MASTER'S THESIS

Communicating Research Services

Jonas Larsson
Daniel Ulvefeldt

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Business Administration

Luleå University of Technology
Institutionen för ekonomi, teknik och samhälle

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ABSTRACT

The purpose of this thesis is to be able to describe the marketing communication of industrial research services. The research topic was developed in close dialogue with Swerea Mefos' CEO, Göran Carlsson. The early discussion concerned how marketing theories could be applied to research service firms' marketing efforts to create effective marketing communication. The study used a combination of quantitative and qualitative methods, foremost interviews with customers to Swerea Mefos. This research also attempted to investigate if marketing theories should be tested in specific industries, to understand the different preferences in different industries.

Findings show that there are clear specific preferences for the interviewed customer firms. When it comes to communication channels, telephone, e-mail, conferences and scientific articles were found to be the preference. Furthermore, the business relationship also affects the customer's preference for a certain type of communication channel. When it comes to the part time marketer (PTM), it was found that it is the competence and knowledge sought after by the customers. The PTMs role within a research service firm is to be the seller, the marketer and the producer of the services. Not only that, the findings show that there is a PTM within the customer firm, representing and trying to sell the supplier within its own organization.

SAMMANFATTNING

Syftet med denna studie är att kunna beskriva forskningsföretags marknadskommunikation. Forskningsämnet diskuterades fram med Swerea Mefos VD, Göran Carlsson. De första diskussionerna behandlade hur marknadsföringsteorier kan appliceras till ett forskningsföretags marknadsföring för att skapa en effektiv marknadskommunikation. För att genomföra studien användes en kombination av kvantitativa och kvalitativa forskningsmetoder, främst intervjuer med kunder till Swerea Mefos. Vidare har studien undersökt om marknadsföringsteorier ska undersökas inom specifika industrier, detta för att förstå om preferenserna skiljer sig åt mellan olika industrier.

Resultaten från denna studie visar att det finns specifika preferenser bland de intervjuade företagen inom undersökta områden. När det kommer till kommunikationskanaler faller preferenserna på telefonsamtal, e-mail, konferenser och vetenskapliga artiklar. Vidare visade datainsamlingen att affärsrelationen påverkar kundens preferenser för en viss typ av kommunikationskanal. När det kommer till deltidsmarknadsföraren inom ett forskningsföretag visar resultaten att kunderna efterfrågar PTM:ens kompetens och kunskap. Vidare är PTM:ens roll att vara säljare, marknadsförare och producera forskningstjänsterna. Utöver det visar resultaten att det även finns en PTM inom kundföretagen, som representerar och försöker sälja in leverantören inom sin egen organisation.

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1. INTRODUCTION

This thesis studies the marketing communication channels for research service firms from a management and customer perspective. The study incorporates the perspectives of part time marketers, relationship marketing and integrated marketing communication (IMC). A definition of research service firms will be determined, prior studies within service marketing have not investigated industrial research services – therefore there are no scholarly definitions of industrial research services as of yet.

1.1 Service Marketing

Most differences between services and goods are attributed to services' unique characteristics – intangibility, inseparability, heterogeneity, and perishability (Table 1.1). Inseparability means that services are produced and consumed simultaneously. Heterogeneity refers to the potential for service performance to vary. As services are produced by people, variability is inherent in the production process; consistency issues cannot be eliminated as it can be with the production of goods. Finally, perishability means that services cannot be stored; unused capacity in services cannot be reserved, and services themselves cannot be inventoried. Perishability therefore, leads to formidable challenges balancing supply and demand. Because services ranges from tangible dominant to intangible dominant, the magnitude and subsequent affect that each of these four characteristics has on the marketing of individual services will vary (Hoffman, Bateson, Wood, and Kenyon 2009).

TABLE 1.1: Characteristics of Services

Intangibility		Inseparability	
Characteristics	**Challenges**	**Characteristics**	**Challenges**
• Services cannot be seen, tasted, heard, smelt or felt • Services are performed rather than produced	• Lack of service inventories • Lack of patent protection • Difficulty in displaying or communicating services • Difficulty in pricing services	• Delivery of services cannot be separated from providers	• Physical connection of the service provider to the service • Involvement of the customer in the production process • Involvement of other customers in the production process • Special challenges in mass production of services
Heterogeneity		**Perishability**	
Characteristics	**Challenges**	**Characteristics**	**Challenges**
• Quality of services varies due to who provides them • Where, when and how they are provided also affect quality	• Service standardization • Quality control	• Services cannot be stored • Must be consumed when offered, they cannot be held or stocked	• Higher demand than maximum available supply • Higher demand than optimal supply level • Lower demand than optimal supply level

SOURCE: Hoffman et al. 2009, 26–35

Invisible and visible parts of organizations, contact personnel and physical environment, organization and customers, indeed the customers themselves, affect service delivery. Consequently marketing staff must maintain a close relationship with the rest of service organizations. Department only assuming responsibility for their own operations cannot work in service firms. This puts considerable pressure on communication both internally as well as marketing communication externally, as a tool to minimize the negative effects of intangibility, inseparability, heterogeneity and perishability (Hoffman et al. 2009).

1.2 Marketing Communication

The primary role of communication strategy is to inform, persuade, or remind customers about services being offered. Marketing communication represent all the elements in the marketing mix that facilitate establishing shared meanings with brands' stakeholders. Communications strategy therefore, is a key element and means of integrating the service marketing mix (Grönroos 2004; Hoffman et al. 2009). Communicating service offerings may be accomplished through non-personal sources (television advertising, printed information in magazines and newspapers), or through personal sources on a face-to-face basis through individuals who meet customers (Hoffman et al. 2009).

Communications objectives and strategies vary – separate communication strategies are necessary for users of services to influence or change patterns of service use, and for nonusers to attract them. However, to make the most of the wide variety of methods and media available, consistency of the message is necessary (Hoffman et al. 2009). This study however is solemnly looking at active communication from the marketing company, leaving out the invisible communication discussed by Finne and Strandvik (2012).

1.2.1 Developing a communications strategy

The development of a communication strategy is based on identifying target markets, selecting a positioning strategy and designing a communications mix. Positioning is particularly critical for service firms where intangibility inhibits customers' ability to differentiate between service offerings. The objectives of communications strategy change in priority over the course of the product's life cycle and whether current users or nonusers are targeted. Therefore, the communications mix elements will also change (Hoffman et al. 2009).

Organizations' promotion communicates their positioning strategy to relevant markets. The term communications mix describes the array of communication tools available. Just as marketers need to combine the elements of the marketing mix to produce a marketing program, they must also convey the message by selecting the most appropriate communication vehicles from the growing number of media available.

Elements of the communications mix have traditionally been categorized under four headings; personal selling; media advertising; publicity and public relations; and sales promotion. Personal selling is a two-way form of communication. The rest has been seen as one-way communication. However, with the development of new media a wide variety of methods now exist with the propensity for two-way communication. Using more than one communications tool or using any one tool repeatedly increases the chances that existing and potential customers will be exposed to the communicated message. The communications mix often lays the foundation for subsequent contact with potential customers, and should collectively meet the overall objectives of the communications strategy (Hoffman et al. 2009).

1.2.2 Special problems of the service communications mix

Intangibility and inseparability present certain challenges when developing a communication strategy. First, services are often consumed as a shared experience – mistargeted communications will likely result in unanticipated consequences. Second, communication is often interpreted as an explicit service promise that customers use to base their initial expectations. Third, employees often produce the service in proximity to customers – employees should therefore be considered as much a target audience as customers. Finally, service providers produce but also sell services. When the service provider is engaged in selling activities production halts; when the service provider is producing services, customers are not being cultivated (Hoffman et al. 2009).

1.3 Part Time Marketer

In service firms, employees not only take part in production but also serve as a marketing platform. This explains the dilemma previously discussed. Apart from products that meet or exceed customer expectations, interaction between customers and firm representatives will greatly affect the perception of firms, a process that Grönroos (1982) calls perceived service quality. Given the intangibility of service products, this perception is very important since customers have little else by which to judge service firms (Gummesson 1991).

Grönroos (1996) posits that service firm employees contribute greatly to the marketing efforts and in fact form the bulk of service firms' marketing affect. Consequently, he developed the idea of the part time marketer (PTM), i.e. an individual not directly responsible for marketing that manages the market relationships of an organization part of the time at work. Gummesson (1991) concludes that, "marketing orientation is only achieved when all members of an organization have asked themselves "how do I contribute to excellence in customer relations and to revenue" (60).

