of information sources?
4. How does the Web influence industrial marketing communication in search of information?

RQ 2: How does knowing buyer information sources impact integrated marketing communication (IMC) of industrial capital goods?

Important for answering the first research question is to first conceptualize industrial capital goods. Looking from industrial capital goods and information search point of view, theories describing the purchasing process, complex decision making and structure of buying centers are reviewed to depict what is known on the members and their role in information search. Then previous literature on industrial marketing communication, buyer information sources and marketing communication channels is discussed. Reviewing existing literature on IMC and its use end the theoretical discussion needed to find the answers to the second research question and building up the framework.

For empirical research, in order to find answers to the questions, and understand the phenomena of the information arena within industrial capital goods business, an in-depth longitudinal single case study strategy is chosen. The study is carried out as action research. Multiple data sources are employed; structured interviews, workshops, internal literature and other case company artifacts, and quantitative and qualitative surveys and interviews. To accumulate knowledge, both inductive and deductive phases are used. Because this is a longitudinal study, data collection is divided over a long period of time.

1.4 A Globally Operating Industrial Capital Goods' Niche Marketer

The company studied in this research is a Finnish SME. It is a 53 year old global marketer in a niche area of industrial capital goods, precast concrete technology. It has daughter companies in the United States, Germany, and Russia, sales offices in the United Arab Emirates, and China, and representatives in over 20 countries. The technologies¹⁰, sold can contain a single machine, a production line or a complete factory. These installed capital goods are marketed worldwide. The end products, precast concrete elements, are used in building construction end users being building companies. Description of the field is in Chapter 3.

During the past 10 years the company net sales has fluctuated between 35-140 million EUR. The current (2013) number of personnel is 180. Although a SME, it has proven its status as the market leader. Main competitors are from Germany, Spain, and Italy. The case company exports over 90% of its products to 100 countries. Since 2009 most new production line sales have come from the emerging markets. The amount of customers/country is few. The method of selling is project and solution selling needing longtime relationship building and information delivery to many levels of buying and non-buying organizations. Marketing is a centralized function managed by the headquarters. Today marketing communication is based on an IMC strategy (more on the company and its IMC in Chapter 4). The case company, as the market leader in the field, both in size, number of technologies marketed, and geographical presence is well suited as a research site for studying the complex decision making process and buying centers in a global environment.

1.5 Scope and Limitations

As the topic of this research - integrated marketing communication in connecting buyer and seller prior to selecting the supplier of industrial capital goods –shows, the scope of this study is to shed light on IMC of industrial capital goods. The focus is especially on marketing communication channels as buyer information sources and their mix to suit the early stages of the purchasing process. This is looked into from buyers' side in a global context.

The preferred information source mix is studied by geography, age, and information search target. Throughout the study both expressions 1) buyer information sources and

¹⁰ In this study the word technology means both the knowledge of the processes, and the machinery and equipment needed to produce the product.

2) marketing communication channels are used, the latter when seller insight is in question. The study also discusses the roles of different stakeholders of the purchasing process as informants or need generators. Data for the research is collected by action research including both qualitative and quantitative surveys, interviews, and multiple artifacts (e.g. memos, strategies, internal studies, websites, brochures, and other internal literature) from the case company. The outcomes should benefit industrial capital goods companies in their marketing communications e.g. in the strongly emerging Asian and Russian markets.

Some limitations concerning generalizability might be faced since this research is limited to a single case study in a niche business area, precast concrete technology. Also lacking direct interviews with the buyers can be considered a limitation.

1.6 Structure of the Dissertation

The structure of the dissertation is illustrated in Figure 4. In Chapter 1, the topic, the motivation and background, research gap and questions are introduced. Then, to address the research questions, I first review literature, relevant to integrated marketing communication and information sources used in purchasing of capital goods (Chapter 2). The chapter ends with building of the framework. In Chapter 3, I describe the research methodology and methods. In order for the reader to fully understand the whole concept of the study a sub chapter is given on the case and the business field.

Chapter 4 presents findings related to the research questions. First, the marketing communication development of the case company is reported as part of the action research. Then the results of the preferred buyer information sources –survey are presented. The last part of this chapter is concentrating on the interview on rating and use of the sources prior to supplier selection in both emerging and established market. The interview results on the industrial capital goods purchasing processes and need generation are presented. In Chapter 5, I discuss the study findings in terms of implications for utilizing integrated marketing communication for industrial capital goods for connecting the buyers and the seller in the information arena prior to supplier selection. Finally in Chapter 6, I present ideas for further research.

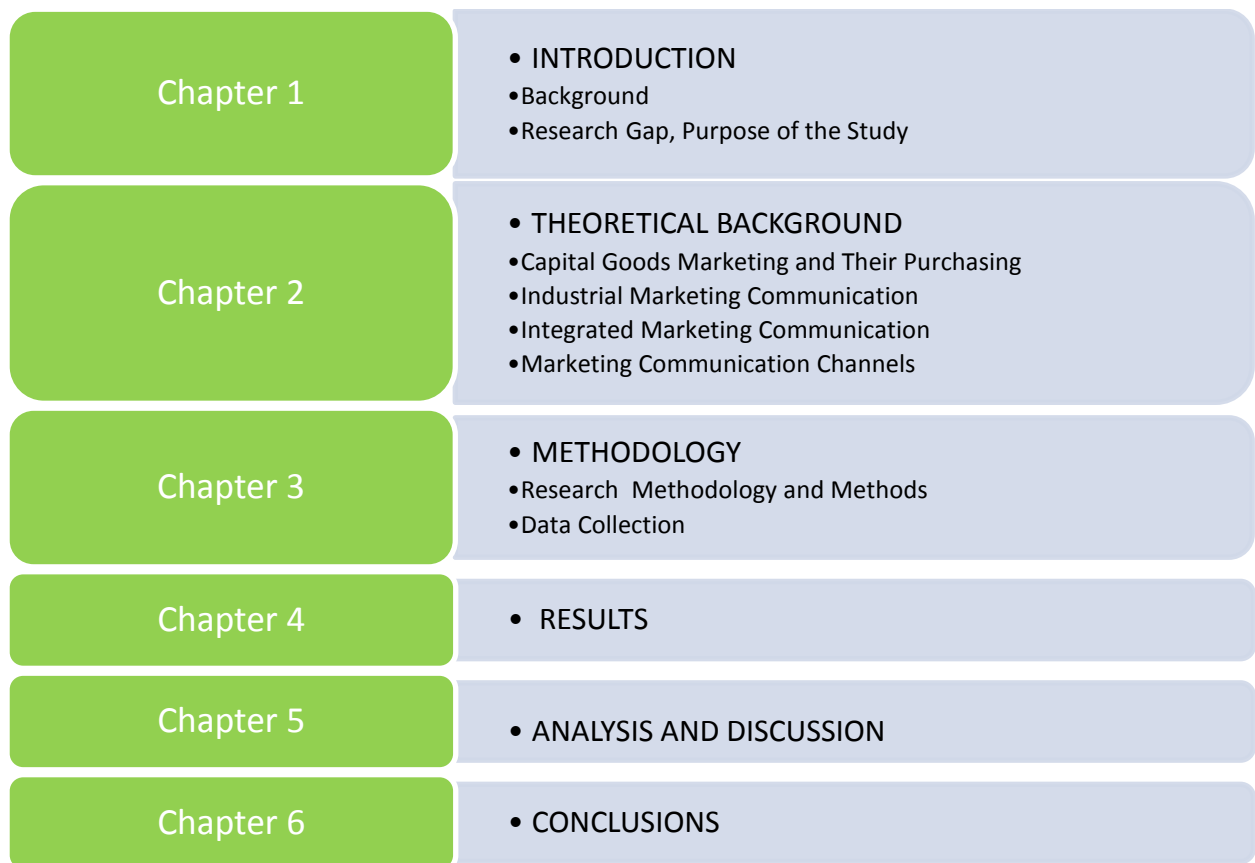


Figure 4. Structure of the dissertation

2. THEORETICAL BACKGROUND

This chapter, being a literature review, clarifies the central concepts, identifies the characteristics of industrial capital goods and their purchasing, buyer information sources, and marketing communication channels and their role in IMC.

In the following pages I review the existing academic knowledge on information sources used in the complex decision making for selecting industrial capital goods suppliers, and IMC. I begin with defining industrial capital goods and their purchasing process. However, it is not the purpose of this study to offer an exhaustive review of the buying center or complex decision making unit as such. Then I talk about industrial marketing communication, looking more specifically into information sources used in the complex decision making process. Thereafter, marketing communication channels, (channels being one of the four pillars of IMC), are investigated. Here I give a separate sub-chapter that sheds light on what is known on web communication and the role of the Web among marketing communication channels. Thus both buyer (sources) and seller (channels) insights are taken into account and reviewed separately. Finally I look into definitions and development of IMC, and its role in industrial marketing. I look into all this from industrial capital goods point of view.

This chapter ends with a discussion on the literature review and building up a conceptual framework for industrial capital goods supplier selection.

2.1. Industrial Capital Goods and Their Purchasing

2.1.1 Industrial capital goods

In Finland 40% of GDP comes from export, of which share of machinery and equipment is 20% (<http://formin.finland.fi>) being the most important sector within. Thus finding out through research means to improve international marketing and sales of machinery are important for the national economy. Capital goods (also investment goods, capital items), a specific section of industrial goods in business-to-business (B2B) marketing, as shown in Figure 5 (Patti, 1977; Hobday, 1998; Cova and Salle, 2007), are goods used to produce other goods. They are fixed assets such as machinery, buildings, etc. (Financial Times Lexicon). According to Patti (1977) industrial goods and services are classified into six categories: 1) raw materials, 2) accessory equipment, 3) fabricated materials, 4) components, 5) supplies and services, and 6) capital goods. Capital goods are items that are technically complex and expensive, and are purchased typically directly from the manufacturer rather than through intermediaries, and more people from users to

technical experts and top management influence the buying decision. Capital goods can further be divided into 1) capital equipment (machines, machine tools, tools, and process equipment), 2) complex products and systems (CoPS), and 3) integrated solutions (IS). Complex products and systems (CoPS), a subsection of capital goods, are high technology, high cost, customized B2B capital goods, e.g., turnkey factories, production lines, power stations, defense-systems, and large IT projects. (Cova et Salle, 2007; Hobday, 1998; Brossard, 1998). Integrated solutions (IS), including the production line their operation, and maintenance services, are highly similar to turnkey project deliveries being based on build-own-operate-transfer or build-operate-transfer (Ahola et al, 2008). They are always solutions where the supplier has integrated goods, services and knowledge components that solve strategic customer specific problems (Storbacka, 2011). This research's view is on capital equipment (machines) and CoPS (production lines).

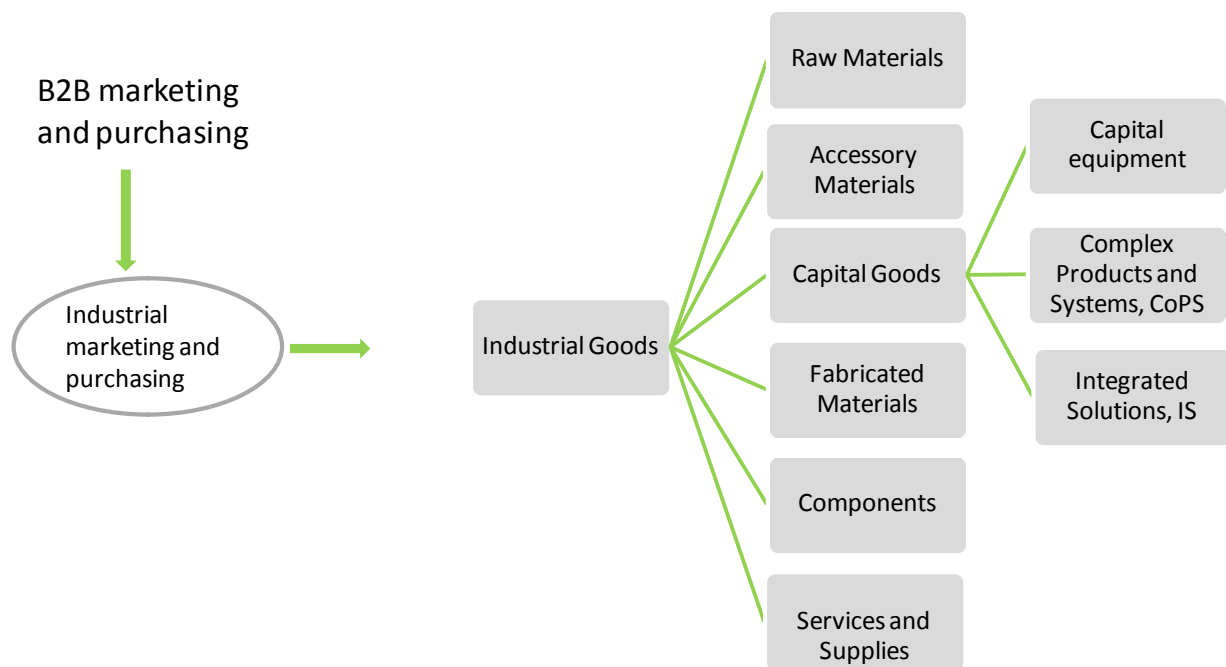


Figure 5. Categories of industrial goods in B2B marketing (Patti, 1977; Hobday, 1998; Cova and Salle, 2007)

In industrial decision making, many buyers prefer system buying; that is to buy a total solution to a problem from one seller. According to Sievänen (2004), capital goods can be custom built and designed, or made of standard options. Customized manufacturing is the normal procedure in capital goods manufacture. Thus one-of-a-kind capital goods are considered to be projects. Capital goods produce income for many years. Suomala et al (2004) define after sales to be an important, essential and significant part of capital goods business.

2.1.2 Industrial and capital goods purchasing process

In the industrial capital goods market, there are few sellers and few buyers, they are large and seller-buyer relationships are close. Purchasing is professional and there are several influences that affect buying. The purchasing process of capital goods is complex (Brossard, 1998; Johnston and Lewin, 1996; Sheth, 1973; Webster and Wind, 1972), long, and involves many different kinds of people, and levels of organization (Töllner et al, 2011; Wind and Thomas, 2010; Cova and Salle, 2007; Brossard, 1998; Johnston and Bonoma, 1981). These groups of individuals are often referred to as buying centers or decision making units¹¹ (Spekman and Thomas, 2012; Töllner et al, 2011; Wind and Thomas, 2010; Owusu and Welch, 2007; Dawes et al, 1996; Johnston and Lewin, 1996; Spekman and Gronhaug, 1986; Webster and Wind, 1972).

From the seller's point of view, the role of each individual in the buying center needs to be defined in order to adapt communication and sales material to the needs of each individual (Töllner et al, 2011). Also, according to Owusu and Welch (2007), understanding of international project business, analyzing the buyers, the structure and decision making of the buying center and interactions with the seller need to be investigated. On the other hand, Spekman and Thomas (2012) argue that it is difficult to determine which roles are more important than other, and who makes the final decision. Traditionally, it has been assumed that industrial buyers, because they are professionals, tend to be rational, but they are also affected by emotional factors such as, image of the seller company, its reputation and word-of-mouth (WOM) messages (Schmitz, 1995).

The initiation for purchase is need that derives from the demand for the final good (Kotler and Keller 2006, 210-214). For industrial capital goods it arises from replacement or expansion, and/or from e.g. direct contact from seller, customer request for a product or services, marketing's decision to introduce a new product, plant accidents, environmental and other regulatory requirements as listed by Johnson and Bonoma (1981), or by a continuous need or long-term planning (Sheth, 1973). The purchasing process can be divided into steps before and after supplier selection. Categorizing the steps as shown in Table 1 differ by researcher. Berthon et al (1998) and Johnston and Lewin (1996) define the purchasing process generally for industrial buying, while Johnston and Bonoma (1981) describe the same for capital equipment. Since this research focuses on industrial capital goods, the purchasing process defined by Johnston and Bonoma (1981) is applied.

¹¹ In this research buying center is used instead of decision making unit.

According to Johnston and Bonoma (1981) the steps prior to supplier selection for capital equipment are 1) initiation, 2) specification ending to approval of purchase, and 3) search ending to selection of supplier. Need recognition, fact finding, and decision on general solution belong to initiation. Preparation of written specifications for purchase approval after defining the specific solution, are tasks in the specification step. Supplier search, acquisition and evaluation of proposals for deciding on supplier belong to the search step. Johnston and Lewin's (1996) steps for industrial buying process are 1) need recognition, 2) determine characteristics, 3) establish specifications, 4) identify potential sources, 5) request proposals, 6) evaluate proposals, and 7) select supplier. In Berthon et al. (1998) in the industrial purchasing decision process the steps prior to supplier selection are 1) recognition of a problems and general solution, 2) determination, and 3) description of the characteristics, and quantity of needed items, 4) search and qualification of potential sources, 5) acquisition and analysis of proposals, and finally 6) evaluation of proposals and selection of supplier. From a communication's point of view the time prior to supplier selection is defined as pre-relationship phase for awareness building (Andersen, 2001).

Table 1. Purchasing process steps for industrial products and capital equipment.

Berthon et al, 1998 Industrial purchasing decision process	Johnston and Lewin, 1996 Industrial buying process	Johnston and Bonoma, 1981 Capital equipment purchasing process
1. Anticipation of recognition of a problem and general solution	1. Need recognition	1. Initiation - need recognition - fact finding - general solution
2. Determination of Characteristics	2. Determine Characteristics	2. Specification - specific solution - preparing written specifications
3. Description of characteristics and quantity of needed items	3. Establish Specifications	
		Approval of purchase
4. Search and qualification of potential sources	4. Identify potential sources	3. Search - supplier search - acquisition of proposals - evaluation of proposals
5. Acquisition and analysis of proposals	5. Request proposals	
6. Evaluation of proposals and selection of supplier	6. Evaluate proposals 7. Select supplier	Selection of supplier
7. Selection of order routine		4. Formalization -negotiation -contract -payment
8. Performance feedback and evaluation		5.Evaluation -performance and satisfaction

2.1.3 Complex decision making and buying center members

Purchasing of capital goods is made in buying centers consisting of people with varying expertise. The members can be both inside and outside the firm (e.g. Spekman and Thomas, 2012; Dawes et al, 1996; Spekman and Gronhaug, 1986), and especially when organizational networks are involved, buying centers may be extended outside to partner organizations (Wind and Thomas, 2010). Group membership changes from one purchasing step to another, according to complexity of the purchase (Berthon, 1998; Johnston and Lewin, 1996), and owner status of the company (Sheth, 1973). Technologically oriented privately owned companies prefer autonomous decision making while public companies with centralized operational functions tend to use joint decision making (Sheth, 1973). Inter-organizational relationships between the buyer and the seller affect organizing the purchasing (Ahola et al, 2008).

Buying decisions are the result of the behavior of the individuals belonging to the purchasing group. As all decisions are affected by various influences it is important to the seller to understand what influences are involved and how they impact the decision making process (Kauffman, 1996). The model for industrial buyer behavior, a special form of organizational buying behavior, has been depicted by e.g. Johnston and Lewin (1996), Sheth (1973) (Figure 6), and Webster and Wind (1972). The Sheth model is adopted to this study to depict the overall complexity of the decision making, and the influences affecting the information search. Influences leading to active information search as part of the buyer behavior in the decision making are described in the Sheth model (1973) by dividing it into expectations (1), product (2a) and company (2b) specific factors, and on the type of purchasing organization (joint or autonomous decision). Also the more complex the product (e.g. once-in-a-lifetime capital good), the more persons are involved into decision making process affecting conflicts (3) (ibid.).

The purchasing behavior of the members depend on personal knowledge and experience on the seller and its products and relationships to the sales people (e.g. Johnston and Lewin, 1996; Sheth, 1973; Webster and Wind, 1972). Thus each individual tends to make the objective decision based on his own prior knowledge and expectations (Sheth, 1973). The expectations are formed from the background of the individuals, defined as environmental determinants (Webster and Wind, 1972) or characteristics (Johnston and Lewin, 1996) including e.g. educational, cultural, and role factors.

The three most influential members, the number of which range from three to twenty-eight averaging to seven, (Johnston and Bonoma, 1981) in the buying process of capital equipment prior to selection of supplier are 1) manufacturing/production people, 2)

top management, 3) engineering (technical people) (e.g. Töllner et al, 2011; Johnston and Bonoma, 1981). Sheth (1973) includes purchasing agents, and quality control personnel with important members. The number of departments involved in the buying process varies from 1-8, with a mean of four (Johnston and Bonoma, 1981). Generally it can be said that there are people from at least three departments constantly involved into the buying process (Sheth, 1973). The role of professional purchasing people is less important in the early stages and increases in the formalization stage of the process (Johnston and Lewin, 1996; Johnston and Bonoma, 1981). Töllner et al (2011) define the most important member of the purchasing center as users, buyers, and deciders. End users' influence on purchase decision through their specific needs and problems has been identified as important by Harrington and Tjan (2008). In solution purchasing, in addition to the buyer organization's members of the decision making group, third party members, such as engineering offices, consultants etc. have an important role in the early stages of the buying process (Jalkala et al, 2010). These additional influencers who have specific knowledge about the purchase in question can a) change the composition of the purchase center and b) affect the outcome of the decision making (Wind and Thomas, 2010).

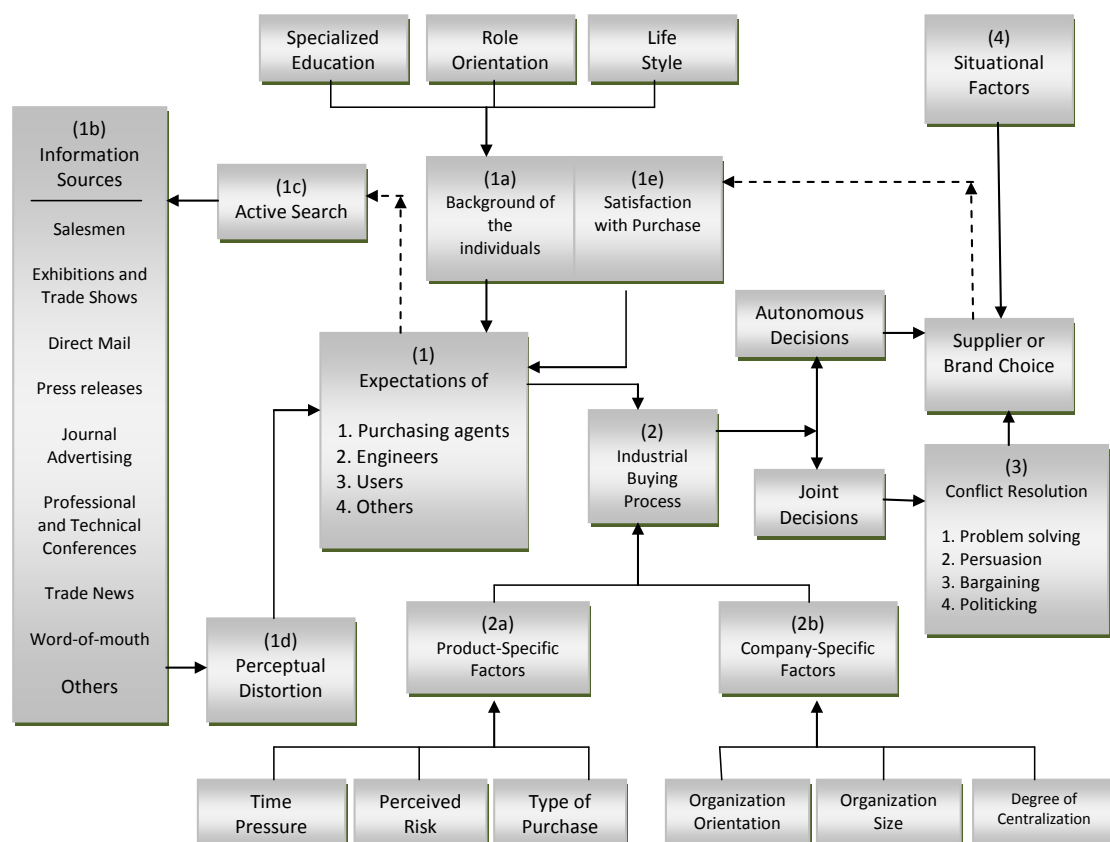


Figure 6. An integrative model of industrial buying behavior (Sheth 1973)

According to Spekman and Thomas (2012) very little is known about the interactions between different members of the buying center. The industrial buying process research is dated and thus not helpful for B2B sellers in the era of new technologies, such as mobile communication devices and online communities like Facebook and LinkedIn, which allow opportunities for buyers to interact anytime and anywhere. Thus the organizational buying behavior should be studied from the point of view of the whole buying center comprising people both inside and outside of the buying firm. This requires definition of the “customer” and the role played by this customer in the buying process. (ibid.).

2.2. Industrial Marketing Communication

B2B buyers are fewer but they are larger than in business-to-consumers (B2C) transactions and seller-customer relationships are close. In B2B markets marketing communication is more focused, tailored to varying requirements for gaining customers or sustaining relationships with customers and resellers, and shapes and reinforces the supplier’s value proposition to each constituency (Anderson et al, 2009). Most marketing communications activities take place between businesses (De Pelsmacker et al, 2004; Karjaluoto, 2010).

Marketing communication, one of the three subsections of organizational communication activities (Figure 7) is also referred to as promotion or sales promotion as part of the marketing mix (Dibb et al, 2006). Marketing communication consists mainly of those forms of communication that support the sale of goods or services. It aims at groups of buyers and intermediaries (e.g. agents), and makes advantages visible and anticipates needs. Corporate communication is involved with a diverse and large number of relationships (e.g. media, public at large) and attempts to influence the behavior of groups on which the organization depends and must cooperate with. Internal communication is used to achieve the desired results of the organization (e.g. initiating and managing the change process). (Vos and Schoemaker, 2008; Foster, 2006).

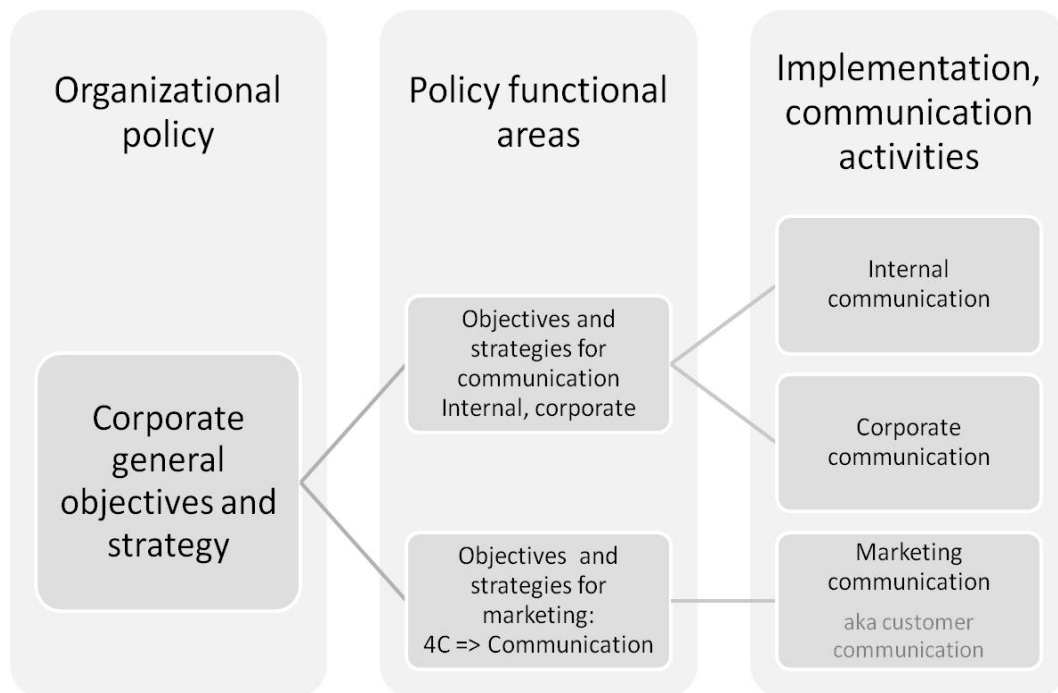


Figure 7. Role of marketing communication in an organization (Vos and Schoemaker, 2008)

Juholin (2009) divides communication into external and internal communication, external including: corporate communication, communication, marketing communication, public relations, public affairs, public administration, public information, and business communication. Marketing communication represent the voice of the brand and the means by which it can establish a dialogue and build relationships with customers and consumers (Kotler and Keller, 2006, p. 536). According to Andersen (2001) communication is the human act of transferring a message to others and making it understood in a meaningful way. It must be bidirectional, taking form as conversation between multiple persons from both the buying and selling firms, and requires a planned unidirectional communication strategy in which information flows from the supplier to the buyer (Andersen 2001).

Companies, in general, communicate with their customers through various channels, using different communication models. Traditionally these follow a passive one-to-many model, where the company reaches current and potential customers through marketing efforts that allow limited forms of feedback. This communication model, allowed by the interactive Internet has recently become more of a many-to many communication model. (Hoffman and Novak, 1996). The traditional model, as shown in Figure 8 (Hoffman and Novak, 1996), represents the mass media approach, where the seller is responsible for all content, whereas in an interactive model (Figure 9) the content creation takes place by both seller and customer. Also in the latter model feedback to seller and between customers is made possible, thus the relationships are

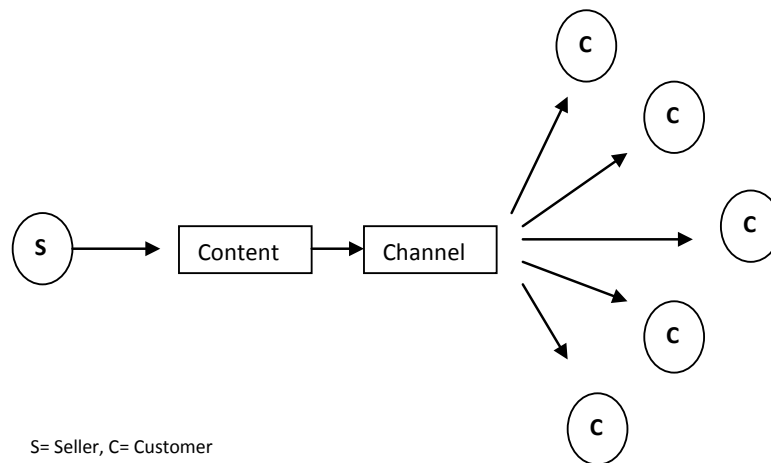


Figure 8. Traditional one-to-many communication model (Hoffman and Novak, 1996)

not just between the sender and receiver but with the mediated environment with which they interact. This many-to-many model takes place in a digital environment. (ibid.)

In the pre-relationship of the purchasing stage, prior to supplier selection, where the buyer's awareness of the seller and products is built, mass media communication tactics are used (Chen, 2012; Andersen, 2001). Referrals, i.e. information from colleagues and friends regarding the reputation of a potential seller are noted as an important factor in the decision-making process (ibid.).

Major changes both in industrial and consumer marketing started in the mid 1990's and were forced by political and legal changes, the technology explosion, business and economic structural changes, and globalization (Schmitz, 1995). Global industrial product sellers operate in countries that are in different economical and institutional development stages, and a standardized global strategy may not be equally effective in multiple country settings (Iyer et al, 2006). Thus, industrial marketing should be based on the structure of the industry and the country context. For instance, in high context countries, such as China, Korea, and Japan, interpersonal relationships matter greatly in industrial marketing (Iyer et al ,2006) Also, according to Chen (2012), in large emerging countries, such as China, where development state is unequal within the country, marketing communication should vary from one area to another. This meaning approaching the market with multiple communication models (ibid.).

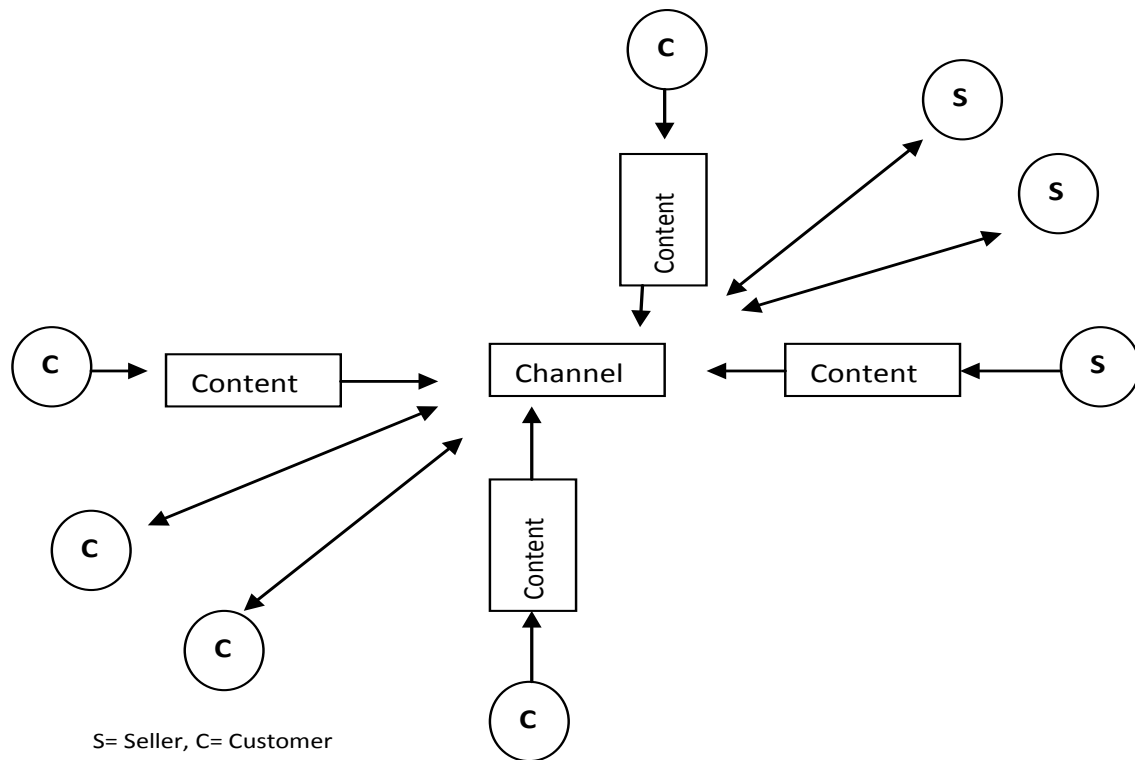


Figure 9. Many-to-many communication model (Hoffman and Novak, 1996)

In industrial marketing, relationship building, although expensive (Iyer et al, 2006), is needed (Cova and Salle, 2007; Iyer et al, 2006, Gummesson, 1998) to affect buyers' attitudes and feelings (Patti, 1977). Marketing communication activities (advertising, sales promotion, events and experiences, public relations and publicity, personal selling and direct marketing) contribute to brand equity building (awareness, image, responses and relationship). Relationship marketing and the importance of interpersonal relationships in B2B markets has been a popular field of research (e.g. Finne and Grönroos, 2009; Cova and Salle, 2007; Iyer G et al, 2006; Andersen, 2001). Iyer et al (2006) claim that industrial product firms that can both conceive and enhance marketing strategies based on developing high quality and consistent processes, products, services or outcomes, can trump industrial firms that rely on interpersonal relationships.

For the seller to succeed it is crucial to understand the perception of the relevant solution criteria in the capital goods industry (Töllner et al, 2011). Thus, marketing of technologies requires understanding of customer needs, and behavior. To turn ideas and competence into successful innovations it is of the utmost importance for sellers to create value for their customers. They should be capable of identifying and understanding the customer needs and benefits even if their belief in their own technology or product is strong. Product-orientation should be replaced with customer

–orientation i.e. one should look out the window at the customer instead of regarding a reflection of their own product-oriented biases in the mirror. Levitt (1960; 1975).

To maximize the effectiveness of industrial marketing communication, it is critical to understand what sources (channels) are most actively sought for information by the buyers. This means that sellers should provide the product and service information to the buyer through the communication channel considered most important by the buyer (Deeter-Schmeltz and Kennedy, 2002; Patti, 1977). Also, customer insights on needs and value-creation processes is needed in industrial marketing to be able to design and communicate products that satisfy the customer needs (Gummesson, 1998).

2.2.1 Buyer Information Sources

Communication issues are defined as one of the main constructs in the industrial buying process (Johnston and Lewin, 1996), a special form of organizational decision making (Spekman and Thomas, 2012). Sourcing for information is very active especially in the purchase of industrial capital goods that are entirely new to the buyer (Sheth, 1973). The information search is driven by the need to solve problems, and its direction is led by the definition of the problem (Spekman and Thomas, 2012). The informational characteristics are messages, sources, amount needed, active search, and distortion. The sources and type of information each individual of the decision making group is exposed to in the active search, creating expectations, depends on their background (Johnston and Lewin, 1996; Sheth 1973). Active search sources as listed by Sheth (1973) are: salesmen, exhibitions and trade shows, direct mail, press releases, journal advertising, professional and technical conferences, trade news, WOM, and “others”. Patterns of use of information sources vary according to different purchasing stages (Brossard, 1998). In addition to environmental factors, organizational factors like company size and degree of centralization affect the formulation of the buying group (Johnston and Lewin, 1996; Sheth, 1973).

Industrial buyers utilize a mix of information sources during the purchase decision process (Deeter-Schmelz and Kennedy, 2002). The information sources are typically divided into four categories: personal–commercial, personal-non-commercial, impersonal-commercial, and impersonal non-commercial as shown in Table 2 (Moriarty and Spekman, 1984, modified by Deeter-Schmelz and Kennedy, 2002 in italics, Foster, 2006 in bold. The applications of the Internet can be found in all four categories, thus e.g. Foster (2006) placed the Internet in the mid-1990s between personal and impersonal compartment.

Use of information sources during the purchasing process vary from one stage to another (Johnston and Bonoma, 1981; Kennedy and Deeter-Schmelz, 2001; Deeter-Schmelz and Kennedy, 2002). Their use is also dependent on the type of purchase, and familiarity with the supplier. Personal interactions within the purchasing group influence the decisions heavily and the decisions are based on more rational than emotional arguments (Gilliland and Johnston, 1997).

Table 2. Taxonomy of information sources used by industrial buyers

	PERSONAL	IMPERSONAL
COMMERCIAL	Salespeople/Personal selling F2F, Voice-to-voice Video conferences Trade shows, seminars <i>Interactional websites</i> <i>e-mail</i>	Advertising in trade journals/print Sales literature Direct-mail brochures <i>Informational websites</i> <i>Mass e-mails (Spams)</i>
NON-COMMERCIAL	Personal experience Top Management Users Outside consultants Colleagues Purchasing Department <i>e-mail</i> <i>chat rooms</i> WOM, internal and external	News Publications Trade associations Rating services <i>Internet newsletters</i> <i>List serves</i> <i>Bulletin boards</i>

It is critical that sellers understand which information sources are most influential and actively sought so that effective marketing communication strategies can be developed (Deeter-Schmelz and Kennedy, 2002). It is also important to gain a high degree of integration among the various elements of the marketing communication channel mix. This means that due to the technical nature and expense of capital goods, information sources vary from consumer markets (Moriarty and Spekman, 1984). The few empirical studies (Table 3) available on information sources used in capital and other industrial goods' marketing seem to concentrate on seller insight and single market view. Also, these studies come from two geographical areas, the USA and Scandinavia, only.