1.4 Problem Area

A marketing strategy helps to manage the issues of services' unique characteristics. Conversely, when service firms work in an ad hoc manner with marketing it becomes much less effective (Hoffman et al. 2009). Additionally, the lack of a communication strategy, can make it harder finding the right balance of production, marketing and sales orientation of PTMs. Service firms may become too production focused, resulting in a struggle to generate new business with existing customers, but also generate new customers (Gummesson 1991). Some organizations lack experience and personnel to handle marketing in a structured way. However, the marketing of services may be affected by the type of service, target group and/or customers and industry (Hoffman et al. 2009). This suggests that industry specific characteristics to optimize marketing efforts should be identified and correctly used.

This is also evident for the Swedish research service firm Swerea Mefos, as the company approached the authors in an attempt to gain a better understanding of how the company could market and communicate its business to generate further growth. The company is today working with marketing in an ad hoc manner rather than knowledge as Swerea Mefos lacks experience and resources to employ a full time marketer (Carlsson 2012a). With the addressed question, the authors searched for previous research within marketing of industrial research services and industrial research service firms, but found little concerning marketing of industrial research service firms. This raised the question of how marketing theories should be adapted in the setting of a research service firm.

PTMs are a big part of service firms' marketing towards both existing and potential customers. Research service firm employees have considerable knowledge and competencies within their field of expertise (Carlsson 2012a), but have often not accumulated sufficient marketing skills (Gummesson 1991; Hoffman et al. 2009). Therefore, the role of PTMs in research service firms should be investigated further.

Service firms' marketing communication should use channels in which the target group(s) can be reached. Danaher and Rossiter (2011) conclude that the communication channels they researched can be complemented with industry specific communication channels. Furthermore, Danaher and Rossiter concretize the challenges of communicating service products, i.e. how one chooses from a wide array of communication channels to market service products to customers. This is further supported as the specific characteristics of a research service which could add another dimension to the available communication channels for a research service firm.

The interest showed by Swerea Mefos of marketing an industry research service firm, illustrated the demand to acquire this specific knowledge. This opportunity allows theory within service marketing, particularly marketing communication to be developed, as the theories are applied within a specific industry. This study may also show the need to test general marketing theories in specific settings, such as for one type of service or within specific service industries. The aim is to contribute by making theory more applicable for practitioners within industry research services. The overall research problem used for this thesis is as follows;

How can marketing communication of industrial research services be described?

1.5 Delimitations

This thesis studied one case in which a pilot study was conducted. The pilot study provided an understanding of the business of industry research services, marketing problems, and if any indications of marketing perception can be found that later can be used during data collection. This study makes the delimitation at the level of active communication sent from a research service firm, to customers and customers' active communication with a research service firm. Invisible communication, such as word of mouth have been excluded as it is a result of the active communication from the firm, and the work done by the firm towards its customers (Finne and Strandvik 2012).

2. PILOT STUDY – SWEREA MEFOS

This pilot study was made to get a better understanding of Swerea Mefos. To this the authors attempts to define research service firms and research services as it has not been explored or defined by scholars. The pilot study was made through interviews with Swerea Mefos' CEO, Göran Carlsson.

2.1 Background

Swerea Mefos was founded in 1963 and is located in Luleå, Sweden. In 2011 the company had an annual turnover of about MSEK 140. Today Swerea Mefos has 92 employees, of which 56 are researchers. Among the researchers the educational level is high; one professor, one adjunct professor, one associate professor, and 15 PhD students (Carlsson 2012a). Out of 56 researchers, 14 have more than ten years individual experience from working in the industry. The company is owned by Swerea AB, which in its turn is owned by the Swedish State (43 percent) and five associations. These five associations in turn, are composed of about 450 companies in the steel industry, which owns the rest (57 percent) – making Swerea AB and its subsidiaries privately owned (Carlsson 2012c).

2.2 Defining Industrial Research Service Firms

Swerea Mefos defines itself as an industrial research institute [research service firm], which is signified by a large portion of commercial research conducted. The company says that about fifty percent of its total revenues comes from combined research projects, and fifty percent from customer projects. If the revenue spread would be more towards eighty percent customer projects, and twenty percent combined research, Swerea would be more characterized as a consultancy firm (Carlsson 2012b). Similar to a consultancy firm, the research service firm sells work hours, or competencies, and the content that is handed over to the customer after a project. The service product that customers buy is affected by the researchers' seniority. The researcher's previous experiences, and competence sets the hour price for a researcher, and the company's technicians have their own price guide.

2.3 Products

The combined research projects are made with a combination of companies, mainly member companies. In the case when the combined research project is made through an EU program, the project members can come from outside Swerea Mefos' member companies. The results from the combined research are owned by the project consortium. The other part of Swerea Mefos' business is customer projects. A customer project can be described as an individual project commissioned by a single customer. Customers own all results from such projects, and customer projects are not limited to merely member companies.

Swerea Mefos is highly niched within the research industry. As such, its main customer group is found within a specific industry. For Swerea Mefos its customer group is found within the metallurgical industry, steel industry, base metal and alloy industry, environmental companies, energy producers, as well as raw material suppliers to the three branches, though customers mainly come from the steel industry.

Swerea Mefos has built up a member program, consisting of two types of memberships, full membership and associated membership. The difference is mostly geographical – full members must have significant operations within Scandinavia. Companies can otherwise become associated members. Both memberships give members a price discount, access to experts, and are prioritized if there are queues in any of Swerea Mefos test facilities. The cost of memberships is dependent on several factors, such as company size, companies' value added services and/or products, and firms' potential profit from memberships. Swerea Mefos currently has about 40 member companies (Carlsson 2012a).

2.4 Customers

Few of Swerea Mefos' customers are frequent or returning customers. Most customers come with very specific issues in a particular phase of development and later have no direct reasons for repurchasing. There are customers that continuously work to trim processes and frequently make repurchases – most of them are found as member companies. The company tries to build a strong relationship with its customers, but its frequent customers and associated members are naturally given more attention. However, when working in a customer project, Swerea Mefos wants its customer to take part in the work and be present at the company's premises to get customers active and to enhance the knowledge transfer to customers.

Swerea Mefos relies on customer visits when marketing, either through customers visits or visits at customers' facilities. An initial meeting is always focused on presenting the company, its business and services, to establish credibility. Often it takes much time and effort to establish a new business relationship, and to get customers to assign Swerea Mefos customer projects. Swerea Mefos has experienced cultural differences and other aspects that can make the relationship building process even longer.

2.5 Communication Strategy

The company is presently working to develop a new communication strategy. In this, the company puts emphasis on the group's overall professionalism, and its experience in handling confidential projects. However, Swerea has not done any categorization of target groups for each specific subsidiary. Swerea Mefos see potential in both the Chinese and Indian markets as these markets' steel and base metal industries are developing rapidly. This has directed some of the company's activities towards these markets, which has lead to some customer projects, especially from China.

The company emphasizes that the best marketing is high quality work with good results. Swerea Mefos argues that satisfied customers give good word-of-mouth marketing as well as the increased chance to have customers return. Moreover, Swerea Mefos is working with conferences as a marketing channel, in which the company can present its competencies and achievements. Another important marketing channel is published scientific articles written by employees (Carlsson 2012a).

Swerea Mefos' marketing can be described as ad-hoc. The ad-hoc manner stems from the lack of a long-term marketing plan as well as limited marketing competencies and resources (Carlsson 2012c). Given the company's limited resources, Swerea Mefos thinks that it should focus on some of the marketing communication channels available to them. The company's marketing is heavily focused on the Swedish market, and the growth potential is thought to be elsewhere. Swerea Mefos is trying to understand how a global market should be tapped into.

Covering the aspect of PTMs, the company's employees are highly production oriented when involved in a project, but shift focus when a marketing orientation is more appropriate – then, PTMs see themselves to have more of a sales focus. Swerea Mefos has a sales training that approximately 35 employees have undergone. Most of them are project leaders, and those who are responsible for customer contacts. The organization's marketing communication is not consistent, and different messages are sent from different employees.

Telephone calls and e-mail are the two predominant communication channels that Swerea Mefos uses. These channels are used to establish contact and to build stronger relationships with potential customers as well as existing customers. Additionally, personal meetings is an important channel to build trust and share experiences. Furthermore, personal meetings are required as much of the company's customer projects are complex, time consuming, and expensive.

Swerea Mefos publishes two magazines to its members. Through these channels, the company is describing what it is doing, the projects that are running and conferences Swerea Mefos is arranging. Swerea Mefos see this as a good channel as it is able to distribute information in a concentrated form to its members.

The pilot study showed that Swerea Mefos uses two industry specific communication channels; conferences and scientific articles. These channels are described to be very important within the research service industry. The conference's is an important channel to communicate competences, describe facilities, as well as results from research projects and findings to target groups. Furthermore, this channel is favorable as the audience is attending the conference based on an interest in the subject and is perceptible to new information.

Scientific articles are used as an acknowledged channel to push information regarding the company research and its results. This channel represents new knowledge, quality research, professionalism and proof of competencies. Published scientific articles written by employees strengthen company's reputation as an established research institute. The pilot study showed that door-to-door visits are not applicable for this type of business, and will therefore not be used as a potential communication channel.

2.6 Pilot Study Findings

Evidently making 'correct' marketing decisions in firms where marketing is mostly done in an ad hoc fashion is difficult. One of the main reasons for the ad hoc manner is limited resources (financial, time, marketing knowledge, lack of expertise, personnel). This also creates a situation where the firm has no clear communication strategy that the firm proactively uses. Similar to many other small to medium-sized enterprises, Swerea Mefos has little formal marketing competencies. Moreover, the industry uses communication channels that are likely not as common in other industries, e.g. scientific articles. The company lacks solid understanding of what marketing channels are most effective to reach its target group. How these channels are considered by customers and their effect on the perception of Swerea Mefos is for the company, important to investigate.

Reaching the potential customers with the proper message is crucial. Employees' contribution as PTMs cannot be neglected. This as the employees contribute greatly to how potential customers perceive Swerea Mefos. How they handle potential customers and how potential (current) customers want to be treated become valid questions. The results from this study will contribute to increase the efficiency in Swerea Mefos marketing. The focus will lie on presenting related theories, to better understand how industrial research firms could focus marketing resources to effectively target potential customers, looking mainly into marketing channel choice, and the role of PTMs.

3. LITERATURE REVIEW

This section will summarize and synthesize relevant work and theories pertaining to this study. The pilot study and analysis of previous work will be the basis for this study's frame of reference and consequently the problem discussion.

3.1 Corporate Communication Strategy

Steyn (2004) argues that corporate communication and public relations are theoretically the same. However, the expression corporate communication is preferred as public relations has a negative connotation to some. Following the definition of public relations by The World Assembly of Public Relations Associations, public relations is "the art and social science of analyzing trends, predicting their consequences, counseling organizational leaders and implementing planned programs of action which will serve both the organizations and the public interest" (PRII 2008). Long and Hazelton (1987) define public relations as being "a communication function of management through which organizations adept to, alter, or maintain their environment to achieving organizational goals" (3).

Corporate communication strategy falls under the level of functional strategy, as it demonstrates the contribution to organizations' effectiveness. However, being able to formulate a proper corporate communication strategy depends on whether marketing practitioners are familiar with and understand firms' business and societal issues companies face. Enterprise, corporate, and business unit strategies are determined at a senior management level, while functional strategies are not. The challenge when formulating corporate communication strategies is to connect it to what already is stated in the top agenda (Steyn 2004).

A clear corporate communication strategy give firms focus and direction to their communication and relationship building with strategic stakeholders. The communication strategy should outline what should be communicated and not how it should be communicated. There should be the thinking and logic behind marketing practitioners' actions, which should be formulated in a communication plan in order for firms to put strategy into action (Steyn 2004).

When developing the corporate communication strategy, one start within the context of organizations' internal environment, but the purpose is to make an assessment of the external environment. Strategic decisions are taken in regard to the identification and management of communication with firms' strategic stakeholders. These decisions can produce a profile of which stakeholders firms will give reasonable emphasis (Steyn 2004). With that knowledge gained, firms have to formulate the communication strategy; what should be communicated to "capitalize on the opportunity presented by the key strategic issue" (180), and finally develop a strategic communication and action plan to meet the communication goals (Figure 3.1).

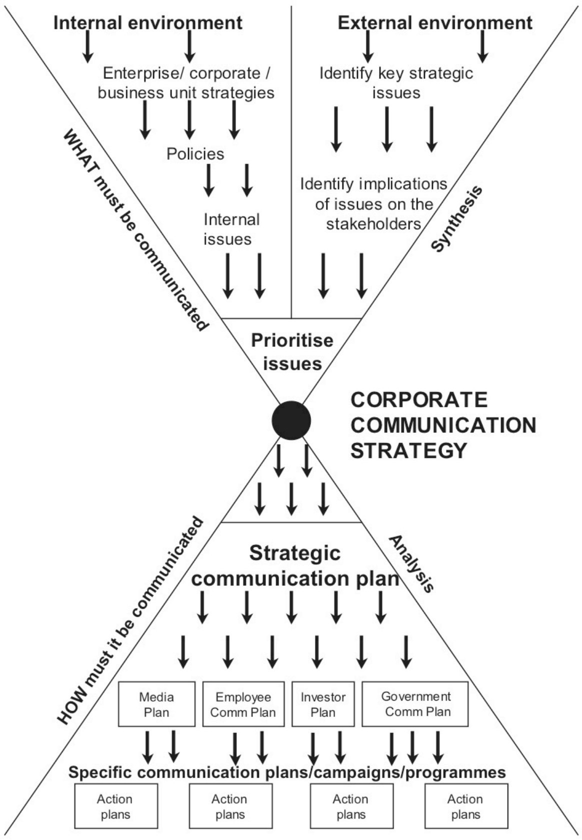

FIGURE 3.1: The Process of Developing Corporate Communication Strategy
SOURCE: Adapted from Steyn 2004, 181

Firms to take important decisions regarding what issues to address as service firms cannot attend to all issues. Also, all stakeholders do not care equally about specific issues (Anderson and Narus 1991; Dwyer and Tanner 2009; Steyn 2004). Therefore, the communication strategy gives firms a strategic approach to proactively identify and prioritize issues and stakeholders, in order for firms to integrate the stakeholders into a "corporate community" (Steyn 2004). It is also described as a problem solver in unstructured situations, as the strategy gives firms a guide to selecting the right problem to solve in changing situations. Steyn summarizes it as being "a mechanism that leads the function towards effectiveness (doing the right things) rather than towards efficiency (doing things right)" (179).

3.2 Communication and Integrated Marketing Communication

Firms' only method to spread their message is through different means of communication. Firms develop their communication mix to inform, persuade, and remind existing as well as non-existing customers (Hoffman et al. 2009). For this, one has to go back to the basic definition of communication, and the most famous and widely used definition of communication (Danaher and Rossiter 2011) was presented by Lasswell (1948), see Figure 3.2.

Laswell's communication pillars	Who	Says what	In which channel	To who	With what effect
Description	The source or sender	The message content	The medium in which the message is put through	The intended receiver	Does the message trigger an action from the intended receiver?

FIGURE 3.2: Lasswell's Communication Pillars
SOURCE: Adapted from Lasswell 1948; Danaher and Rossiter 2011

Lasswell's definition of communication has been built upon to form marketing theories; firms have used it to fine tune the communication to their stakeholders. This development has been inevitable because of the growth and adaptation of new technology and communication media (cellphones, internet). These new media give firms new channels and tools to reach their target groups more effectively. However, at the same time customers are drowning in communication and have to deal with "information overload", which makes customers harder to reach (Malhotra 1982).

The difficulty for firms, especially those with limited marketing resources, is knowing how to penetrate the noise to reach customers with their message. The media selectiveness of receivers is a problem in itself, and puts more emphasis on the importance that senders know in which channel(s) receivers most likely will be present, open to, and preferably respond to the message being sent (Malhotra 1982; McLuhan 1964). The right channel choice was found to be a challenge for B2B firms. Many firms experienced very little effect from their marketing campaigns, simply because they put out the message in channels where they do not reach their potential customers (Danaher and Rossiter 2011).

The concept of integrated marketing communication (IMC) has been developed to better manage the process of "audience-focused, channel-centered, and results-driven brand communication programs over time" (Kliatchko 2008, 140). The idea of IMC began with a limited view of coordinating marketing communication, and has evolved through scholarly research to incorporate a larger view with of the strategic process (Kliatchko 2008). Furthermore, the IMC business process is in contrast to the traditional supply chain business model focusing on the demand chain (Schultz 2004, in Kliatchko 2008). Using this view of marketing, firms aim to strategically manage customers' total experience by understanding, managing, and delivering on customers' needs, wants, desires and behavior in the marketplace (Dwyer and Tanner 2009; Kliatchko 2008). Implementing IMC strategy, Kliatchko states, gives firms a customer-oriented focus. The implementation should involve corporate and operational levels of firms, "focusing on key strategic and managerial issues" (2008, 143).

Nowak, Cameron, and Delorme (1996) describe IMC as a blend of various communication devices into one single entity. Meaning that firms incorporate the different communication channels and devices to work together, or connect them. The meaning is that customers should take a step from, e.g. reading an advertisement in a magazine, to visit firms' websites. To make this an easy process for customers, the advertisement should include website address, phone numbers, or even better new QR-codes that gives customers all necessary information to continue, or give them the opportunity to take advantage of an offer (Grove, Carlson, and Dorsch 2002).