Table 3. Empirical studies on information sources in marketing of industrial goods

Author	Year	Country	Industrial Good	Case	Buyer insight	Seller Insight
Patti	1977	USA	Capital Goods	Machine tools	x	x
Moriarty and Spekman	1984	USA	Industrial goods	Data terminals	x	x
Bunn and Clopton	1993	USA	Industrial goods	Industrial purchasing managers	x	
Brossard	1998	Multinational	CoPS	"Investing Abroad"		x
Olander and Sehlin	2000	Sweden	Equipment, Materials			x
Garber and Dotson	2002	USA	Capital Goods	Motor carriers		x
Smith et al	2004	USA/ multinational	Industrial machinery			x
Foster	2006	Sweden	Capital Goods	Pulp and Paper Sawmill	x	x
Leinonen	2007	Multinational	Capital Goods, CoPS	Precast Concrete Technology		x
Jalkala	2009	Finland	Capital Goods, Services	Filtration, Telecom, Process Technology		x
Talonen and Uusitalo	2010	Multinational	Capital Goods, CoPS	Precast Concrete Technology		x
Niemelä	2010	Finland	Capital Goods, CoPS	Mining and metallurgy		x
Jämsä	2010	Finland	Industrial components	Wind energy		x

Gilliland and Johnston (1997) state that business buyers are exposed to many additional sources of information than are available to consumers, such as hands-on experience at trade shows, personal sales representatives, colleagues who have gone through similar purchase decisions, independent consultants, and technical experts within the firm. Moriarty and Spekman (1984) claim that industrial buyers rely on non-commercial sources of information to a greater extent as the buying decision progresses through the various phases of the procurement process than they will in the earlier stages of the process. According to Moriarty and Spekman (1984) impersonal commercial sources are typically used by industrial buyers during searches of alternative suppliers. Active search for information through objective, less biased impersonal sources is carried out for solution selection. The buyers seem to depend on personal commercial sources

when higher degrees of economic risk are associated with the purchase, and finally they rely on opinion leaders as significant informants especially when there are high risks both in performance and economic issues related to the purchase. This applies specifically to buyers in small companies.(ibid.). Deighton and Kornfeld (2009) say that the digital innovations of the past decade have given marketers peer-to-peer interactive tools (e.g. YouTube, Facebook, blogs) and information search tools like Google and Wikipedia.

The preference of marketing communication channels used by seller and buyer as information source differ significantly, decreasing communication effectiveness (Foster, 2006). Opinions on the importance of information sources vary from one member of the selling group to another (technical vs. sales people), especially on the usefulness of many mass media tools used to provide information to the buyers. F2F personal channels were favored over voice channels, besides marketing communication channels, the sellers also want to communicate the company image. The role (technical vs. non-technical) of the buying center member defines which information sources he prefers. Type and size of industry may play a role in defining which personal channel is the most important information source. Information packages would be a more useful form of information than simple brochures. (ibid.).

Marketing communication strategies have shifted from traditional mass advertising, direct mail, and telemarketing to highly personalized communications delivered through a multitude of interactive and direct channels. This means a new set of tools and channels for managing these campaigns are needed (Juholin, 2009; Merisavo et al, 2006). According to Business Communications Group (2010) to reach the growing number of influencers in today's B2B marketplace, an IMC strategy that leverages multiple components and proven tactics is needed.

2.3. Marketing Communication Channels

Marketing communication channels can be one-way or two-way. For relationship development, two-way communication is needed. One-way channels, such as advertising, are not channels for relationship marketing, but may help the supplier develop an attractive personality profile. Prospects in the pre-relationship phase search for information on potential sellers through many channels. Information received from trusted friends and colleagues (WOM) on the reputation of potential sellers is one channel used as a basis for initial ranking (Andersen, 2001).

What is the correct word for "channel"? In the literature marketing communication channels are also called at a minimum promotional tools (Juholin, 2009; Foster 2006),

forums, avenues, elements (e.g. Moriarty and Spekman, 1984), communication vehicles (Moriarty and Spekman, 1984), sources (Moriarty and Spekman, 1984; Patti, 1977; Sheth, 1973), medium (Smith et al, 2004; Hoffman and Novak, 1996), media (Lee and Park, 2007; Hoffman and Novak, 1996), activities, tactics (Andersen, 2001), methods, options (Keller, 2001), and communication mix (Dibb et al, 2006; Smith and Taylor, 2004). Apparently it can be said that the marketing communication mix consists of channels. Throughout this study the word channel is used when viewed from the seller's side and information sources from the buyer's side.

The marketing communication channel mix for industrial goods varies from one researcher to another as shown in Table 4. The researchers' (e.g. Talonen and Uusitalo, 2010; Smith and Taylor, 2004; Garber and Dotson, 2002; Moriarty and Spekman, 1984; Patti, 1977; and Sheth, 1973) list of B2B marketing communications channels include: 1) advertising in trade journals, other magazines, newspapers, billboards, yellow pages, TV, and on the Internet, 2) sales promotion, 3) public relations and publicity, 4) personal selling, sales people 5) sponsorship, 6) direct marketing, 7) the Internet, Web, 8) exhibitions and trade shows, 9) WOM, 10) corporate identity and image, 11) e-marketing, 12) trade news, 13) press releases, 14) technical and business conferences, 15) brochures and company catalogues, sales literature 16) telemarketing 17) news publications, trade news 18) F2F meetings 19) social media (SoMe), 20) corporate identity, 21) packaging, 22) point-of-sale, 23) sponsorship, 24) goodwill gifts, 25) references, 26) rating services, and 27) influencers. Juholin (2009) claims that the Web is no longer seen as a communication channel but an environment where people meet and communicate with each other and handle their daily tasks. Digital channels: Internet, email, mobile, digital television have provided e.g. Web services, e-newsletters, service sms-messages and supertext -tv as the marketer's daily tools (Merisavo et al, 2006).

Talonen and Uusitalo (2010) say that in capital goods marketing, the communication channels should not be defined as "personal/non-personal", "traditional/digital", "marketing mix/promotion tools" but as concrete tools, starting from content (for example a picture, text: how and where to publish them) for better understanding and handling the integration of communication. Content communicates in all channels relevant to industrial capital goods marketing (Figure 10), generating value for both seller and buyer companies, other members of the decision making process, and personal selling. Interactive communication, in well-designed solution and strategy, happens in channels controlled and uncontrolled by the seller, resulting in leads and developing relationship and brand. (ibid.)

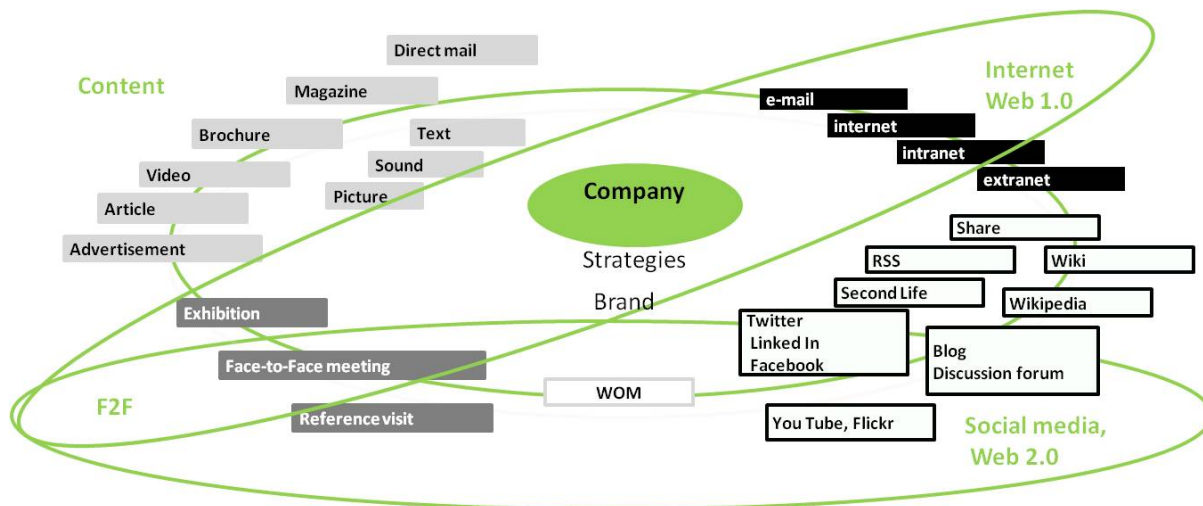


Figure 10. Marketing Communication Channel Categories (Talonen and Uusitalo, 2010)

In capital goods marketing, personal selling is not an important channel in delivering information. It is most effective after awareness of product, solutions, and brand, has been created within the stakeholder groups. Thus use of multiple integrated channels simultaneously, as shown in Figure 12, support F2F personal selling (ibid.).

Research both on individual channels and their mix in relation to industrial goods have been published as shown in Table 5. Of the individual channels advertising, trade shows, and personal selling have been studied throughout the past four decades, while digital marketing channels, Internet and its applications, have received the most attention since 2000. Outcomes of these reviewed 14 studies vary significantly depending on the decade, country and the researcher of the study, leaving the question of the most suitable marketing communication mix, and their preferences open. Some researchers (e.g. Olamder and Sehlin, 2000; Niemelä, 2010) argue that industrial goods sellers lack knowledge on IMC and thus do not implement IMC strategies leaving integration of all marketing communication incomplete.

Table 4. Marketing communication channel mix in B2B

Talonen and Uusitalo, 2010 Capital goods	Karjaluoto, 2010 Industrial goods	Smith and Taylor, 2004 B2B	Garber and Dotson, 2002 Capital goods (motor carriers)	Moriarty and Spekman, 1984 Industrial goods	Patti, 1977 Capital equipment	Sheth, 1973 Capital equipment
Brochures	F2F discussion	Selling	Billboard advertising	Sales people	Salesmen	Salesmen
Articles	Factory visits	Advertising in trade journals	Telemarketing	Trade shows	Company catalogues	Exhibitions and trade shows
Exhibitions	Seminars	Direct marketing	Direct mail	Advertising in trade journals	Advertising in trade journals	Direct marketing
References	Discussions with others, WOM	Public relations and Publicity	Yellow pages advertising	Sales literature	Trade shows	Press releases
Internet	email	Sponsorship	Personal sales visits	News publications	Direct mail	Advertising in trade journals
Social Media	Phone conversations	Exhibitions	Advertising in trade journals	Trade associations		Conferences, technical and business
Word-of-mouth	Exhibitions	Packaging	Goodwill gifts	Rating services		Trade news
Direct mail	Customer magazine	Point-of-sale merchandising	Radio advertising	Influencers*		Word-of-mouth
Trade journals	Internet home pages	Word-of-mouth	Trade shows			
email	Advertising	e-marketing	Advertising in newspapers			
F2F meetings		Corporate identity	Advertising in TV			
		Internet	Advertising on the Internet			
			Advertising in other magazines			
			Charity events			
			Vehicle graphics			

*Moriarty and Spekman define influencers as: information systems department, top management, using department, terminal users, outside consultant, colleagues, and purchasing department

Table 5. Studies on marketing communication channels in industrial goods marketing

Author	Year	Country	Industrial Good	Marketing Communication Channels	Outcome
Patti	1977	USA	Capital Goods	Channels/mix: advertising, sales people, trade shows, brochures, direct mail	Importance of channels varies between buyers and sellers. Advertising is seen the most important by buyers. Seller should provide the customers with information through the channel they consider most important.
Moriarty and Spekman	1984	USA	Industrial Goods	Advertising, trade shows, sales people	Both personal and impersonal channels are used in the early stage of purchasing process.
Bunn and Clopton	1993	USA	Industrial Goods	Channels/mix	Customers use five different channel mixes within the purchase process. Purchase involvement, purchase complexity, and multiple are related to the customer's choice of the mix. The most extensive mix is used by aggressive searchers in new product purchasing process.
Berthon et al, 1998	1998	-	Industrial Goods	Channels/mix	Website is an electronic trade show. The role of the website is highest compared to personal selling and advertising during search for potential suppliers.
Brossard	1998	Multi-national	CoPS	Channels/mix	Personal and internal channels are the most important, commercial and non-commercial being the least important. External consultant is a key source for information. Sellers should use a mix of marketing communication channels when promoting their offering. Understanding the information sources used by the customers is of major concern for the seller.
Olander and Sehlin	2000	Sweden	Equipment, Materials	Channels/ mix	Exhibitions, personal selling, and advertising are the most important marketing communication channels. Website is used by sellers just to inform the market, and is considered as a complement to other channels. B2B companies seem to have a lack of knowledge on IMC.

Garber and Dotson	2002	USA	Capital Goods	Channels/mix	The buyers (here trucking managers) link their use of channels to the separate stages of the choice process. Internet, trade journals, and trade shows being among the channel mix in awareness and interest building stages, while personal selling is used in adoption stage. This applies especially to new product purchase.
Smith et al	2004	USA/ multi-national	Industrial machinery	Trade Shows, Personal Selling	Trade shows support personal selling. Sales efforts are more efficient when the customer has seen the brand at trade show beforehand.
Foster	2006	Sweden	Capital Goods	Channels/mix	Personal and impersonal channels, preferences differ for buyers and sellers.
Leinonen	2007	Multi-national	Capital Goods, CoPS	Websites, SoMe	Need/user vary=> websites should have built in tools for variety of users. Marketing material should be on websites in digital form.
Jalkala	2009	Finland	Capital Goods, Services	Websites, References	Websites are effective for reference marketing, which are important for B2B marketing. References are considered marketing communication, where relationships play an important role.
Karjaluoto	2010	Finland	Industrial Goods	Channels/mix	Variation in preferred channel mix occurs from country to country. Generally F2F meetings are seen as the most important channel, reference factory visits being ranked second. The least important as referred by buyers were customer magazine, internet home pages, and advertising.
Talonen and Uusitalo	2010	Multi-national	Capital Goods, CoPS	Channels/ mix	Integration of channels is needed for relationship building and supporting personal selling.
Niemel	2010	Finland	Capital Goods, CoPS	SoMe	B2B companies should implement IMC strategies and integrate all of their marketing communication. Social media should be regarded as a new channel and integrated into the overall marketing communication.

Personal selling, especially F2F communication, according to most studies is seen as the most effective marketing communication channel. Reference factory visits, seminars and discussions with colleagues are seen as the next best channels whilst customer magazines, internet sites and advertising are found least effective (Smith et al, 2004; Karjaluoto 2010).

Some studies show that in B2B buyers use the Internet to source information, because of the speed at which information can be retrieved (Van den Heuvel et al, 2002). Andersen (2001) says that in organizational buying and selling marketing communication is relationship development marketing and can be divided into four phases(pre-relationship, negotiation, relationship, termination), each using a different combination of channels.

According to Berthon et al (1998) advertising in trade journals is the most effective way of generating awareness of a new industrial product, whilst closing a sale is best achieved in a face-to-face (F2F) transaction. Direct marketing is generally utilized in B2B marketing. Industrial marketing is dominated by personal selling followed by trade shows and trade journal advertising (Smith et al, 2004; Herbig et al, 1994). Andersen (2001), and Lichtenthal and Eliaz (2003), define F2F contact as the most interactive communication channel, but say that the Web and email are becoming more fully integrated into the communication mix. Websites are linked throughout the B2B communication from building awareness to purchase, whereas the effectiveness of the other communication channels is not as wide spread (Selmgren, 2009).

According to several case studies of marketing communication in the B2B context F2F personal selling overrules other channels of the marketing communication mix. According to Karjaluoto (2010) and Olander and Sehlin (2000) the Web is mainly used to inform the market, to demonstrate products, and to provide online material to customers. According to Heikkilä (2009), Sarkkinen (2009), Lehtimäki et al (2009), and Karjaluoto (2010) the use of the Internet and SoMe marketing communication is still low within B2B companies. Jalkala and Salminen (2009) shed light on use of the Web as a buyer information source saying that buyers use the Internet to source suppliers and solutions for their specific needs.

The use of the Internet, especially web communication and SoMe is not very widespread in industrial companies' marketing communication. The impact of the Internet in B2B marketing and communication is mainly studied within companies selling industrial products other than capital goods and services (Avlonities, 2000), or the type of products is not specified in the study (Eid, 2005; Lehtimäki et al, 2009). The integration and the importance of the brand in marketing communication are not taken into

account in these studies. The use of the Web within consumer marketing communication is widely studied (e.g. Dibb et al, 2006; Kotler and Keller, 2006; Merisavo et al, 2006; De Pelsmacker, et al, 2004). The traditional marketing communication channels and personal contacts are still claimed to be the important means, especially when unique, complex solutions are sold and the number of potential customers is low (Lehtimäki, et al 2009).

2.3.1 Marketing Communication Channel Mix and Ranking

In order to succeed in marketing communication, sellers should provide the customers with information through the channels they prefer, not through those sellers prefer (e.g. Brossard, 1998; Bunn and Clopton, 1993; Patti, 1977). The preference and ranking of information sources vary significantly from country to country (Chen, 2012; Karjaluo, 2010).

Marketing communication channel mix and the ranking of channels within for industrial goods have been reported from the buyer perspective by at least Moriarty and Spekman (1984) and Karjaluo (2010). Rankings that take into account both buyer and seller insights are published by e.g. Patti (1977) and Foster (2006).

Relative importance of information sources preferred by buyers of industrial goods is ranked by Moriarty and Spekman (1984) as follows:

Information systems department	Rating services
Using department	New stories in trade publications
Top management	Trade association data
Salespeople	Trade shows
Actual product operators	Advertising in trade journals
Sales literature	Outside consultants
Colleagues in other companies	Purchasing department

Personal non-commercial information sources are mostly preferred by the buyers. Of the personal commercial sources sales people are ranked highest. Sales literature is, according to Moriarty and Spekman (1984) the most important impersonal commercial source for information, and advertising the least.

Karjaluo's (2010) research on efficiency of marketing communication channels as buyer information sources in industrial marketing resulted in the order of importance as follows: 1) F2F discussions, 2) reference factory visits, 3) seminars, 4) discussions with others, 5) email, 6) phone conversations, 7) exhibitions, 8) customer magazines, 9) Internet home pages, and 10) Advertising. Geographical differences (Finland, other Europe, China, South-and North America, and others) in ranking and order of importance occur, although all studied channels received in 1-7 scale importance of

>3.5. The three most important buyer information sources for Chinese buyers are F2F discussions, reference factory visits, and seminars, whereas for the Finns the first two are same with phone conversations being the third as presented in Table 6.(ibid.).

Table 6. Importance of marketing communication channels in China and Finland, buyer insight

Channel	China	Finland
F2F discussions	1	1
Reference factory visits	2	2
Seminars	3	4
Discussions with others	7	5
email	4	6
Phone conversations	6	3
Exhibitions	5	7
Internet home pages	9	9
Customer magazine	8	8
Advertising	10	10

In Patti's (1977) study on information sources in the capital goods industry both seller and buyer insights were taken into account. The study showed the importance of information sources (advertising, sales people, trade shows, brochures and direct mail) differs between the groups (Table 7). Sellers rank sales people as the most important, but buyers take advertising as the number one information source.

Table 7. Capital equipment information sources and their importance

Information source	Rank Buyer	Rank Seller
Advertising in industrial and trade magazines	1	3
Sales people	2	1
Trade shows	3	4
Company brochures	4	2
Direct mail	5	5

Foster (2006) studied the importance of marketing communication channels by dividing them into personal and impersonal ones. Of personal channels the most preferred F2F sales meetings, trade shows, seminars, and WOM communication were equally favored by both sellers and buyers based on data collected before 1998. Publicity, training videos, company letterheads, newsletters and quotations were equally rated by sellers and buyers in the most preferred category. Foster (2006) predicted in 1998 that "Internet will begin to replace certain impersonal channels e.g. brochures, while having little or no effect on certain personal tools (e.g. sales calls)". Both buyers and sellers rated print advertising, in industry magazines an impersonal information source, highly important.

2.3.2 Use of the Web in Industrial Marketing Communication

The Internet, that has made access to information easy (Berthon et al, 1998), is an electronic medium based on broadcasting and publishing which facilitates two-way communication. The Web is best conceptualized as a platform which floats on the Internet – it is a hypermedia information storage system which links resources around the world (Berthon et al, 1998). For several years the Internet and its application, the Web has dramatically altered the traditional view of advertising and communication media (Olander and Sehlin, 2000). Development of digital technology and customer relations management (CRM) systems gave marketers a better insight to stakeholders.

Today stakeholders use the same digital technologies in the same way as earlier sellers: to identify, evaluate, and build relationships with suppliers they have identified as being the most suitable to their needs (Schultz and Patti, 2009). For companies using web communication¹² a big challenge is the uneven use and development state of digital technology around the world. Websites have become an important channel as buyers use the Internet to source suppliers and solutions for their specific needs (Chen, 2012; Jalkala and Salminen, 2009). Although the Web is significant for B2B marketing, most research has focused on consumer markets (Lord and Collins, 2002).

Berthon et al (1998) describe the website as an electronic trade show: from an industrial marketing perspective, the Web has a lot in common with a trade show for it can be thought of as a very large international exhibition hall where potential buyers can enter at will and visit exhibitions and prospective sellers. According to Berthon et al (1998), the effect of the Web in comparison to the most often used channels in B2B purchasing; advertising and personal selling, is highest in the sourcing and proposal analyzing stages (Figure 11).

Today research on the use of the Internet in industrial marketing communication is rare and concentrates on SoMe (e.g. Niemelä, 2011; Karjaluoto et al, 2011; Lakkala, 2011), with only a few studies available on utilizing company website for marketing communication (e.g. Jalkala, 2009). Research on integration and use of the Internet in B2B and industrial marketing is common (e.g. Karjaluoto et al, 2011; Lakkala, 2011; Eid, 2006; Lichtenthal and Eliaz, 2003; Avlonitis and Karayanni, 2000). Some studies report on both online marketing/purchasing and marketing communication (e.g. Deeter-Schmelz and Kennedy, 2002; Kennedy and Deeter-Schmelz, 2001).

¹² Web communication, digital communication, and online communication are synonyms

Buy- Stage	Effectiveness of Marketing Communication Channel		
	Low	Medium	High
1. Anticipation of recognition of a problem and general solution	Personal Selling		Advertising
2. Determination of characteristics and quantity of needed item			
3. Description of characteristics and quantity of needed item			
4. Search for and qualification of potential sources			
5. Acquisition and analysis of proposals			
6. Evaluation of proposal and selection of suppliers			
6. Selection of an order routine			
7. Performance feedback and evaluation			


 = Web site

Figure 11. The website as part of the marketing communication mix (Berthon & al, 1998)

O'Reilly (2005) introduced the word Web 2.0¹³ in 2004, and the term quickly became one of the most globally used terms within the Internet communication community. According to O'Reilly (2005) Web 2.0 is about transformation on certain existing technologies or services to the next level, or a new version, which could be expressed "2.0". According to O'Reilly (2005) in Web 2.0 the Internet is positioned as a platform for services where users have control over their own data (publishing). Web 2.0 works as a platform for SoMe, where everyone can connect. Ahlqvist et al (2008) argue that SoMe really took off in 2006, as that is the year when some of the most widely accepted social media technologies such as e.g. Facebook reached the break-even point and started to expand at a high rate. Searching for the definition of "social media" using Google gives more than 700 million results (November 2012). The phenomena is still so new and vigorously developing that it is impossible to say which definitions are factual and up-to-date. Ahlqvist et al (2008) define SoMe as constructed of three elements: content, communities and networks, and Web 2.0. Jones (2009) defines it as more of a two-way conversation, rather than a one-way broadcast like traditional media. Some researchers claim that WOM is a major part of online communication (e.g. Brown et al, 2007), but because it is also carried out with strangers differs from offline WOM (Steffes

¹³ Web 2.0 is an interactive platform enabling users to collaborate with each other in social media (SoMe) containing e.g. social network sites, blogs, wikis, video sharing.

and Burgee, 2008). Another unique aspect of SoMe is the idea of staying connected or linked to other sites, resources and people. According to Jones (2009) there is a wide variety of SoMe ranging from social sharing sites such as You Tube and Flickr through social networks as LinkedIn and Facebook. McLellan (2010) lists ten most frequently used SoMe channels, their characteristics, brand exposure, traffic to your website, and search engine optimization (SEO), and claims that Twitter, Facebook, and YouTube are the most effective in customer communication.

The use and the application of SoMe in businesses is monitored and studied both nationally and internationally. McKinsey (2009) reports that increasing effectiveness of marketing, increasing customer satisfaction, and reducing marketing costs are three main reasons for companies using Web 2.0 for customer –related purposes. The most frequently used Web 2.0 applications for similar purposes are blogs, video sharing and social networking. According to Bernoff (2009), blogging in B2B context can result in many leads weekly, each able to result in a sale. Companies find use of three or more Web 2.0 techniques effective in customer –related purposes. Pohto (2010) reports that utilizing social networks and blogs in marketing communication are growing rapidly. The most popular forms of digital marketing are: the company’s own web solutions, SEO, emailed newsletters, and web advertising. The use of social networks and blogs is increasing. Traditional channels that are most often replaced by digital channels are 1) brochures, 2) catalogues, and 3) advertising in print media. Reasons why companies use digital marketing are cost savings, fast delivery of information, targeted marketing, customer dialogue.(ibid.).

The use of interactive Internet based channels in industrial marketing communication is still rare. This applies especially to SMEs (Karjaluoto et al, 2011). A survey of industrial companies in Finland by Karjaluoto et al (2011) showed that companies find increasing awareness of the seller and its products the main target for using digital marketing communication. Improving corporate brand and image is the second, finding new customers, increasing customer loyalty and satisfaction the third target. (ibid.) According to Lakkala (2011) industrial companies of all sizes are still in the beginning of the learning curve in using SoMe and the interactive Internet in their marketing communication. Business customers form a natural community for SoMe, thus B2B companies should provide them a place for sharing problems and solutions, and as a way to showcase their message (Bernoff, 2009).

2.4. Integrated Marketing Communication

IMC originates from the USA consumer market. It is yet a young discipline and thus the definition and concept is still not explicitly determined, although IMC is seen as the major communication development and new management paradigm (Kitchen and Schultz, 2009; Kitchen, 2005, Madhavaram et al, 2005). IMC is an audience-driven business process of strategically managing stakeholders, content, channels, and results of brand communication programs (Kliatchko, 2008). Today IMC is much more than was originally envisioned (Kitchen and Schultz, 2009). The concept of IMC emerged in the early 1990s (Kitchen and Schultz, 1999). During the past 20 years the definition of IMC has evolved from a coordination of communication tools (integration of advertising and promotional activities) for a brand (Madhavaram et al, 2005; Luck and Moffat, 2009) to a strategic process combining management, communication and brand development (Luck and Moffat, 2009; Kitchen and Schultz, 2009; Kitchen, 2005; Kitchen et al, 2004; Madhavaram et al, 2005; McArthur and Griffin, 1997). According to Luck and Moffat (2009) IMC can be seen as a new paradigm in marketing, equipped with central concepts that apply to many business environments.

As a result of IMC research evolution it is now a strategic tool that helps companies to more effectively achieve their brand communication goals and superior financial performance (Madhavaram et al, 2005). Since integration of marketing communication and brand development enables successful development and growth of a business, IMC is thus becoming a strategic affair of upper management. (Madhavaram et al, 2005; McArthur and Griffin, 1997). Also, according to Kitchen (2005) in order to make IMC effective, communication has to be moved from a tactical level to a strategic one. The value of IMC comes from the synergy created by the three properly combined elements (stakeholders, channels and content). Integration in its simplest form is the development, organization, alignment and implementation of these three elements (Schultz et al, 2007).

2.4.1 Development and Definitions of Integrated Marketing Communication

The definition of IMC continues to challenge development and implementation of the concept since IMC was originally developed for and in western markets and thus the concept is based culturally and most likely culturally biased as well. Many of the assumptions of IMC that come from these established markets do not exist in the developing emerging markets of today. (Chen, 2012; Schultz and Patti, 2009). Taking emerging markets and cultures into account are, according to Schultz and Patti (2009)

among the issues that will frame the next steps (7) of the IMC development as shown in Figure 12 depicting the evolution of IMC development.

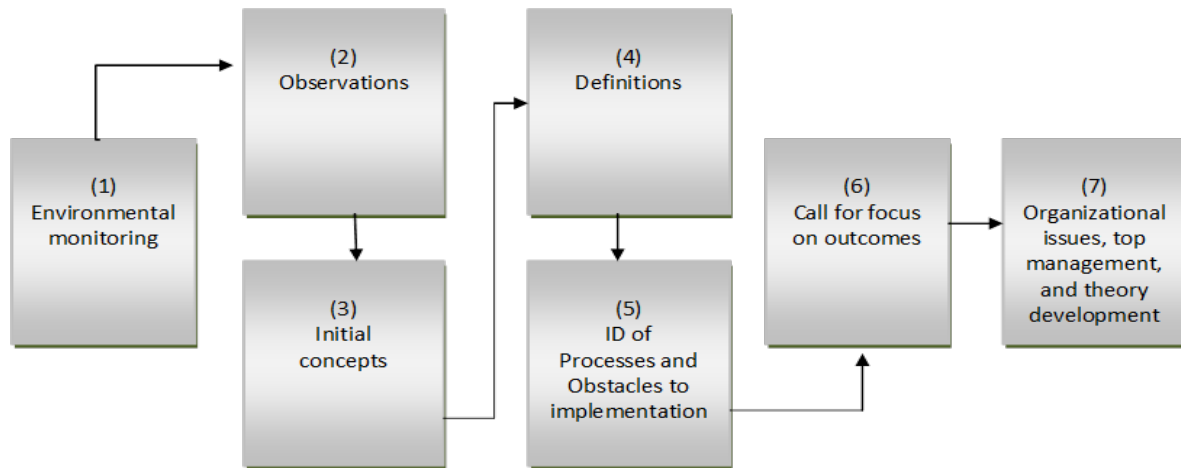


Figure 12. Development of IMC (Schultz and Patti, 2009)

IMC definition is still not determined (e.g. Luck and Moffatt, 2009; Lee and Park, 2007). Without a clear definition, the theory of IMC remains under construction. Also, because of the immaturity of IMC, empirical studies on its application are rare (Luck and Moffatt, 2009; Eagle et al, 2007). Kerr et al (2008) have presented seven early definitions by various researchers (Table 8). Kliatchko (2009) claims that all these definitions seem to coincide with such common notions of IMC as: synergy of multiple channels usage, coordination of messages, understanding relationship building with multiple stakeholders, evaluating and measuring IMC programs, and strategic management of marketing communication planning and the overall business process. Since the Kerr et al (2008) study the definitions, even by same researcher have been modified as presented in Table 9.

Of the twenty first century definitions, Duncan's (2002) (in Luck et Moffatt, 2009) definition taking customer relationship building as the core provides a broad perspective for IMC: "IMC is a cross functional process for creating and nourishing profitable relationships with customers and other stakeholders by strategically controlling or influencing all messages sent to these groups and encouraging data-driven purposeful dialogue with them". Then Kliatchko (2008) modified his earlier definition (Kliatchko, 2005) by adding stakeholders as a fourth pillar resulting in IMC being based on a customer-centric and data-driven approach of the IMC process that begins and develops from the thorough understanding of target audiences, users, as a guiding principle in arriving at marketing and branding objectives and strategies. Kitchen and Schultz (2009) add multiple markets issues into the definition and see IMC

as a business process that requires e.g. 1) understanding the dynamics of each market 2) seeking to understand behavioral data 3) understanding what media forms consumers and customers use, not just the ones the marketing organization wants to use.

Table 8. Main definitions of IMC until 2005

Researcher	Year	Definition
American Association of Advertising	1989	A concept of marketing communications planning that recognizes the added value in a program that integrates a variety of strategic disciplines, e.g. general advertising, direct response, sales promotion and public relations – and combines these disciplines to provide clarity, consistency, and maximum impact.
Schultz	1991	The process of managing all sources of information about a product/service to which a customer or prospect is exposed, which behaviourally moves the customer toward a sale and maintains customer loyalty.
Keegan et al.	1992	The strategic coordination of all messages and media used by an organization to collectively influence its perceived brand value.
Kotler et al	1999	IMC is the concept under which a company carefully integrates and coordinates its many communication channels to deliver a clear, consistent and compelling message about the organization and its products.
Duncan	2002	A cross-functional process for creating and nourishing profitable relationships with customers and other stakeholders by strategically controlling or influencing all messages sent to the groups and encouraging data-driven purposeful dialogue with them.
Schultz et Schultz	2004	IMC is a strategic business process used to plan, develop, execute and evaluate coordinated, measurable, persuasive brand communication programs over time with consumers, customers, prospects, and other targeted, relevant external and internal audiences.
Kliatchko	2005	IMC is a concept and process of strategically managing audience-focused, channel-centered and results-driven brand communication programs over time.

Table 9. IMC definitions since 2005, compiled here by the researcher

Author	Year	Definition
Lee and Park	2007	IMC is a concept under which a company systematically coordinates its multiple messages and many communications channels and integrates them into a cohesive and consistent marketing communications mix to send the target market a clear message and image about it and its offerings.
Kliatchko	2008	IMC is an audience-driven business process of strategically managing stakeholders, content, channels, and results of brand communication programs.
Kitchen and Schultz	2009	IMC is a business process that requires e.g. understanding the dynamics of each market, seeking to understand behavioral data, and understanding what media forms consumers and customers use.
Luck and Moffatt	2009	IMC is a system of belief or engagement, embedded in an organization's culture, underpinned by communication and driven by technology and senior management.
Journal of Integrated Marketing Communication	2012	IMC is a customer-centric, data-driven method of communicating with consumers. IMC is the management of all organized communications to build positive relationships with customers and other stakeholders-stresses marketing to the individual by understanding needs, motivations, attitudes and behaviors. Also IMC is effective branding and integration.

Finne and Grönroos (2009) claim in contrast to e.g. Kitchen and Schultz (2003) that IMC is an inside-out approach to marketing communication and suggest an opposite, customer centric view (relationship communication) into its definition: "Relationship communication is any type of marketing communication that influences the receiver's long-term commitment to the sender by facilitating meaning creation through integration with receiver's time and situational context."

The definitions of IMC have at least three different approaches: Shultz et al (2007), Kliatchko (2008), and Luck and Moffatt (2009). Definition and implementation of IMC in a business is based on either 1) nine constructs: strategic integration, message integration, synergy, brand equity, multiple audiences, managing contact points, relationship building, continuous and circular, and responsive (Schultz et al, 2007), 2) seven themes: communication, branding, relationship management, cross functional planning, integration, synergy, and market orientation (Luck and Moffatt, 2009) or 3) four pillars: stakeholders, content, channels, and results (Kliatchko, 2008) as shown in Table 10. Kliatchko (2008) adds strategic management of brand communication programs as functions needed to back the pillars. This comparison shows that neither a precise definition of IMC nor a clear process for its implementation yet exists.

Table 10. Different approaches IMC definitions are based on

Constructs	Pillars	Themes
Schultz et al, 2007	Kliatchko, 2008	Luck and Moffatt, 2009
1 Strategic integration	1 Stakeholders	1 Communication
2 Message integration	2 Content	2 Branding
3 Synergy	3 Channels	3 Relationship management
4 Brand equity	4 Results	4 Cross functional planning
5 Multiple audiences	Backed by:	5 Integration
6 Managing contact points	- Strategic management of	6 Synergy
7 Relationship building	Brand communication programs	7 Market orientation
8 Continuous, circular		
9 Responsive		
Content is the core	Stakeholders are the core	Communication is the core

According to the constructs approach all customer touch points (i.e. marketing communication channels) and their managing impact the brand and brand equity, not just advertising and promotional messages. Transactions are relationship building blocks; each transaction strengthening or weakening stakeholder-brand relationship, retaining and improving stakeholder relationships is as important as acquiring customers. Also IMC is a continuous, interactive, circular process. (Schultz et al, 2007). The key elements that form the theoretical base for IMC (ibid.) are audiences or customers (stakeholders), delivery systems (channels), and information or messages (content). These need to be integrated with content as the core. Luck and Moffatt (2009) say that IMC is more than just advertising and promotion, and, it takes into account more stakeholder groups than just customers, and has great potential for many business organizations operating in different commercial environments. In this “Themes” approach communication is the core of IMC.

Kliatchko’s (2008) customer-centric and data-driven approach of the IMC process begins and develops from the thorough understanding of target audiences, users, as a guiding principle in arriving at marketing and branding objectives, and strategies. It is the management of all organized communications to build positive relationships with customers and other stakeholders and stresses marketing to the individual by understanding needs, motivations, attitudes and behaviors. (Kliatchko, 2008; Journal of Integrated Marketing Communications, 2012). Kliatchko (2008) refers to the distinguishing core principles of IMC as the four pillars: stakeholders, content, channels, and results, and ties them into strategic management of brand communication programs (Figure 13). This IMC planning approach deliberately takes on the customer’s perspective in deciding which channels would be most effective in reaching target audiences (Kliatchko, 2008). According to Talonen and Uusitalo (2010), external and

internal surveys on company brand image, and awareness, information channel preferences and communication contents are needed for defining IMC that suits each stakeholder group of industrial capital goods business.

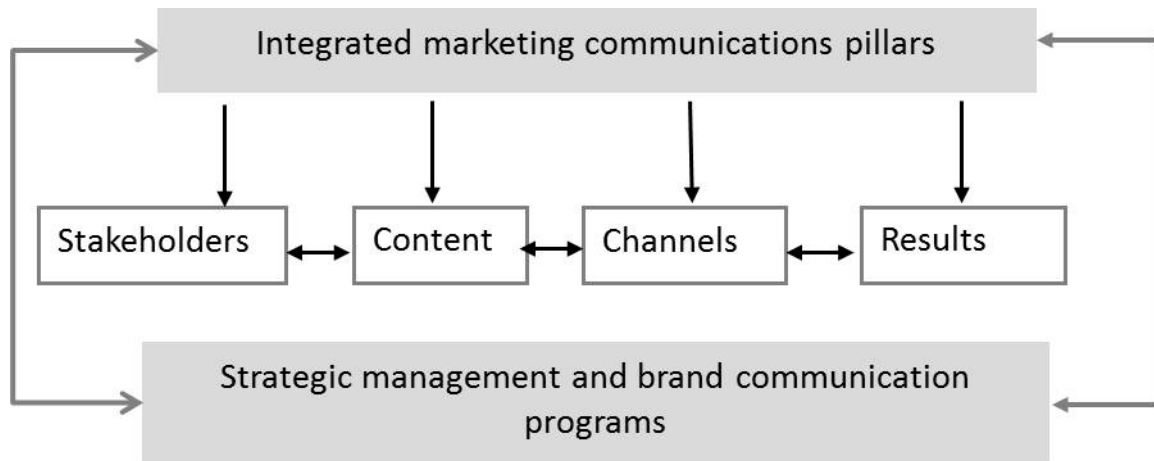


Figure 13. Four pillars of IMC (Kliatchko, 2008)

A key component of IMC, brand, is formed by any contact a stakeholder has with it, including WOM and experience for using the product. The role of brand in IMC has been studied by e.g. Madhavaram et al (2005), Reid et al (2005) and Keller (2009). Brand identity strategy and IMC strategy are seen as critical components of the overall brand equity strategy (Madhavaram et al, 2005). Yet, according to Schultz and Patti (2009), “there is little agreement on how brands and branding can, should or will be developed in an interactive marketplace. Our historical approaches to brands and branding place heavy emphasis on advertising and promotion. That system seems questionable today, and perhaps even inadequate, in a ‘push-pull’ marketplace where customers and other stakeholders have access to massive amounts of information about the brand, the company, its products and in which social networks have, in some cases, replaced brand networks”. Brand equity building is thus an integrated part of marketing communication (Kotler and Keller, 2006).