The different media have to be connected and preferably carry the same message. This integration has fueled the popularity of IMC based on the belief that it reduces media costs by improving media and message delivery (Duncan and Everet 1993, in Nowak et al. 2002). The incorporation of IMC coerce changes in most parts of firms' marketing functions, most often evident in the media and message delivery practice (Wang and Petrison 1991, in Nowak et al. 2002). One example is to structure firms' advertising by customer segments rather than product lines, enabling cross and multimedia packages that tie several channels together, which helps the firm create better delivery channels to encompass with localized and targeted messages (Smith 1994, in Nowak et al. 2002; Frank 1993, in Nowak et al. 2002).

The development has also shed new light on previously excluded nontraditional and non-measurable message delivery vehicles, including T-shirts and calendars, to be included in IMC advertising plans (Scissors and Bumba 1996, in Nowak et al. 2002). The media selection and evaluation factors stand for the most profound change and distinguishing characteristics of the IMC compared to other methods. With more of an individual level, rather than a market level approach to customer information, databases and behavioral response measures, make up most of the evaluation factors (Smith 1995, in Nowak et al. 1996).

When measures are taken and firms receive comments, firms have to make adjustments along the way to improve communication and strengthen relationships. This makes the IMC a dynamic communication strategy, providing stakeholders with information they are in need of to trigger an action. Additionally, potential customers demand more information than, for instance, existing customers placing another order (straight rebuy). This since the new customers have to define their product or service type needs, develop detailed specifications, search for qualified suppliers, and evaluate the proposals and potential suppliers. The different information needs stakeholders have put much emphasis on firms' methods of communication (Dwyer and Tanner 2009). If firms can get involved early in the prospective customers' decision process, their chances increase significantly (Ghingold and Wilson 1998).

Schultz (1996) discusses that the integration is not up to firms, it is up to customers. Customers will aggregate and integrate senders' messages in some fashion, even though firms' messages that are directed to intended receivers are completely uncoordinated. Furthermore, customers might; "(1) arrange the messages as the advertiser intended, (2) ignore the messages and materials, or (3) put them together in ways the advertiser or marketer newer considered" (Schultz 1996, 139). The question is whether customers will help or hinder marketing organizations' distribution of the message. As the integration occurs whether intended by sending firms, they must be aware that the integration process might be harmful.

3.3 Part-Time Marketers

Employees perform a crucial role in service firms. They are involved in the service production and frequently interact with customers (and potential customers) – often, individual employees account for the majority of the contact with customers. Gummesson (1991) posits that customers' perceptions and opportunities for marketing are mostly attributed to the interaction between customers and the employees they meet – the marketing department and other full-time marketers only marginally influence customers. The fact that customers' contact personnel play such an important role in marketing made Gummesson introduce the concept of the part-time marketer (PTM), illustrating the importance of the production/delivery process in opinion formation. Gummesson (1991) defines a PTM as "someone associated with the company (at least in the mind of customers) who can make an impression on the customer's judgement of the firm, regardless of the role in which the person is officially employed" (62).

There are built-in challenges to the concept of PTMs. The effectiveness of PTMs are contingent on individual employees' tendency toward marketing, selling, or producing. Marketing oriented employees can be described as having a business approach or philosophy that focus on identifying and meeting the stated or hidden needs or wants of customers. In contrast, employees that are production oriented will have a business philosophy in which whatever the firm makes or supplies is the focus of the management's attention. In between the two is sales orientation – focusing on promoting sales through marketing (Gummeson 1991).

Harker (2004) studies the phenomena of PTMs from customers' perspective, thereby excluding the thoughts and perception of PTMs. Harker's findings however can be used to study the subject from a PTM perspective. Analyzing his study revealed characteristics that were found important for PTMs to possess. PTMs should; be comfortable in communicating; be marketing oriented; possess social skills; spend some time on marketing; conveying personal competencies; strong relationship-building skills; and clear and precise communication skills. These skills have been construed and adapted to a PTM perspective (Harker 2004).

3.4 Communication Channels

Danaher and Rossiter (2011) are the first scholars to research different channels for marketing channels in the context of what attributes in each channel is important to senders and receivers. The channels were; TV, radio, magazines, newspapers, catalogs, personally- and generically addressed direct mail, e-mail, SMS, door-to-door visits, and telemarketing. Remarkably, websites were not incorporated in Danaher and Rossiter's study, nor did they discuss why it was not included. However, compared with other communication channels, websites cannot be projected on existing- and/or potential customer. Firms can direct receivers through other communication channels to websites, but receivers still have to actively search for that channel.

It was found that, for receivers within B2B, printed direct mail such as catalogs or brochures and personally addressed letters, were the most effective communication channels to increase purchasing intentions. Note that the most effective channels all are personal communication, however with an exception that the mass media channel radio was found to have a high impact as well. The second group is made up by the remaining mass media channels; television, magazines and newspapers. Danaher and Rossiter (2011) argue that digital and telephone channels; phone, e-mail and SMS; as well as door-to-door sales calls, are ineffective communication channels in B2B.

The marketing channels have different strengths in terms of seriousness and persuasiveness. This affects receivers willingness to act on an offer that is considered risky. If the same message is sent to receivers through e-mail and traditional direct-mail offer, the offer is perceived less risky if received through a traditional direct-mail (Danaher and Rossiter 2011). Thus, both senders and receivers within B2B share the belief that the offer will be more persuasive for recipients when the recipient is interested in the information and is involved with the product or service. In the case when receivers are existing customers to the company, receivers have a higher buying intention than potential customers. Furthermore, Danaher and Rossiter argue that the purchase intention is higher if business receivers are frequent users of a media channel, contrasting what was found for the consumer market.

Catalogs was a channel underestimated by senders, but was found to be liked by receivers. On the other hand, senders did anticipate that receivers would engage with offers presented through mass media channels. However, receivers found messages significantly less interesting and engaging if they were received through SMS, e-mail, telemarketing or unaddressed direct mail. Among the marketing channels overestimated by B2B senders were newspapers and magazines. Senders believe the persuasiveness of offers put through these marketing channels are higher than what is said by receivers. Furthermore, senders view telemarketing as an effective marketing channel, but it was not perceived by receivers as convincing and persuasive.

Danaher and Rossiter (2011) posit that marketing communication concerning work emphasized speed and efficiency attributes are associated with the communication channels of e-mail and cellphone. Traditional mass media and printed direct media will continue to have a significant influence in a private setting. This as the mediums' attributes are characterized by; serenity, relaxation and foremost the feeling of being in control by receivers, which is highly valued in a private setting.

The predicted purchase intention is low in such instance when there is a divergence between the channels, meaning that there is a disparity between what senders think that receivers prefer, and what they actually prefer. Therefore, it is important that senders have knowledge about receivers' preferences, to generate more effective marketing communication as the message is sent through channels that carry preferred attributes. Danaher and Rossiter (2011) suggest senders to adjust the channels choice accordingly if senders are using another communication channel than those preferred by receivers. This is in line with what both Shannon (1948), and McLuhan (1964) conclude. According to Danaher and Rossiter (2011) "existing theoretical models of communication effectiveness apply to communications in general, rather than marketing communications in particular" (33).

Internet has become a tool for user generated communication through social media networks. Social media have grown to become an important communication channel, not only in a private setting, but also in B2B. Many companies have had to adapt to this “new” communication channel – some by own will and other forced by user interactions. It is not a quick adaption made by companies, as resources, knowledge, and negative views about the usefulness of social media have prevented firms to use social media (Michaelidou, Siamagka, and Christodoulides 2011).

If social media is going to be used as a marketing tool, it is proposed that firms conduct an evaluation if social media can achieve brand-related objectives that firms want: a common procedure before using any marketing communication channel. It is suggested that social media can enhance the relationship between two companies. However, Michaelidou et al. (2011) conclude that 27 percent of the asked SME firms were actively using social media. These companies also found social media important for their corporate brand, as it helped to build and foster relationships. The study did not look at any specific industry, rather SMEs in general.

3.4.1 Communication Channel Attributes

Communication channels are selected on the basis of accordance with uses and gratifications – i.e. receivers of a communicated message have needs that can be met differently depending on which media or communication channel that is used. For example, print media is considered more information rich, whilst television is considered more entertaining (Danaher and Rossiter 2011). Danaher and Rossiter use fourteen attributes to understand receivers and senders perception of marketing communication channels. The attributes are; (1) easy to reject; (2) enjoyable; (3) trustworthy; (4) informative; (5) convenient; (6) acceptable; (7) entertaining; (8) reliable of information; (9) appropriate; (10) objectionable; (11) annoying; (12) time-consuming; (13) difficult to ignore; and (14) disruptive.

3.5 Two-Way Communication

Two-way communication occurs when receivers respond. Laswell (1948) describes that “two-way communication occurs when the sending and receiving functions are performed with equal frequency by two or more persons” (220). Marketing theories such as relationship marketing and IMC aims at getting a response from the intended target group, and build a dialogue with customers and prospects. To increase the possibility for a two-way communication in marketing, it is important for firms to send its marketing communication in channels that customers’ and potential customers’ prefer (Schultz, Tannenbaum, and Lauterborn 1992).