Two major communication methods: push and pull collide when IMC strategies are formed. Two pioneers of IMC research Schultz and Patti (2009) say “Integration and the issues of developing IMC programs simply are not the same in these two systems (push and pull marketing). And, it is certainly not the same when one tries to combine traditional ‘push’ with the new inbound ‘pull’ communication programs. Questions arise such as: should the focus be on traditional ‘push’ or the newly emerging ‘pull’ or a combination of the two? That is one of the major challenges of academics who are trying

to build a theory base for IMC while it is still developing, and not always with the same speed or in the same ways around the world.”

IMC research has contributed to its evolution as a strategic tool that can help companies to be more effective in realizing their brand communication goals, and achieving superior financial performance (Madhavaram et al, 2005). Integration of marketing communication and brand development is needed for successful development and growth of a business. IMC is thus becoming a strategically, not tactically oriented affair of upper management. (Madhavaram et al, 2005; McArthur and Griffin, 1997).

2.4.2 Implementing IMC into Businesses

IMC research has centered on the adoption of and use by products and packaged goods markets. The existing literature focuses on advertising and an agency perspective (Luck and Moffatt, 2009; Lee and Park, 2007; Nowak et al, 1996). Luck and Moffatt (2009), propose IMC to be a complete business model, but the strategy behind IMC’s application will be different to different businesses and commercial drivers. They add services on top of products and packaged goods as suitable industry for IMC thus broadening the scope of industries within IMC research. Eagle et al (2007) have shown that practitioners appear to be applying IMC concepts that are situation-specific. Lee and Park (2007) on the other hand claim that both practitioners and academics would like to find out the extent of impact IMC has on the marketing communication practice.

Empirical studies on use of IMC are rare, and concentrate on the consumer market. Content, stakeholders, and channels are mentioned by most researches as core principles of IMC (Kliatchko, 2009, 2008; Luck and Moffatt, 2009; Schultz et al, 2007). Yet, little research is carried out on these pillars of IMC, especially in the industrial capital goods context. The few studies on IMC and industrial capital goods are on single markets and look into it mainly from the point of view of the seller and the channels (e.g. Talonen and Uusitalo, 2010; Jämsä, 2010; Heikkilä, 2009; Foster, 2006; Garber and Dotson, 2002; Olander and Sehlin, 2000). The growth of electronic media, channels of communication and the rapidly changing advertising environment have taken companies into a global environment (Schultz and Patti, 2009; Kitchen and Schultz, 2009; Madhavaram, 2005; Keller 2001). This applies especially to industrial capital goods (Foster, 2006). The few guidelines available for IMC implementation are generic e.g. communication and strategies are customer focused, brand positioning is integrated into all brand messages, segmenting and targeting are database-driven (Kitchen et al, 2004; Kliatchko, 2008, 2009; Leppäniemi, 2008).

Marketing of technologies requires understanding of customer needs. Product-orientation should be replaced with customer –orientation (e.g. Levitt, 1960, 1975). Lauterborn (Schultz et al, 1995) states that the content of marketing mix should not be seen from a sender (= Seller) but a receiver (= Buyer) perspective and thus 4P's of marketing should be changed into 4C's, the promotion "P" to be the new (interactive) word communication "C". Understanding the benefits desired by each member of the extended buying center, an IMC plan that addresses all the key issues needed for decision making can be developed (Spekman and Thomas, 2012).

Who is a stakeholder in capital goods business? In capital goods' marketing understanding stakeholders and their behavior is emphasized since the purchasing process is long, customer relationships are close, and more people from users to technical experts and top management influence the buying decision (Cova and Salle, 2007). Relationship development in a B2B context requires the use of different communication channels depending on the phase of relationship (Andersen, 2001). According to Project Management Institute (2008) "Stakeholders are individuals or organizations (e.g. customers) that are actively involved in the project or whose interest may be affected as a result of project execution or project completion". Gibson (2000) defines the stakeholder to be any individual or group with the power to be a threat or a benefit to a project or business. They are either proponents or opponents. Stakeholders can also be divided into external or internal groups each with a specific role.

Stakeholder management is essential for succeeding in projects. In order to be able to manage all stakeholders they need to be identified, classified, analyzed, and evaluated (Aaltonen, 2011; Aaltonen et al, 2008; Olander and Landin 2005; Mitchell et al, 1997). This requires an interpretation process consisting of any activity e.g. data scanning, actual process, strategy formulation, and decision making. Stakeholder environment and salience are brought up in studies as main phenomena that can affect or be affected by the project. According to Kitchen and Schultz (2009) in order for companies to succeed in their marketing communication, the seller must understand the dynamics of each market served, seek for behavioral data, and understand what media forms the customer uses, not just the ones the seller wants to use.

2.5. Preliminary Conceptual Framework for Integrating Buyer and Seller for Industrial Capital Goods Supplier Selection

For any seller or buyer the purchasing process step "supplier selection" is the target aimed at. The buyer selects the supplier candidates and finally the supplier after a multistage buying process (e.g. Johnston and Bonoma, 1996) including information

search. The seller uses marketing communication to reach the decision making members and convincing them on the seller, and solutions, products it offers. Information is in the core of both approaches. Thus information sources buyers prefer, and marketing communication channels the seller uses should meet. Anyhow, existing research has mainly concentrated on studying these two disciplines 1) purchasing processes and buyer behavior, and 2) marketing communication and IMC separately, both theoretically and empirically. This study attempts to integrate these two approaches and thus bridging the gap in between.

The theories of industrial purchasing process and buyer behavior (from information search point of view), and marketing communication (from channel point of view) are used in relation to the first research question: "What are the preferred buyer information sources for industrial capital goods prior to supplier selection".

Industrial buying, a specific form of organizational decision making and behavior of buying center members in global capital goods business seems to lack empirical research. Purchasing processes and organizational buying behavior studies are mainly generic and conceptual (e.g. Spekman and Thomas, 2102; Töllner et al, 2011; Johnston and Lewin, 1996; Johnston and Bonoma 1981; Sheth, 1973), or focusing on a single market (e.g. Töllner et al, 2011; Alejandro et al, 2011; Foster, 2006) calling for empirical research in a global context. The structure of a buying center, although originally conceptualized as an inter-organizational function, has increased into involving also members outside the organization (e.g. Jalkala, 2009; Cova et Salle, 2007; Spekman and Gronhaug, 1986).

Beside geography, there are multiple other influences affecting the search of information as referred by numerous researchers (e.g. Patti, 1977; Sheth, 1973, Wind and Webster, 1972). These include e.g. familiarity with the product and seller, own experiences, role in the organization, culture, and education. Also, it has been shown that the more complex the product, the more information sources are used and by more people from different levels of the buying organization. (ibid.).

Studies on organizational buying behavior point out that the seller should provide the product and service information to the buyer through the communication channel preferred by the buyer (e.g. Deeter-Schmeltz and Kennedy, 2002). It is thus critical that the sellers understand which information sources are used by buyers to develop effective marketing communication strategies. The information sources used by buyer vary from one purchase state to another (e.g. Kennedy and Deeter-Schmeltz, 2001), according to the complexity of the purchase (e.g. Sheth, 1973), and between emerging and established markets (Chen, 2012).

Theories on IMC and marketing communication build the base for the second research question: “How does knowing buyer information sources impact integrated marketing communication (IMC) of industrial capital goods”.

Managing marketing communication in this highly varying environment is challenging for any industrial capital goods seller, especially a SME operating in a global market. IMC, although seen as a business function of a seller to manage stakeholders, content (information) and channels (e.g. Kitchen and Schultz, 2009; Kliatchko, 2008; Luck and Moffat, 2009) is still fairly unknown among industrial companies (e.g. Olander and Sehlin, 2000).

Separate studies on marketing communication, IMC within industrial capital goods are rare (exceptions e.g. Foster, 2006 and Olander and Sehlin, 2000). Some studies on communication channel preferences in industrial marketing can be found (e.g. Karjaluoto, 2010; Foster, 2006; Patti, 1977), but most of them consider the subject from the seller’s side, not the buyer’s side, and in a single domestic market. The channel mixes and preferences, according to these studies vary significantly from one country to another, and between buyers and seller. Also, relationship development in B2B context requires different communication channels depending on the phase of the relationship (Andersen, 2001).

IMC is needed to strategically manage multiple stakeholders (e.g. Kitchen and Schulz, 2009; Kliatchko, 2008). This research focusing on the early stages of the purchasing process prior to supplier selection takes Kliatchko’s (2008) definition of IMC, having stakeholders as the core as the main approach. According to this concept understanding the audiences and marketing to the individuals strengthens the stakeholder view for strategic management of IMC. Company business strategy, brand and communication strategy, research and development, and customer relationship management build the base for IMC and brand management of a capital goods seller operating globally. Stakeholders with an extended view, content, channels and results, form the four pillars of IMC Kliatchko (2008).

That calls for research on building integrated marketing communication for industrial capital goods and identifying the marketing communication channels to use in the early stages for raising awareness and leading to supplier selection of industrial capital goods globally. According to existing knowledge the seller needs to know where the need for the investment in capital goods comes from (e.g. Cova and Salle, 2007) who belongs to the complex decision making process (e.g. Spekmann and Thomas 2012; Patti, 1977) and how they behave in information search in the supplier selection process (e.g. Sheth, 1972; Webster and Wind, 1972).

The preliminary framework for this study is thus developed from the literatures about 1) buyers and their use of preferred information sources in the purchase of industrial capital goods for supplier selection and 2) sellers use of marketing communication channels as part of IMC in global industrial marketing communication. The target of the research is to bridge the gap between these two streams in a global context taking both emerging and established markets into account simultaneously. This requires identifying how the members of the buying center and their use of information sources affect the marketing communication channel selection and IMC for capital goods, i.e. how knowing the preferred buyer information sources works as basis for seller's marketing communication decisions.

Accordingly, in Figure 14, I propose a preliminary conceptual framework for understanding supplier selection of industrial capital goods and the channels and sources of information within. The framework synthesizes the existing literature. Thus the key constructs are purchase of industrial capital goods, buying center members, their use of information sources, seller's use of IMC and marketing communication channels. As this framework is preliminary, these constructs have been developed from existing literature.

In this framework the buying center extends beyond a single organization including all stakeholders that contribute to the decision making process even if they are not directly involved in supplier selection, but are significant members in the earlier stages of the purchasing process. Marketing communication in this framework is extended into IMC, with concentration on stakeholders and channels. The framework is suited into a global market.

The framework is divided into two parts: buyer and seller according to the research questions and helping in understanding information sources and marketing communication channels both as part of the information arena. The framework builds a relation between information sources, decision making and onwards to selecting the seller as supplier. The key concept within the purchasing process of this framework is buying center, its members (who they are, influences for information search) and their use of information sources. Another key construct is IMC as the main function of marketing communication of industrial capital goods seller. IMC is defined in this research as a strategic tool for managing multiple audiences simultaneously. Channels (marketing communication channels), one construct (pillar) within IMC in this framework means the channel seller uses or likes to use for delivering information on the company and its products and services.

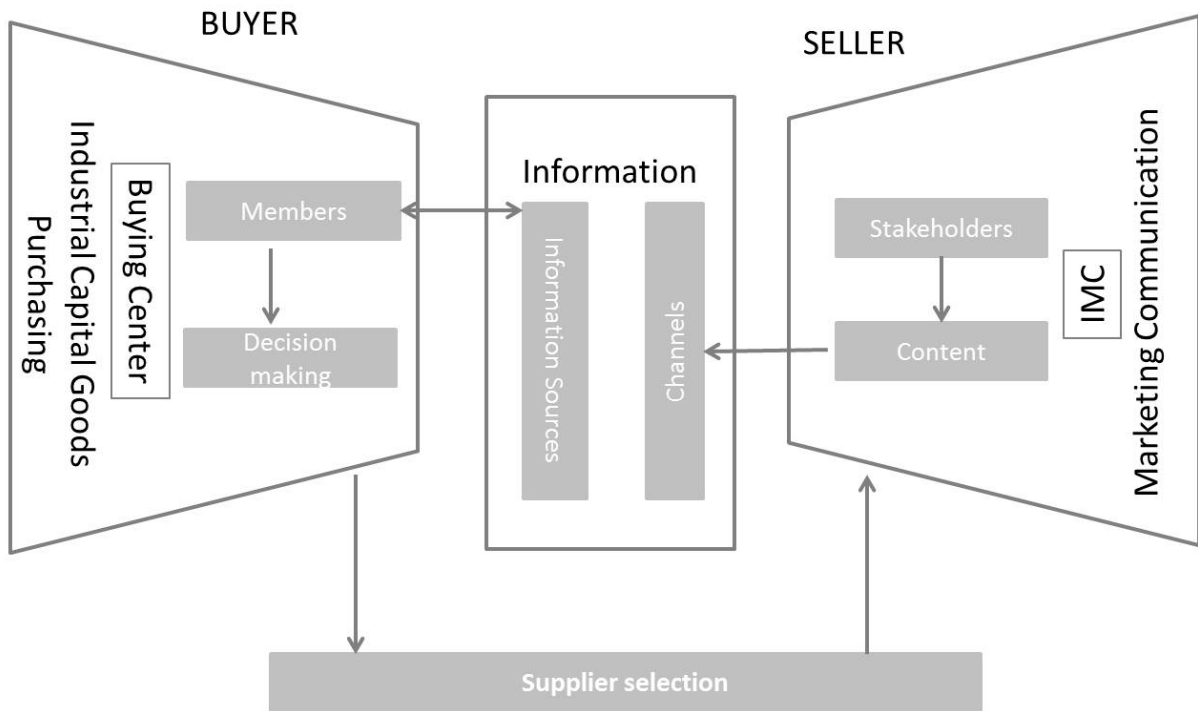


Figure 14. Conceptual framework for integrating buyer and supplier for industrial capital goods supplier selection

Pre-understanding (Chapter 3) from the action research was useful on formulating the research questions and conceptual framework of this study.

Thus for finding answers to the first research question “What are the preferred buyer information sources for industrial capital goods prior to supplier selection” literature on industrial purchasing process, organizational buying behavior, and information sources with influences affecting the source preference are used. This gives the conceptual base for data collection on :1) the purchasing process of industrial capital goods in established and emerging markets, 2) the buying center structure 3) the members complex decision making process and information search targets, 4) the information sources used by industrial buyers, 5) the most preferred information sources, and 6) the influences affecting the information search. The data collection related to the second research question “How does knowing buyer information sources impact integrated marketing communication (IMC) of industrial capital goods” relies on theories on IMC and industrial marketing communication:1) implying IMC into industrial marketing, 2) stakeholders, and 3) marketing communication channels.

3. RESEARCH METHODOLOGY

In this chapter I first discuss the philosophical issues of this research, then the methodologies used followed by the research process and finally I shed light on the data gathering methods. In order for the readers to fully understand the phenomena, a separate sub chapter is given on the business filed.

3.1 Research Approach

This dissertation, being mainly qualitative by nature, belongs under management, more specifically under marketing studies, and thus, under the broader category of social sciences. The research approach and methodology is here written bearing in mind the positioning of this research into studies on marketing.

The main target of academic research is to get and organize information, thus how the information is gathered is the main question when creating opinion on science. Academic researchers engage in a dialogue of reasoning (theory) and observation (data) of individual's opinions that are formed by traditions, authority, personal observations and experiences, or research (Brannick and Coghlan, 2007; Olkkonen, 1993). In this context research is considered scientific and knowledge received this way is scientific knowledge. The most common scientific approaches used are positivism and hermeneutic; the first one is based on realism, and the latter on idealism. This distinction derives from the subject-object dichotomy. This ontological, subjective-versus-objective dimension concerns the assumptions social theories make about the nature of the social world (Johnson and Duberley, 2000).

The dominant approach in academic research on management and marketing has been positivism (Marsden and Littler, 1996). It is an objectivistic, empiricist view of knowledge relying mainly on quantitative data. The positivistic approaches are defined primarily by their view that an external reality exists and that an independent, value-free researcher can examine this reality. In other words, they adhere to objectivist (realist) ontology and objectivist epistemology. Positivists adopt a methodological approach toward reflexivity and concentrate on improving methods and their application (Johnson and Duberley, 2000).

The alternative paradigm, hermeneutics, is a subjective view and thus suitable for qualitative research methodologies. The hermeneutic approach argues that there is no objective or single knowable external reality and that the researcher is an integral part of the research process, not separate from it. (e.g. Johnson and Duberley, 2000; Marsden

and Littler, 1996). This approach follows a subjectivist (relativist) ontology and epistemology. The hermeneutic approach is descriptive, holistic, aims to understanding, and is soft. (Marsden and Littler, 1996)

The third approach, identified by Johnson and Duberley (2000), is critical realism, which aligns with action research. This approach follows a subjectivist epistemology similar to the hermeneutic tradition but objectivist ontology. It concentrates on epistemic reflexivity, which looks at exposing interests and enabling emancipation through self-reflexivity. Positivism and its successors are concerned with generalization and universal knowledge, whereas the hermeneutics and critical realism are more interested in particular knowledge.

Even though positivism prevails in academic research on marketing science (Marsden and Littler, 1996), this research includes a hermeneutical approach, especially in adopting buyer insight into marketing communication. Also, according to Brannick and Coghlan (2007) in critical realism and action research ontology is objectivistic, epistemology subjectivistic, theory particular, reflexivity epistemic, and the role of researcher is to be close to data. Thus critical realism is adopted as the guiding perspective in this research. Motivation to transform existing practices, common to critical research is seen throughout this research, as is the aim to make difference to main stream. (Eriksson and Kovalainen, 2008).

The research problem defines the research method. This research studying subject with minimal previous research, integrated marketing communication (IMC) and –channels of industrial capital goods in the early stages of the purchase process calls for exploring, understanding and learning. It is thus exploratory by nature. According to O’Leary et al (2004), action research provides the capability to complete this study better than many alternative methods.

In exploratory research the picture of “what this this all about” is unclear initially. This means that the problem is not easily structured, the approach is unclear, theoretical background is missing or only partly supports the research area. The research is descriptive, and suggests alternatives which attempt to understanding of the phenomena. In exploratory research it is essential to base it on the researcher’s ideas, personal interpretation, and understanding of internal relations of the phenomena. (Olkkonen, 1993). Although hermeneutic by nature, exploratory research typically also includes positivistic features, as is the case with most organizational and business studies. Often hermeneutic researchers rely on positivistic research results e.g. in issue definition, criteria for theoretical background or analyzing the results (ibid.). It is thus common that research approaches are combined in business studies, resulting into two

typical research approaches: action analytic and constructive (Kasanen et al, 1991; Gummesson, 1993). This research is empirical, exploratory, explanatory, and thus hermeneutical, and it follows action-analytical research approach which has both nomothetic and constructive features (Figure 15).

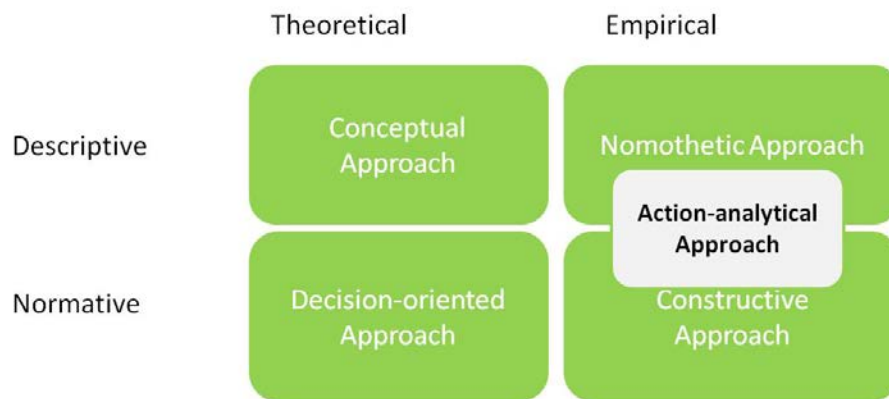


Figure 15. Research Approaches in Business Science (Kasanen et al 1991 p. 317)

The action analytical approach usually uses the case study method due to the small number of possible research targets. The results of explorative research with the action analytical approach need to be seen as more of a probable hypothesis thus giving avenues for future research. This is also the case with this research, which gives only a glimpse into the current state of the phenomena. (Olkkonen, 1993). There are studies, in which nomothetic approach is used for creating a general picture of some features and their correlation of the research population. Then, based on the findings, the research is continued by the action-analytical approach targeting a deeper understanding of causalities of the phenomenon (ibid.).

This research is based on a longitudinal study including action research, and uses multiple data. An action research project within a Finnish industrial capital goods sellers was used to expose the issues involved because an alternative method, like case research, could not be used as other sites that had IMC in global industrial context were simply not available. Also, the choice of action research is relevant, because of the minimal research that has been conducted on IMC and purchasing process of industrial capital goods from information search point of view, the process through which this may be completed was unclear.

Within action research, in order to identify the preferred information sources as the first research question requests, and marketing communication channels in global capital goods industry, an in-depth single case study is adopted. Case studies are very commonly used for subjects related with business management. They are suitable for

answering “How” questions. Case study research is aimed at contributing to understanding by using empirical data as a basis. (Gummesson, 2000, 1993). The within case study results in this research are then used for the action research in answering the research question “How knowing the buyer information source influence IMC of industrial capital goods”. According to e.g. French (2009) and Jönsson and Lukka (2007) action research is a case study methodology with a fundamental difference to traditional case study being that the researcher is not separated from the research, but completely involved in it, as it the case in this research. Also, Gummesson (2000) states in contrary to traditional methods used in business studies, action research, where the researcher is deeply involved, provides satisfactory access to real-world-data (empirical data).

In action research or more specifically in insider action research (IAR), also real-time action research (Gummesson, 2000), practitioners who have knowledge of the field from an internal perspective work in collaboration with researchers, who are outsiders with expertise in theory and research (French, 2009; Ottosson, 2003). Also, in action research, the researcher is in active contact with the case organization and has access to direct interaction with phenomena (Coughlan and Coughlan, 2002; Gummesson, 2000, 1993). This is the case in this research, since I have been employed by the case company since 2001 and in the field since 1987 I have pre-understanding of the situation and its history, and positive relationships with the people involved. Also, I have access to the process as facilitator throughout the study. I am currently in charge of the marketing communication of the company. Someone from the outside could never hope to duplicate this research. Thus, this is IAR in marketing. This research being a marketing study can be defined as marketing action research, which is according to Perry and Gummesson (2004) “a person’s or group’s involvement in actions related to a market place that occurred in the past and that can affect our present understanding and knowledge, which can in turn affect future action”.

3.2 Case Study Methodology

Case studies are generally used in industrial business studies (Piekkari et al, 2010), and are particularly valuable in applied social sciences like marketing where research aim to provide practitioners with tools (Gummesson, 2000). The case study research approach focuses on understanding the dynamics present with single studies. They are carried out in order to examine in-depth and holistically certain phenomena in selected cases, to better understand complex phenomena, such as change processes. Sometimes case study is considered only a research method. However, it should be considered a research approach in which various qualitative and quantitative research methods, e.g.

analyzing archives, conducting interviews or using questionnaires, can be applied. (e.g. Piekkari et al, 2010; Gummesson, 2000, 1993; Eisenhardt, 1989). Piekkari et al (2010) divide the practices into 1) best 2) common, and 3) innovative. Studies based on empirical research with data collection from multiple sources, combining both qualitative and quantitative data, critical realist approach, and action research follow innovative practice. The innovations in published case studies (Piekkari et al; 2010, Gummesson, 2000) are a result of the tacit knowledge of the researcher, i.e. a sense gained through deep immersion in the field to know what is appropriate in the particular circumstance. This research falls into the innovative practice category for case studies.

A primary distinction in designing case studies is between single- and multiple-case designs. According to Yin (2009 pp. 46-49), a single case study is appropriate under five circumstances as follows:

- The case represents a critical case in testing a well-formulated theory. The purpose here is to determine whether a theory's propositions are correct or is another explanation more relevant.
- The case represents an extreme or unique case. The characteristics of the phenomena are rare and thus need to be documented and analyzed as a single case.
- The case is either representative or typical. The target here is to capture an everyday or commonplace situation. The case is typically a project among other projects, and the results are assumed to be informative.
- The case is revelatory. This means that the researcher has an opportunity to observe and analyze a phenomenon that few have considered before or that has been inaccessible in scientific inquiry.
- The case is longitudinal, meaning that the single case is studied from different points in time and the desired time intervals would reflect the stages of changes.

Based on these criteria, this research is revelatory and longitudinal. According to Fletcher and Plakoyiannaki (2011), in international business, a single case design is appropriate for studies with deep insight, greater depth, and that are highly context specific focusing on the uniqueness of the case. Thus a single case study is relevant.

3.3 Action Research

Action research focuses on research in action rather than research about action. It is participative in that the members of the system that is being studied participate actively in the cyclical process. Action research aims at both taking action, i.e. solving a problem, and creating knowledge or theory about that action (Coghlan and Brannick, 2002; Gummesson, 2000), producing narrow learning in its context since each situation is unique and cannot be repeated (Baskerville, 1996). Action research as defined by Gummesson (2000) is combination of research and management consultancy that

involves intervention into processes of decision making, implementation and change. To bring about the change, it is essential according to Gummesson (2000) that the researcher actually takes part in the decision and the implementation, as is the situation in this research.

It all starts with a question one wants to answer that relates to a problem one wants to solve (James et al, 2012). In this research there are two questions that call for answers:

1. Why the seller is contacted by potential customers only after they have selected the supplier candidates, i.e. after they have already selected the solution? Or in utmost cases, why the seller is not selected even as a supplier candidate? In other words, the seller gets involved too late, if at all, into the purchasing process.
2. How, for increasing export and sales, decision-making awareness to emerging and established markets can be built simultaneously?

Action research provides the simplest basis for insider research. Brannick and Coghlan (2007) have defined insider researchers as those undertaking research in and on their own organizations while a complete member, which in this context, means both having insider pre-understanding and access and keeping the option to remain a member on a desired career path when the research is completed. Pre-understanding, crucial to the interventionist researcher (Jönsson and Lukka, 2007), refers to person's knowledge, experience and insights into a specific problem and social environment prior to the research project (Gummesson, 2000). The knowledge, insight and experience of the insider manager – researcher apply both to the theoretical understanding of organizational dynamics, and to the lived experience (Coghlan, 2001; Brannick and Coghlan, 2007).

Action research can be done in three different ways: as an observed, team member or project leader as shown in Figure 16 (Ottosson, 2003). The latter applies to this research.

Also, according to Ottosson and Björk (2004), to compare findings, the project leaders and team members while making observations must also conduct traditional studies. In this research this applies to qualitative and quantitative studies on buyer information sources, buying center members, complex decision making, and marketing communication channel mixes. Ottosson (2003) defines an optimal research situation for participation action research, in which insider action research (IAR) is the utmost form, as an arrangement, where the researcher is inside the object (here the case company's processes) as e.g. a manager and at a same time has access to a scientific environment (Figure 15).

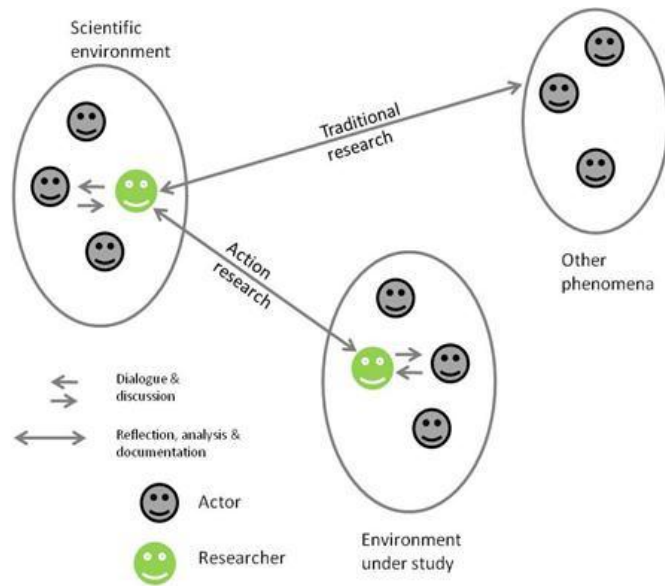


Figure 16. Optimal research situation for participation action research (Ottosson, 2003)

Action research happens in cycles (Figure 17), each consisting of four phases: 1) planning (What do we want to change?), 2) acting (What are we doing?), 3) observing (What is happening?), and 4) reflecting (What does it mean?). This model originates from Lewin (1946) with modifications by numerous researchers (e.g. Altricher et al, 2002; Riel, 2010; Zuber-Skerring and Fletcher, 2001).

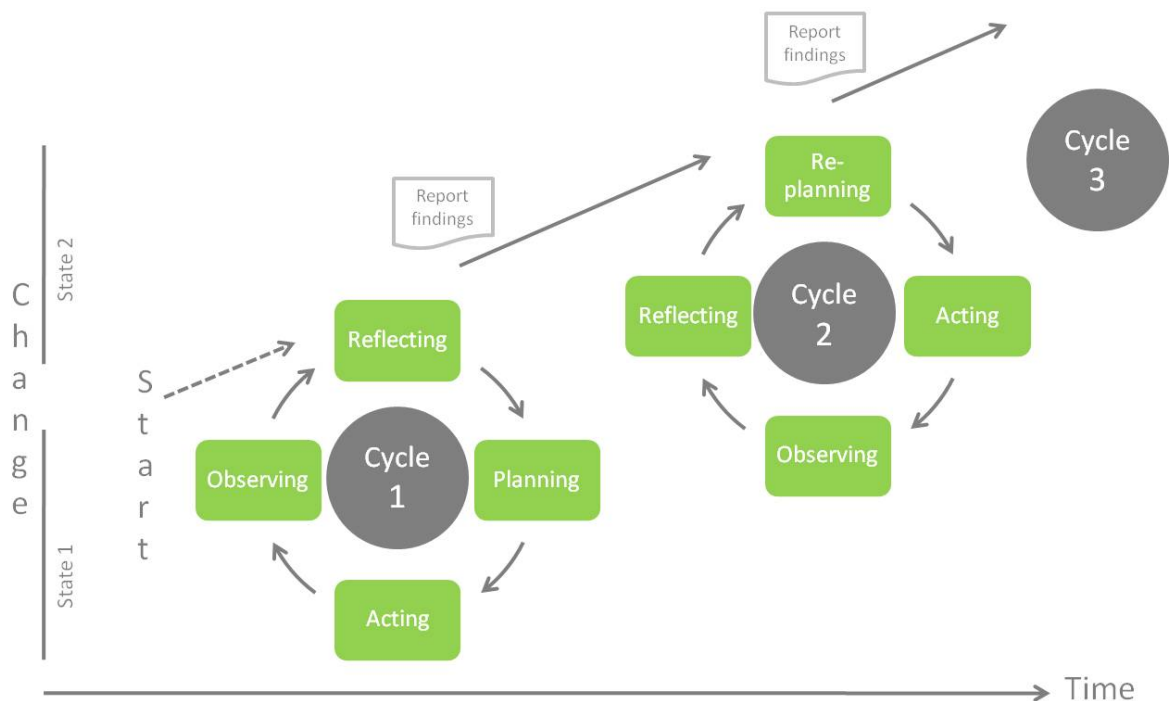


Figure 17. Action research model for problem solving (adapted from Altricher et al, 2002; Riel, 2010; Zuber-Skerring and Fletcher, 2001)

Pre-understanding

I started working in the precast technology industry in 1987 as an export and marketing manager. Visiting builders, building sites, authorities, precasters in both Europe and Asia as a sales person for 15 years allowed me to build a good knowledge of the building construction traditions, purchasing habits, and cultural variations. Marketing first precast as building material and then manufacturing technology to emerging markets in culturally different areas formed a base for future tasks in the case company. Since 2001, when the business was acquired by the case company, I have been working in it as the lead person and project manager for developing and improving the IMC process toward web centered marketing communication and brand building. This change project is the action research of this study.

The process has required thorough research and investigation. Literature analysis, structured interviews, workshops, customer surveys (both qualitative and quantitative), and data collection have been carried out throughout the process. I have systematically compiled a large amount of documentation on various marketing and communication development projects of the case company. In addition I have studied web communication at Helsinki University (2007) to get the latest academic knowledge on the field. Since the main focus of this research is to shed light on marketing communication channel mix optimization for integrating buyer and seller prior to supplier selection, full action research reporting on the IMC development process of the case company is not relevant. Thus it can be said that the research method of this study is a case study within action research.

3.4 Research Design

According to Dubois and Gadde (2002), Eisenhardt (1989), and Gummesson (2003, 2000), in case study research the researcher should go back and forth between current academic literature and empirical activities. Thus, both inductive and deductive steps are taken in this research, which consists of an IAR combined with a focus on one main internal in-depth case study, the buyer information sources and marketing communication channels as part of the change process toward the IMC way of working. The research process (Figure 18) starts with preliminary research to give pre-understanding of this research. It rises from three issues: 1) the early attempts of the researcher to start a change process in the case company's communication to involve integration of management, strategies, and customer values and 2) the researcher's university studies on web communication, and 3) the researcher's tacit knowledge of

the field gained through over 20 years of experience. This connects the research to a real world situation, which is necessary for action research.

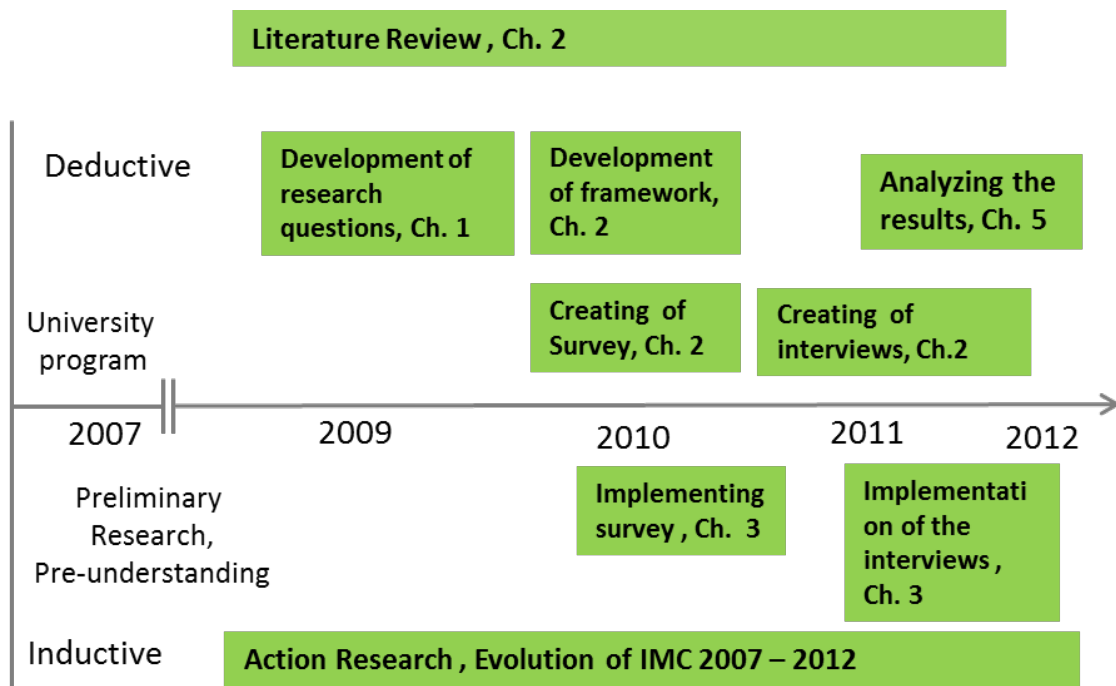


Figure 18 Research process

After pre-understanding, the actual research, conducted mainly through the action-analytical approach (research design in Figure 19), starts with problem setting and defining of the issues to be studied by observing the existing data. In this research the problem area is the influence of buyer information sources in the early stages of purchasing process on marketing communication of industrial capital goods. Reviewing the literature on three subjects 1) industrial capital goods and their purchasing process, 2) industrial marketing communication and information sources within, 3) IMC and marketing communication channels is followed by setting research questions and planning actions to be taken. As part of the research process, the action taken in the first state is implementing an online survey on information sources preferred by both buyer and seller. After analyzing the results and reflecting them back to the theory, and reporting the findings, engagement to the real world situation was taken and the second state started. In the second state, the phenomena were explored more thoroughly through the means of in-depth interviews on purchasing process, members of buying center and importance of information sources. The interviews were interpreted, reflected back to theory, and reported. In the third part of the research combined the

results of the survey and interviews to the IMC process with consideration of literature and theories.