3.6 Communication in Relationship Marketing

In relationship marketing, the focus lies within customers’ internal value generating processes, rather than just the product(s) or service(s) (Anderson and Narus 1991; Grönroos 2000b; Grönroos 2004). Focusing on relationship marketing in service firms; a value base is transferred to and co-produced with customers, and the perceived value emerges later in the customer process. To reach this transfer of the value base, service providers must align their physical product elements, service elements, information and other resources and competencies with customers’ internal processes. Furthermore, during the interaction process of a relationship, the creation of value for customers must be supported by marketing communication before and during the process (Grönroos 2004).

It is not just as simple as communicating before and during the integration process. Service providers have to create a value-enhancing interaction, or dialogue, with customers. Unfortunately planned communication activities often leads to parallel monologues, not getting service providers and customers together to exchange what the two have in common. To understand this service providers must understand customers' value chain, products, and/or services to be able to develop information and other elements to the interaction process. Not before firms can deliver just that in a dialogue, can the value base be transferred successfully as a value (or perceived value) for customers. Moreover, the dialogue is the base for creation and sharing of knowledge between service providers and customers. To this, the marketing communication in a relationship marketing context strives to use, or create, two-way (if not multiple) communication channels. Not all communication channels are directly two-way communication, however, to maintain and enhance the relationship, it is important that all communication efforts leads to a response of some sort from receivers (Grönroos 2004).

Grönroos (2004) describes his definition of the relationship marketing process as – involving first – "identifying potential customers to establishing a relationship with", and then moving to "maintaining the relationship that has been established and to enhance it so that more business as well as good references and favorable word of mouth are generated" (101). Furthermore, as Anderson and Narus (1991) discuss, firms' managers have to systematically evaluate and decide which customers are of largest interest to continue to work with and expand the relationship, then work hard to keep the relationship healthy. To establish a relationship with potential customers (as well as other stakeholders), firms' communication must appeal to receivers. Basically, with the marketing communication, firms want to inform, persuade, and remind its existing as well as non-existing customers. Companies have to develop a marketing mix to address all of its stakeholders. However, depending on interest and level type of relationship, stakeholders demand different type of information. This affects firms' communication, but in particular the choice of communication channels, and message content (Anderson and Narus 1991; Grönroos 2000; Hoffman et al. 2009).

The cornerstone of the segmentation, targeting and relationship-building approach is still offered customer value. Anderson and Narus (1991) stress the importance for firms that strive to achieve close relationships with customers, to "adopt a basic premise that not all market segments, or customer firms, want the same working relationship, or value it the same" (112). This puts a big emphasis on firms' communication, as not all customers want the same information. It does not exclude broad, general information, but it must be able to answer to specific interests from individual customers. Thereto, an important aspect to consider is that the value base should not be opposed by negative added value, which may come from "badly or untimely handled services" (Grönroos 2004, 109). The planned communication activities have to work along with the value process and not the other way around, increasing the risk of destroying the same. Clearly put, do not promise something in any communication, which later cannot be delivered.

Service firms most often work closely with customers, increasing the ties between them (Grönroos 2004), providing a significant asset to firms' business (Anderson and Narus 1991). In such cases, Freeman and Sandwell (2008) argue that service firms often follow customers to new markets. With this comes a potential communication risk in the form of increased miscommunication. Anderson and Narus (1991) state that much resources were spent on communication issues when service firms followed customers to new markets. Apart from the normal language barrier, the risk of miscommunication through e-communication is evident, especially when cultural differences enhance the risk of misinterpretation. To overcome the risk of misinterpretation, service firms have to put much energy on ensuring that the right and accurate communication is achieved. Furthermore, communicating with service firms' overseas office, customers and/or suppliers, demand significant time and energy from service firms (Freeman and Sandwell 2008).

4. PROBLEM DISCUSSION

The following chapter will discuss the theories presented in the literature review chapter. The problem discussion will end up in research questions, frame of reference and a conceptualization and operationalization of terms and concepts used throughout the thesis.

4.1 Marketing Issues

Research service firms are active within a market characterized by a limited number of direct customers, forcing firms to be active on a geographically larger market. Furthermore, their core operations are often very specialized, contributing to the limited numbers of potential customers. This puts stress on firms' abilities to put out their message to stakeholders, through the right channel, and achieving the desired effect (Malhotra 1982; McLuhan 1964).

To formulate a communication strategy aiming to address firms' stakeholders, firms need a good holistic perspective of the internal and external environment to find a fit between the two. None of the theories discussed can by itself explain the whole, but make up interdependent parts to cover the holistic view proposed for this study. For this it is important to separate "what" should be marketed, and "how" it should be communicated, as Steyn (2004) discusses. The "what" is the established corporate communication strategy, and "how" the action plan to put the strategy into practice.

Another aspect to consider is where the strategy work takes place, as well as who is responsible for the implementation. Corporate communication strategy is characterized as a functional strategy, which should be formulated by firms' marketing function. This is in contrast to the integrated marketing communication (IMC), which should, theoretically, be implemented on corporate and operational levels (Kliatchko 2008).

IMC theory takes a more top management approach to strategy implementation, as theory focuses on the marketing function's role (Kliatchko 2008). It can be questioned whether it is a top management issue to decide upon details such as the choice of communication channels. It can be wise to include top management in decisions to steer from production focus in firms' marketing communication to a marketing focus. That would be more in line with corporate communication strategy theory, where corporate and operational strategies determine "what" should be marketed and what target groups to approach. How it should be marketed is determined in a functional strategy, or the action plans to take strategy into action (Steyn 2004).

Theories on IMC discuss the planned integration of multiple communication channels to become a benefit in firms marketing communication (Kliatchko 2008). However, as Schultz (1996) discusses, customers have always in one way or another, integrated what sending firms have sent through different channels even when messages are not coordinated. Danaher and Rossiter (2011) argue there are no increased benefits from incorporating channels as suggested by the IMC theory. There are synergies between channels, but the correlation were not strong enough to confirm the IMC theory's effect of communication channel integration. However, this is not to say that the usage of several channels and trying to achieve synergies, would not render results. IMC might be more effective for firms in certain contexts, and perhaps necessary for getting the audience to actively participate in firms' communication. It could be that IMC is more applicable in a B2C context, rather than B2B.

4.2 Marketing Focus

Both corporate communication strategy and IMC theories are designed to help firms narrow down the number of stakeholders that should be addressed (some are given more emphasis than others), and determine what should be communicated to them. Firms cannot serve all interests and simultaneously have an effective marketing communication (Danaher and Rossiter 2011; Hoffman et al. 2009; Lasswell 1948; Malhotra 1982; Nowak et al. 2002). Therefore, firms must find focus in the marketing communication (Steyn 2004). Corporate and operational strategies should act as a roadmap to guide the work of designing communication plans into "how" the "what" should be communicated. However, both corporate communication strategy and IMC theory lack concrete methods of how to actually put the adopted strategy into practice (Steyn 2004). Danaher and Rossiter's (2011) research about communication channel attributes, add to the "how" the message could be communicated. The knowledge about channel attributes can help marketers choose communication channel(s) based on receivers' perception of certain channels.

Communication channels possess different attributes, making some more suitable for B2B, and others for B2C. It is important to understand the differences, and match communication channels with the knowledge of target groups. Media and contact channels that Danaher and Rossiter (2011) discuss may not necessarily be the best in the context of research service firms. Furthermore, these channels presented by Danaher and Rossiter are more one-way, as described by Lasswell (1948), except for e-mail, phone, SMS and door-to-door salespersons. As Danaher and Rossiter propose, their findings can be complemented with research on other communication channels. Their list of communication channels is comprehensive and covers the most common communication channels. However, the pilot study indicate that some specific channels are important for research service firms, namely scientific articles, conferences (Carlsson 2012b), and published periodicals (Carlsson 2012a).

Marketing theories such as IMC, corporate communication strategy, and relationship marketing, aims at establishing a dialogue with stakeholders (Kliatchko 2008; Grönroos 2004; Steyn 2004). Relationship marketing aims at closing the ties between firms and stakeholders, based on the premiss that a business relationship will generate larger values for both parties. Relationship marketing and corporate communication theory aim at putting together planned communication processes, supporting firms' strengths and core business, to build relationships, or strengthen existing relationships (Anderson and Narus 1991; Grönroos 2004; Steyn 2004).

4.3 Customer Relationships

Establishing new business relationships is often a long and complex process. As Dwyer and Tanner (2009) discuss, it is not until potential customers begin feeling comfortable and familiar early in a relationship that customers start to make disclosures about needs, preferences, and/or goals. The pilot study suggests that a close and trusting relationship is necessary for research service firms because research services demand much capital and human resource, and often involves sensitive information.

Relationships between service firms and customers affect the communication between the two. It affects both content and channel choice and how receivers respond to communication Grönroos 2004). Expectations are also different. Customers in close business relationships with service firms may expect to be contacted through specific contact individuals, directly by phone, rather than reading up on offers through magazine advertisement. This can add other communication channel to those presented by Danaher and Rossiter (2011), but also industry specific channels may add to the list (Gilmore, Carson, and Grant 2001).

As Grönroos (2004) discusses, relationship marketing is a continuous process. Furthermore it is described as a way of working, to close the ties between two or more stakeholders to capitalize on mutual benefits. A relationship does always exist between two parties, the strength and depth of the same is affected by several aspects, such as if any mutual benefit can be found (Dwyer and Tanner 2009; Grönroos 2004). In that matter, relationship marketing is part of "what must be communicated" in the corporate communication model. Additionally, Grönroos argues that there is no explicit marketing variable to handle relationship marketing. That further supports the authors' discussion of handling relationship marketing as an internal strength that should be communicated externally. The aspects of relationship marketing will affect the thinking and logic behind firms' corporate communication strategy, but not the "how it must be communicated", which is the work of putting strategy into action.

All theories presented express the importance of relationships, and are constructed in such way as the goal is to create, build, and strengthen relationships with firms' stakeholders (Grönroos 2004; Steyn 2004). Therefore it should not be neglected in firms' overall marketing strategy, and incorporated in the model as an interdependent part of the whole.

PTMs have been found to be significant for customers' choice of service firms, as they often are in contact with customers and other stakeholders. To that, they take part in the production and delivery of the service offering. PTMs impact on customers have been found to be greater than full-time marketers. Another benefit of PTMs are that they directly can engage in dialogue with customers. However, PTMs cannot be seen as a communication channel by itself. Following Lasswell's (1948) definition of communication, PTMs are the source, or sender from service firms, or the receiver of customers' communication.

4.4 Communication Issues

Research have found that a divergence in communication channels decrease the predicted purchase intention. Senders cannot appeal to the receiving, potential customers, as firms cannot communicate what potential customers actually prefer. This divergence can be in message content and/or channel choice. It is up to senders to adapt to receivers' preferences, especially concerning channel choice, if the message penetration should render maximum results (Danaher and Rossiter 2011). Using receivers' choice of channel by themselves does not mean a successful transmission – it depends on other aspects as well, such as if the message creates interest and attracts receivers to act on it. The right channel choice increases the chance for that to occur. To better appeal to potential customers interest, service firms must understand the message content demanded by potential customers in firms' communication. Additionally, it is important to deliver the correct message content, at the correct time (Danaher and Rossiter 2011; Grönroos 2004; Hoffman et al. 2009).

Firms' marketing communication must minimize the perceived risks and issues associated with the characteristics of services. One of the most challenging issues is to get potential customers to take notice of a service though they cannot see it. Tackling the intangible aspect of services is often a problem among service firms (Hoffman et al. 2009), and evident in Swerea Mefos' case. To give a more comprehensive and holistic view of service firms' marketing communication strategy, the authors suggest that these theories should be tested in combination with one another. This to see if there are any synergies to be found between the theories. The usage of a combination of these theories could further enhance/remove what one of the theories lack by itself. Each theory individually is too narrow to give the necessary picture and understanding for this study.

This could not only give practitioners a better understanding of how the different tools are linked and working together, but it can also enhance the roadmap of what to consider when working with marketing of a service firm. As none of these models have been tested towards the context of research service firms, some attributes may be found obsolete, or some might be found missing in the model. Thereto, adapting the model for the research service firms. To adapt the marketing models to the context of a research service firm, the overall research problem "*How can marketing communication of industrial research services be described?"* has to be specified in research questions. Considering the discussion above, the authors have come to the following three research questions (RQs):

RQ1: *How can research service customers' perceptions of different marketing communication channels be described?*

RQ2: *What is the role of research service firms' employees as part time marketers?*

RQ3: *How can the business relation between a research service firm and customer, affect the customers' preference for a certain type of communication channel?*

4.5 Frame of Reference

To answer to the research questions, the following frame of reference has been adapted to grasp the holistic view of how research services should be communicated and marketed. The frame of reference for this study will incorporate the theory of corporate communication strategy as a basis. Add to that, the authors suggest to use basic definition of communication, different communication channels, relationship marketing, and integrated marketing communication, to be able to cover the needs of each stakeholder. The proposed frame of reference is illustrated in Figure 4.1 below, and explains communication, roles, and theories.

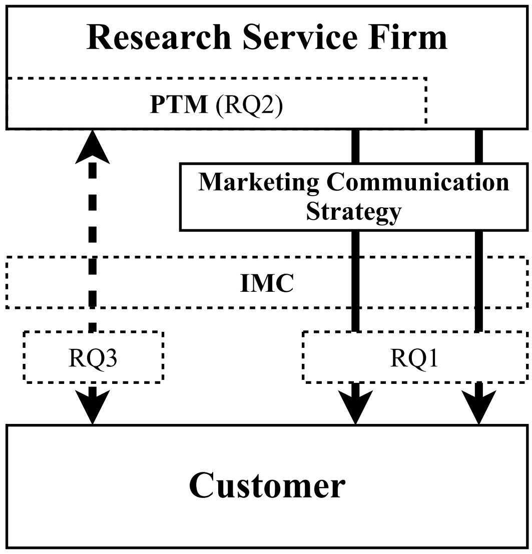

FIGURE 4.1: Frame of Reference

The frame of reference is a combination of previously discussed theories on integrated marketing communications, corporate communication strategy, part time marketers, communication channel attributes, and two-way marketing. Figure 4.1 illustrates the considerable theoretical importance of PTMs. The fully colored, downward arrows symbolize marketing communication channels (RQ1), and the doted arrow-to-arrow line describes the business relationship (RQ3), illustrating the theoretical importance of PTMs. Marketing communication stem from either a corporate level, or is generated at the grace of PTMs. Either way, the response from any marketing communication, and the relationship that is built with firms, is posited to be manifested on a PTM level (RQ2). The effectiveness and efficiency is contingent on the IMC strategy, i.e. the different channels research service firms employ. The channels used, and the responsibility of PTMs, is decided by the corporate communication strategy.

4.6 Conceptualization and Operationalizations

Herein we will present the different concepts and operationalizations used throughout the thesis.

TABLE 4.1: Conceptualizations and Operationalizations

Term	Conceptualization	Operationalization
Research service firm	The firms main stream of income comes from [combined] research projects, and the company publish results in scientific journals (Carlsson 2012a).	NA *
Research service	A service that is conducted following scientific methods and the results should gain new knowledge (Carlsson 2012a).	NA *
[Marketing] communication channel	Potential communication channels [medium] for a sender to communicate to, or with a receiver (Lasswell 1948; Danaher and Rossiter 2011).	NA *
Part time marketer	Someone associated with the company (at least in the mind of customers) who can make an impression on the customer's judgement of the firm, regardless of the role in which the person is officially employed (Gummesson 1991).	Customers' and suppliers' self-reported perception of a persons ability to make an impression in regards of the company.
Perception of marketing communication channels	Receivers' and senders' perceptions of specific attributes of marketing communication channels (Danaher and Rossiter 2011).	Customers' and suppliers' self-reported perceptions of marketing communication channels of being easy to reject; enjoyable; trustworthy; informative; convenient; acceptable; entertaining; reliable of information; appropriate; objectionable; annoying; time-consuming; difficult to ignore; and disruptive.

* Not applicable as the concepts is not directly measured – no operationalization of the concept is therefore necessary

5. METHODOLOGY

This chapter will discuss and present by which methods data will be collected, presented, and analyzed.

5.1 Approach

This study employs a combined approach, i.e. a mix between a deductive and an inductive research approach. Strictly using one approach excludes the possibility to use the characteristics of the other. This section will discuss why a combined approach is used.

A deductive approach involves the development of theory that is consequently rigorously tested, which allows researchers to anticipate phenomena (Saunders, Lewis, and Thornhill 2009). This thesis uses a frame of reference and is therefore grounded in theory, and as such, partly deductive in its approach. However, the study also lacks the structured approach to data gathering that a deductive research approach requires and therefore cannot be completely deductive. The study also lacks the rigid methodology that deductive research has to have (Saunders et al. 2009).

An inductive research approach is often concerned with the context in which phenomena is taking place. Saunders et al. (2009) state that such an approach is suitable for small samples where the perceptions of the samples are more important, compared to the importance of quantitative data in deductive research. Previous chapters have lifted the phenomena of PTMs and the context of industrial research service firms, which suggest that an inductive approach is favorable. The following table summarizes the characteristics of a deductive and an inductive approach.