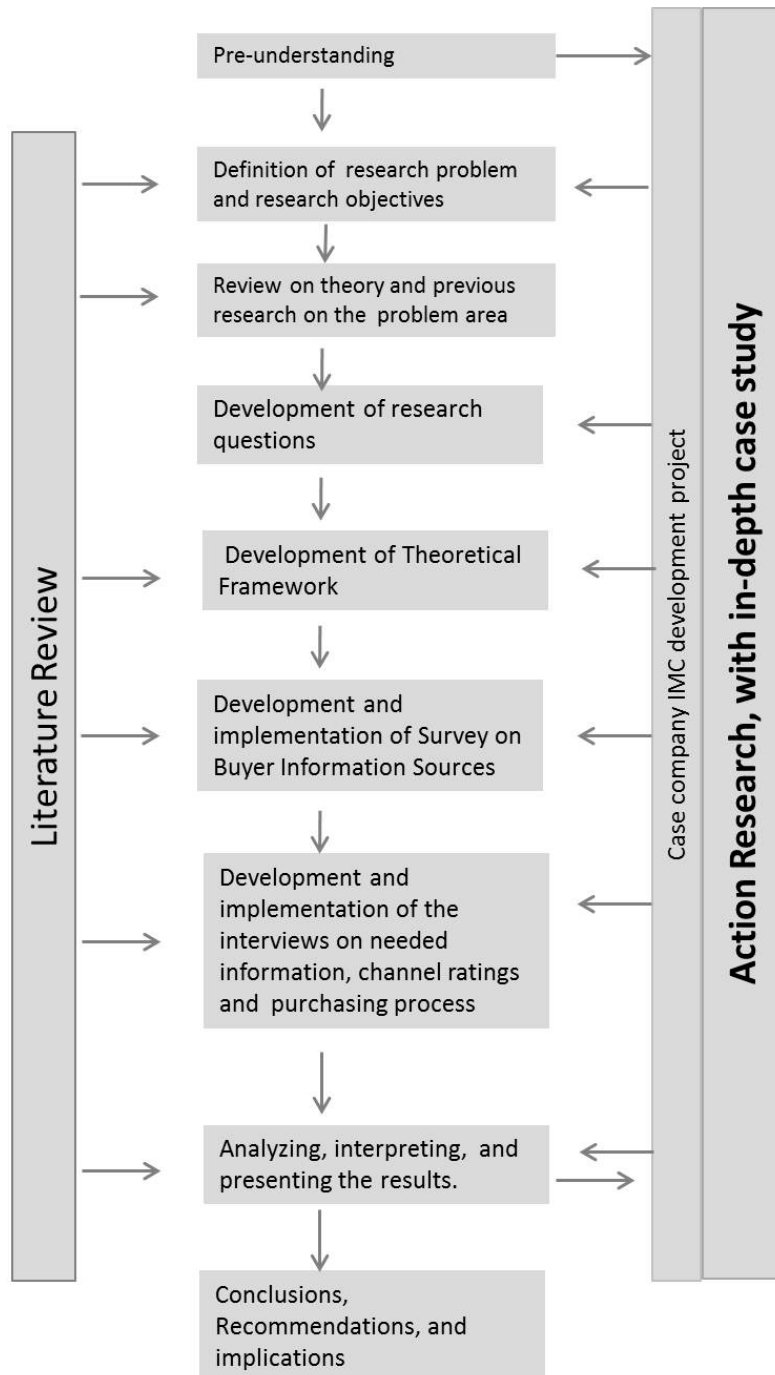


Figure 19 Progress of the research

3.5 Building Construction and Precast Technology Industry

3.5.1 House building and selecting of the building method

House building is generally divided into residential (apartment buildings, villas) and non-residential (e.g. offices, hotels, shopping centers, factories, warehouses, car parks) buildings as shown in Figure 20, based on interviews Korander (2012) and Suikka (2012). Steel, which is the market leader as building material in non-residential buildings, is hardly used in residential construction. In house building, villas are commonly built according to traditional methods of the geographical area, wood, cast-in situ concrete and masonry being the typical materials. The use of precast concrete in villas is minimal. Apartment buildings are mainly built of concrete, either cast-in-situ or precast concrete according to the tradition of the area, but the use of wood is growing to some extent for low rise apartment buildings in some areas. Precast concrete competes mainly with cast-in-situ concrete, other competitors being cast-in-situ + masonry (i.e. blocks and bricks), and composite structures (e.g. steel + precast). In some areas concrete blocks are considered precast products¹⁴.

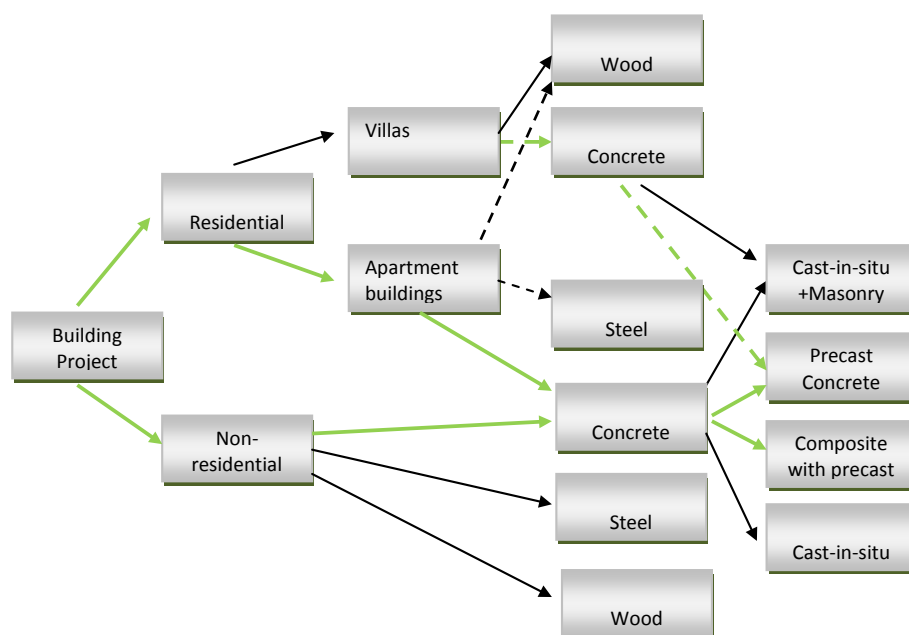


Figure 20. The process of selecting the building method

¹⁴ Main classification of precast products (also used in this research) are: hollow-core slabs, solid slabs, ribbed slabs, façades, sandwich walls, internal walls, Acotec-walls, beams, columns, piles, stairs, lift shafts, culverts, and railway sleepers. In some countries also concrete blocks, pipes, and pavement slabs are considered precast.

Building culture, tradition, and –history, infrastructure, and labor availability weigh heavily when deciding a) the building method and b) the building materials (Suikka, 2012):

- Are tower cranes available or commonly in use at building sites (and factories)
- Can truck cranes be used or are they available
- Condition of roads => can the precast elements be transported at all
- Is there a precast factory close enough? If not, is there a possibility to build a (mobile) factory onsite (feasible only for large building projects)
- Are railroads a better means of transportation than roads (Russia)
- In Southern Europe, they have smaller cranes => only small elements can be lifted => bricks, and blocks are more handy and suitable. Also transportation equipment and roads favor smaller building components.
- precast vs. cast-in-situ: availability of skilled construction workers, and labor costs. If there is no deadline (i.e. speed of construction) as driving force, then just the labor issues count in making the decision.

Depending on the country the developer, owner or architect define and select the building method and materials. Architects in general have more direct power in decision making the more developed the country is. The architect is number one of all designers. Investors use developer consultants, other consultants and designers to define the building method and materials. Builders' decisions seem to be based on costs; the lowest cost solution is selected. Developers tend to take quality, time to complete and overall costs into account when selecting the building method and materials. Planning for long term operating costs (e.g. energy and maintenance) and minimized risks count for owners and developers. The main decision maker for the building method, for instance in Finland, is the builder, in Sweden the developer, and in Germany the architect. This means that the case for selling precast concrete as solution is highly dependent on the market. The competitive argument for precast concrete is based first on technical and physical properties, followed by production, raw-material, and labor issues. Generally it can be said that the more aware the buyer is, the more time issues are leading the decision making process. This can be seen also from the market development's point of view: in an established market speed is achieved from pre fabrication, in emerging markets additional labor means faster building. A crucial issue for the ability to build with precast in a market is that there must be designers (architects and structural engineers) who can design with precast.

3.5.2 Precast Concrete as Building Method

After WW II there was a huge demand for housing in Europe. Developers and builders became interested in serial production, productivity (i.e. speed of construction), decreasing labor (= less workforce). Precast concrete was the answer, and it entered the markets, especially Scandinavia, in the beginning of 1950s. Precast concrete as well as its industrial production technologies can still be considered still young. Today precast concrete has proven its status as a versatile, flexible and quality material in most of Europe, but there are still countries (e.g. Russia) which retain the bad image of precast from 1960s and 70s. In Finland, where precast landed in the early 1950s, 70-80% of residential (apartment) and 35-40% of non-residential buildings are built with precast (Suikka 2012). In established markets, in the early days of precast, the builders invested in precast factories to improve their overall capacity and to increase the added value of their own labor, because for cement manufacturers going into precast was value adding. The tendency towards separation by builders, precasters, and cement manufacturers has taken place later. Selecting precast as a building method is affected by market specific features that can vary greatly. The features of precast use in some markets as described by Suikka (2012) are shown in Table 11.

Table 11. Features in precast use in some selected markets

Area	Precast use
Russia	Strong tradition of concrete building. There are areas, where precast is well known and in use. Also the weaknesses are known. Local technology is old => the question is "should we modernize the precast technology or go into cast-in-situ"
Scandinavia	Strong tradition of precast building.
Middle East	No "traditional" building method exists. The sheikh with lots of money and a building project in hand as the investor places a question "How should I do this, and what is most efficient?"
USA	Precast is becoming most popular. The architects' role is significant in defining the façade materials: glass, steel, concrete, or brick. This decision gives guidelines to the whole building method selection. Precast is used in selected states.
Netherlands	Long tradition in precast building. "They are willing to do whatever it takes to use precast". Also, precast, because it is a fast way to build is seen as the only way; e.g. a heavy traffic road cannot be closed down for months for onsite bridge work, instead they build temporary floating roads over the channels to install a precast bridge "overnight".
South-America	Interest towards precast is awakening due to increased demand for housing with short completion times.
Seismic Areas	Precast is like building with "blocks", like Lego. Are there connections designed especially for precast building? Cast-in-situ is seen a safer solution (= traditional).

3.5.3 Precast Technology

The number of precast technology suppliers working globally is less than ten. They are all well known within precasters. Some are suppliers of one or two technologies some have technologies for all precast concrete products. In addition there are numerous, small, locally operating precast technology providers.

Because it is a young, niche business area, precast technology lacks standardized purchasing processes, and education. Buyers do not necessarily know what they want to buy. They do not necessarily even know the basics of precast manufacturing. An industrial purchasing culture is missing from the precast concrete business. Selecting the supplier can be just a random choice. Two approaches to purchasing can be seen: large precast companies with centralized purchasing departments and small precast companies with owners holding the top decision maker position. Factory managers of the large companies are the key deciders in supplier selection. He makes this, for him, once in a lifetime purchase using his occupational network, listening, and seeing become the main drivers for supplier selection. For the owners of the smaller companies, direct personal relationships with the supplier are emphasized. For both groups purchasing from a single source is preferred due to minimizing risks; if a purchase is divided among various suppliers the risk is on the buyer, from one source, the risk is on the supplier. (Korander 2012).

In 2009 it became obvious for precast technology suppliers that due to the global economic turmoil they needed to look into new markets for growth and existence. They are markets with a high demand for housing and the financial ability to invest in technology. The markets differ widely in the use of precast concrete depending on the development state of building construction. In this research the markets are divided into established and emerging. In the *Established* market building with precast is well known and widely in use, regulations, norms, standards and building methods for precast concrete are set. Also precast technologies are known and there are numerous precast manufacturers on the market. In this market structural designers and architects are familiar with the possibilities of precast. In the *Emerging* i.e. developing market building with precast is not widely in use or known. Therefore, standards, regulations, and norms are non-existing or vague. Structural and architectural designing with precast is not common practice nor well known. Precast technologies are known only by a few, and few if any precast manufacturers exist in this market. There are no associations, other trade forums or spokesmen for precast concrete on the market.

3.6 Data Collection

Issues like; receiving contacts from potential buyers too close to the supplier selection, with competing solution specifications already included, and existing customers of a product range purchasing from another supplier for another product saying “we did not know, you have that technology, too” started the steps towards IMC. This has needed research for the past ten years. In this ongoing economic turmoil, looking into emerging markets added another issue “we did not even know that company was looking into the technology also available from us” that started a thorough research, an in-depth case study on buyer information sources as part of the IMC development process.

Data for this research was collected by multiple methods; both quantitative and qualitative (Figure 21). Of methods suggested by e.g. Gummesson (2003), Yin (2009), and Patton (2002) surveys, interviews, archival records, and observation were used. An online survey and in-depth interviews were the primary sources. Monitoring, case company internal documents such as strategies, workshop notes and documents, websites, exhibition visitor questionnaires, and other literature and publications produced by the company were the secondary sources. Because it was an action research study, data was collected over a long period of time and included IMC development projects as part of the research. The inductive surveys and interviews are part of the strategy development process.

To answer the first research questions of this study “What are the preferred buyer information sources for industrial capital goods prior to supplier selection”, a survey on preferred information sources was carried out first. The aim was to draw a picture of the information source field by obtain quantitative information on the role of geography, age, and type of needed information on marketing communication channel selection by buyers. The survey was followed by in-depth interviews. The objective of the interviews was to deepen knowledge on the ranking of the most preferred information sources, to define who belong to the purchasing process as informants, where the need for solution arises, and how the members of the complex decision making process behave as informants prior to supplier selection. Then the results of these two studies were reflected with company IMC process, the action research of this study to answer the second research question “How does knowing the buyer information sources impact integrated marketing communication of industrial capital goods”.

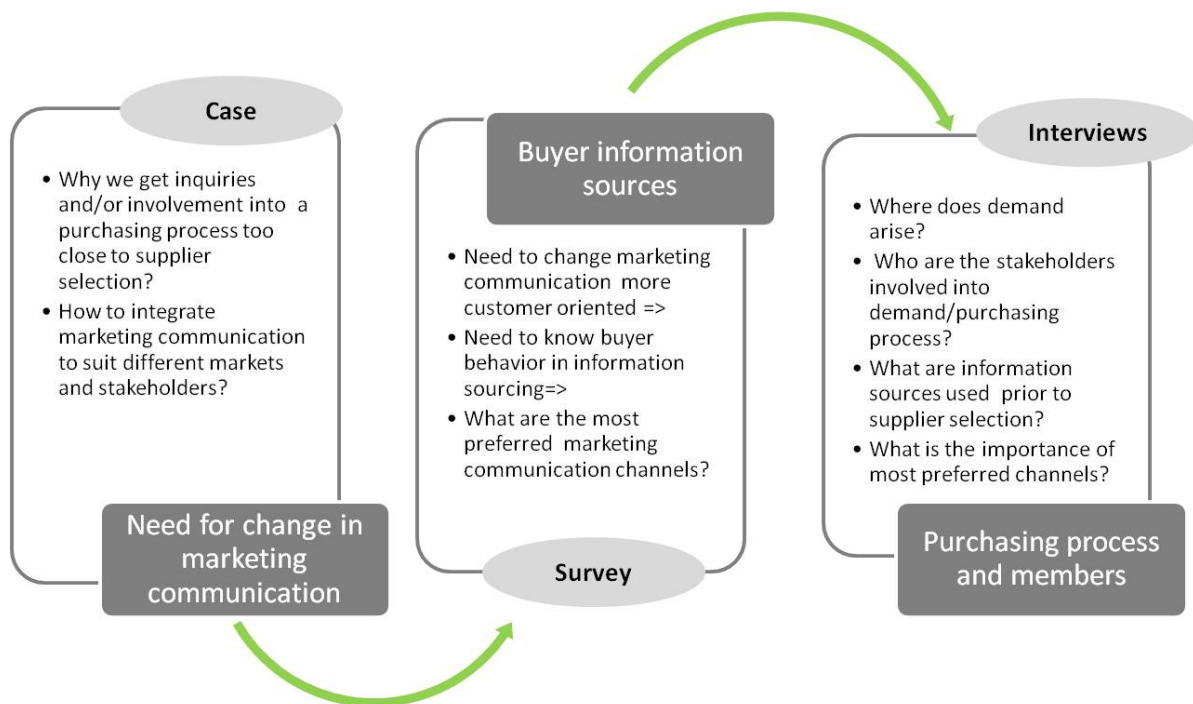


Figure 21. Data collection of this research

In addition, the tacit knowledge of the researcher on building construction and selection of the building method within was deepened by two interviews with experts (Korander, 2012; Suikka, 2012).

3.6.1 Marketing Communication Development of the Case Company

In 2003 the researcher, as marketing manager of the case company, started a continuous brand- and communication development process with three year cycles. Each cycle results in a marketing- and communication strategy for the next three years. A schematic timeline of the process is in Appendix 1. The initial objective of the process was to increase recognition of the company, strengthen its brand, and create effective sales tools and a wider range of communication methods. In the beginning, (2004-2006) the marketing and communication channels used were personal selling, an informative company website, brochures and other print materials, exhibitions and email.

In 2007 the marketing- and communication strategy for 2008-2010 created a new stakeholder, content, and channel definition. The project involved the researcher as active participant in workshops for three different groups: 1) core team (managing director, marketing and sales director, and researcher), monthly meetings 2) extended team (management team, relevant regional directors, decision makers of large-scale

projects, and researcher), four workshops 3) innovation team (core team supported by teams from brand- and communication agency, digital marketing agency as strategic consultants), five workshops. In addition, the researcher participated in six workshops led by consulting partners. Memos, notes, and workshop documentation were collected. The activities carried out during the strategy period were planned, designed and executed under the researcher's management, thus fulfilling the nature of action research.

In 2009 it became obvious, due to global economic turmoil that the case company needed to look into new markets for growth and existence. Also, it was noted that the inquiries from potential buyers, especially from the emerging markets, were received too close to supplier selection. The question that needed to be answered was; who are the stakeholders in the decision making process and how to reach them. The researcher, together with the brand- and communication agency team carried out a combined online survey on brand (the brand agency was responsible for designing that part of the questionnaire) and marketing communication channel preferences (the researcher was responsible for planning that part of the survey as part of this study). The results, which were reported thoroughly, were needed for the marketing- and brand communication strategy 2011-2013. At the same time, the managing director of the case company called for action to assess the current state of the company brand position. The researcher, together with the brand- and communication agency team carried out a competitor analysis. The outcome of the surveys and the analysis showed a need for change in brand positioning.

There were five workshops on brand positioning, led by the brand agency, where the researcher attended as an active participant. Members of the management team were also in attendance. In addition the researcher attended meetings with the agency to study the results of the workshops and prepare the documentation. After the new brand position was defined workshops for the new strategy took place. Altogether there were five workshops, six planning meetings, and three reporting meetings. The researcher participated in all of them. Other attendees included the management team and selected managers from all functional groups. The workshop and meeting memos were written, and the final documentation collected.

The online survey on preferred buyer information sources act as part of the data collection for this dissertation, and the researcher analyzed the results from this research's point of view. In order to integrate the marketing communication to suit different markets and stakeholders, in-depth interviews with case company sales managers and representatives in target areas were conducted to determine purchasing

process members and their behavior. The interviews were designed and all but one (in Russian) carried out by the researcher. All results were analyzed by the researcher.”

3.6.2 Online Survey Method and Sample

Due to the global nature of this research, an online quantitative survey was used to pre-answer the research questions: “What are the most preferred buyer information sources?” and “What is the influence of geography, age, and type of needed information on preferred source mix?” The questionnaire was designed in January 2010. The target population, as a sample of convenience, consisted of recipients, with email address, of case company customer magazine. The survey questionnaire (Appendix 2) had two sections a) brand issues and b) preferred information sources. This research only discusses the part b), which was built on concepts drawn from the framework (Figure 14, p. 48) The Webropol online survey tool, to which responses were given anonymously, was used for carrying out the surveys. The first part of the study, a survey (in English) was active for 2 weeks (26.2.-15.3.2010), during which time one email reminder was sent (9.3.). The invitation was sent personally to 2760 persons, of which 136 were case company employees. In the second part, a survey for the Russian-speaking countries (in Russian) was active for 2.5 weeks (14.10.-8.11.2010), during which time one email reminder was sent (2.11.). The invitation was sent personally to 325 contacts.

First the respondents were informed of the importance of replying to the survey. The background information gathered from the respondents included: age, country of residence, business sector, decision-maker group, and professional role. Data on preferred information sources were gathered by six questions including 13 information sources to choose from: 1= Trade Journals, 2=Exhibitions (in this survey the word exhibitions is used instead of trade shows), 3= Internet home pages (instead of websites¹⁵), 4= Search engines, 5= Public industry forums, seminars 6= Online publications, 7= Advertising, 8 =Brochures, other printed publications, 9 =Customer magazines, info bulletins, newsletters 10= Direct mailings 11= Sales personnel, 12= Social Media, 13 = Customer events. In addition there was an open field for “other source” in each question.

The respondents were asked to select the three most important sources for information needed on: 1) suppliers and contact 2) training options 3) production technologies 4) references 5) services and 6) technical products/machinery. The total number of

¹⁵ Websites include all, also social media sites in the Web.

responses was 257, of which 153 were precast manufacturers (buyer), 76 other external stakeholders and 26 employees of the case company (seller) as shown in Table 12. Responses were split over 62 countries. The survey response percentage was 8.3%, and the share of precast manufacturers of external stakeholder responses totaled 60.0%. 19.1% of the employees responded to the survey.

Table 12. Deviation of professional roles of respondents (N= 257)

Professional role	Percentage (%) of respondents
Precast manufacturer(= Buyer)	60.0
Seller's employee (= Seller)	10.2
Builder	3.9
Analyst	0.4
Consultant	5.5
Media	0.4
Distributor/Agent	6.7
Educator	0.8
Investor	1.2
Partner	3.1
Supplier	1.6
Trade organization	1.2
Other	5.1
	$\Sigma = 100\%$

Out of these different professional roles, the largest group (60% of respondents), precast manufacturers, as the main buyers for the case company's products were selected as a sample for closer analysis.

The age deviation of the respondents is shown in Table 13. Age groups of 36-45 (29.9%) and 46-55 (33.5 %) years were equally present among stakeholders, both having approximately $\frac{1}{3}$ of the share of responses. Over 20% of responses were from the group of over 55-group. For responding employees, 65% were up to 45 years old and 35% 46 years or older. For closer analysis the respondents are divided into two age groups: ≤ 45 and ≥ 46 .

Table 13. Age deviation of the respondents (N=254)

Age group	Percentage (%) of respondents
Under 25	0.8
25-35	15.7
36-45	29.9
46-55	33.5
Over 55	20.1
$\Sigma = 100\%$	

The responses for this study were collected and further analyzed for buyers (here precast manufacturers) on four selected market areas representing the case company's main market areas: Scandinavia, the Middle-East, Russian speaking countries of the Commonwealth of Independent States (CIS) and North-America (Table 14). Scandinavia and North-America represent established markets, the other two emerging markets. Although Asia is one of the main markets it was excluded from further analysis due to too few buyer responses. Western Europe, although an established but still market, was also excluded from closer analysis. The geographic deviation of buyers was analyzed in more detail to clarify the geographic differences in the preferred buyer information source. For detailed analysis on emerging vs. established market CIS and Scandinavia were chosen as samples.

Table 14. Geographic deviation and response rate of all respondents and buyers from different market areas

Market area	Number of respondents	Percentage (%) of respondents	Number of buyers	Percentage (%) of buyers
Scandinavia	64	24.90	27	17.65
Middle East	52	20.23	34	22.22
Europe, West	47	18.29	33	21.57
CIS	40	15.56	24	15.69
Asia	21	8.17	5	3.27
North America	14	5.45	10	6.54
Africa	6	2.33	5	3.27
South America	5	1.95	2	1.31
Australia and Oceania	5	1.95	5	3.27
Central America	2	0.78	1	0.65
NN	1	0.39	0	0

3.6.3 Interviews

The second part of data collection was carried out entirely through in-depth (Yin 2009; Gummesson, 2003), semi-structured (Saunders et al, 2009) interviews. The target of the second part of this study was to 1) deepen the knowledge of the importance of most preferred channels as information sources prior to supplier selection, 2) depict the need generation processes in emerging and established markets to find out the different types buying centers, 3) shed light on the composition of buying centers, and the roles of the members in the decision making process, from information search point of view, and 4) deepen the knowledge on the role on the Web in search of information. That called for interview questions, on: the purchasing process for capital goods, members within, information needed by buyers, and information channels used by buyers.

Instead of interviewing the buying center members themselves, the sales persons that serve them are interviewed as a “salesforce” survey, as suggested by Brinkmann and Voeth (2007). The interviewees (14 persons, P1 –P14, Appendix 3) represented case company sales managers, key account managers, and representatives in selected markets: Scandinavia represented the established market, the rest emerging and mixed markets. The sales people and representatives were chosen as informants since they have special knowledge on local industrial buying behavior. Also they have access to buying centers and can provide information on the structure of a) need generation and b) members belonging to the complex decision making process.

There was also an attempt to interview customers in selected countries, but that proved impossible, as they were unwilling to participate in phone interviews and face-to-face (F2F) interviews were impossible to arrange. The representatives interviewed were then asked to reply from the customer’s point of view (all representatives were natives of their territory). Because some of the sales managers have been living in their territory area for many years, they can be expected to possess customer and cultural insights.

The researcher tried to develop the questions in such a manner that they were not biased (Yin, 2009). The interview guide (in Appendix 4) is based on the revised literature reviews carried out after the on-line survey, and built on concepts drawn in the framework (Figure 14, p. 48). The participants were asked to participate in the interview to improve the case company’s marketing communication in a more customer valued direction. For this a requirements study was needed, i.e. information needed by customers in selected channels, and to find out how to integrate the information (contents, messages) throughout the selected channels. All but one interview was recorded, and notes taken.

The results of both the survey and the interviews are presented in Chapter 4 and combined for analysis and comparison to existing literature in Chapter 5.

3.7 Reliability and Validity

Is the research reliable and valid? Have all important factors been taken into consideration, identified and analyzed? What assumptions were made? What is the effect of limitations made? How reliable were the sources used in data collection? How can the results of the study be applied? These are questions that need to be considered when judging the reliability and validity of research. (Kauranen et al, 1992).

A major problem with the action-analytical approach (Olkkonen, 1994) and action research in marketing (Gummesson, 2000) is the generalizability of the results as there are only a small number of cases being studied. This is also the case with this study. According to many researchers (e.g. Gummesson, 2003; Yin, 2009; Olkkonen, 1993) using multiple methods increases the reliability, triangulation, of research. Mixing qualitative and quantitative methods (Jick, 1979), as in this study, to obtain multiple viewpoints allows for greater accuracy. Similarly organizational researchers, as in this study, can improve the accuracy of their judgments by collecting different kinds of data for the same phenomena. Another means of improving the reliability of a qualitative study is to develop quantifiable schemes for coding complex data. In this research, the interviews also contained quantitative questions, and a survey contributed to greater confidence in the ability to generalize of results. (ibid.).

4. EMPIRICAL RESULTS

In chapter 4.1 the case company is shortly illustrated, and an overview, depicting the action research in developing IMC, the case company marketing communication process is given. In chapter 4.2 the preferred information sources for buyers and seller is reported. Then, the survey results on the impact of influences: geography, age and information search target on preferred buyer information sources are presented. In chapter 4.3 the results of the interviews on the purchasing process of capital goods, and the importance of information sources in the early stages of the buying process are reported.

4.1 Case Company

The case company, with its headquarters in Finland, is a global marketer, founded in 1959, in a niche area of capital goods, precast concrete technology. It has daughter companies in the USA, Germany, and Russia, sales offices in the UAE, and China, and representatives in over 20 countries. The technologies sold can contain a single machine, a production line or a complete factory. These installed capital goods are marketed worldwide. The end products, precast concrete elements, are used in building construction. The end users are building companies.

The case company (see also Ch. 1.4) started with only one precast technology, and in domestic market. During its existence it has grown to become a complete supplier (technology, software, and services for any precast product) through acquisitions and research and development. Internationalization of the company started in the 1960s with the first delivery to Sweden, followed by Germany. The Middle-East was entered in the mid- 1970s, and Russia (then Soviet Union) in the 1980s. By 2000 the case company had become a global operator with customers in over 100 countries. Scandinavia, Western Europe, Middle East, and CIS represent the areas with the most deliveries, while South-America, Africa, India, China and Far-East Asia with few deliveries are still considered new markets with high potential for precast concrete.

Marketing and communication became an individual function in the case company in 2002. Since then there has been a constant development process (schematic timeline of the process in Appendix 1). Thus the company builds its marketing communication through a continuous communication process as shown in Figure 22. Communication strategy includes corporate-, marketing-, and internal communications, with brand building as a part of each.

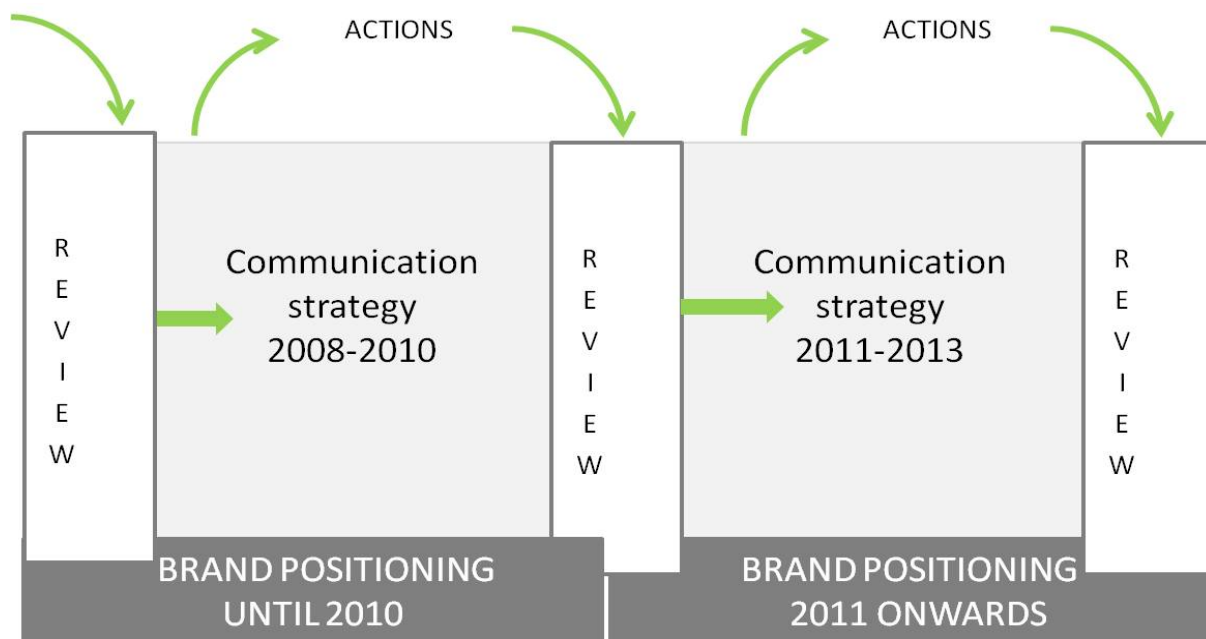


Figure 22. Communication process of the case company 2007-2013

This constant development process requires surveys and studies (Table 15) identifying stakeholders, determining what kind of information they need throughout the complex decision making process and what are the most preferred information sources they use. Additional surveys for monitoring awareness and brand image of the company are necessary for planning and developing a marketing communication strategy that integrates the multiple audiences, needed information, and channels resulting into targets set by the business strategy. These studies, being essential parts of the case company's overall communication strategy, function as preliminary studies, building pre-understanding for this research and depict the action research cycles of the company's IMC development. Also, the case surveys and interviews within this research not listed in Table 15, although taking a cross sectional snapshot from now, and reported separately, are attempted and designed to give answers to the action research questions and further development of the case company's IMC.

Since this research is focusing on marketing communication channels, the table lists the studies and surveys, their outcome, and the stakeholders and channels detected. The channels are listed in the order of importance as adopted by the marketing and communication strategies.

Table 15. Case company studies and surveys on brand and marketing communication 2004-2012

Surveys	Outcome	Stakeholders	Channels	Studies	Remarks
Public Image Survey, "Brand", 2004	Marketing and communication strategy 2005-2007	Customers Internal audiences Owners	Personal selling Internet, Print materials Reference articles Brand/image advertising Exhibitions	Internal study on marketing materials and buyers 2005 Benchmarking to competitors 2006 Web solutions "Current state analysis", 2007 Web solutions "User definition, requirements study technical definition", 2007	All print into the Web.
Brand communication survey 2007	Marketing and communication strategy 2008-2010	Customers: potential and existing Internal audiences Investors Media	Integration of channels Content First Web Exhibitions Personal selling SoMe	Brand positioning study, 2010	Sales leads via website analysing
Brand and communication survey, 2010	Marketing and communication strategy 2011-2013	Customers: 5 categories Personnel Agents Partners Investors Authorities Opinion leaders Media Suppliers	Web incl. SoMe Exhibitions Personal selling Trade journals References	Web solutions, current state analysis, 2011 Web solutions definition, requirements study, 2012	IMC – integration with localization Web centered IMC

The success in brand building and marketing communication is reviewed every three years, a new strategy is composed, actions planned and taken. Stakeholder analysis is part of the review, and the company business strategy forms the base for the whole process.

Towards globally integrated marketing communication

The presentation of the case company's marketing communication development is reflects to the second research question "How does knowing buyer information sources impact integrated marketing communication (IMC) of industrial capital goods"

depicting the circular process and changes made over time. The process is illustrated prior to the other research and sub-questions in order to help the reader follow the overall results gathered over a long period of time.

During the first decade of the 2000, the main market areas were mostly established markets where precast concrete as building material was well known. A brand management and marketing communication change program, targeting increased recognition, brand strengthening, openness, effective sales tools, offering wider communication methods, increasing speed of information delivery, accuracy in data, value creation both for selected stakeholders and the case company started in 2003 (timeline in Appendix 1). A marketing communication strategy, based on company business strategy, a public image survey, internal workshops, and designed guidelines was created. This strategy provided the company with strategic guidelines for brand management and development for consecutive three year periods. It presents the company's brand and positioning to strengthen its global market leadership, and sets goals and a profile, and the tools i.e. general messages and channels to reach detected stakeholders during the strategy period. The results were reviewed after each strategy period, and a stakeholder analysis, and brand surveys were carried out during. Changes in contents and channels of marketing communication were needed from review to review, due to variations in the stakeholder groups and markets.

For the period 2004-2007, the detected stakeholders for marketing communication were customers, internal audiences, and owners. The three most important channels for informing the audiences were personal selling, the Internet, and printed documents. All print was made available on the Web, both for sales personnel and customers to use. The marketing communication strategies were evaluated and approved by the management, and applied to all brand related communication. Marketing communication concepts and actions were planned accordingly.

During the 2007 review the stakeholder groups were widened into five by e.g. customers being divided into two categories. Also media was adopted as an important stakeholder as an opinion maker. Integration of channels took place, and all content was designed "web first". All company web solutions (three different integrated solutions to serve different audiences) were renewed after a thorough user definition requirements study in 2007. The Web was identified as the most important channel, exhibitions second and sales personnel the third. First social media channels were applied to the web services. Sales leads were detected via web site traffic analysis, and received through interactive parts of the web sites.

In 2010, due to entering the emerging markets, the number of stakeholder groups increased into 13 with five different customer categories. Non-buying stakeholders were taken into marketing communication's extended audience. Integration of the stakeholders took place. The Web, including social media, was seen as the most important channel for informing multiple audiences, exhibitions as second followed by personal selling. References were named as a channel for the first time. The brand- and communication surveys and competitor marketing communication analysis carried out in 2010 resulted in a brand position renewal and thereafter web solutions modification to serve multiple audiences in a global setting. Since 2011 the marketing communication of the case company builds on web centered global IMC.

4.2 Buyer Information Source Preference

The empirical results relating to the first research question "What are the preferred buyer information sources for industrial goods prior to supplier selection" and its sub-questions are presented in this chapter in order of gathering. The results of the survey are presented in four settings according to the research questions and objective, the target being rating of information sources, screening out the most preferred ones. First, for generic results, sources preferred by seller and all responded buyers for different search targets are presented. Secondly the same is presented according to from theory detected influences stated in sub-question 3. "What is the influence of geography, age and information search target on preferred source mix" starting with age groups. Then, for buyers, the impact of the influences: geography and search target on preferred information sources are reported. A full survey data is presented in Appendix 6. Seller results are from the respondents of the case company and the buyer results from respondents that are precast manufacturers. The respondents were asked to choose the three most important information sources, thus the results are shown in percentages calculated from amount of picks/number of respondents. This chapter ends with results ranking and importance of the most preferred information sources.

In order for the reader to follow the results they are not only described literally but shown in charts (preferences) and tables (ranking). The charts help visually in interpreting the channel preferences for a search target: as an example, which channels are most preferred for searching information on suppliers, which are not popular, or for which search target exhibitions are most preferred, which not.

4.2.1 Preferred Information Sources by Seller and Buyers

The results of the survey on preferred sources for searching information in the six different categories (called search targets in this study) 1) suppliers and contacts, 2) technical products, machinery (later machinery)¹⁶, 3) production technologies¹⁷, 4) services, 5) training options, and 6) references are shown for sellers in Figure 23, and for all buyers globally in Figure 24. The charts by search targets are presented in Appendix 5. Generally in both groups: sellers and buyers, the Internet home pages (websites) were mentioned as the most preferred source, percentages of responses being between 56.5-73.9 for seller, and 48.2-61.7 for buyers. Exhibitions ranked second with 22.7 – 56 % for seller, and 29.2-53.8% for buyers. Trade journals and sales people shared third place as the preferred information source for buyers, and sales persons ranked third for seller. Public industry forums and seminars (Public seminars in the charts), online publications, advertising, and customer events were mentioned by only 10-20% of respondents among the three most preferred information sources. Social media was hardly selected at all.

When examining the results by search target, Internet home pages were the most preferred channel, receiving percentages between 48.2-73.9% in both groups in all search target categories, except buyers ranked it second for information on production technologies. For information on suppliers and contacts the first three preferences in both groups were Internet home pages (60.9% seller, 61.7% buyers), exhibitions (47.8%, 49.7%), and sales personnel (34.8%, 29.5%).

For the seller, exhibition was also the second choice for machinery (sharing the ranking with sales personnel), production technologies, and training options, sales personnel for information on services, and references (sharing the ranking with customer magazines). Sales personnel were also the third choice for sellers for supplier and contact information, production technologies (together with trade journals), and training options. For buyers, exhibition was the first choice for information on production technologies and machinery, the latter sharing the ranking with the websites. Exhibition was also the second choice for training options, and references, whereas internet home pages were preferred for production technologies, and sales personnel for information on services. In addition to supplier information sales personnel was the buyers' third

¹⁶ Machines belong to the sub group *capital equipment* of capital goods. In this research's context machines are supplied to buyers who already are precast concrete producers.

¹⁷ Production technologies are complete lines and factories and belong to the sub group *complex products and systems, CoPS* of capital goods. In this research's context they are supplied to new precast concrete producers, or existing producers for expansion of operations.

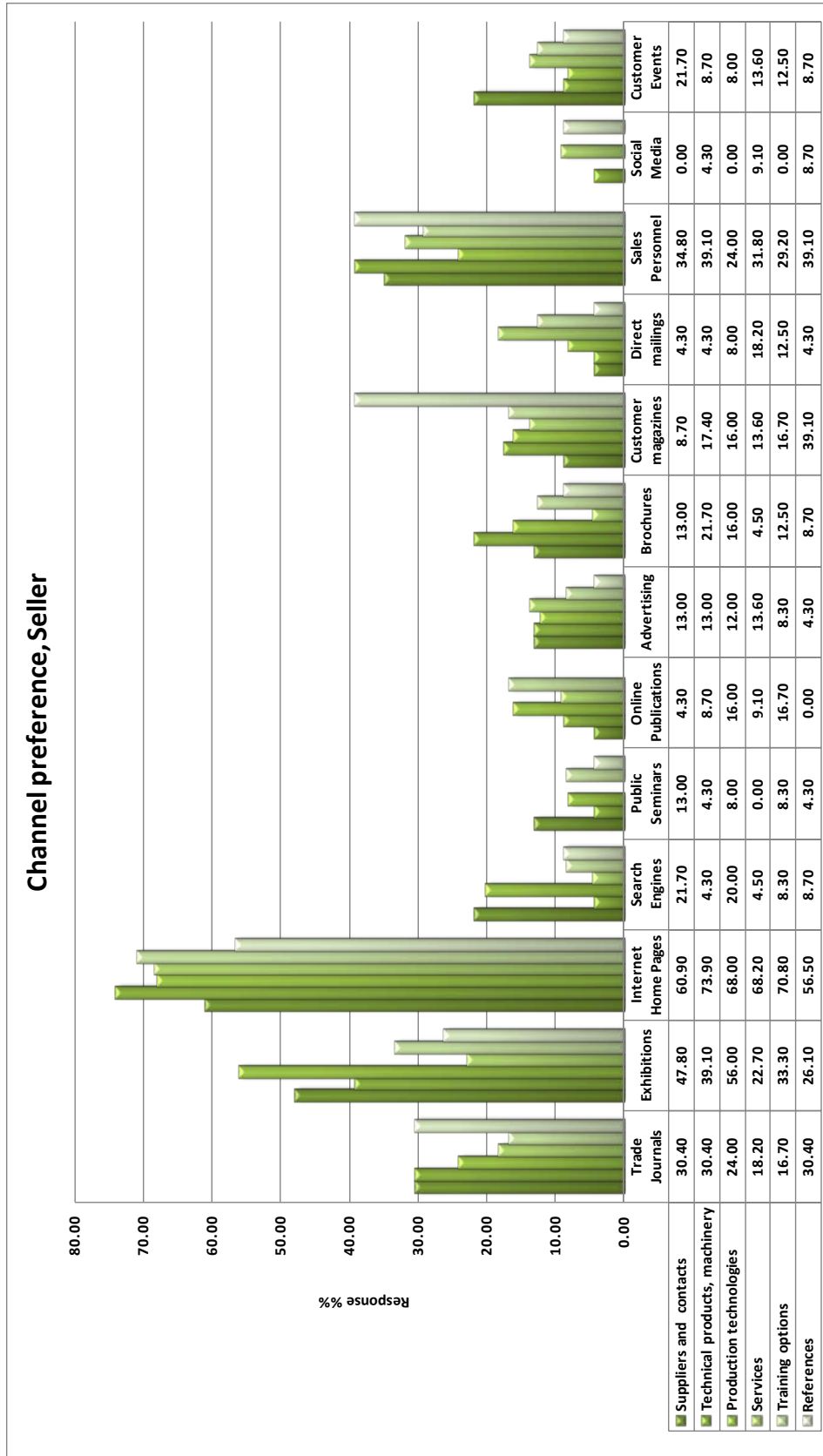


Figure 23. Marketing communication channel preferences by Seller for different search targets

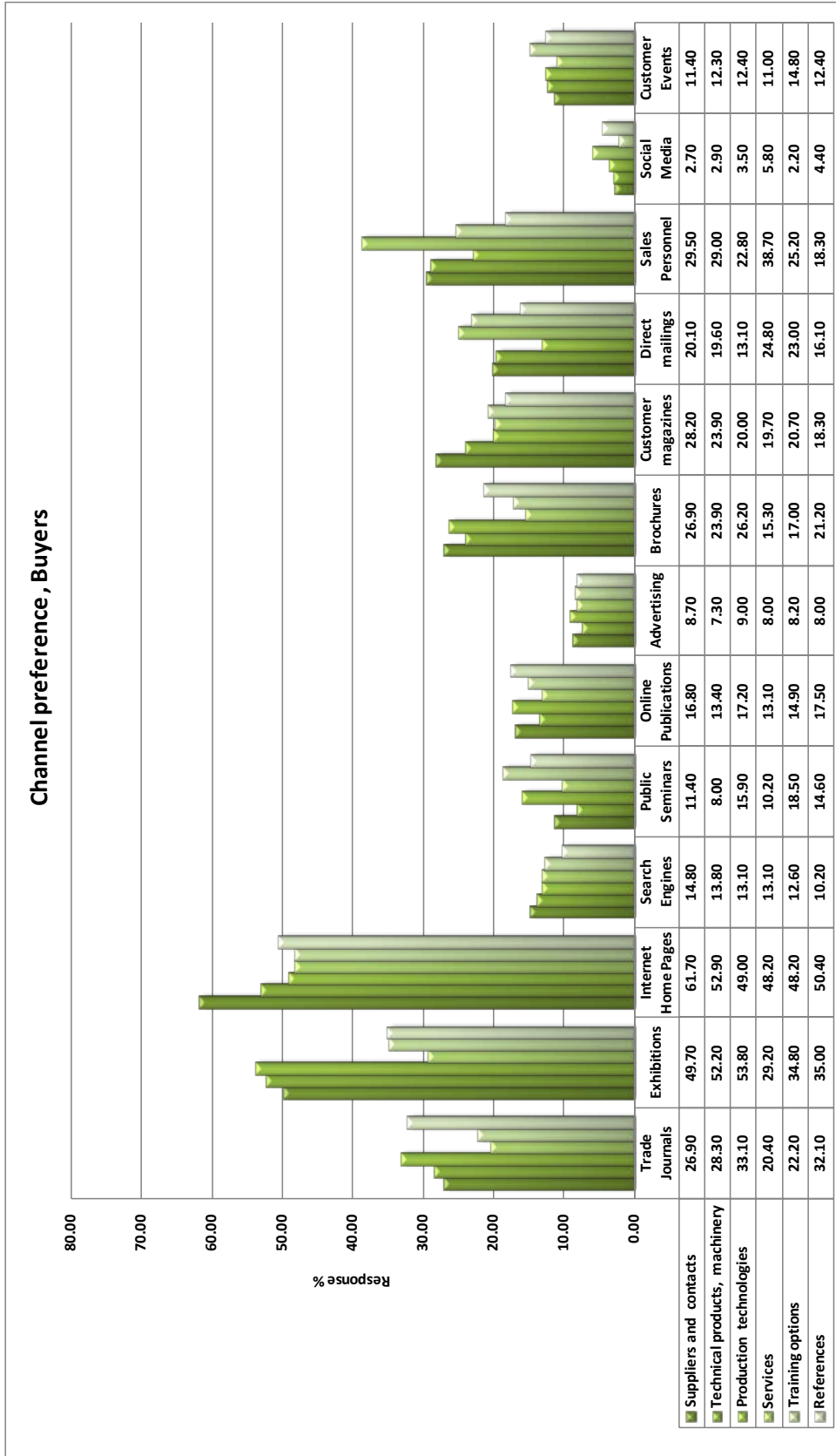


Figure 24. Information sources preferred by all buyers responding to the survey for different search targets

choice for training options. Trade journals were selected as the third choice for production technology, machinery, and references.

4.2.2 Impact of Age on Preferred Information Sources

According to survey results, Internet home pages and exhibitions are mentioned as the two most preferred information sources for both age groups: < 46 years (Figure 25), and ≥ 46 years (Figure 26). The third most preferred information sources for respondent up to 45 years varied from trade journals (for production technologies and references) to brochures and other printed materials (for suppliers and contact information), sales persons (for services), and direct mailings (for machinery and training options) depending on the information category. For respondents in this group sales personnel was seen as an important source only for services. Respondents 46 years and over definitively included sales personnel in three most preferred information sources (second for training options and services, third for suppliers and contact information). Advertising and social media were the least preferred information sources for both age groups.

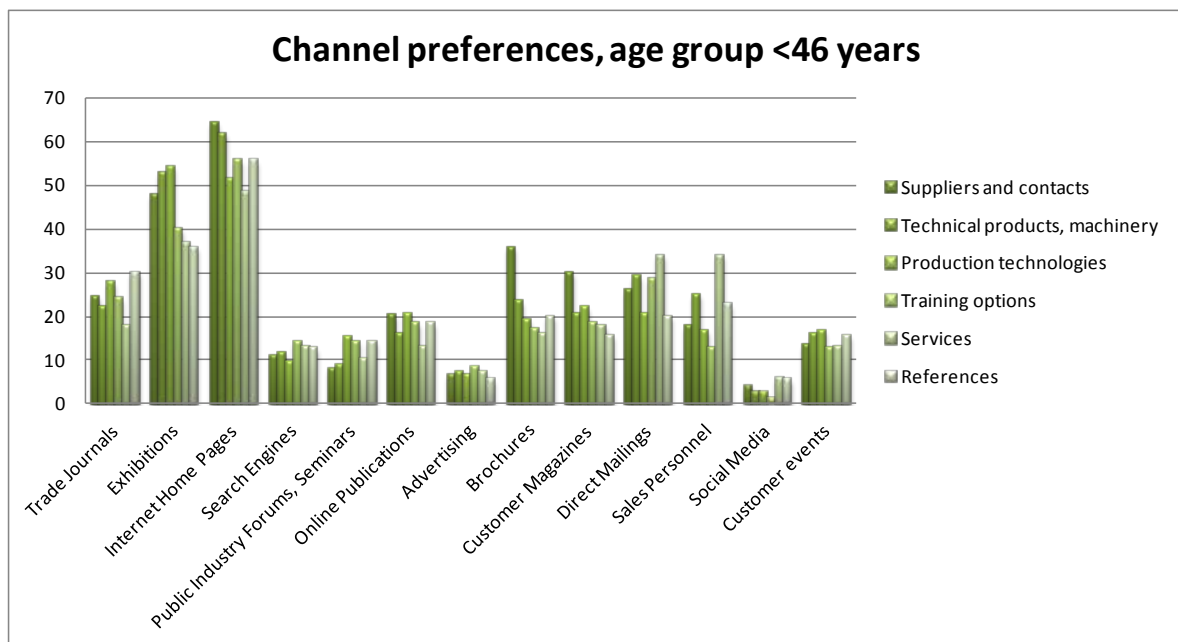


Figure 25. Information sources preferred by respondents <46 years of age for different type of needed information

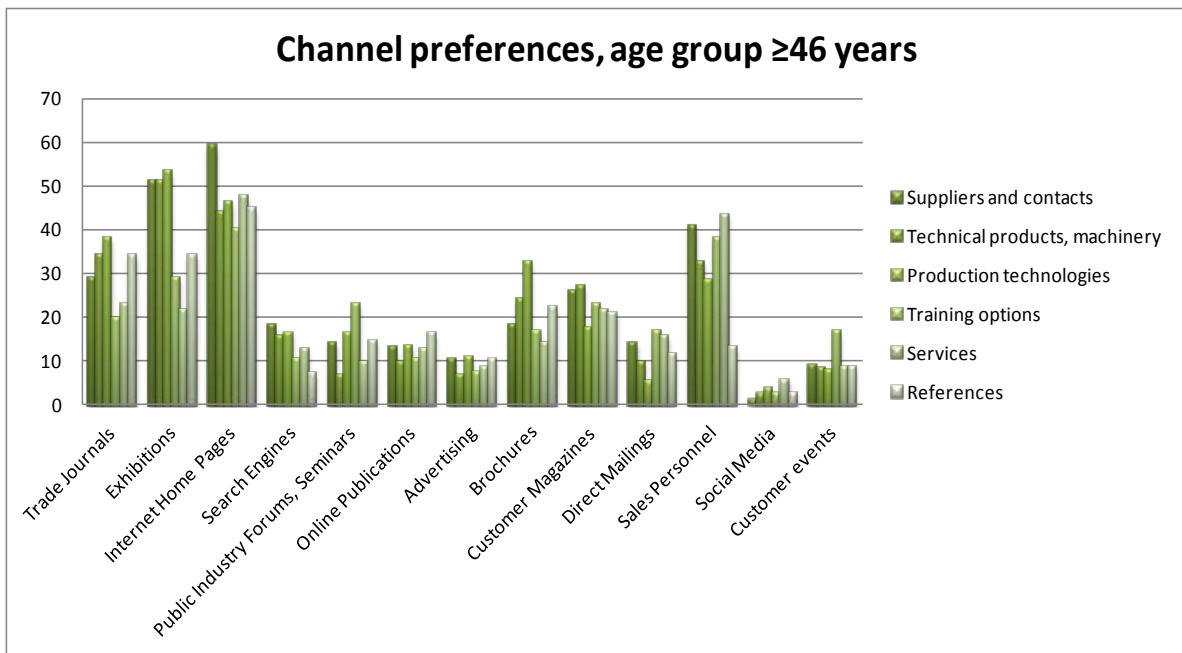


Figure 26. Information sources preferred by respondents of ≥46 years of age for different information search targets

4.2.3 Impact of Geography on Preferred Information Sources

This sub chapter reports the results for buyers by market areas, Scandinavia (Figure 27), North-America (Figure 28), the Russian speaking market (CIS) (Figure 29), and the Middle-East (Figure 30). In Scandinavia, as shown in Figure 25, Internet home pages were clearly the most preferred buyer information source. It ranked number one for all information search target categories, sharing the position with sales personnel only for information on services. Sales personnel was preferred second and direct mail and customer magazines the third most important information source. Exhibitions were mentioned as the most important source in all categories in the Russian speaking markets (Figure 27). Internet home pages and exhibitions both ranked second for searching information on references and trade journals were the third preference in information sources. The importance of exhibitions as an information source also seems to be high in the Middle-East and in North America. In the Middle-East exhibitions received the highest ranking in all information categories but services, and Internet home pages were within the three most important information sources in all categories. In North America exhibitions were among the three most important sources for information on all other categories but services. In the Russian speaking areas, online publications and public industry forums and seminars were clearly more important than in other areas. Brochures and other printed materials were among the three most preferred information sources in few categories and only in the Middle-East.

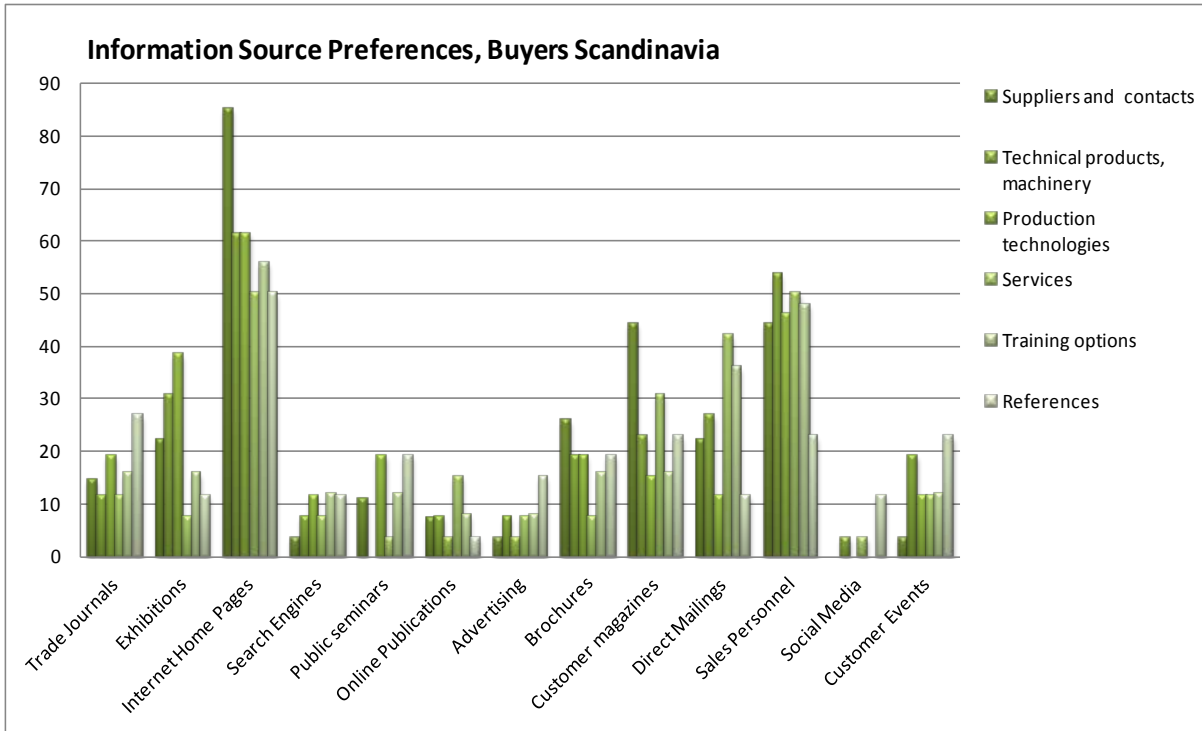


Figure 27. Preference of buyer information sources, Scandinavia

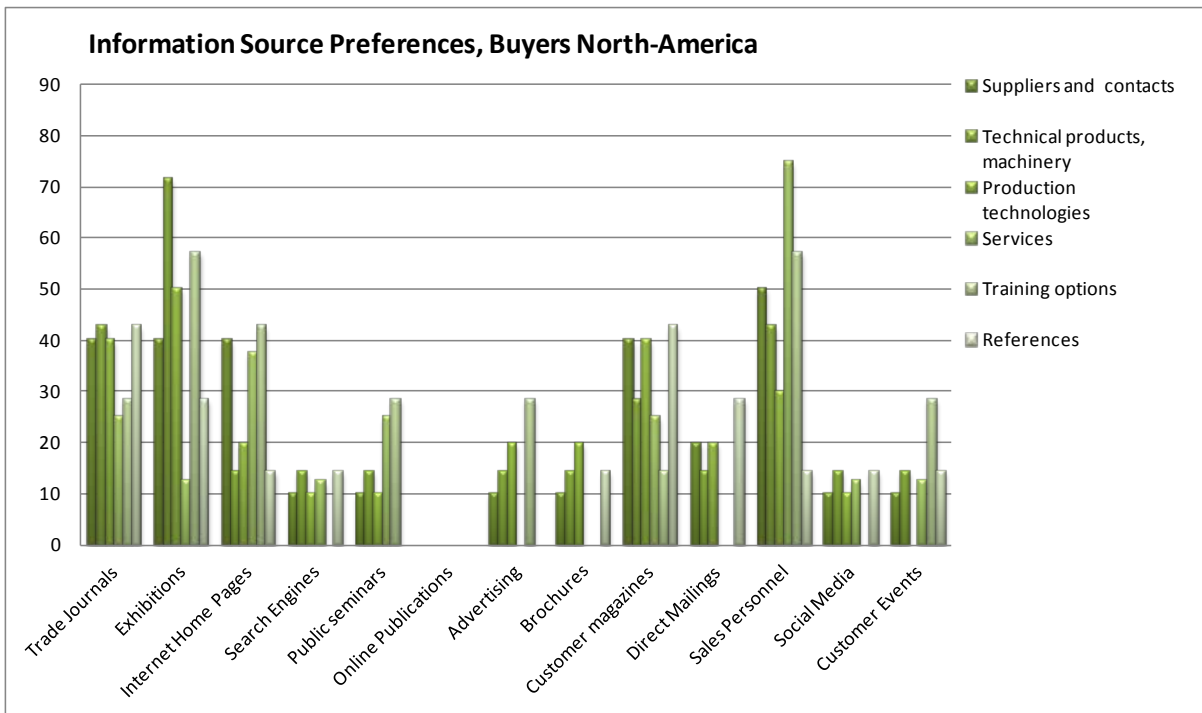


Figure 28. Preference of buyer information sources, North-America

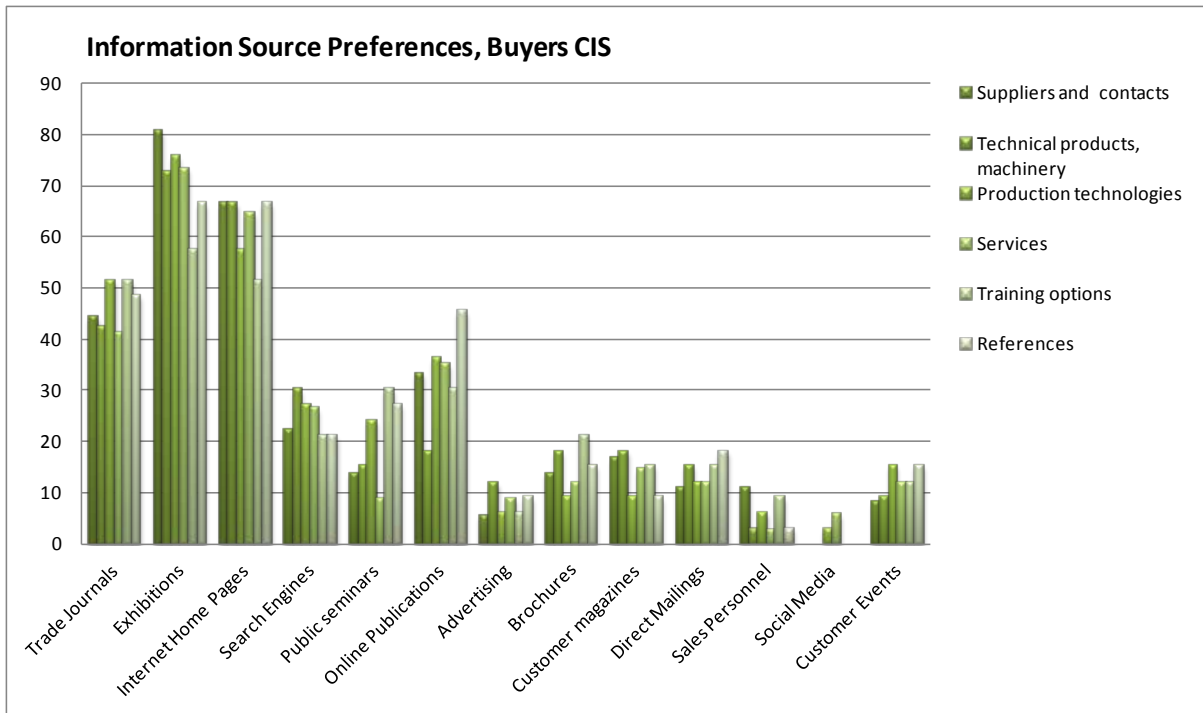


Figure 29. Preference of buyer information sources, CIS

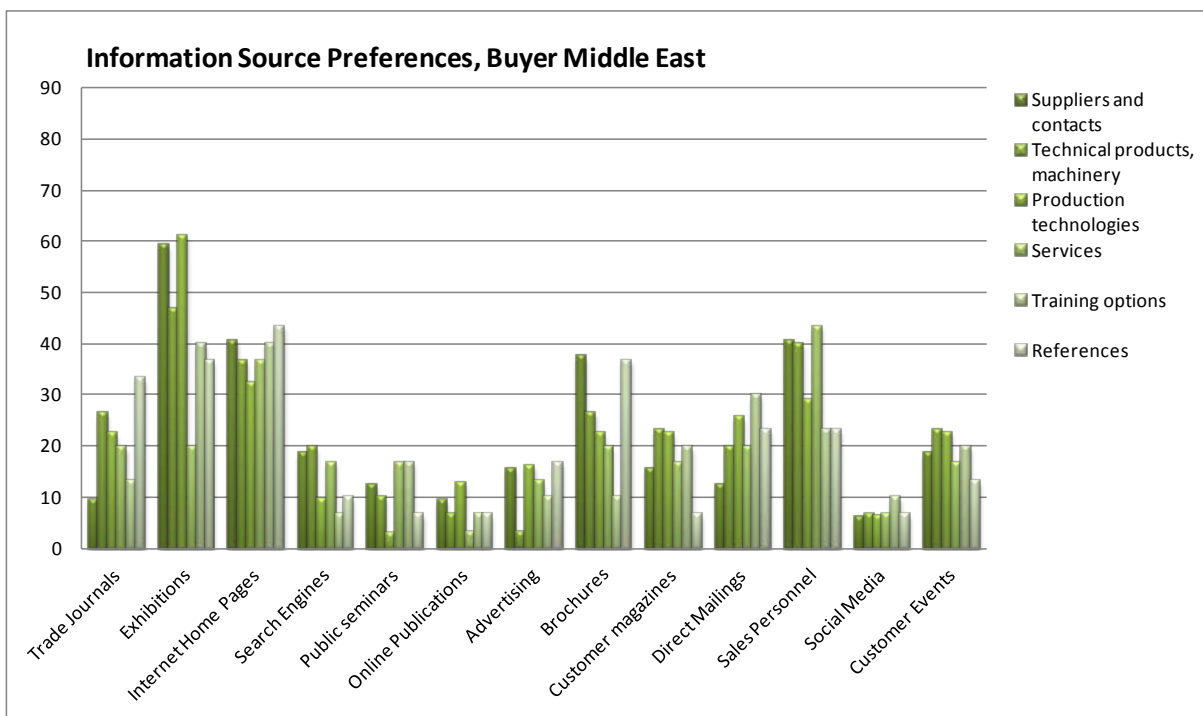


Figure 30. Preference of buyer information sources, the Middle-East

4.2.4 Impact of Search Target on Preferred Information Sources

In this chapter, the results for channel preferences according to information search targets are first presented for one established market, Scandinavia, and for one mixed market, CIS, the countries within CIS having nationally both established and emerging

market areas. Then the results of sources for information on industrial capital goods; production technology and machinery are presented for the same two areas together with seller preferences.

The survey results show that in Scandinavia (Figure 31), the most preferred source for information in all categories is Internet home pages: 85.2% of the respondents picked it for information on suppliers and contacts, 61.5 % for machinery and production technologies, 56% for training options and 50% for references and services. Sales persons as an information source for services was picked with 50% score. Sales personnel are the second most important source of information, for references only trade journals are mentioned as the second. Advertising, customer events and social media received the least mentions as an important source. For Russian speaking buyers (Figure 32), exhibitions and Internet home pages overrule all other sources with high importance percentages (up to 80.6%). Exhibitions are the most preferred information source for all categories. Internet home pages share the position for references. Internet home pages are selected second for all others, but training options are also as often sourced via trade journals (51.5%). Advertising, social media, and sales personnel are mentioned as the least important information sources. Only 3% selected sales personnel as an information source for machinery and references.

For the two capital goods groups; machinery and technical products the results are presented in Figure 33 (production technologies) and in Figure 34 (machinery) for seller, and buyers from Scandinavia and the Russian speaking areas. The results show that preferred information sources vary between the groups and also between the information search targets in question. Scandinavian buyers (61.5%) and seller (68%) prefer Internet home pages as the most important information source for production technologies, while the Russian speaking buyers (75.8%) prefer exhibitions. For machinery Scandinavians (53.8 %) rely on sales personnel as the most important source, Russian speaking people on exhibitions, whereas seller finds the Internet home pages the most important. Generally the results show that the Russian speaking market prefers Internet based channels (home pages, search engines, online publications, and social media) more than the seller or the Scandinavians.

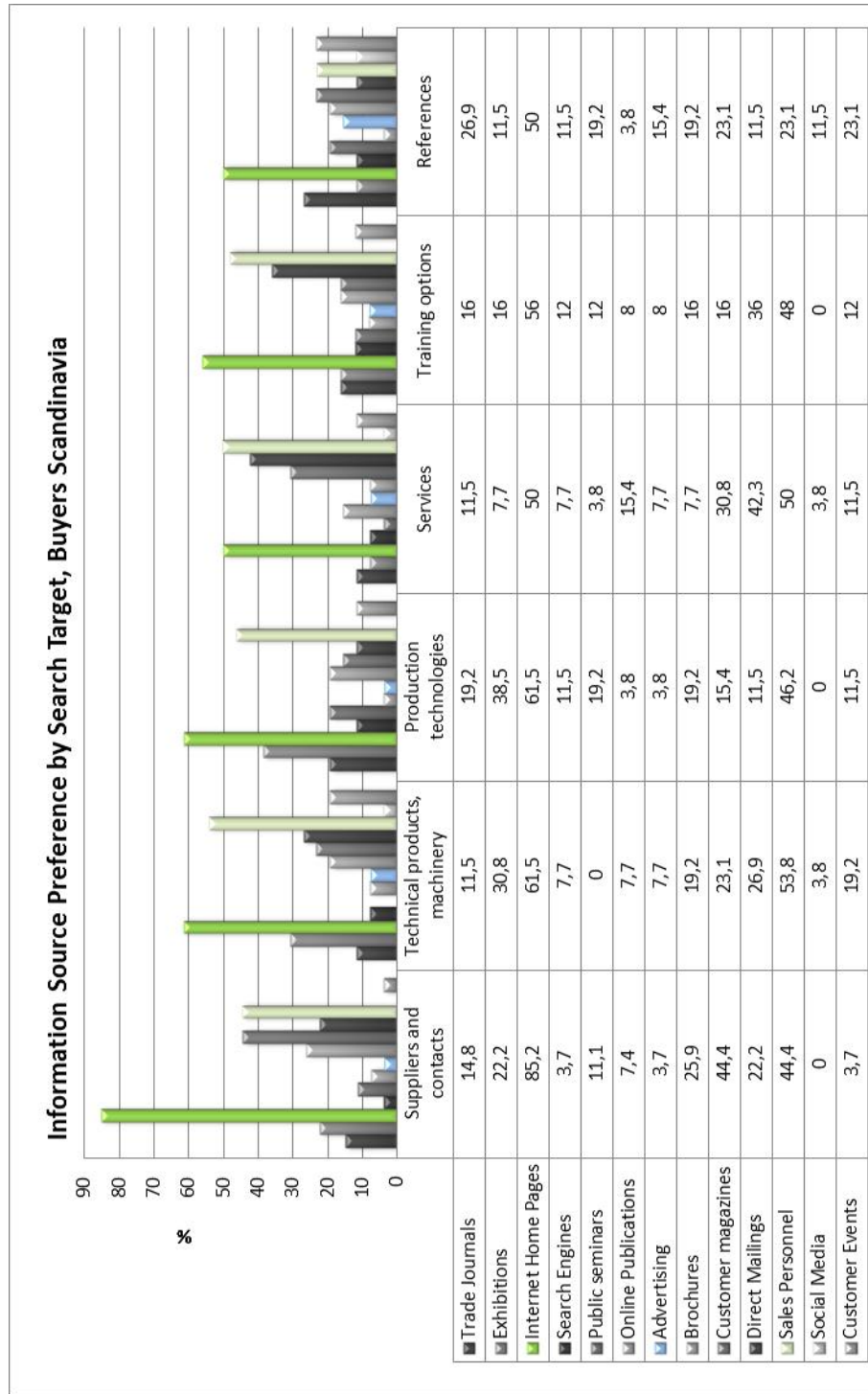


Figure 31. Preferred information sources of Scandinavian buyers for different search targets

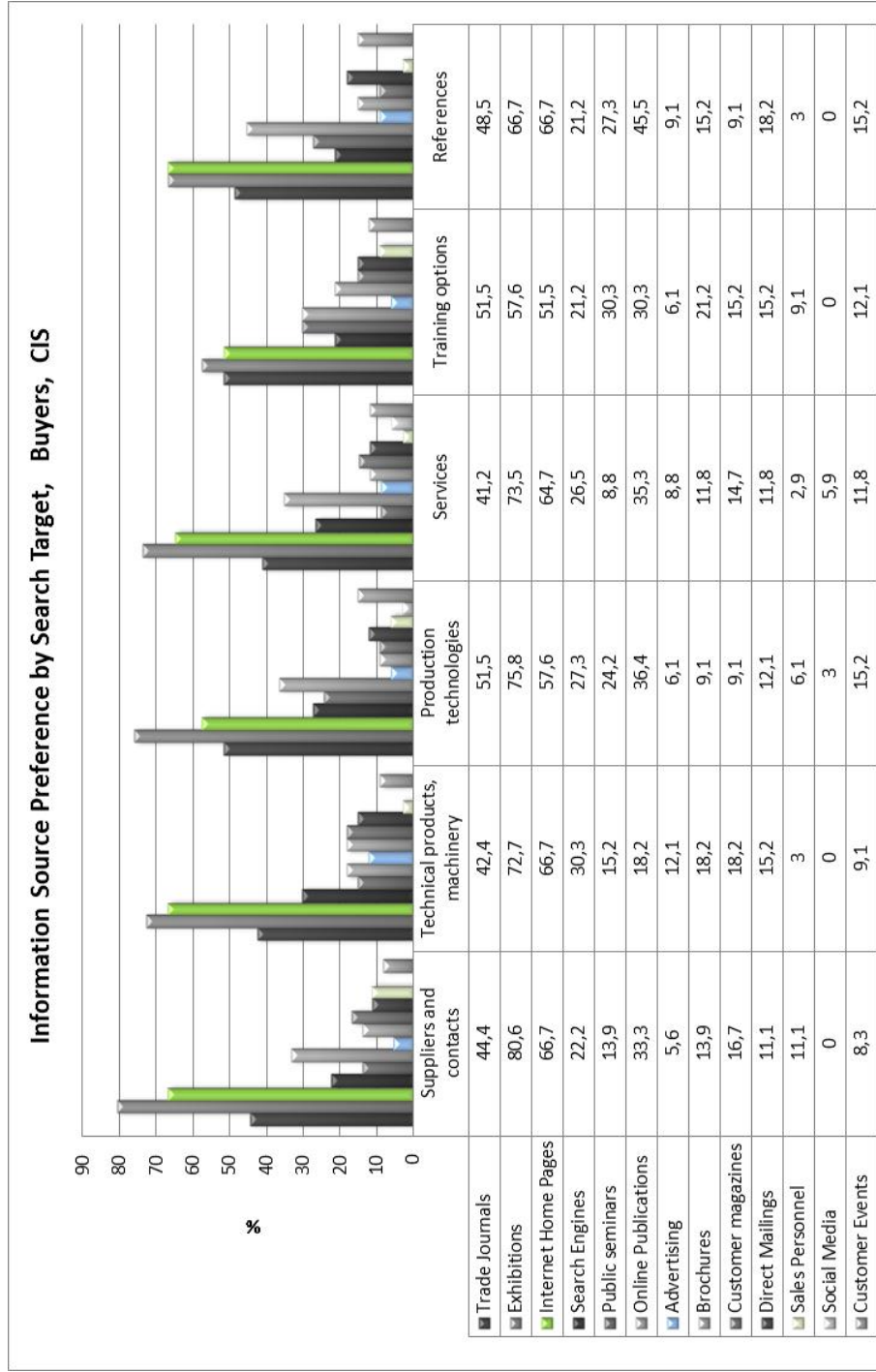


Figure 32. Preferred information sources of Russian speaking, CIS, buyers for different search targets

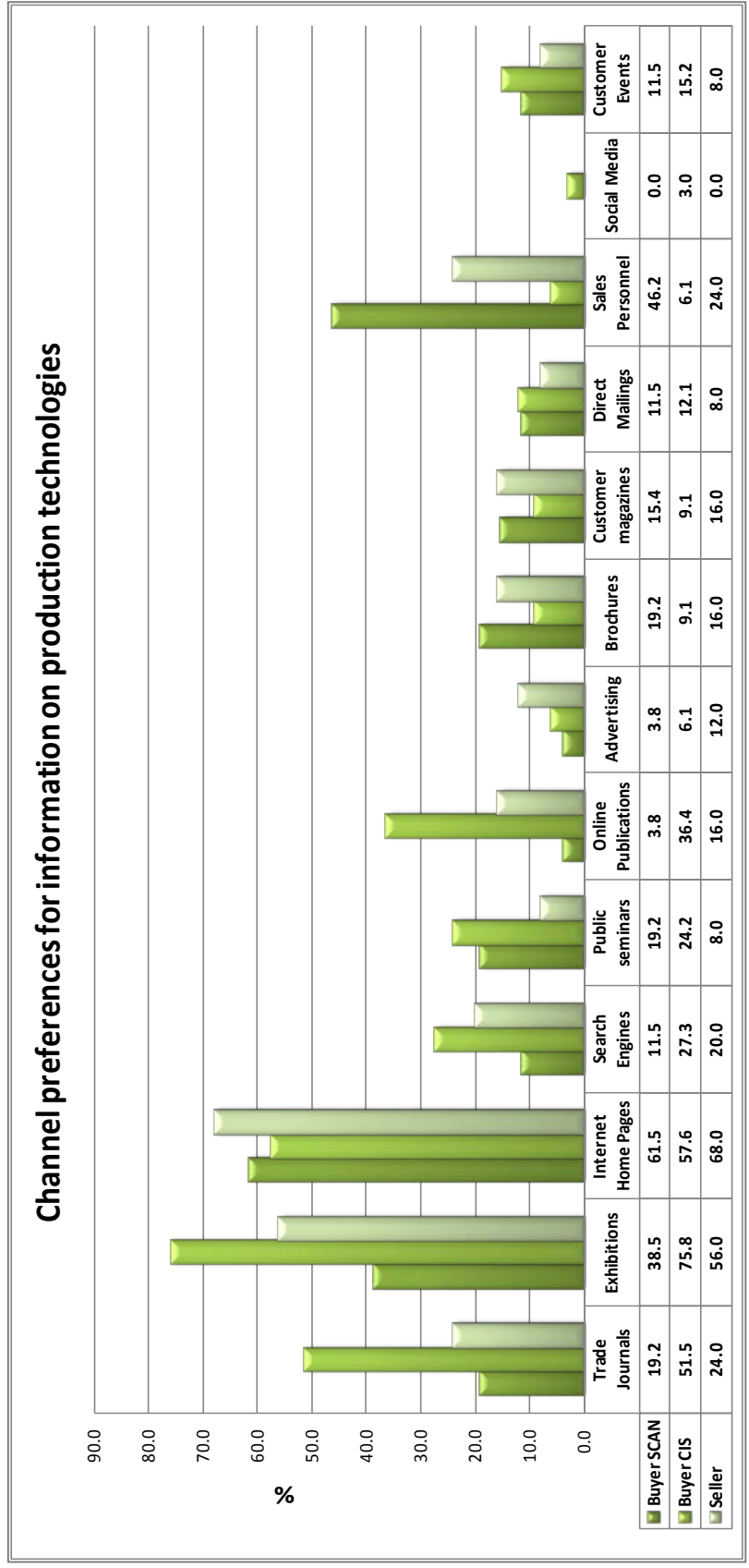


Figure 33. Information source preferences of Seller and buyers from CIS and Scandinavia for production technologies

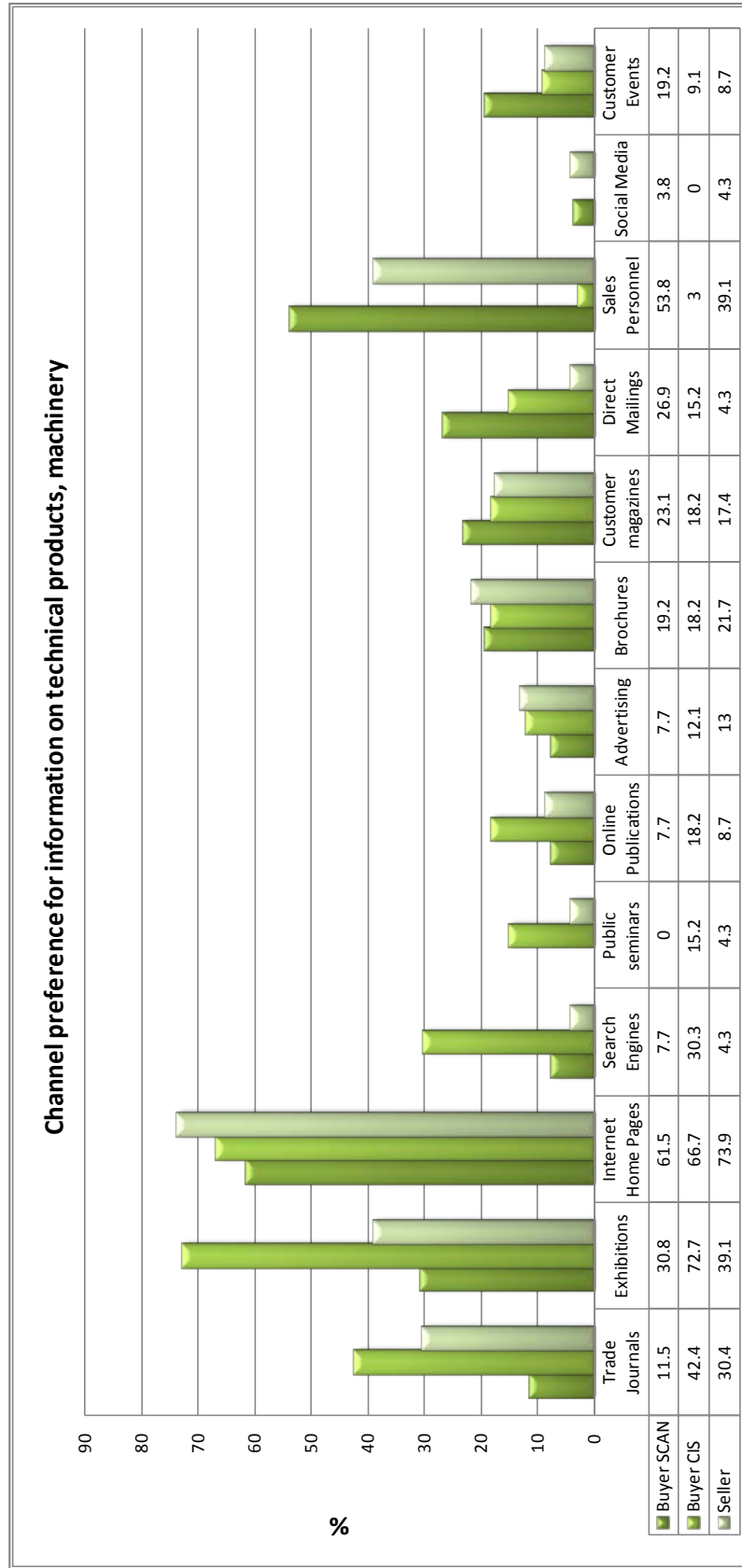


Figure 34. Information source preferences of Seller and buyers from CIS and Scandinavia for machinery

4.2.5 Ranking of Information Sources

Table 16 depicts the ranking of information source preference for two sectors of capital goods; production technologies (PT) and technical products, machinery (M) in two different areas: Scandinavia, and the Russian speaking area (CIS). For reference, ranking for all buyers and seller is also included. The rankings are based on the preference percentages presented in Figures 32 and 33. The results show also that for technical products and machinery ranking of preferred information sources within one area or group differs from that for production technologies. The three most preferred information sources received high percentages of responses whereas the following sources did not differ much from each other in importance. Exhibitions and Internet home pages are for all seller/buyer groups and for both product groups in three most preferred information sources.