TABLE 5.1: Characteristics of Deductive and Inductive Approaches to Research

Deductive Approach	Inductive Approach
• Scientific principles • Moving from theory to data • The need to explain causal relationships between variables • The collection of quantitative data • The application of controls to ensure validity of data • The operationalization of concepts to ensure clarity of definition • A highly structured approach • Researcher independence of what is being researched • The necessity to select samples of sufficient size to generalize conclusions	• Gaining an understanding of the meanings humans attach to events • A close understanding of the research context • The collection of qualitative data • A more flexible structure to permit changes of research emphasis as the research progresses • A realization that the researcher is part of the research process • Less concern with the need to generalize

SOURCE: Saunders et al. 2009, 127

The table above can be discussed further, however, the discussion will continue throughout the chapter and will lend support to this study employing a mixed-method approach.

Saunders, Lewis, and Thornhill (2012) have begun using the term abduction for a combined research approach. A study using an abductive approach is shifting between a deductive, and inductive approach, complementing each other during the research process. Thus, the discussion why this study has a combined approach above, follows argumentations for the abductive approach, using the best parts from the deductive, and inductive approaches.

5.2 Purpose

The study's purpose is partly descriptive and partly exploratory. The intention of the study is partly to describe PTMs and communication channels in a research service firm context, which Saunders et al. (2009) claim to be the objective of descriptive research. Exploratory research means that the purpose of the study is to seek new insight (Saunders et al. 2009) – this study uses theory on PTMs and communication channels and applies them to a context (industrial research service firms) where the theories have not yet been tested.

5.3 Strategy

To effectively collect data for the purpose of answering the overall research problem, and the research questions, this study utilizes a case study strategy. Saunders et al. (2009) state that case study strategy works well together with an inductive research approach and should contain several sources of evidence (data) – this study did obtain data from more than one source, more on that under Section 5.4 Data Collection. Yin (2009) advocates a case study strategy when the context is important. In this case the context (research service firms) is an integral part of the research service questions.

To gain that richer understanding (Saunders et al. 2009), which the research problem and research questions dictates, a single holistic case study strategy was used (Yin 2009). As Yin states, the rationale behind a single case study design is that a particular case might be critical or unique. This fits with the thesis design, which is to study a single research service firm. Saunders et al. (2009) state that data collected through case studies is often done in unison with some other form of data collection (in this case a questionnaire) so that data may be triangulated.

5.4 Data Collection

Mentioned briefly in the section above, the study combines the use of quantitative and qualitative data collection techniques, which Saunders et al. (2009) considers advantageous for several reasons. In short, mixed-model research supports triangulation, facilitation, complementarity, generality, aid interpretation, study different aspects, and solving a puzzle. The particular design of this thesis is attributed to some of these reasons (Table 5.2), and will be discussed briefly.

TABLE 5.2: Reasons for Using Mixed-Method Designs

Reason	Explanation
Triangulation	Use of two or more independent sources of data or data collection methods to corroborate research findings within a case study.
Facilitation	Use of one data collection method or research strategy to aid research using another data collection method or research strategy within a study.
Generality	Use of one data collection method or research strategy to aid research using another data collection method or research strategy within a study.
Aid interpretation	Use of qualitative data to help explain relationships between quantitative variables.
Study different aspects	Quantitative to look at macro aspects and qualitative to look at micro aspects.
Solving a puzzle	Use of an alternative data collection method when the initial method reveals unexplainable results or insufficient data.

SOURCE: Adapted from Saunders et al. 2009, 154

5.4.1 Triangulation

An initial pilot study was performed to gain a deeper understanding of the concept of industrial research service firms. It also served as a starting point for this study, as it helped narrowing the field in which to focus the research. To sufficiently test the frame of reference data was sourced using two separate methods, questionnaires and semi-structured interviews, to corroborate research findings within a case study. The questionnaire was first sent out to the respondents, and the subsequent semi-structured interviews were slightly tweaked depending on the answers in the questionnaire.

Questionnaires are a good method for obtaining large amounts of data (Saunders et al. 2009), however it was only designed to gather wide-ranging data – for depth, interviews were conducted with each respondent. As the interviews had already been approved by each respondent, and these were contingent on the answering of the survey, the response rate was nearly 100 percent (one questionnaire was done just before the interview, and the respondent therefore did not answer all the provided questions in the questionnaire). After the questionnaires and interviews were completed a concluding interview was done with the CEO of Swerea Mefos. The purpose was to take the gathered data and initial analysis and complement the pilot study with additional data that might not have been considered initially.

5.4.2 Facilitation and generality

It was necessary to initially conduct a questionnaire (quantitative data) as the theory on communication channels contained so many different variables, that obtaining the data through semi-structured interviews would have been nigh impossible given the small time frame provided by the respondents. Not for the typical purpose of collecting quantitative data (Saunders et al. 2009, 482), the collected answers were used to slightly alter the interview guide for the semi-structured interviews – the chosen data collection method for obtaining qualitative data. The questionnaire thereby aided and facilitated data gathering through semi-structured interviews.

5.4.3 Aid interpretation and study different aspects

Although analysis of the questionnaire yielded some trends, it did not provide any deeper understanding to the data. The semi-structured interviews however, did provide the depth that was necessary to understand the thought process behind the quantitative data. Consequently, the study did look at macro and micro aspects concerning the research questions.

5.4.4 Solving a puzzle

The questionnaire would, with respect to the research question, not provide sufficient answers. It was therefore necessary to add depth to the research design (interviews) – otherwise the research questions would have gone unanswered.

5.4.5 Questionnaire design

This study used an adaption of a questionnaire used in previous research (Danaher and Rossiter 2011), with the addition of questions on PTMs which was also based on previous work (Gummesson 1991; Harker 2004). The questionnaire (online, self-administered) that acted as the base for the survey was considered the most exhausting in terms of communication channels measured. The questionnaire can be studied in Appendix I.

5.4.6 Interview guide design

The literature review and frame of reference presented dimensions (Gummesson 1991; Harker 2004) that PTMs should strive for. With these in mind an interview guide was designed for the semi-structured interviews. These were then slightly altered based on the answers given to the online, self-administered questionnaire, and the analysis of previous interviews, a preferred method according to Yin (2009). The interview guide can be studied in Appendix II.

5.5 Sample Selection

The study utilized a non-probability, purposive sampling. As the purpose of the study never was to make any statistical inferences based on the sample, a non-probability sampling technique was more appropriate. This technique also work well when there is larger "depth" to the research questions (Saunders et al. 2009). Lastly, the study was conducted in close relation to the studied firm, Swerea Mefos, which performed the sample selection. The firms purposive sampling will be discussed further.

Non-probability sampling is sometimes preferable, depending on the research questions. This opens the possibility to use purposive sampling (Saunders et al. 2009). The sample selection was discussed to great length with Swerea Mefos, with the premiss that the selected respondents would add value to the study by providing good substance in their responses. Swerea Mefos concluded that the study would be more valuable if areas of growth were represented in the sample. Therefore, a mix of customers, old and new, frequent or non-frequent in purchasing, large and small, national as well as international, would be selected.

Five respondents were identified and asked to partake, each one agreeing to participate. The respondents are held anonymous with respect to some of the case's customers. The telephone interviews were conducted using Skype and all interviews were recorded and subsequently transcribed. None of the respondents demanded to review the transcriptions. It should be stated that Saunders et al. (2009) advocate that twelve interviews are sufficient. The sample selection discussion with Swerea Mefos found that so many interviews would have been difficult to obtain, given the timeframe at hand (November – December).

5.5.1 Bias

There is some risk of bias as the respondents were recommended by Swerea Mefos. The respondents were also asked by Swerea Mefos to partake before the authors were provided contact information to the potential respondents. Moreover, the business relationship between Swerea Mefos and the respondents is very good, respondents could therefore have been wary of their answers, although the questions asked were general in nature, and not directly related to their business relationship with Swerea Mefos.

The risk for bias has been taken into account when analyzing the data. Except for the mentioned risk of bias there is also some risk of interviewer bias and response bias (Saunders et al. 2009). Interviewer bias suggests there might be opinion or prejudice on part of the interviewer, which is concretized during interviews and therefore affects the outcome of the interview. To mitigate the risk of interviewer bias, the interviews were recorded so that interviewer bias could be analyzed afterwards. Response bias is the risk of respondents answering questions in such a way that the respondents expects the interviewer wants the question to be answered. This too, is mitigated through analysis of recorded interview.

Analysis of recordings did not yield substance to suspect interviewer or response bias.

5.6 Data Analysis

Data analysis will primarily be done on qualitative data, as the self-administered questionnaire mostly acted as a base for the interviews. Data from the questionnaires have been compiled and is presented in Appendix III. The deductive research approach has the largest impact on data analysis. Saunders et al. (2009) as well as Yin (2009) suggest different analytical procedures depending on whether the study is formed around a frame of reference (deductive approach), therefore the method for analyzing data will mostly rely on analytical procedures related to a deductive research approach.