Table 16. Ranking of preferred information sources for machinery (M) and production technology (PT) in one emerging and one established market, and for all buyers and seller

Source	Rank Seller		Rank Buyers All		Rank Buyers Scandinavia		Rank Buyers Russia, CIS	
	PT	M	PT	M	PT	M	PT	M
Exhibition	2	2	1	2	3	3	1	1
Internet home pages	1	1	2	1	1	1	2	2
Trade Journal	3	4	3	4	4	8	3	3
Brochures and other printed publ.	6	5	4	5	4	6	9	6
Sales Personnel	3	2	5	3	2	2	11	12
Customer Magazines, Newsletters	6	6	6	5	7	5	9	5
Online Publications	6	8	7	9	11	9	4	5
Seminars, Public industry forums	10	10	8	11	4	9	6	8
Search Engines	5	10	9	8	8	9	5	4
Direct Marketing	10	10	10	7	8	4	8	8
Customer Events	10	8	11	10	8	6	7	11
Advertising	9	7	12	12	11	9	11	10
Social Media	13	10	13	13	13	13	13	13

For buyers in CIS the three most preferred information sources for both machinery and production technologies are exhibitions, Internet home pages, and trade journals. For buyers in Scandinavia the order is Internet home pages, sales personnel, and exhibitions. Sellers prefer Internet home pages, exhibitions and trade journals for production technologies and Internet home pages, sales personnel, and exhibitions for machinery. For the global Buyers group the order of preference is exhibitions, Internet home pages, trade journals for production technology and Internet home pages, exhibitions, and sales personnel for machinery.

Advertising is ranked between 7-12, social media 10-13, sales persons 2-12, trade journals 3-8, customer events 6-11, direct marketing 4-10, search engines 4-10, seminars and public industry forums 4-11, online publications 4-11, customer magazines and newsletters 5-9, and brochures and other printed publications 4-9.

4.2.6 Importance of Most Preferred Information Sources

In-depth interviews were used after the survey to deepen the knowledge on the importance of the most preferred information sources in the early stages of the purchasing process prior to supplier selection. In the interviews the three most referred information sources of the survey: Internet (in a broader extent), trade shows (exhibitions), and trade journals were discussed in more detail and ratings were given (in scale 1-5, 1= not important 5= very important). Also the interviewees were given the option to bring up other important sources into the discussion. Table 17 gives the ratings of importance for the most preferred information sources used by buyers in the early stages of the purchasing process. According to the data received from the interviews, the countries have been divided into emerging and established. Scandinavia, South-Korea, Japan, the Baltic countries, and United Arab Emirates, Bahrain, and Qatar represent established, while Brazil, China, India and the Philippines are emerging markets. Three areas covered by the interviews; Russia, Saudi-Arabia, Ukraine/Belarus, have features of both type of markets and are thus mixed markets. This is a result of the fact that these markets are large, and only in some parts of them, that are close to established markets, is precast concrete known.

The Internet¹⁸, company websites, is evaluated 4 or 5 in all established and emerging markets. In mixed markets it is graded from 2 to 5. As an information source trade journals received low rates, mainly 2-3 in all markets, whereas exhibitions were valued somewhat higher. References, namely reference visits, were valued the most important by all those interviewees, who gave a grading for it. Word-of-mouth (WOM) was mentioned by all but one interviewee as one of the most important information sources. Out of other channels, social media, Google, online journals, reference articles, face-to-face (F2F) meetings, networks and friends were mentioned as important sources. According to the interviewees the importance of WOM and friends in building trust and lessening risk level is greatest in the emerging markets, where both the supplier and the technology is new.

¹⁸ The informants used the words websites, Internet home pages, and company websites interchangeably for other than social media- and search engine websites. Also Internet and Web were used as synonyms.

Table 17. Importance of most preferred information sources in different countries

Country	Emerging, EM Established, ES	Internet, Company Websites	Trade Journal	Exhibition	WOM	Reference	Other, Remarks
Baltic countries	ES	4-5	2	2-3	x(5)	x(3)	Google, SoMe (5) Online journals (5)
Brazil	EM	5	2	3		-	-
China	EM	-	-	2	x	x	-
India	EM	5	3	4	x	-	Google, Reference articles
India	EM	4	-	5	x(4)	x(5)	Friends, Google
India	EM	4	-	3	x(4)	x(5)	-
Philippines	EM	5	3	5	x	-	SoMe is growing fast
Philippines	EM	5	-	-	x	-	F2F(5)
Philippines	EM	5	3	-	x	x	YouTube, Blogs
Russia	ES/EM	3	4	3	x	-	Seminars
Russia	ES/EM	3	3	4	-	-	-
Russia	ES/EM	5	3	4↓	x(5)	x(5)	Friends, SoMe WOM 5 for leaders
Saudi-Arabia	ES/EM	2	2	4		-	-
Saudi-Arabia	ES/EM	4	3	5	x(5)	x(5)	Reference article, Networking Google
Scandinavia	ES	5	-	3-4	x	x	-
Scandinavia	ES	4	2	3-4		x	-
South-Korea/Japan	ES	-	-	1	x	x	-
UAE, Qatar, Bahrain	ES	5	1-2	3-4	x(5)	X(5)	Friends Google
Ukraine/Belarus	ES/EM	3↑	4	4	x(5)	x(3)	Online journals 5 in the middle of purchasing process

The importance of different information sources were described by some of the informants (P1-P14) as follows:

Internet

P4 *“And we have noticed that in India Google has become the mother of all communication and all that. So that people are fast going to Google website and putting precast and technology and all that. So it is something you can do is optimizations where customer puts precast and [case company] name comes first. Google is one of the most effective and used tool in this kind of environment...”*

P14 *“From my point of view it will be more and more kind of interactive, and it makes Internet even more important. So then I am afraid that finally we’ll have just the Internet and second is face-to-face meetings. That is how it looks like.”*

- P4 *"Importance depends on the type of company and person manufacturing people 1 construction people/structural engineer who actually look for the solution 5."*
- P14 *"It [website] never depends on weather conditions, it is always available. I think everything will go online"*
- P7 *"The good thing about the Web is that it can be surfed"*
- P4 *"Yes, they read primarily online journals, they get accurate information from the Web... if something known needs to be get, then they Google"*
- P10 *"Online magazine is good, it is quite superior here [Middle-East], because here aam, while anyhow it is always a gamble to get the post to the destination"*

Trade Journals

- P4 *"We have learned lately that people read these magazines ... they are not looking for this kind of marketing information. They are looking for from these kinds of magazines are real documentary stories like true stories... Yes, they are looking for real case studies and that is ... 80% of all our media in reality shows.... and they are looking for real case studies, that they can feel it, they can touch it and so on."*
- P10 *"They are not seen here on people's desks, but in those companies, but where there are still European managers, in those, but it does belong to the European education that one reads magazines. But now there is the generation change... and they go to the Web to read... so, these young people, we have discussed, there in their forties, they don't even read newspapers anymore"*

Exhibitions

- P14 *"A couple years ago it would have been exhibitions, but today Internet it is a 5 definitely."*
- P4 *"During exhibitions we have been able to get contacted to a couple companies. Exhibitions are a very important display window for us. Different thing is then it that do we find such people from the companies, who start to push forward this, our solution. "*
- P10 *"Being at exhibitions tells, it shows, to both new and old, existing that the company is committed to that market area where it is attending to the exhibition, because everyone knows how expensive it is. .. it gives credibility"*

Social Media

- P14 *"[...blogs] Look at way social media it is kind of blowing, it is expanding like explosion. It means that the people need that"*

Seminars

P8 *“Here in Philippines structural designers are the ones that need to approve precast. They go to seminars to get information.”*

P9 *“[in Brazil] opinion leaders, architects, listen to speeches in seminars, congresses and conferences, read articles and search the Internet”*

4.3 Purchasing Process of Capital Goods

The results of data gathering answering sub-questions “Who are the different members of the complex decision making process in a global setting” and “By whom, within the purchasing process is the information sourced” are presented in this chapter. Also buying centers as forums for complex decision making depicting the stakeholders are presented. In-depth interviews were used to deepen knowledge of the 1) demand process, first for a need for precast concrete, then for the precast technology, stakeholder groups involved and the information flow within them, and 2) the purchasing process members, who participate in complex decision making. From marketing communication point of view it is necessary for the seller to know who all participate in the complex decision making, where the need for the capital goods originates, and how the information search is carried out. Also, for IMC the differences among different markets are essential to know. According to the interviewees, the purchasing process varies from established to emerging markets mainly in two ways: 1) Demand generation and 2) stakeholders involved into the complex decision making process. The researcher has analyzed and interpreted the taped interview recordings and notes to come up with the results presented here. Also researcher’s long personal experience in sales and marketing in the field has helped in the interpretation process.

4.3.1 Demand Generation and Stakeholder Groups

Interpreting and analyzing the interviews show that in emerging markets (Figure 35) the demand originates from city, state, and government housing programs, flowing through developers to builders and to companies, who wish to become precasters. The main drivers of demand are speed of construction, quality and overall costs. This means that the “original” need is to build a number of quality housing units in a set time economically, and then to find the precast products to build them with. Finally, if precast has been chosen as building method, the demand reaches the precast technology supplier. At this stage the precaster-to-be must find the supplier for production line(s) for the precast products defined by the builder. New precast manufacturers in this context are typically small family owned companies, and can be a concrete producer, a building material manufacturer or a general investor. The

developers employ architects and structural designers to design the projects. Builders use different kinds of consultants to study, and choose the most feasible methods of construction taking into account norms, standards and regulations set by authorities and other organizations. In some cases, due to external financing, precast has been set as the building method. The decision on the method is generally made by the builder.

P4 *“If you take back 4-5 years, all construction projects were small I am talking about 50000 sqm. It was easy to get workers. Now Indian government has set some kind of rules and regulations the villagers do not come to work to big cities. Now the projects are, no matter who we talk with are big 200000 sqm in one year. The money is coming from Europe and all that. Lot of direct coming from outside and asking why are you not using precast or other mechanized construction method. Now the projects are bigger and the money is coming from outside.”*

In this situation there are at least four stakeholder groups for the supplier to feed information to and build awareness of both the company brand and its offering: potential precast manufacturers, builders (including their consultants, related authorities, and regulators), developers (including the architects and structural designers employed or used by the developers), organizations governing the housing programs, and all influencers within them.

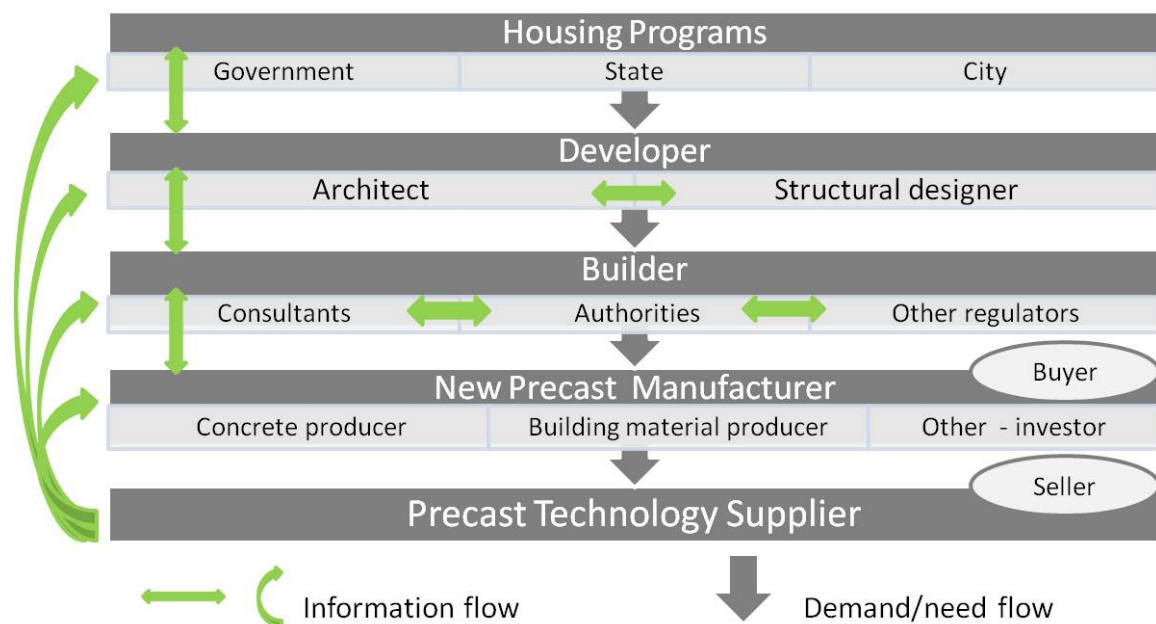


Figure 35. Stakeholders involved in demand generation for precast technology and flow of information. Emerging market, case 1, Developer and Builder are separate

In some emerging areas the developer and builder can be one company (Figure 36). This lessens the information flow target groups to three.

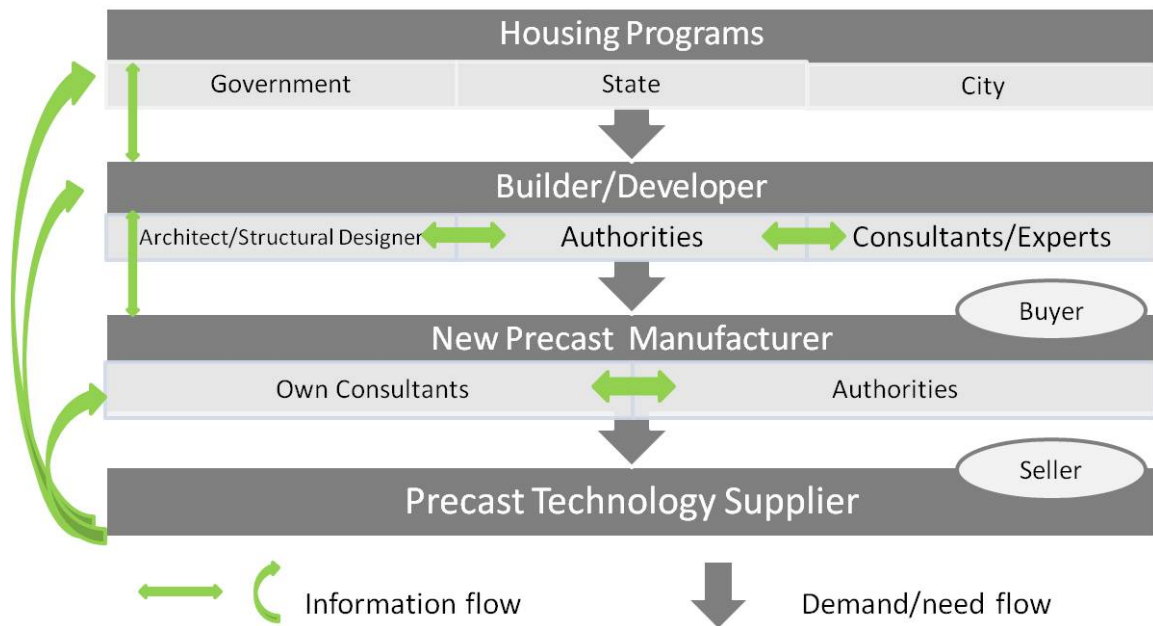


Figure 36. Stakeholders involved in demand generation for precast technology and flow of information. Emerging market, case 2, Developer=Builder

In established markets demand originates from developers and builders (Figure 37) or a combination of the two (Figure 38) directly via the precast manufacturer to the precast technology supplier. The drivers are: for developer completion time and quality, for builder efficiency, profitability, just-on-time deliveries, speed, and for the precast producer capacity and new product to meet demand. The information flow routes are few and they are short.

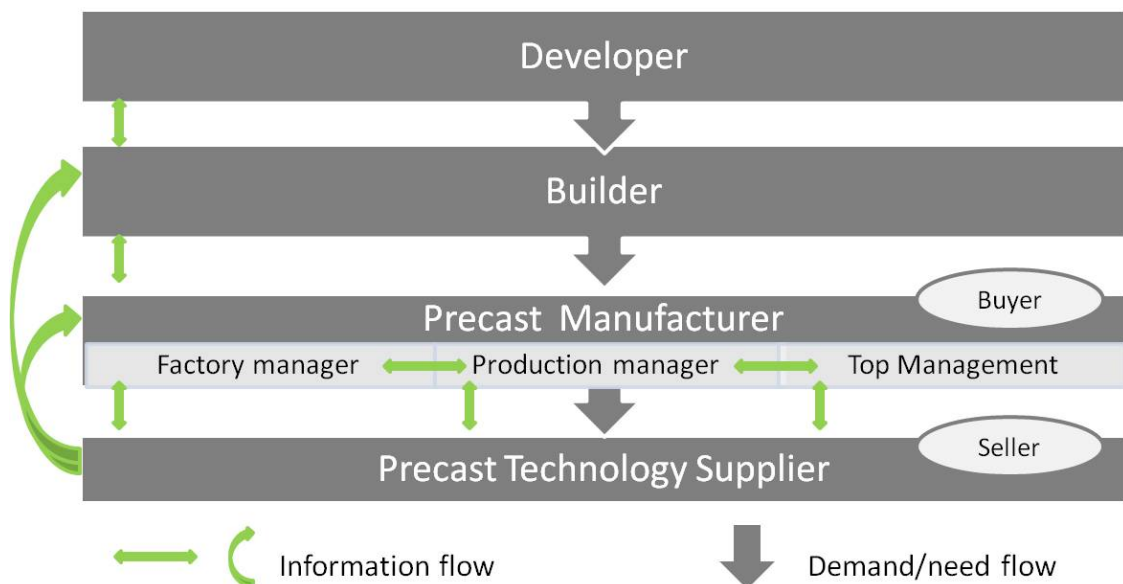


Figure 37. Stakeholders involved in demand generation for precast technology and flow of information. Established market, case 1

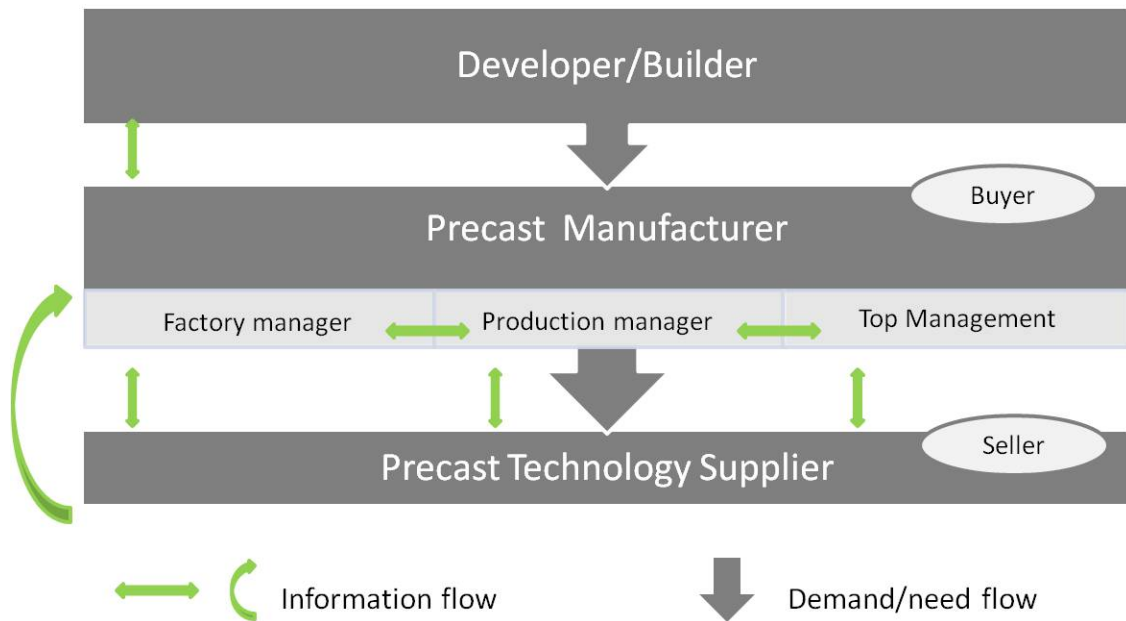


Figure 38. Stakeholders involved in demand generation for precast technology and flow of information. Established market, case 2

Also, cases where the developer, builder and precast manufacturer are the same company as shown in Figure 39 can be found in both markets. For these companies the drivers for purchasing precast technology are complete offering, efficiency, and productivity. Manufactured products are mainly used for company's own building projects. In this case, the information route is the shortest.

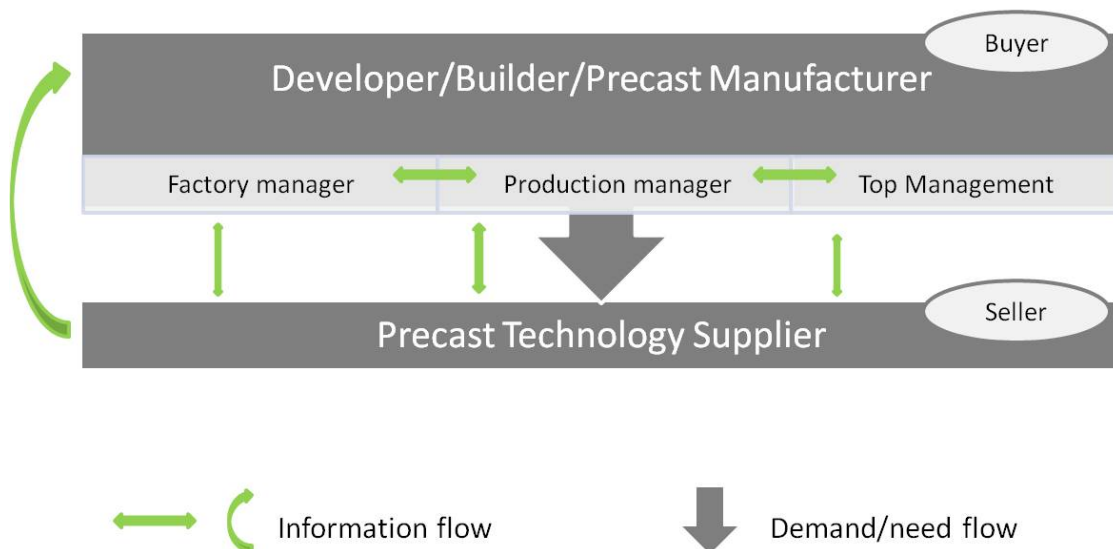


Figure 39. Stakeholders involved in demand generation for precast technology and flow of information. Established or emerging market, case 3: Developer=Builder=Precast Manufacturer

4.3.2 Members of the Complex Buying Decision

According to the interviewees the people involved in the purchasing process prior to supplier selection vary between the two types of markets; emerging and established. Also their roles within the decision making process vary. In emerging market as shown in Figure 40, the final decision maker, owner or president of the group of companies, is also usually the initiator. Depending on the country the owner might take (e.g. in Russia) an active role in finding information on suppliers and solutions. In these cases the owner uses his personal network, friends and other external informants as information sources. He also has a team of technical experts to carry out a search for specific solutions, and to prepare the specifications for the purchase approval process. The owner also requires top management (general manager, executive director) of the company and the factory manager to research the purchase issue. Generally the technical group delivers their specifications to the factory manager, who acts as advisor to the higher level decision makers. This makes the factory managers and owners the most important members of the buying center for supplier selection in the purchasing process.

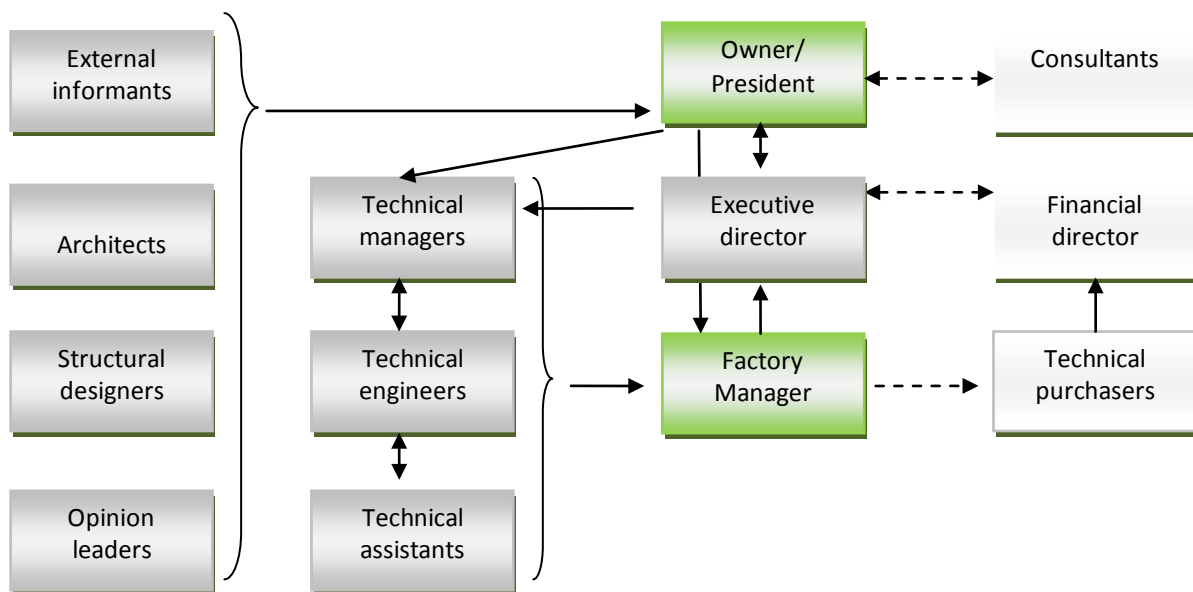


Figure 40. Members of purchasing process for production technology and information flow, emerging markets

In big companies the owners also use consultants in the specification and search steps of the purchasing process, i.e. for carrying out feasibility studies, and delivering information on building with precast. Financial directors of big companies, who rely on the expertise of technical purchasers, typically get involved in the decision making process after supplier selection has been made. The smaller the company the more work in the early stages will be carried out directly by the owner, who also can act as

executive director. Smaller companies do not use consultants, and don't have separate financing or purchasing departments, but the role of external informants, architects, designers, etc. is the same as in big companies.

- P3 *“Decision makers in two stages: they who finance these projects and they who drive these things forward, but sometimes they are the same person. But very often these companies are so big that those, who make these evaluations, so they are completely different people than those, who make the final financing decision there. But those people are in fact technical people or they have a strong technical support group. In fact we discuss with such, who could be visionaries with quite different educational back ground, but their vision is such that drives them forward. And then they have a fleet of different kind of doctors there to give them good advice. Initiation comes from the visionaries and then different kinds of experts carry our specifications for them.”*
- P4 *“In India owners themselves are pretty keen to go for new concept or new technology are involved. And later on other teams more technical people are involved. Owner level get involved in the first stage.”*
- P4 *“There are two or three kind [purchasing processes]. There are these multinational big companies technical managers they follow the process and all that. The plants I have sold are “mama papa” companies, small and medium size companies there the owner is more actively involved.”*

In established markets the decision making process for capital goods is simple as shown in Figure 41, for machinery and Figure 42 for production technologies. The precast factory manager is the most important person in the purchase process of single machines. His role is to recommend and present the solution and suppliers to top management. The initiative for purchase comes either from top management (need for more capacity), or from production (improvements of existing operations). Sometimes, with regards to machinery purchases the initial need arises directly from the users, i.e. blue collar workers. Depending on the size of the company, the final decision will be made by the executive director or the owner. The owner, in these cases, relies completely on the decisions made at lower levels of the organization, and is thus considered an unimportant participant by the interviewees from the information delivery point of view.

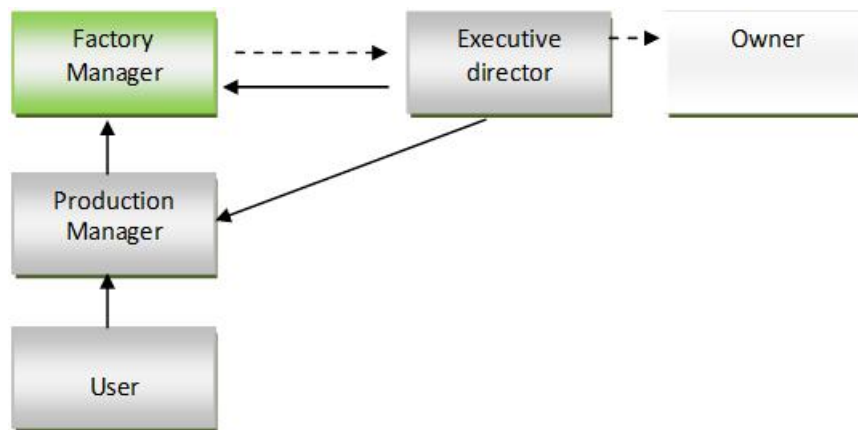


Figure 41. Members of purchasing process of machinery and information flow, established market

The initiative for purchasing a new production line or production technology as shown in Figure 41 in established markets comes from the executive director. He is the top and most important member, but uses factory managers as supportive referees, while a separate group of technical people carry out the specifications process. The technical purchaser evaluates the final proposal before delivering it to the financial director. The factory manager in this setting is a strong opinion leader and thus the second most important member of the decision making group.

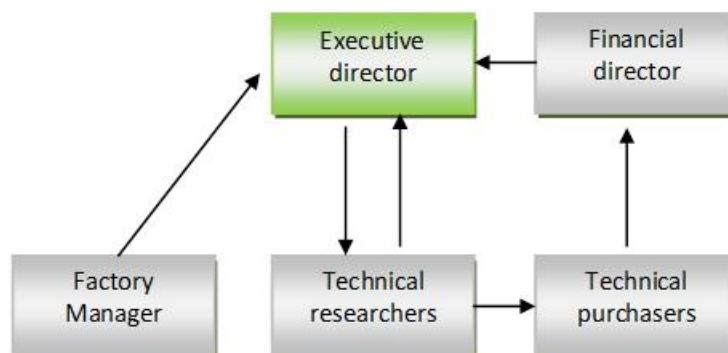


Figure 42. Members of purchasing process of production technology and information flow, established market

4.4 IMC Integration into Different Markets

Results of 1) the interviews, 2) the case company marketing communication development, 3) the business field, relate to the second research question and show that the IMC process, the markets, and the members of the decision making processes are integrated as shown in Figure 43. First the multiple audiences in both emerging and

5. ANALYSIS AND DISCUSSION

In this chapter I analyze and discuss the results including references to existing literature. Existing literature is scarce both on buyer information sources for the industrial capital goods supplier search, and implementation of integrated marketing communication (IMC) in the capital goods industry. Thus the previous research presented here are mainly theoretical studies on the development of IMC, on industrial buying behavior, buying centers, and complex decision making.

The objective of this research was to examine what are the ways for industrial capital goods sellers operating globally to manage marketing communication to influence the potential customers' decision making in the early stages of the buying process prior to supplier selection. In other words, what IMC is for industrial capital goods and what are the marketing communication channels to use in the early stages of the purchasing process for raising awareness, delivering information, and leading to supplier selection of industrial capital goods globally. In order to illustrate that this dissertation discusses the two separate streams of research 1) buying centers, complex decision making, and use of information sources in purchasing of capital goods (buyer insight for supplier selection) and 2) marketing communication channels as part of IMC in industrial marketing communication (seller insight for being selected). The target of this research was to bridge the gap, on the information arena, between these two streams.

This required first discovering the preferred information sources used by buyers and influences affecting their preference. Secondly, since supplier selection of industrial capital goods is a result of a complex decision making process taking place in buying centers, detecting who are the members of the buying centers in different markets needed to be detected. And finally, the use of IMC, by a globally operating industrial capital goods seller, was studied to find out how the preferences and influences for information search in buying centers influence the seller's marketing communication decisions. Of special interest was shedding light on the role of the Web within the marketing communication channel mix

I first discuss the buying centers and decision making for industrial capital goods supplier selection in emerging and established markets. Then I continue with buyer information sources, discussing the influences affecting the preferences, ranking, and taxonomy of the sources. In a separate sub chapter the integration of buyer information sources and marketing communication channels is discussed. I end this chapter with discussion on IMC for industrial capital goods business.

5.1 Buying Center for Industrial Capital Goods

Who are the members of the complex decision making process? By whom, within the purchasing process is information sourced? What are the influences affecting the preferred source mix? These questions operate as sub questions to the first research question “What are the preferred buyer information sources for industrial capital goods prior to supplier selection”. Analyzing the results of this research needs adding a question “What is a buying center for industrial capital goods” into discussion.

Of industrial capital goods, this research concentrates on supplier selection of capital equipment (machines), that are mainly purchased by companies as add-ons or replacements to existing lines, and complex products and systems (CoPS, production lines) for starting a new business or manufacturing of a new product. According to this research, based on the interview results, there are many different kinds of buying centers for capital goods. They differ both by 1) the good to be purchased (machine or production line), 2) maturity of the market (emerging or established), and 3) the size, type, and experience of the buying organizations. For a globally operating capital goods seller this means that there are multiple simultaneously acting buying centers (Figure 44), each having “need” as core and members with individual influences to participate in the decision making process. Also the buying firm, the customer, has company and culturally related influences that affect both the information search and decision making. Thus the composition of the buying centers varies significantly, and the complex decision making (e.g. Töllner et al, 2011; Wind and Thomas, 2010; Sheth, 1973; Webster and Wind, 1972) happens in multiple buying centers.

For industrial capital goods, the decision is twofold: first the solution and then the supplier selection. From the seller’s point of view this means that there is a chain of buying centers, first the decision on the solution is made, then on the technology (e.g. for the case company first a decision on the building method, is made, then on the production method), and finally on the supplier. Thus the results of this research show that to suit capital goods in general, the purchasing process defined by e.g. Berthon et al (1998), Johnston and Lewin (1996), and Johnston and Bonoma (1981), should be extended to include steps of needs and decisions made by the customer’s customer and beyond to the origin of the demand. In this context there is a “buyer” from the application of the end product, a “buyer” for the manufacturing solution onwards and a “buyer” for the supplier, the last one acting as a customer to the seller.

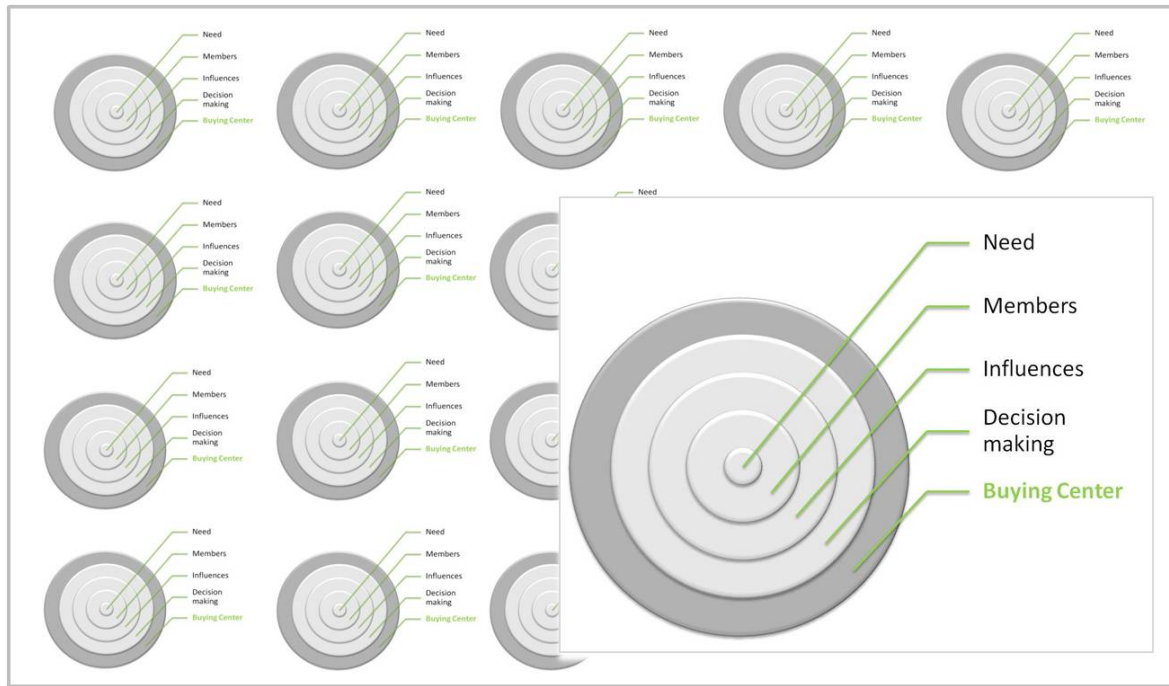


Figure 44. Multiple simultaneous buying centers for capital goods

Depending on the situation the “need” that forms the core of the buying center derives not only from the demand for the final good (Kotler and Keller, 2006), but from application possibilities of the final good (here precast concrete as building material), or social purposes (e.g. housing programs). This makes understanding the need to solve a problem (e.g. Spekman and Thomas, 2012), recognizing (Johnston and Lewin, 1996) and understanding (Wind and Thomas, 2010) it complex. The need or demand as discussed in this research reach beyond the goods that the purchased capital good produce affecting the decision making and information search processes significantly. In many demand processes, as depicted in Chapter 4, the capital good is just a tool to fulfill the needs of multiple end users e.g. to allow better quality housing, shorter completion times, just-on-time deliveries, efficiency of building, or capacity.

Members of the buying centers can be both internal and external to the buying firm (e.g. Spekman and Thomas, 2012; Jalkala et al, 2010; Wind and Thomas, 2010; Dawes et al, 1996), and their number and type within the decision making process varies (Berthon, 1998, Johnston and Lewin, 1996). This applies especially to the CoPS purchasing process and emerging markets as depicted in this research. The external members, according to the interviewees, are influential as opinion leaders, referees, and trust builders to the main decider for final selection of supplier or experts for defining the solutions, both application method and technology.

Analysis of the results of this research shows that the buying centers in emerging markets for CoPS (here production lines) have many different kinds of external members involved, as well as internal members, depending on the size of the company, representing as many as 7-8 levels. In these larger organizations the factory managers, who have technical people as informants, have an important role in supplier selection, since both the top management and the technical purchasers rely on their recommendations. In small companies the owner, who also is the sole decision maker, can be the only internal member of the buying center leaving the role of the external members significant. For capital equipment purchasing in established markets, the buying center consists of internal members only, but from at least 3 levels, generally 4-5 of the firm. Previous research e.g. by Töllner et al (2011), Wind and Thomas (2010), Cova and Salle (2007), Johnston and Bonoma (1981), and Sheth (1973) that concentrate on internal members (manufacturing, top management, users, engineering etc.) only when defining the most influential member groups and levels of organizations is thus suitable for established markets and capital equipment purchasing, where external members are not present in the buying centers.

Thus, the results of this research suggest that the composition of buying centers within industrial capital goods purchasing vary to such a great extent that generic lists of a) members and b) their rating according to influence should be avoided since each buying center, simple (internal members only) or extended (both internal and external members) is different. Also, it appears that interaction between members of the buying centers is multifold in influencing the final decision.

5.2 Decision Making Process for Selecting Capital Goods' Supplier

Marketing technologies requires an understanding of customer needs and behavior, and it is crucial to understand the perception of relevant solution criteria in the capital goods industry (Töllner et al, 2011). Understanding the needs and behavior of the customer's customers and beyond, especially in emerging markets as shown in this research is most important for knowing how the selection of a capital goods supplier is made, and who actually needs information on the seller, its products and their application.

The decision making process for selecting the capital good supplier basically follows industrial buying behavior as defined by e.g. Sheth (1973) and Webster and Wind (1972), and for CoPS and emerging markets better than for capital equipment and established markets, where the decision making process seems to be simple and short. From the seller's point of view, in some situations, there may be multiple decision

making processes taking place in conjunction with each other (Figure 45) with selecting the supplier for the capital good as the final target. In markets where the end product and its applications are well known only “Customer” (i.e. the purchasing organization) level decision making is taking place.

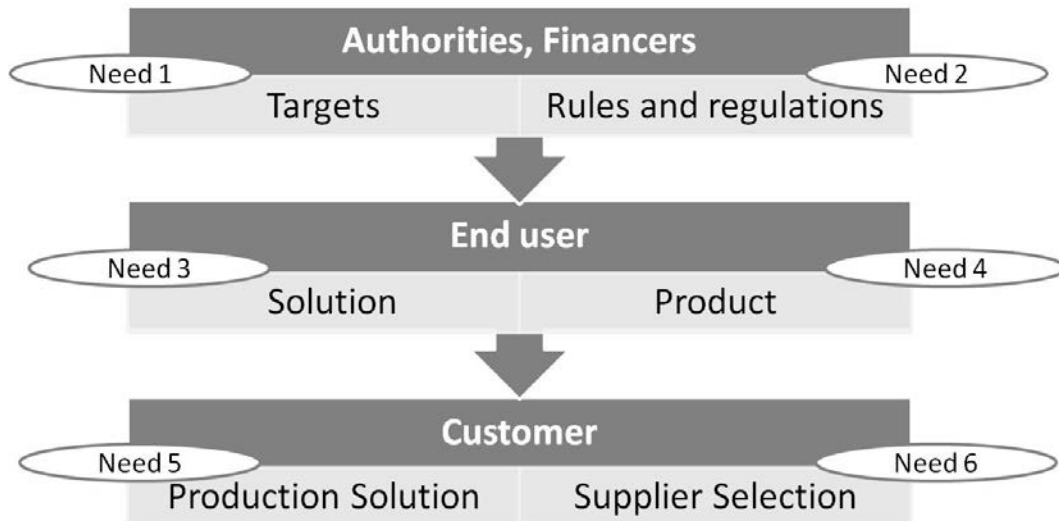


Figure 45. Decision making process for capital goods

Personal expectations, experiences, education, and role and position (e.g. Johnston and Lewin, 1996; Sheth 1973) are issues affecting a) the need for information b) the sources used, and c) the decision on personal level. Other influences arise from the cultural (Johnston and Lewin, 1996) and geographical issues and company practices. As shown in this research the way these different members interact with each other is crucial, thus behavior should be analyzed from the whole buying center’s point of view, not on the individual level only as also suggested by Spekman and Thomas (2012). Since it is not clear how and by whom the decision is made and what influences are involved, the information needed by each member of the decision making unit, and the sources they use should be analyzed thoroughly. In some cases the external, non-buying members e.g. here architects and structural engineers, of the buying centers are most influential for decision making on the selection of the product and solution to be used (for building). Then technical people carrying out feasibility and technical solution studies contribute to the decision, and finally recommendations and opinions from multiple sources come into the picture prior to the final decision made by the top decision maker.

This research shows the top decision maker for selecting the supplier of capital goods can be the owner, the executive director, or the factory manager, but each one of them uses joint decision making. To summarize the results of this study it seems that the

decision making process for capital goods is a series of sequential decisions, and to a greater extent the more complex the capital good or the less mature the market.

5.3 Buyer Information Sources for Capital Goods

The buyer information sources, as identified by this research for capital goods prior to supplier selection, are listed in Table 18. There are sources (S) that have content designed and developed by the seller, and are available in channels governed by the seller (Hoffman and Novak, 1996). Some of the sources (B, S) are interactive and the content is developed by the seller or the buyer (ibid.). In addition there are multiple interactive sources (B) such as referrals, for trust building, and convincing information based on the reputation (Andersen, 2001) of the product, solution or the capital good seller. As shown in Table 18, of these sources customer magazines, email newsletters, exhibitions, Internet home pages, online journals, and trade journal articles have content created by the seller. Content as defined by Talonen and Uusitalo (2010) is text, sound, and pictures formed into e.g. brochures, leaflets, sales literature, videos, articles. They are published and delivered through the seller’s F2F (exhibitions, seminars, reference visits, personal selling) and digital communication channels (e.g. Internet home pages, company online magazines, company social media applications). Which sources the members of the extended buying centers prefer, vary according to multiple influences.

Table 18. Buyer information sources for capital goods prior to supplier selection

Information source		Information source	
1. Colleagues	B	11. Customer magazines	S
2. Consultants	B	12. email Newsletters, direct mailings	S
3. Friends	B	13. Exhibitions	S
4. Opinion leaders	B	14. Internet home pages	S
5. Personal experience	B	15. Online journals	S
6. Social networks (online, offline)	B,S	16. Sales personnel	S
7. SoMe (blogs, multimedia sharing)	B,S	17. Search engines	S, B
8. References	B	18. Trade journal articles	S
9. Referrals	B		
10. WOM (internal, external, online, offline)	B		

Note: Many people use the terms Internet and the Web interchangeably, although they are not synonyms. Also Internet home pages and websites are used as synonyms. Although all www and http sites in the Web are “websites”, here the Internet home pages mean organizationally managed and thus social media websites are listed separately.

The survey on buyer information source preferences showed that in all geographic areas, age groups, and levels of organizations (precast concrete manufacturers worldwide) the most preferred source for information is Internet home pages (websites). References and WOM were seen as important information sources for

capital goods globally and exhibitions as important in most areas. Advertising as an information source was almost neglected, and brochures (interpreted in this research as content) were selected by few. Personal selling as a buyer information source prior to supplier selection is somewhat important in established markets, but not in emerging market. The mix of communication channels used varies depending on the type of information needed. In addition, the in-depth interviews that brought up the importance of WOM and references strengthened the role of websites and other web applications, especially some SoMe applications, as a buyer information source. Thus this study shows that buyers use a mix of information sources where sales personnel are just one source and confirm earlier results by e.g. Iyer et al (2006), Herbig et al (1994) and Patti (1977).

In addition to studying the complex decision making process, the main research attempts to answer the question: What are the preferred buyer information sources for industrial capital goods called for detecting influences and their impact on the source selection. Understanding buyer information source preferences is critical for sellers to effectively develop their marketing communication strategies (e.g. Deeter-Schmeltz and Kennedy, 2002; Patti, 1977). Sub questions based on the impact of influences: geography, age and information search target were developed through a review of the literature, both on IMC and organizational buyer behavior and through the researcher's experience. These questions were also designed to identify other possible influences.

5.3.1 Influences and their impact on selection of information sources

Based on this research it can be generally said that geography is a stronger influence than age. Also market maturity affects the selection of information sources used by the multiple buying centers and members. With regard to individual influences, position or role, familiarity with the product, solution, and supplier seem to define which information sources are valued most important as also evidenced in the early studies on industrial buyer behavior (Foster, 2006; Gilliland and Johnston, 1997; Johnston and Lewin, 1996; Webster and Wind, 1972; Sheth, 1973). In addition, according to this research the issue under investigation in any of the multiple buying centers (e.g. machine, CoPS, end product, end use solution, social/market problem to be solved), is an important influence. Cultural issues are also important.

This research found age to have little effect on the information source preferences, although the older group ≥ 46 years valued sales personnel and trade journals as the third choice, whereas the younger group mentioned five evenly important sources

(trade journals, sales personnel, direct mailings, customer magazines, brochures) as the third source. There seems to be tendency towards more web based information sources, especially in emerging markets, where SoMe, and use of mobile communication devices is growing fast, as also detected by Chen (2012). Also, the role of exhibitions, according to this research is decreasing as buying centers get younger.

Geography, and its influence on preferred information sources was studied first by investigating four different geographical market areas (Scandinavia, CIS, North-America and the Middle East) through an online survey. For the four geographic market areas the ranking of most preferred information sources in general vary significantly (Figures 27, 28, 29, 30, pp. 82-83). For clarifying the difference in preferences the data from two different market areas and two capital goods of this research, CoPS and capital equipment, were analyzed. Table 19 shows an analysis of the variance of the difference in preference between the established market and the emerging market. Internet home pages and exhibitions are among three most preferred sources in all studied markets, but their order varies, as does the kind and ranking of the other sources. The main difference between geographic areas is the value of sales personnel as an important information source only in market areas belonging to established markets. Although Internet home pages ranked the first in established markets, in the early stages of the buying process buyers in market areas belonging to emerging markets rely more on digital sources than those in established markets. Thus the geographic area, country, and maturity of market influence significantly the information source selection for capital goods.

The findings of this research strengthen the results of previous research (e.g. Töllner et al, 2011; Johnston and Lewin, 1996; Sheth, 1973) type of product (Table 19), role of the buying center member in the decision making process, and familiarity with the solution or the seller are strong influences for selecting the information sources. Other influences detected by this research are culture, and interactions between the extended buying center members. In high-context cultures (e.g. Russia, India, China) buyers tend to rely on opinions and advice from friends and networks (relationships) while in low-context cultures (e.g. Scandinavia) information is sourced on a more factual basis. Capital goods purchasing culture, because it is still young, especially in emerging markets, has an influence on information sources used.

Table 19. Influence of geography and type of capital good on importance of buyer information sources

	Rank	Market area A	Market area B
		Emerging	Established
CoPS*	1	Exhibitions	Internet home pages
Complex	2	Internet home pages	Sales personnel
Products and	3	Trade journals	Exhibitions
Systems, e.g.	4	Online journals	Trade journal
Production	5	Search engines	Customer magazines
Lines	6	Seminars	Direct mailings
	7	Customer events	Search engines
	8	Direct mailings	Customer events
Capital	1	Exhibitions	Internet home pages
Equipment	2	Internet home pages	Sales personnel
	3	Trade journals	Exhibitions
	4	Search engines	Direct mailings
	5	Online journals	Customer magazines
	6	Customer magazines	Customer events
	7	Seminars	Trade journal
	8	Direct mailings	Search engines

Finally, as this research shows, buyer information sources differ from case to case to such an extent that it is hard to determine which influences are most important in any given situation. However, information sourcing is heavily related to three main issues 1) the need in question 2) the behavior of the extended buying center, and 3) the maturity of market. Thus the number and importance of sources used are not generic, but should be detected by the seller on a case by case basis. In addition, the role of sales personnel as information source increases after the buying center has decided a) the general solution (here the building method) b) the end use solution, c) the technical solution, and has selected the supplier candidates. This means the seller needs to make sure the solution offered in a broad context is easily found by the buying centers through other information sources and that the brand, and reputation of the seller company are respected. Thus knowing all stakeholders belonging to the complex decision making process and their behavior as stated by many researchers (e.g. Spekman and Thomas, 2012; Deeter-Schmelz and Kennedy, 2002; Brossard, 1998) is crucial for the capital goods seller.

5.3.2 Taxonomy of Buyer Information Sources for Capital Goods

The taxonomy of buyer information sources for industrial buyers, based on Moriarty and Spekman's (1984) model modified by e.g. Foster (2006), and Deeter-Schmelz and

Kennedy (2002) (Table 2, p. 24) contains a number of sources not detected in this research important for capital goods. The traditional deviation of information sources into personal-impersonal, commercial – non-commercial may be applied for capital goods for categorizing the generic results for this research though (Table 20). The listed sources differ significantly from the previous ones (those in bold are a result of this research) in all but one category (personal-commercial), and thus the taxonomy is completely rewritten. The relevance of the traditional taxonomy seems to be questionable, since the borders of different sources are blurred.

For example, if the use of search engines leads the seeker into an informative website (impersonal-commercial), an interactive website (personal-commercial) or to an online WOM-forum (personal – non-commercial), shouldn't search engine be included in all four categories? Also, because online journals, most SoMe applications and even trade journal articles (also available online) are interactive, they could be in the personal-non-commercial category. And if "Internet" or even "websites" are used as single source, for capital goods in some categories there would only be one source. As the results of this research show, the preferred buyer information sources used by the members of complex decision making groups vary by multiple influences, so the generic taxonomy as such represents a theoretical insight only and is of little use for practitioners. Altogether, the results of this research show that the tendency is increasing toward personal - non-commercial and interactive informative sources. This applies to the capital goods business prior to supplier selection.

Table 20. Taxonomy of buyer information sources for capital goods

	PERSONAL	IMPERSONAL
COMMERCIAL	Interactional organizational websites Exhibitions Seminars Sales personnel	Informative organizational websites email Newsletters
NON-COMMERCIAL	WOM online and offline References Referrals Personal experience Outside consultants Colleagues and friends Opinion leaders Social networks (online and offline)	Search engines Trade journal articles Online journals SoMe (blogs, multimedia sharing)

5.3.3 Ranking of Buyer Information Sources for Capital Goods

Ranking of information sources are seen important for the seller to imply their marketing communication into those channels most important to the buyers, thus

increasing effectiveness of marketing. The ranking of buyer information sources for capital equipment (Patti, 1977) and for industrial goods (Moriarty and Spekman, 1984) are from the pre Internet era and are thus irrelevant for a comparative discussion on 2010s, although trade shows and sales people are on both lists. Karjaluoto (2010) has presented a ranking for two markets (China and Finland) for industrial goods. For B2B purchasing Berthon (1998) compares the relation of three sources (personal selling, website, and advertising) throughout the whole purchasing process. Thus the results of this research seem to set the base for ranking buyer information source preference for capital goods (capital equipment and CoPS) in a global context.

The ranking of information sources, as shown in this research, varies by type of capital good, geography, and by market maturity. The major difference is between the established market, where the technology (here precast concrete technology) is well known, and the emerging market, where it is not as widely known or has a bad reputation. Is it relevant to give a generic ranking for buyer information sources, or should there be a) ranking by capital good/country or geographic area b) ranking by capital good/market c) ranking by information sourcing target/market d) ranking by extended buying center or by customer e) ranking by any other influence detected in this research? Also, the results show that information sourcing differs from one buying center to another, and is always based on the individual behavior of the members of the complex decision making process, and the interactions between members of each buying center.

The examination of buyer insights; first for a buyer (here precast producer), and then for the extended buying center resulted in multiple sets of rankings for buyer information sources. Table 21 shows the ranking for the eight most preferred buyer information sources prior to supplier selections divided according to the market maturity for capital goods in general. In both rankings, the three most preferred information sources received high percentages or importance ratings whereas the following sources rated much lower, and they did not differ much from each other in importance. Eight of the most preferred sources are taken into account since the rest were either mentioned by only a few informants or received fewer than 8% of the survey picks. This ranking assigned by this research should only be taken as a current state ranking and as generic, since communication methods and technologies, and user habits in information searches, develop at such speed that what applies for 2012 may be irrelevant in 2015. Also, as results of this study show, there are multiple rankings within one geographical area and even within one extended buying center depending on the influences and needs involved.

Table 21. Ranking of most preferred buyer information sources for capital goods

Extended Buying Center for Capital Goods, information sources		
Rank	Emerging market	Established market
1	References	Internet home pages
2	WOM	WOM
3	Internet home pages	References
4	Exhibitions	Search engines
5	Search engines	SoMe
6	SoMe	Online journals
7	Online journals	Friends
8	Networking	Exhibitions

Note: here WOM includes both offline and online WOM by external opinion leaders and consultants, and by internal users, production managers, technical people, and other colleagues.

A comparison of Karjaluoto's (2010) ranking of marketing communication channels where China represents an emerging and Finland an established market to this research shows, the main difference is that Internet home pages ranked 9 by Karjaluoto (2010) are the most important information source in the established market and third in the emerging market. References, exhibitions, seminars, customer magazines, and WOM can be found on both lists, but with different rank considering "discussions with others, F2F discussions" used by Karjaluoto (2010) can be interpreted as WOM. In addition search engines, SoMe, trade journals, online journals, direct mailings, and customer events belong to the most important buyer information sources identified by this research, while advertising, phone conversations, and email are not included.

This research found the top three information sources for suppliers and their contact information in general in emerging markets are 1) exhibitions, 2) Internet home pages and 3) trade journals, and in established markets 1) Internet home pages, 2) customer magazines and 3) sales personnel. Moriarty and Spekman's (1987) claims that industrial buyers search for suppliers through commercial-impersonal sources, and do not rely on non-commercial information sources in the early stages of the buying process as much as they do in the latter stages, seem to be outdated for buyer behavior in extended buying centers of 2010s in the capital goods business.

Capital goods supplier selection takes place by multiple extended buying centers, thus the rankings presented for capital goods as a whole (Table 21) can be valued higher than other rankings concerning a single type of product, needed information, buyer or buying center only. In the capital goods business, there is always a solution or solutions that need to be chosen prior to supplier selection. Factoring this into the equation increases the strength of rating the buyer information sources by extended buying

centers (Table 21). Also, an important finding of this research is that Internet home pages are among three most preferred information sources in all rankings.

5.4 Integration of Buyer Information Sources and Marketing Communication Channels

This dissertation investigates industrial capital goods purchasing process from two disciplines: industrial buyer behavior and IMC, the first with research on buyer information sources (buyer insight) and the latter on marketing communication channels (seller insight). Why does the academia need two approaches? Researchers of the latter discipline say that sellers should use marketing channels buyers prefer and not just the ones they prefer (Kitchen and Schultz, 2009). Many researchers of marketing communication channels agree (e.g. Brossard, 1998) that it is important to understand the information sources the buyers use for developing IMC (Spekman and Thomas, 2012). Also, all IMC definitions since 2005 include stakeholders or audiences as drivers for IMC (e.g. Kitchen and Schultz, 2009; Luck and Moffatt, 2009; Kliatchko, 2008).

Incongruity between seller and buyer preference for marketing communication channels as shown by earlier research (e.g. Foster, 2006; Patti, 1977) is also detected in this research. The case company, the seller, of this study is located in a Western, established, low-context market. The importance of different marketing communication channels picked by the members of the seller company, are close to the selections made by buyers of the same type of market. The seller values sales personnel, reference visits together with sales people, exhibitions (a F2F channel), and other personal-commercial channels higher than channels in the other categories of the taxonomy shown in Table 20. On the other hand, Internet home pages are also ranked as the most preferred marketing communication channel for the seller. Advertising is also ranked higher by the seller than by any buyer group and social media the least important channel it seems that for a capital goods seller, the preferred marketing communication channels and the information sources seen as most important by the buyers do not converge. This applies especially to emerging markets.

The results of this dissertation show that there is a chain of joint needs and complex decisions taking place in multiple buying centers simultaneously. Thus there are multiple audiences and stakeholder groups, searching for information prior to the last buying center (customer) selecting the supplier. In the same way the seller should design all marketing communication activities, and brand building (e.g. company awareness, image and reputation) through the preferred buyer information sources

(Deeter-Schmelz and Kennedy 2002, Patti 1977). This means that buyer information sources are equal to marketing communication channels.

5.5 Influence of the Web in Capital Goods Marketing Communication

“It is always open and available,” as one of the informants of this study depicted the usefulness of the Web as an information source. The Web, a platform that the Internet made possible (e.g. O’Reilly, 2005; Berthon, 1998) has also become the most important channel for delivering and the most important source for searching information in the traditional capital goods industry. Although the terminology the Web vs. the Internet or websites vs. home pages is misused by practitioners it is clear that the Web with all its applications from Internet home pages, to other organizational websites, and interactive social media sites (Web 2.0) are used by members of industrial buying centers comprehensively to identify, evaluate, and build relationships (Schultz and Patti, 2009). From the seller’s point of view well designed, managed, and search engine optimized web solutions enable lead generation.

Could the Web be described as an electronic trade show (e.g. Berthon, 1998), to replace exhibitions, as the information source for capital goods? That is doubtful as this study shows although the role of exhibitions is decreasing slowly especially in emerging markets exhibitions are used for “browsing” and getting a hands-on experiences as also claimed by Gilliland and Johnston (1997). On the other hand, in emerging markets the use of mobile Internet in personal communication devices is increasing in all age groups (International Telecommunication Union, 2012). This makes the Internet and thus the Web available for an ever growing stakeholder group.

Also, the Web to a broad extent is the most preferred information source prior to supplier selection of capital goods. The Web combines both the traditional push and the new interactive pull needs (Schultz and Patti, 2009). In addition, this research discovered a strong role for the Web as a buyer information source as websites are linked throughout the purchasing process from building awareness to purchase, whereas other channels are not as integrated (Selmgren, 2009). Thus capital goods sellers should develop their marketing communication lead by the Web.

5.6 IMC for Global Industrial Capital Goods Business

Kliatchko’s (2008) definition (Figure 13, p. 42) based on four pillars 1) content, 2) channels, 3) results, and 4) stakeholders with stakeholders at the core was taken as basis for this study. But it needs some modification. Figure 46 depicts a theoretical framework for IMC built on Kliatchko’s (2008) pillars, amended with theories of e.g.

Kitchen et al (2005), Schultz et al (2007), Luck and Moffat (2009), and influences from Sheth's (1973) model of industrial buying behavior. This framework takes into account stakeholders and their analysis as "need to know" in a broad context, and makes defining influences an important issue for building the IMC for capital goods.

The stakeholders in this concept mean all those people who participate in the decision making process for determining the solution and supplier selection of capital goods. Thus they and their needs have to be detected. Then content integrates messages and information to serve the stakeholders with the information they need. How they prefer to find the information, i.e. which are the buyer information sources defines the channels to be used by seller making the buyer and seller views equal. Also seller's strategic targets need to be known for both planning and implementing IMC and programs within. Results as lead generation, supplier selection, creating customer value, building brand and image are evaluated and reflected thus giving guide lines into implementing IMC programs, and developing IMC further. Influences affecting the stakeholders and their use of information sources are guiding the whole IMC process, and especially implementing of IMC programs globally.

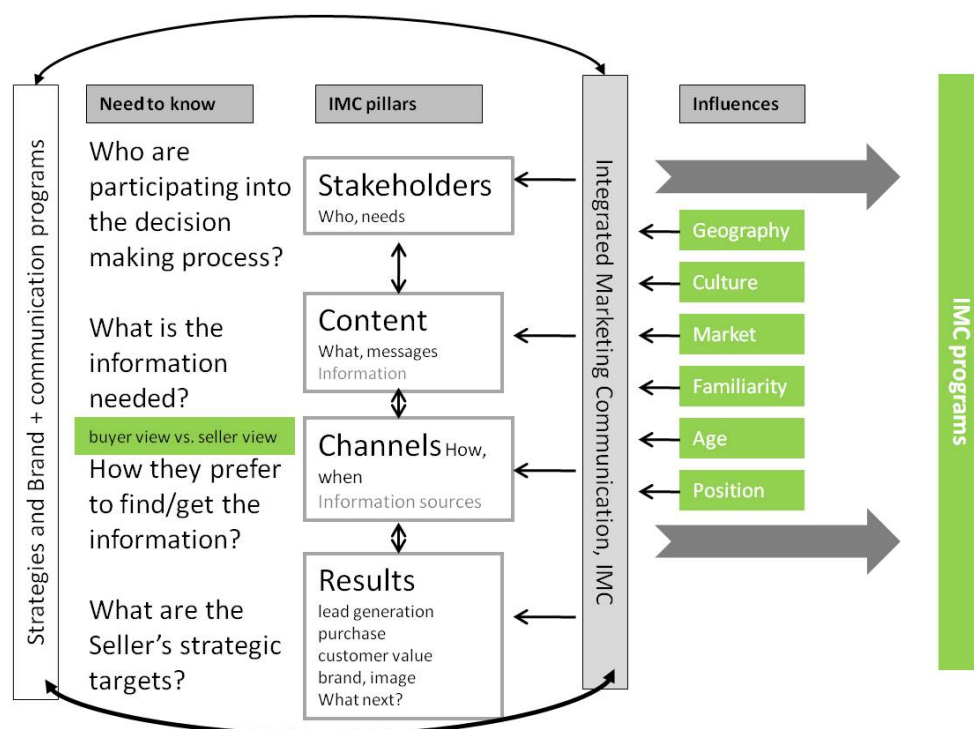


Figure 46. IMC for capital goods

The key finding of this research is that IMC in a global context is a continuous circular process where each cycle (Figure 47) is based on a planning process (Figure 48) that leads to actions i.e. programs. After analyzing, the results of each cycle this analysis is

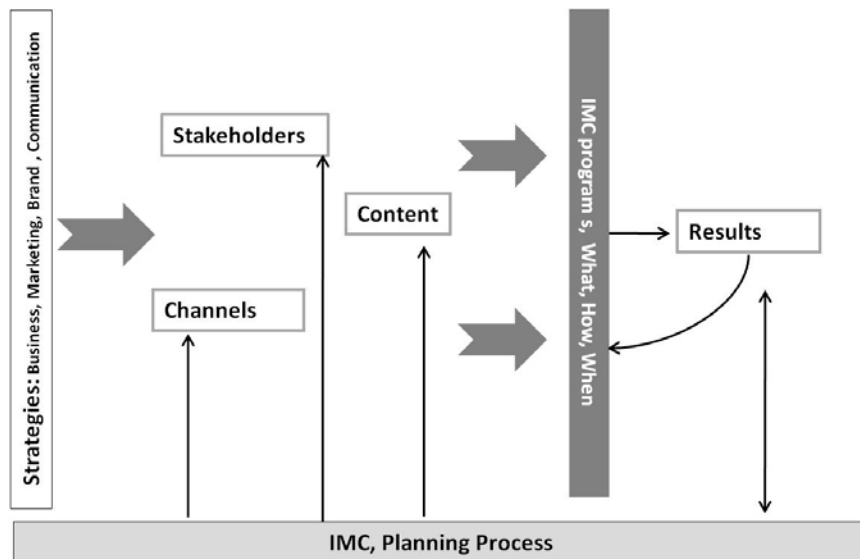


Figure 47. IMC cycle for industrial capital goods

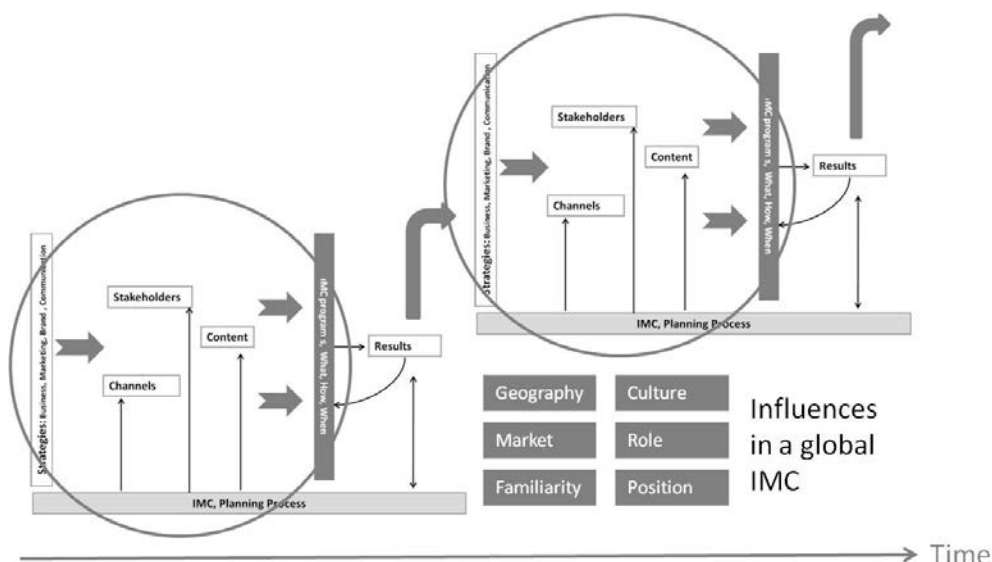


Figure 48. IMC process for industrial capital goods

incorporated to both the planning process and the strategies. For the industrial capital goods seller knowing and understanding the role and behavior of stakeholders and influences affecting the search for information is most important for selecting the marketing communication channel mix and IMC activities. Thus it can be said, that stakeholders that vary from one market area to another, and from one buying center to another, are the driving force for the IMC, also in defining the marketing communication channel mix to be used by the seller. The findings support Iyer et al's (2006) suggestion that a global strategy may not be equally effective in multiple country settings, but that industrial marketing should be based on the structure of industry within each country.

Also it seems that IMC has to be developed and managed differently in emerging markets, like China (Chen, 2012; Schultz, 2010), from the way it has been done in established markets.

In emerging markets the non-buying stakeholders act as important opinion leaders in the decision making process and need to be taken into account when the capital goods supplier, like the case company, plans and implements its marketing communication. IMC integration together with localization and web centered (web being the most important information source in all markets) integrated marketing thus forms the core of the marketing and communication strategy. In markets of varying maturity (emerging vs. established) from the end product and company brand point of view, all participants (“members”) in the complex decision making process, the target of information search, and preferred buyer information sources need to be integrated to build up IMC for capital goods. This forms the empirically adjusted revised framework for global IMC of capital goods as shown in Figure 49.

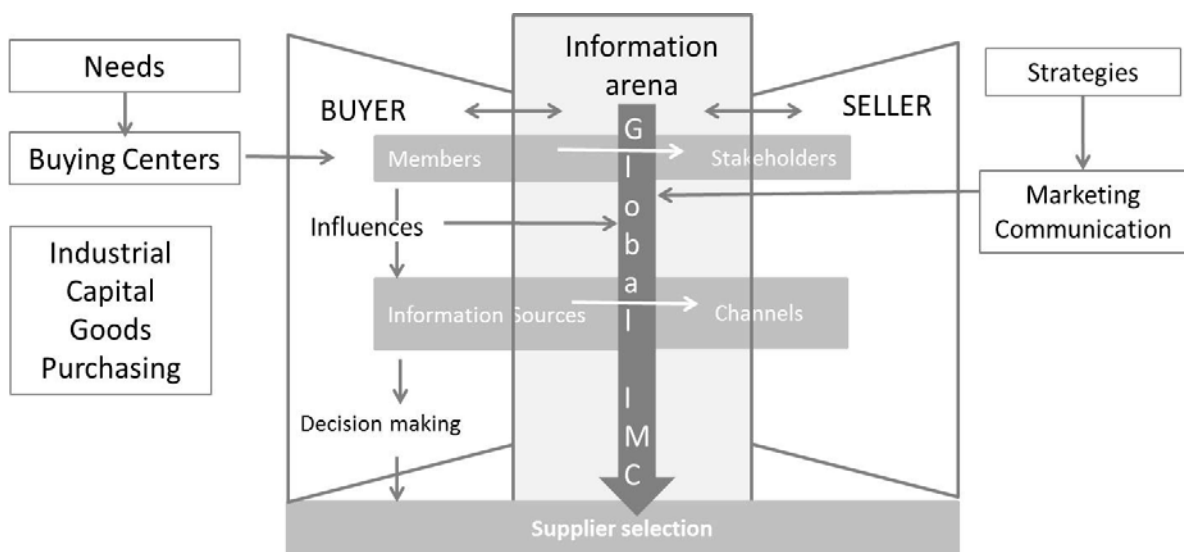


Figure 49. Empirically adjusted framework for using global IMC for integrating buyer and seller for industrial capital goods prior to supplier selection

In this framework the extended buying center(s) is the core and key driver for building IMC for industrial capital goods. The members in a broad extent are the stakeholders and thus the marketing communication channels selected by the seller must match with the information sources preferred by the buyer. Content, which generally in IMC literature is defined as information designed by the seller, is, in this framework information created by a large stakeholder group, internal and external to both the buyer and seller. Thus the “content” exists on an information arena available for both parties the buyer and the seller. Although not all information is governed by the seller,

to provide 1) information on any question any extended buying center member searches for and 2) to build company brand through messages set by strategies, the seller needs to know where the need for purchase arises, who belong to multiple buying centers, and what are the influences affecting selection of information sources. Global IMC implied by the seller, as shown in the framework thus integrates these two viewpoints buyer's and seller's leading to results that are beneficial to both buyer and seller, i.e. the seller has been selected as supplier to customer's need.

6. CONCLUSIONS

This dissertation, according to its main purpose, discusses the ways for industrial capital goods sellers operating globally to manage their marketing communication to influence the potential customers' decision making in the early stages of the buying process prior to supplier selection. First I present the main findings by answering the two research questions and the sub questions. Secondly the theoretical contribution of the research is discussed followed by managerial and social implications. After discussing the limitations of the research, the chapter ends with suggestions for future research.

6.1 Buyer information sources for industrial capital goods prior to supplier selection

The first research question was defined as "What are the preferred buyer information sources for industrial capital goods prior to supplier selection?" This question was further divided into four sub questions: "Who are the different members of the complex decision making process in a global setting?", "By whom within the purchasing process is the information sourced?", "What is the influence of geography, age, and information search target on preferred source mix and what other influences affect the selection of information sources?", and "How does the Web influence industrial marketing communication in search of information?" This question was answered through part of framework (Figure 14, p. 48) consisting of buying centers and use of information sources within industrial capital goods purchasing process.

First. Buying centers, their members and capital goods purchasing processes (Figures 40, p. 98; 41, p. 100; 42, p. 100) vary, as also previous research depicts (e.g. Töllner et al, 2011; Wind and Thomas, 2010). This research shows, that the members of the complex decision making process from information search point of view is governed by demand generation (Figures 35-39, pp. 95-97), need to solve problems as also depicted by e.g. Spekman and Thomas, (2012), and differs significantly by maturity of market. Thus, from the industrial capital goods seller's point of view there are multiple buying centers (Figure 44, p. 104), some of which are extended with outside members, searching form information simultaneously. Thus according to the results of this research, from information search point of view, the purchasing process defined by e.g. Berthon et al (1998) and Johnston and Lewin (1996) should be extended to include steps of needs and decisions made by the customer's customer and beyond to the origin of demand.

Secondly. In the 2010s as this research shows the influences most affecting the selection of buyer information sources are: 1) geography, 2) position and role of the buying center member, 3) familiarity with the product, solution and the supplier, 4) the issue under investigation, and 5) the type of capital good in question i.e. different selections for production lines and machinery in all geographical areas. Thus the mix of preferred information sources varies from one situation to another, even for the same searcher.

Thirdly. This study, which takes the buyer view in a global context, shows that for buyer information sources, the selection of marketing communication channel mix referred to by numerous researchers over time (e.g. Long et al, 2007; Foster, 2006; Kotler and Keller 2006; Deeter-Schmelz and Kennedy, 2002; Moriarty and Spekman, 1984; Patti, 1977) is poorly suited to industrial capital goods global marketing. A single list on preferred information sources on capital goods does not suit multiple audiences and multiple simultaneous buying centers, as shown in this research. The marketing communication channels that seem to be most relevant for searching for information on capital goods, i.e. as buyer information sources, prior to supplier selection are: 1) the Internet, 2) word-of-mouth (WOM), 3) references, 4) tradeshows (exhibitions), 5) trade journals, 6) personal selling, 7) seminars, and 8) brochures, in that order. The influence of the Web, according to this research is significant and should guide marketing communication of the capital goods seller. Also, the results show that the tendency is increasing toward personal-non-commercial and interactive information sources prior to supplier selection thus changing the taxonomy from the previous (e.g. Foster, 2006; Deeter-Schmelz and Kennedy, 2002), and is completely rewritten (Table 20, p. 111).

Fourthly. Although in this research it was left unclear how well do interviewees and survey participant know “what social media is made of”¹⁹, the influence of the Web on information search is shown to be significant. Thus industrial marketing communication should be developed lead by the Web.

¹⁹ E.g. if search engines are defined as a source/channel, what would interactive websites, blogs, wikis, content sharing sites, or other new media forums represent, since searching leads buyers to these forums?

6.2 Integrated marketing communication (IMC) of industrial capital goods

The second research question was “How does knowing buyer information sources impact integrated marketing communication (IMC) of industrial capital goods? This question was answered through part of framework (Figure 14, p. 49) consisting of IMC.

In the global capital goods industry, though needs and then the directions vary from one purchase situation to another, knowing your customers, their needs, influences, and behavior is crucial for success, both marketing communication and brand building. Thus the industrial marketing communication for capital goods is multifold, and multi channeled, a continuous, circular (e.g. Schultz et al 2007) process that is based on stakeholders (Kliatchko, 2008) representing multiple buying centers simultaneously as shown in this research (Figure 48, p. 117). It is based on a planning process that leads to actions the results of which are analyzed and incorporated back to the planning process and strategies to start the next cycle. As depicted in this study, the stakeholders that vary from one market area to another and from one buying center to another are the driving force for the IMC.

Therefore, drawing from the results of this study, it seems that the buying center and the interactions within its members, both internal and external to the firm is the unit on which IMC for capital goods should be built. Also the “audience-driven” model as described by Kliatchko (2008, 2009) could be described as an outside-in approach where the interacting members of the complex decision making process guide the marketing communicating process making buyer information sources equal to marketing communication channels.

According to the results shown here the marketing communication channel mix of IMC should be designed for 1) each market area (as suggested also by Chen (2012) and Schultz (2010), 2) product type, and 3) buying center separately and always after 4) thorough stakeholder analysis that sheds light on buying center compositions, and 5) buyer behavior in searching for information (with influences) throughout the purchasing process. This information needs to be combined with global geographically designed IMC strategy for multiple audiences. This finding supports Iyer et al’s (2006) suggestion that one global strategy may not be effective in a multiple country setting.

Thus knowing the buyer information sources the seller, who needs to be present for everyone, in all preferred channels on the information arena (Figure 49, p. 118), all the time is able to implement their IMC to reach the multiple decision making members in the early stages of the purchasing process prior to supplier selection. Finally, this study

shows that “content” that generally in IMC literature is defined as information designed by the seller, is created by a large group, internal and external to both buyer and seller. From the capital goods seller that means that they, as a company and as individuals need to be interactive in the information arena for successful IMC.

Global IMC implied by the industrial capital goods seller, as shown in this study, integrates both the buyer’s and seller’s viewpoints leading to results that are beneficial to both: the seller has been selected as supplier to customer’s need.

6.3 Theoretical Contribution of the Research

The theoretical contribution of this research can be divided into industrial capital goods purchasing, buyer information sources in complex decision making, and IMC.

First. The capital goods purchasing process definition, previously reported by e.g. Berthon et al (1998), Johnston and Lewin (1996), and Bonoma (1981) takes one step forward in this research depicting the existence of multiple simultaneous extended buying centers (Figure 44, p. 103), the influences defining their composition and the buyer behavior in information search. The buying center, and its members vary as generally reported by e.g. Töllner et al (2011), Wind and Thomas (2010), and Sheth (1973), significantly from one purchase to another 1) in emerging and established markets, and 2) in a single market/single customer depending on the type of capital good in question (capital equipment or complex product or system). The need, which initiates the purchasing process, forms the basis of defining who belongs to the buying center. The complete demand generation process, as depicted in this study, for the end product in emerging markets may start as far away as government and other programs, and there are multiple intermediaries before the need for the capital good arises. The utmost decision maker on supplier selection in capital goods purchasing varies from owner to factory manager, opinion leaders with other external informants having a significant role especially in emerging markets. Also it seems that professional purchasers are seldom members of the buying center making the supplier selection.

Second. This research presents a new taxonomy to replace the same by e.g. Foster (2006), Deeter-Schmelz and Kennedy (2002), and Moriarty and Spekman (1984) for of buyer information sources. The new taxonomy, in which the tendency towards the increased importance of non-commercial/personal information sources is obvious, has the Web as the main indicator. Marketing communication channel usage on the global capital goods market does not follow the previous research on capital and industrial goods marketing (e.g. Karjaluoto, 2010; Berthon, 1998; Moriarty and Spekman, 1984; Patti, 1977). The marketing communication channel mix for capital goods follows buyer

information sources, which are different in all buying situations, and depend on multiple influences, both personal to the buying center members, and related to cultural, geographical, and the buying company factors.

Third. This study has identified issues which have implication in the definition of IMC for industrial marketing, especially for capital goods and global context. The previous research (e.g. Kliatchko 2008, 2009; Kitchen and Shultz, 2009; Luck and Moffat, 2009; has concentrated on other business fields or a single market. Thus research on multiple audiences applied to one company in a global setting takes steps forward. This especially applies to implementing IMC in the capital goods business The IMC definition for capital goods according to this research is a constant, circular process involving 1) planning that takes into account the strategies, and stakeholders, 2) IMC programs (made of activities) governed by influences such as geography, culture, market, role, familiarity, and position of the identified stakeholders, and finally analyzing the results that reflect the next cycle of the IMC process (Figure 48, p. 117). The needs of the stakeholders and their behavior define the sources of information used and thus should be equal to the channels offered by the seller (Figure 49, p. 118). It can be said that buyer insight leads implementation of IMC in the global capital goods industry.

6.4 Managerial Implications

Practitioners, in the field of industrial marketing, more specifically capital goods sellers, can usefully adapt the general principles of this research's approach in their attempts to create marketing communication strategies and IMC, especially in selecting the information sources by target audiences. Although a different industrial good in question, the way of operation detected in this research can be generalized. As a consequence, this type of exercise would assist managers in being able to better justify and defend marketing communication activities and budgets.

Because it is a case study, this research gives practical insights into how to lead and manage IMC and its implementation process in industrial capital goods businesses. Moreover, it takes a critical perspective on the role of stakeholders within the complex decision making process in the implementation of IMC to suit different kinds and states of markets, and purchasing situations. And finally, proper use of marketing communication channels supports personal selling through relationship-, and brand development leading prospects into action, i.e. lead generation.

The most important buyer information sources on capital goods according to this research are: 1) the Internet, 2) references, and 3) WOM (word-of-mouth, both online and offline). This means that sellers need a) to build their IMC, the Web being the leading channel, and b) to pay attention to brand building and relationship development. Thus brand management is an integrated part of the business strategy in all sizes of capital goods companies. Integration of processes, contents and the roles of marketing, communication, sales and product development are needed to respond to the varying needs of different stakeholders, and decision makers throughout the buying process. Long term commitment from top management, market area specific resourcing and regular evaluation is needed to build the successful IMC strategy.

A globally operating capital goods company with multiple audiences (Figure 44, p. 104) needs to build its IMC so that the company, its products, and services can be found through those channels most convenient to each stakeholder wherever from the “information arena” and whenever he or she is searching for a solution to a need or for information on suppliers (Figure 49, p. 118). From information point of view, as this research shows, the industrial capital goods seller needs to be present also on the “end product” (in this study precast product) market and the “end product use” (in this study building construction) market, as Figure 20 (p. 61) shows.

The key tasks (1-7) for managers, leading to successful IMC, can be illustrated as follows: First as this research indicates company 1) business-, 2) brand- and 3) marketing communication strategies form the base for the IMC process (Figure 48, p. 117), they need to be composed. Then follows a thorough 4) stakeholder analysis on needs, buying behaviors, and information search habits. Thereafter the 5) planning of IMC programs takes place followed by 6) result monitoring and 7) reviewing back to the strategies, an onwards to the next cycle of the IMC process.

Thus this research shows how important it is for managers to first create then follow the business strategy of IMC: market- and stakeholder analysis is needed to be able to deliver information to the buyers in right channels. Finding out, who is stakeholder for capital goods, “customers” might not be a complete answer to who forms the demand generation for the end product, and who belong to the decision making process for supplier selection. Understanding the interactions among the different members throughout the decision making process is needed as well as the behavior of buying center members in their information search. This benefits the capital goods seller in receiving inquiries already in the earliest steps of the purchasing process thus increasing the possibility to be selected as supplier.

6.5 Social Implications

This research indicates that political organizations like governments, authorities, and other major social decision makers need to pay attention to generating more export for SMEs. Financial issues, directly related to promoting and supporting export as well as educational aspects need to be monitored and developed.

6.6 Limitations of the Research

This study has several limitations, which I believe provide useful avenues for future research. First this study considers a single business field, precast concrete technology, which sets limitations to external validity, i.e. generalizability of the results. Although the results in detail might not be valid for another capital goods industry, the way of operation for building global IMC is same for all industries.

Second, being management action research, where data is mainly qualitative, needing deep pre-understanding and understanding of the issues under investigation, and change of one specific phenomena restricts the research to be reproduced by another researcher. No other researcher could have similar access, which here was full and deep, to the data. As action research method suggests, the findings presented in this study should mostly be viewed as the researcher's subjective interpretation of the phenomena. However, every attempt was made to describe the research process in a manner that would make the interpretation as visible as possible. Triangulation by use of multiple data sources, also quantitative were used to avoid bias.

Additional limitations relate to external validity, since the sample for the survey did not include all the participants in the capital goods purchasing process. The online survey was carried out in English and Russian only, and not in the native tongues of the respondents. Fourth interviewing the extended buying center members was not possible.

6.7 Suggestions for Future Research

This research sheds light on the precast concrete technology industry, a niche area of capital goods. The results of this study could be taken as a pre-study for future studies in industrial capital goods marketing and marketing communication in general in a broad perspective.

Defining IMC for industrial marketing involving different kinds of capital goods marketers and markets should be taken further. Integration of business-, brand- and

communication strategies, as discussed in this research, seems to be the core of managing multiple audiences simultaneously. This calls for more research, academic and practical, on how to implement IMC for industrial capital goods, especially in a global context with a combination of established and emerging markets.

As mentioned in the previous chapters, in the capital goods business, buyer information sources vary across market areas, buying centers, and the type of purchase in question, thus it would be beneficial to the research community to know more about the influences affecting the active information search for supplier selection in all major emerging markets (Brazil, Russia, India, China, and South- Africa, the BRICS countries).

Another avenue for future research is industrial buying behavior in the capital goods business especially for studying the insights and interactions of the extended buying centers during the complex decision making process. Also, studies combining both disciplines organizational buying behavior and marketing communication would be beneficial.

One of the main findings of this study, the marketing communication channels, and their mix should be a subject for deeper research with information source preference by role in buying center (including opinion leaders and other non-buying members) as one of the core influences. What are other influences in other capital goods businesses affecting the active information search in different markets and buying centers leading to supplies selection is another topic for further research.

Another interesting focus for further research involves studying the entire purchasing process and the different participants needed out to discover what information sources used in the early stage of raising awareness, what are the ones to use in the middle and in the final stages of industrial capital goods marketing globally?

Finally: What is the overall importance of the Internet, especially the web, as buyer information source (search engines, online publications, websites, email newsletters, social media)? This should be researched for capital and other industrial goods in a global context.

Though the results of a single study require confirmation in a variety of business settings, I hope that this study provides a useful starting point for future empirical studies exploring the purchasing process of capital goods associated with IMC. From an academic perspective and in a broader context, I hope that my work will encourage more research dealing with “capital goods’ marketing communication and IMC.”

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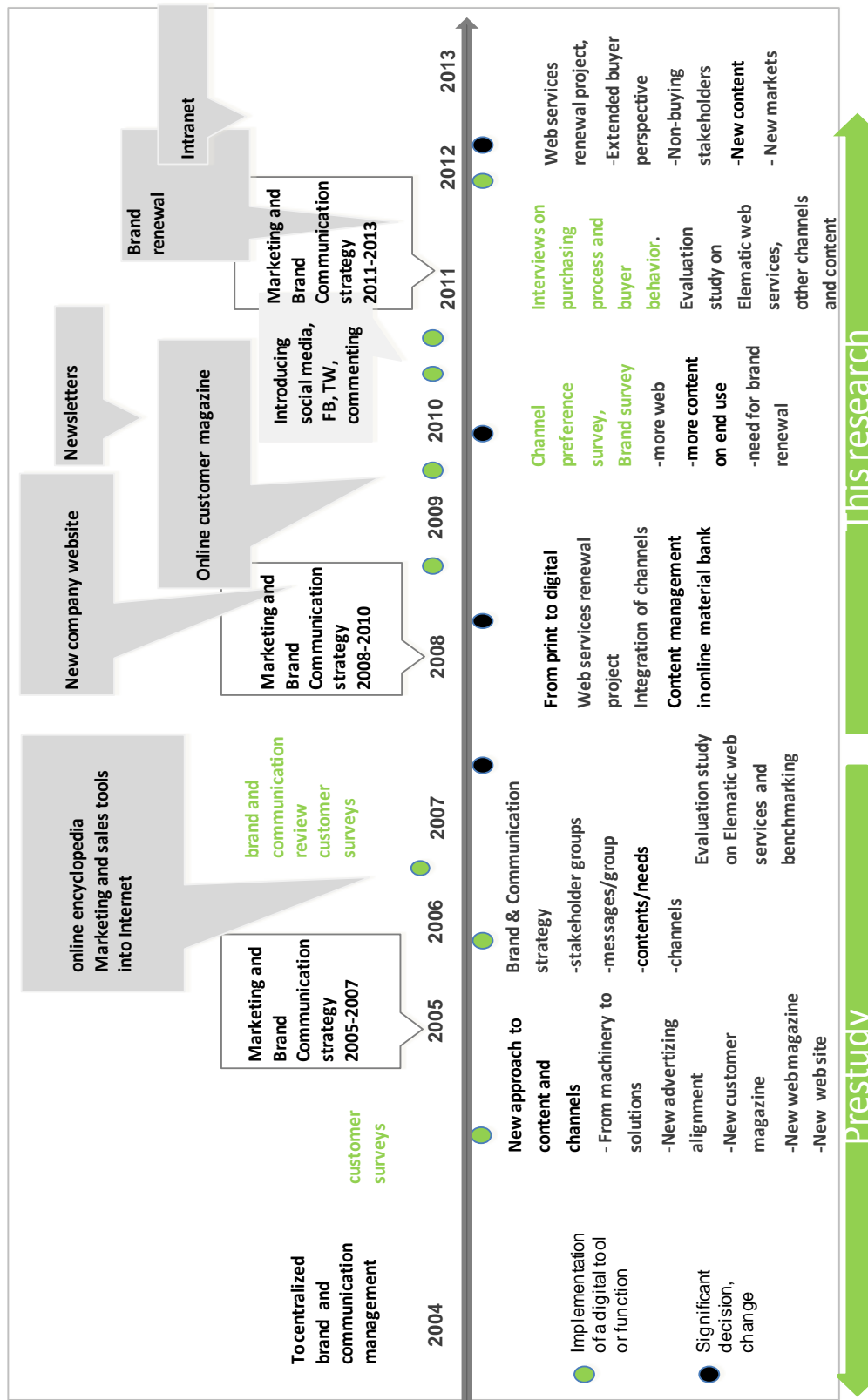
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Appendix 1

1/1

Marketing- and communication development of the case company; a schematic timeline of the process.



Appendix 2

1/5

Online Survey Questionnaire, Case Company,

QUESTIONNAIRE

BACKGROUND INFORMATION

1) How often do you hear about or have contact with Case Company?

Select:

- _Daily
- _Weekly
- _Monthly
- _A few times a year
- _Annually

2) In which country do you currently live?

3) Which role best describes you?

Select:

- Analyst
- Consultant
- Builder
- Precast manufacturer
- Media
- Distributor/Agent
- Educator
- Investor
- Case company employee
- Partner
- Supplier
- Trade organization
- Other, please specify: _____

4) What is your role in your organization?

Select:

- Executive management
- Management
- Specialist/Expert
- Operative personnel
- Maintenance/Services
- Engineering/Research
- Owner/Partner

5) In which industry do you work?

Select:

- Banking/Financial services
- Civil engineering
- Building construction
- Consulting/Research
- Precast manufacturer
- Education
- Government/Politics/Public Services
- Media
- Metal industry
- Non-governmental organization
- Quarrying
- Trade/Import/Export
- Other, please specify: _____

6) Age:

- Under 25
- 25-35
- 36-45
- 46-55
- Over 55

COMMUNICATION

Questions 1-6 on Case company image, reputation and competitors.

7) What are your main information sources for suppliers and contacts?

Please select the most important ones from the list below (max. 3).

Trade journals
Exhibitions
Internet, home pages
Search engines
Public industry forums, seminars
Online publications
Advertising
Brochures, other printed publications
Customer magazines, info bulletins, newsletters
Direct mailings
Sales personnel
Social media
Customer events
Other – please specify: _____

8) What are your main information sources for training options?

Please select the most important ones from the list below (max. 3).

Trade journals
Exhibitions
Internet, home pages
Search engines
Public industry forums, seminars
Online publications
Advertising
Brochures, other printed publications
Customer magazines, info bulletins, newsletters
Direct mailings
Sales personnel
Social media
Customer events
Other – please specify: _____

9) What are your main information sources for production technologies?

Please select the most important ones from the list below (max. 3).

Trade journals
Exhibitions
Internet, home pages
Search engines
Public industry forums, seminars
Online publications
Advertising
Brochures, other printed publications
Customer magazines, info bulletins, newsletters
Direct mailings
Sales personnel
Social media
Customer events
Other – please specify: _____

10) What are your main information sources for references?

Please select the most important ones from the list below (max. 3).

Trade journals
Exhibitions
Internet, home pages
Search engines
Public industry forums, seminars
Online publications
Advertising
Brochures, other printed publications
Customer magazines, info bulletins, newsletters
Direct mailings
Sales personnel
Social media
Customer events
Other – please specify: _____

11) What are your main information sources for services?

Please select the most important ones from the list below (max. 3).

Trade journals
Exhibitions
Internet, home pages
Search engines
Public industry forums, seminars
Online publications
Advertising
Brochures, other printed publications
Customer magazines, info bulletins, newsletters
Direct mailings
Sales personnel
Social media
Customer events
Other – please specify: _____

12) What are your main information sources for technical products/machinery?

Please select the most important ones from the list below (max. 3).

Trade journals
Exhibitions
Internet, home pages
Search engines
Public industry forums, seminars
Online publications
Advertising
Brochures, other printed publications
Customer magazines, info bulletins, newsletters
Direct mailings
Sales personnel
Social media
Customer events
Other – please specify: _____

Questions 13-14 on Case Company websites

Appendix 3

1/1

Interviews 2011-2012

Interviewee	Role	Geographical territory	Date	Time, min	Interview situation
P1	Representative	Russia	August 31, 2011	55	Face-to-face, no recording
P2	Sales Manager	Far-East Asia, India	January 9, 2012	32	Face-to-face
P3	Sales Manager	Saudi-Arabia	January 5, 2012	81	Skype
P4	Representative	India	September 14, 2011	40	Skype
P5	Sales Manager	Ukraine, Baltic countries	January 27, 2012	103	Skype
P6	Key Account Manager	Russia	August 22, 2011	60	Face-to-face
P7	Sales Manager	South-East Asia, Scandinavia	January 20, 2012	81	Skype
P8	Representative	Philippines	September 15, 2011	47	Skype
P9	Representative	Brazil	August 30, 2011	49	Face-to-face
P10	Sales Manager	Middle-East	January 6, 2012	57	Skype
P11	Key Account Manager	India, Saudi-Arabia	February 1, 2012	64	Skype
P12	Sales Manager	South-East Asia	September 14, 2011	30	Skype
P13	Key Account Manager	Scandinavia	February 8, 2012	52	Skype
P14	Sales manager	Russia	August 22, 2011	60	Face-to-face

INTERVIEW GUIDE

Sales Managers and Representatives Interview 2011-2012

THE PURCHASING PROCESS FOR THE CASE COMPANY MACHINERY

Purchasing process of Capital goods, like production lines, consists of various steps:

Initiation (need recognitions, fact finding, general solution)

Specification (specific solution, preparing of written specifications)

⇒ Approval of purchase

Search (supplier search, acquisition of proposals, and evaluation of proposals)

⇒ Selection of supplier

Formalization (negotiation, contract, payment)

Evaluation (performance, satisfaction)

1. PURCHASING PROCESS

1. What was the initiative for the purchase? Where from did the need arise? Who, why, how, by whom....
2. Who all were involved in the purchasing process, (roles: production people, technical people, marketing/sales people, top management, purchasing people...)
3. Who were the persons responsible in information gathering (initiation, specification)?
4. Who made the final decision to buy (approval of purchase), and from who (selection of supplier)?
5. When/in which phase of the purchasing process you
 - a. contacted the supplier? why, and how?
 - b. were contacted by the supplier? by whom, how?
6. When does agent/sales person come into picture as informant (=delivering information)?
7. Did you use internal information sources or external personal sources like colleagues with experience, consultants?
8. How many supplier candidates did you have and how were they dropped off till one?

2. INFORMATION NEEDED BY BUYER (think, what/how the buyer would say)

1. What is the most needed information in the initial phases (Initiation, Specification, Search) of the purchase (what to buy, from whom...)?
2. Where/how did you find needed information during the purchasing process of the machinery in question
3. What are the main values for information finding (speed, consistency...)?

3. INFORMATION CHANNELS (buyer insight think what/how the buyer would reply to these questions)

3.1 Trade journals

1. What do you read from trade journals?
2. Why do you read the trade journals?
3. Which trade journals do you follow (CPI, BFT)?
4. Which one do you prefer: paper or online (digital) journal?
5. How important are the trade journals as information source for different purchasing stages (Scale 1-5)?
6. Personally: Do you read trade journals and why?

3.2 Trade shows, exhibitions

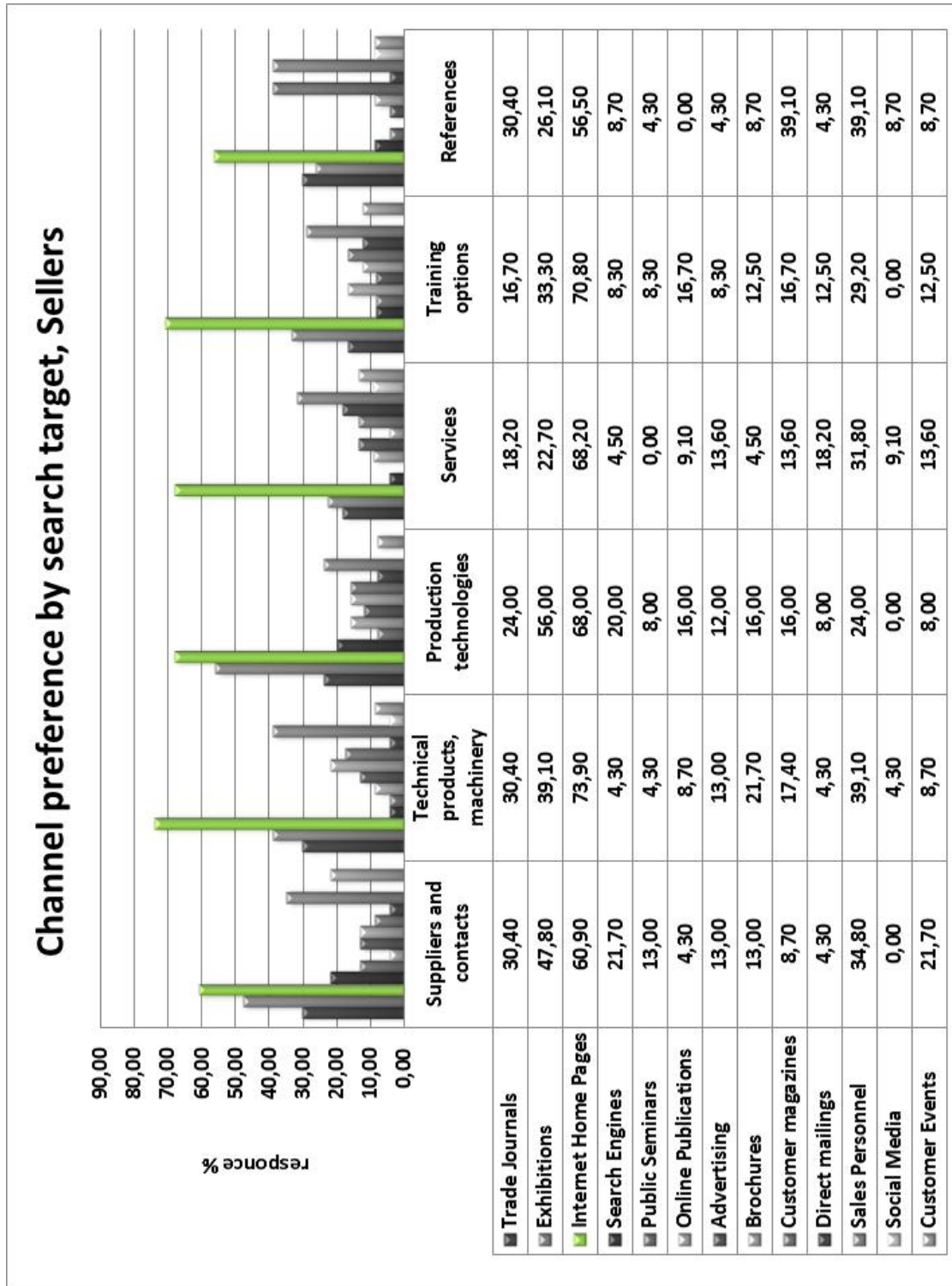
1. Why do you go to exhibitions? ("just browsing - for negotiations, - to contract signing")
2. Do you prefer local or international exhibitions?
3. What are you looking for from exhibitions?
4. What kind of expertise do you expect to get/find from a supplier's stand (technical people, project people, sales people, agents/representatives, top management, service in your own language?)
5. What do you expect to see/find from a supplier's stand (materials and their format, novelties, machinery...)
6. How important are the trade shows as information source for different purchasing stages (scale 1-5)?

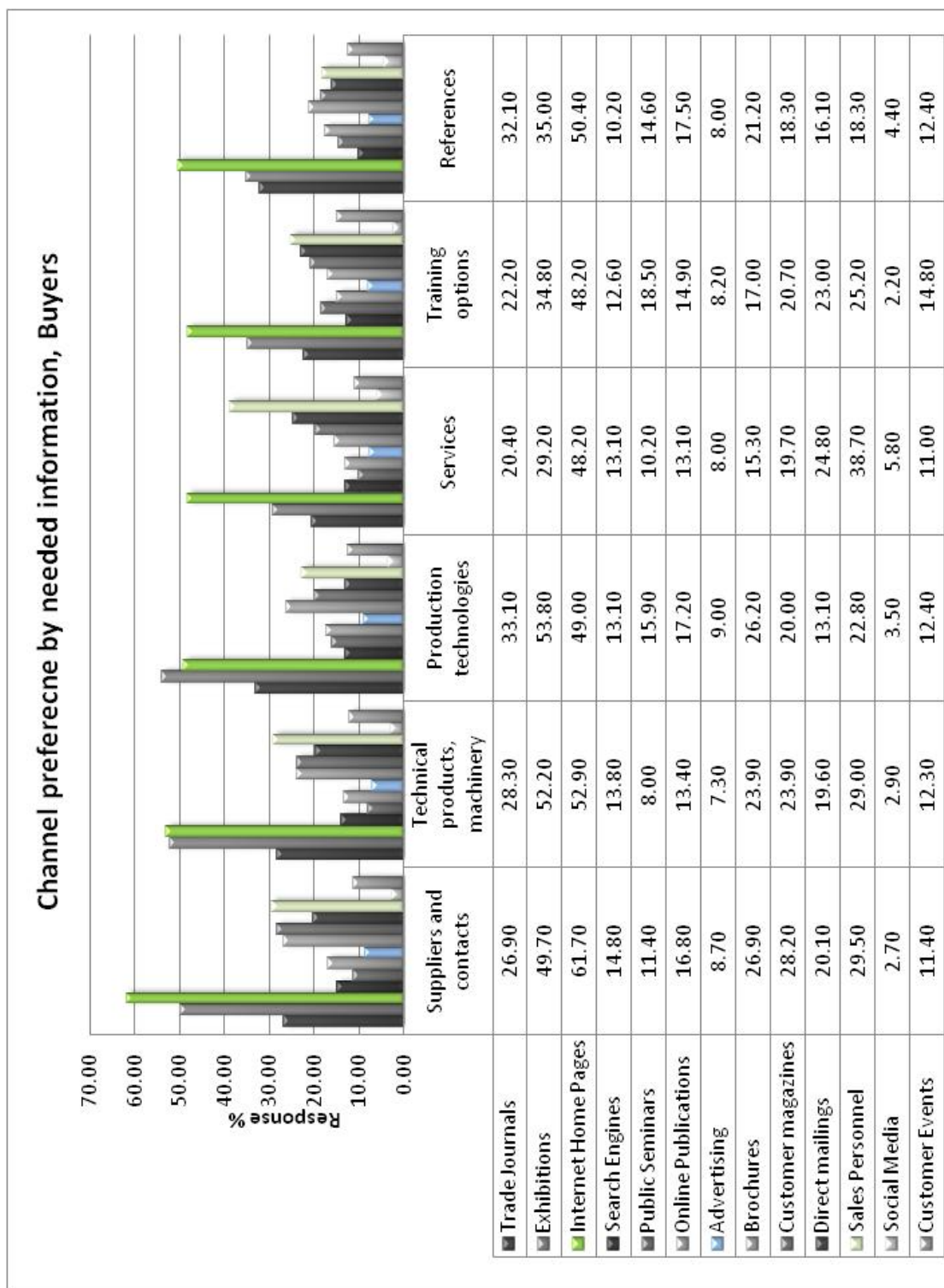
3.3 Internet (home pages), the Web

1. Do you use Google or other search engines (which) to get into company websites?
2. What kind of search words do you use?
3. What kind of information, and in which format, do you expect to find from the company websites, in general (company info, financial statements, products and services, contact information, news, downloads, references...)?
4. What kind of services/interactive functions do you see important and relevant on modern websites: FAQ, discussion boards, blogs, commenting, sharing, RSS, ordering, direct contacts to sales, and other people, materials/downloads (what, in which format), newsletters (ordering), news...)
5. How important is Internet and company websites as information sources for different purchasing stages (scale 1-5)?
6. Personally: Do you use/follow any blogs, FB, Twitter, RSS feeds etc. for getting information?

Appendix 5

General results of the survey for Seller and Buyers; Channel preferences by search targets





Appendix 6

1/3

Results of the online survey

Preferred information sources, % of responses; all respondents (general); seller and buyer.

Source		1	2	3	4	5	6	7	8	9	10	11	12	13
Search target														
Suppliers and contacts	General	29.7	52.6	61.8	18.9	10.8	14.1	10.4	25.7	21.7	17.3	30.5	2.8	11.6
	Seller	30.4	47.8	60.9	21.7	13.0	4.3	13.0	13.0	8.7	4.3	34.8	0	21.7
	Buyer	26.9	49.7	61.7	14.8	11.4	16.8	8.7	26.9	28.2	20.1	29.5	2.7	11.4
Technical products. machinery	General	31.0	51.1	56.3	17.5	8.3	11.4	7.4	25.3	18.8	17.9	29.3	3.1	12.7
	Seller	30.4	39.1	73.9	4.3	4.3	8.7	13.0	21.7	17.4	4.3	39.1	4.3	8.7
	Buyer	28.3	52.2	52.9	13.8	8.0	13.4	7.3	23.9	23.9	19.6	29.0	2.9	12.3
Production technologies	General	33.9	52.5	54.7	15.7	14.4	17.4	8.9	26.7	17.4	15.3	22.9	2.5	11.4
	Seller	24.0	56.0	68.0	20.0	8.0	16.0	12.0	16.0	16.0	8.0	24.0	0	8.0
	Buyer	33.1	53.8	49.0	13.1	15.9	17.2	9.0	26.2	20.0	13.1	22.8	3.5	12.4
Services	General	23.9	31.9	51.8	12.8	9.3	13.7	10.2	15.0	17.3	21.2	36.7	5.8	12.4
	Seller	18.2	22.7	68.2	4.5	0	9.1	13.6	4.5	13.6	18.2	31.8	9.1	13.6
	Buyer	20.4	29.2	48.2	13.1	10.2	13.1	8.0	15.3	19.7	24.8	38.7	5.8	11.0
Training options	General	23.0	35.8	54.9	12.4	15.9	15.5	8.8	17.7	18.6	21.2	27.4	2.7	13.3
	Seller	16.7	33.3	70.8	8.3	8.3	16.7	8.3	12.5	16.7	12.5	29.2	0	12.5
	Buyer	22.2	34.8	48.2	12.6	18.5	14.9	8.2	17.0	20.7	23.0	25.2	2.2	14.8
References	General	36.4	36.4	53.1	13.2	13.6	16.2	10.1	21.9	21.1	16.2	24.1	6.1	12.7
	Seller	30.4	26.1	56.5	8.7	4.3	0	4.3	8.7	39.1	4.3	39.1	8.7	8.7
	Buyer	32.1	35.0	50.4	10.2	14.6	17.5	8.0	21.2	18.3	16.1	18.3	4.4	12.4

Sources: 1=Trade Journals, 2=Exhibitions, 3=Internet, home pages, 4=Search engines, 5=Public industry forums, seminars, 6=online publications, 7=Advertising, 8=Brochures, other printed publications, 9=Customer magazines, info bulletins, newsletters, 10=Direct mailings, 11=Sales personnel, 12=Social Media, 13=Customer events

Geographical deviation of preferred buyer information sources for different search targets; % of responses by precasters (buyers).

Search target \ Source		1	2	3	4	5	6	7	8	9	10	11	12	13
Suppliers and contacts	SCAN	14.8	22.2	85.2	3.7	11.1	7.4	3.7	25.9	44.4	22.2	44.4	0	3.7
	ME	9.4	59.4	40.6	18.8	12.5	9.4	15.6	37.5	15.6	12.5	40.6	6.2	18.8
	NA	40.0	40.0	40.0	10.0	10.0	0	10.0	10.0	40.0	20.0	50.0	10.0	10.0
	CIS	44.4	80.6	66.7	22.2	13.9	33.3	5.6	13.9	16.7	11.1	11.1	0	8.3
Technical products. machinery	SCAN	11.5	30.8	61.5	7.7	7.7	7.7	7.7	19.2	23.1	26.9	53.8	3.8	19.2
	ME	26.7	46.7	36.7	20.0	10.0	6.7	3.3	26.7	23.3	20.0	40.0	6.7	23.3
	NA	42.9	71.4	14.3	14.3	14.3	0	14.3	14.3	28.6	14.3	42.9	14.3	14.3
	CIS	42.4	72.7	66.7	30.3	15.2	18.2	12.1	18.2	18.2	15.2	3.0	0	9.1
Production technologies	SCAN	19.2	38.5	61.5	11.5	19.2	3.8	3.8	19.2	15.4	11.5	46.2	0	11.5
	ME	22.6	61.3	32.3	9.7	3.2	12.9	16.1	22.6	22.6	25.8	29.0	6.5	22.6
	NA	40.0	50.0	20.0	10.0	10.0	0	20.0	20.0	40.0	20.0	30.0	10.0	0
	CIS	51.5	75.8	57.6	27.3	24.2	36.4	6.1	9.1	9.1	12.1	6.1	3.0	15.2
Services	SCAN	11.5	7.7	50.0	7.7	3.8	15.4	7.7	7.7	30.8	42.3	50.0	3.8	11.5
	ME	20.0	20.0	36.7	16.7	16.7	3.3	13.3	20.0	16.7	20.0	43.3	6.7	16.7
	NA	25.0	12.5	37.5	12.5	25	0	0	0	25.0	0	75.0	12.5	12.5
	CIS	41.2	73.5	64.7	26.5	8.8	35.3	8.8	11.8	14.7	11.8	2.9	5.9	11.8
Training options	SCAN	16.0	16.0	56.0	12.0	12.0	8.0	8.0	16.0	16.0	36.0	48.0	0	12.0
	ME	13.3	40.0	40.0	6.7	16.7	6.7	10.0	10.0	20.0	30.0	23.3	10.0	20.0
	NA	28.6	57.1	42.9	0	28.6	0	28.6	0	14.3	0	57.1	0	28.6
	CIS	51.5	57.6	51.5	21.2	30.3	30.3	6.1	21.2	15.2	15.2	9.1	0	12.1
References	SCAN	26.9	11.5	50.0	11.5	19.2	3.8	15.4	19.2	23.1	11.5	23.1	11.5	23.1
	ME	33.3	36.7	43.3	10.0	6.7	6.7	16.7	36.7	6.7	23.3	23.3	6.7	13.3
	NA	42.9	28.6	14.3	14.3	0	0	0	14.3	42.9	28.6	14.3	14.3	14.3
	CIS	48.5	66.7	66.7	21.2	27.3	45.5	9.1	15.2	9.1	18.2	3	0	15.2

Sources: 1=Trade Journals, 2=Exhibitions, 3=Internet, home pages, 4=Search engines, 5=Public industry forums, seminars, 6=online publications, 7=Advertising, 8=Brochures, other printed publications, 9=Customer magazines, info bulletins, newsletters 10=Direct mailings, 11=Sales personnel, 12=Social Media, 13 =Customer events

Preferred information sources for different search targets by age groups; % of responses.

search target source	Age group ≤45 y						Age group ≥46y					
	Sup	Mach	Tech	Train	Serv	Ref	Sup	Mach	Tech	Train	Serv	Ref
1	24.7	22.1	27.8	24.3	17.7	30.0	29.0	34.3	38.4	20	23.2	34.3
2	47.9	52.9	54.2	40.0	36.8	35.7	51.3	51.4	53.4	29.2	21.7	34.3
3	64.4	61.8	51.4	55.7	48.5	55.7	59.2	44.3	46.6	40.0	47.8	44.8
4	11	11.8	9.7	14.3	13.2	12.9	18.4	15.7	16.4	10.8	13	7.5
5	8.2	8.8	15.3	14.3	10.3	14.3	14.5	7.1	16.4	23.1	10	14.9
6	20.5	16.2	20.8	18.6	13.2	18.6	13.2	10	13.7	10.8	13	16.4
7	6.8	7.4	6.9	8.6	7.4	5.7	10.5	7.1	11	7.7	8.7	10.5
8	35.6	23.5	19.4	17.1	16.2	20	18.4	24.3	32.9	16.9	14.5	22.4
9	30.1	20.6	22.2	18.6	17.7	15.7	26.3	27.1	17.8	23.1	21.7	20.9
10	26	29.4	20.8	28.6	33.8	20	14.5	10	5.5	16.9	15.9	11.9
11	17.8	25	16.7	12.9	33.8	22.9	40.8	32.9	28.8	38.5	43.5	13.4
12	4.1	2.9	2.8	1.4	5.9	5.7	1.3	2.9	4.1	3.1	5.8	3
13	13.7	16.2	16.7	12.9	13.2	15.7	9.2	8.6	8.2	16.9	8.7	9

Sources: 1= Trade Journals, 2=Exhibitions, 3= Internet, home pages, 4= Search engines, 5= Public industry forums, seminars, 6= Online publications, 7= Advertising, 8 =Brochures, other printed publications, 9 =Customer magazines, info bulletins, newsletters 10= Direct mailings 11= Sales personnel, 12= Social Media, 13 = Customer events

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