Saunders et al. (2009) state that the process of presenting and analyzing qualitative data is highly interrelated and interactive, and that there is no standardized method for analyzing data. However, data will be summarized, categorized (grouped), and structured, in order to analyze the data adequately. These steps, according to Saunders et al. aid comprehension, integration of related data, identification of key themes and patterns as well as drawing and verification of conclusions. Furthermore, as Saunders et al. stipulate, analysis have been a key part of the data gathering process – i.e., analysis have been performed before, during and after data collection. In other words, analysis have been done based on the pilot study prior to data collection, interviews have been picked apart and bits have been the basis for restructured question carried on to the following interviews. Lastly, an analysis of the pilot study and primary data has been conducted, including the concluding interview with the CEO of Swerea Mefos (Appendix IV).

5.7 Validity and Reliability

This section will discuss the study's credibility. First, reliability is supported by the frame of reference which, in turn, is the basis for the questionnaire and semi-structured interviews. More specifically, the questionnaire and semi-structured interviews are based primarily on theory developed by Danaher and Rossiter (2011) on communication channel attributes as well as Harker (2004) on PTMs. Previous journal authors have developed questionnaires and operationalizations that have been utilized in this study (please see 5.4.1 and 5.4.2). Furthermore, questionnaires and interview guides are included in this study (Appendix I & II), so that other who might want to test the same theory should yield similar result.

For this research design, construct and external validity are important (Yin, 2009). Construct validity means that one should identify the correct operational measures. This has been achieved by using previous research in the frame of reference. To further strengthen construct validity, data gathering has been collected from several sources, a chain of evidence will be constructed through data presentation and analysis. Lastly, the entire study has continuously been reviewed by the authors' supervisor. All these measures taken helps to build construct validity (Yin 2009).

The use of theory as a basis for the study strengthens external validity. External validity means that a study's findings can be generalizable, "beyond the immediate study" (Yin 2009, 43). By design, this study is not automatically generalizable in a broader context, nor was it ever intended to do just that. However, the theories used have previously been tested in other contexts, and this study helps to strengthen generalization by applying theory to an industry that previously has been overlooked. Findings should therefore be theoretically generalizable to the industry (Yin 2009), although there is no statistics to support it. Theoretical generalization is however limited as only one case is studied.

5.7.1 Translation

Theories, concepts, and material used for the questionnaire and interviews were all in English. To simplify data collection, the material was translated into Swedish using lexical translation, and then reviewed by the thesis supervisor. Respondents were also asked to provide feedback on the questionnaire. None of the respondents stated that the formulations of the questions were difficult to understand or appeared to be inadequately translated.

6. DATA PRESENTATION

This section will present the data gathered from the survey, and interviews. Data will be presented according to the RQs. The chapter will begin by shortly describing the respondents. Throughout the data presentation, respondents will be referred to as their given letter, A, B, C, D, or E. Finally, the concluding interview with Swerea Mefos' CEO will be presented.

6.1 Description of Respondents

All respondents work for member firms and international corporate groups, operating in several countries. Respondent *A* works for a privately owned Swedish steel company as head of technology. Respondent *B* works as location manager for a multinational company within the energy sector, specializing in power generation, power conducting, and infrastructure. Respondent *C* works as head of research and development (process development) at a Finnish company, specialized within insulation, and is based in Finland. Respondent *D* works for a Finnish steel company, thus working for the Swedish operations. Respondent *E* is working for a steel company based in Sweden, but owned as a wholly owned subsidiary to an international steel group with base in Austria.

TABLE 6.1: Respondent Description

Respondent	Position	Industry	Company turnover (MSEK)	Member
A	Head of technology	Steel	10,000	Yes
B	Location manager	Power	500*	Yes
C	Head of R&D – process development	Insulation	4,000	Yes
D	Plant metallurgist	Steel	14,000*	Yes
E	Head of process development	Steel	2,360	Yes

*Swedish subsidiary's turnover

6.2 RQ1: Perceptions of Marketing Communication Channels

All respondents selected telephone and e-mail as preferred communication channels. *A* described e-mail to be the most convenient communication channel as it always is available and do not disturb meetings which telephone calls can do. However, telephone calls fosters faster dialogue. Both therefore were considered appropriate – depending on the issue that need to be discussed, one channel is better than the other. *E* also considered telephone calls and e-mail to be the most preferred communication channels, personal contact being the common denominator.

E highly valued the directness associated with the two communication channels. Additionally, *E* also highlighted the benefit of handling large amounts of information through e-mail. *B* also considered telephone calls and e-mail preferable. However, an initial contact over the telephone can be very interruptive, intrusive and annoying, especially someone is trying to sell something over the telephone – an opinion shared with *D*. In such cases, *B* suggested that one first should make contact using e-mail, to schedule a telephone meeting and have a discussion when time has been reserved for just that.

C chose personally addressed letter and personal meeting as the two most preferred communication channels. The respondent explained that the preferred channel is dependent on the issue. If it is communication via projects or if one would like to discuss something and the individual seeks to have a dialogue, some channels are more appropriate. Furthermore, if the respondent has not met the other person(s) before, a personal meeting is absolutely preferred as it is creates an opportunity for analysis of individuals, which is important for the continued trust and communication throughout a project.

TV and radio commercial, unaddressed catalogue or brochure, advertisements in newspapers and magazines were seen as less trustworthy by *A*, *B* and *C* (except unaddressed catalogues or brochures). Communication sent through these channels have a different message, being more of a general communication and advertisement. *B* did not see these as appropriate and not trustworthy when working with technical science (referring to the channels as “Coca-Cola” channels, i.e. foremost TV and radio advertisements). These channels were considered less trustworthy as it is easier to dress up the message and are not as informative as more direct communication channel offers, according to *A*. Furthermore, the channels are not as detailed and not directed towards *A's* business, and does not allow them to ask questions to the sender of the information. *B* on the other side saw newspaper and magazine advertisements, especially in a branch-magazine, as trustworthy and an acceptable channel to advertise through.

C considered messages sent through these channels (TV and radio commercial, unaddressed catalogue or brochure, advertisements in newspapers and magazines) as less trustworthy as the messages are more anonymous and abstract. It is more trustworthy if a person says something during a meeting, or in a report or scientific article as the source is known and can be held responsible for the message sent. For *C* it is important to be able to discuss and check background data of the message, and that applies generally for any businesslike communication.

D explained that the channels trustworthiness was much dependent on the sender, the content, and the intention/purpose of the message. If it a known sender, the respondent allots time to read the material or answer the telephone. One example is personally addressed letter, a relative trustworthy channel, however if some form of advertisement is sent through that channel, it is treated as nonsense and sent directly to the recycle bin.

Unaddressed catalogues, brochures, unaddressed letters to the boss, radio and TV advertisements and text-messages (SMS) are less trustworthy channels according to *E*. These channels are not at all potential communication channels in a business context. Furthermore, *E* considered TV advertisements are applicable to address private consumers and not potential business customers. E-mail, catalogues and such, are often used to distribute mail merge, and *E* normally received eight to ten magazines simultaneously. This makes the received material less interesting and not given much attention.

Personally addressed letter, conferences, scientific articles and personal meetings were regarded as trustworthy by the respondents. *A* explained it as the channels allow for a direct communication, or dialogue, which make the situation more of a live situation. In addition, messages sent through these channels are seen as trustworthy even when used by companies unknown to *A*.

B described scientific articles and conferences as good communication channels to attract attention and interest. Good quality on scientific articles and good presentations of scientific work on conferences, are the best way to attract interest, and communicate with stakeholder, and two channels very important to *B* for information. Supplier published magazines were seen as a trustworthy channel by *B* only when the sender, and publication is known. If the sender is unknown, the publication is not treated as a trustworthy channel, and most likely sent directly to recycling. According to *B*, it is the individual's relationship to the supplier published magazine that makes it interesting and trustworthy.

C described the supplier published magazines as an interesting- and trustworthy channel. To receive it as a paper copy makes it easy to bring home to read in a peaceful and quiet surrounding. In addition, it is easy to distribute internally, and use it as a tool to help selling in Swerea Mefos within the respondent's own organization. Thus it is short articles, and brief information in the supplier published magazines, it gives sufficient weight to the information to make the channel trustworthy and interesting. If publications such as magazines, supplier published magazines, and scientific journals, are deemed rigorous, they are a trustworthy and good channel. This as the articles published, especially in scientific journals are peer reviewed, which guarantees the articles trustworthiness and also the presented results. *D* always read such publications to stay informed about what research is conducted and what are the results.

This view is shared with *E*, whom stated that the scientific article cannot be published without passing a peer review, which guarantees the quality of the work. Furthermore, it is a commonly used channel for information by *E*. The respondent made parallels between a scientific article and the company that author(s) are working at, which is a quality stamp for the company's knowledge. Furthermore, the sources used in scientific articles are seen as reliable by *E*, which increases the credibility of the channel.

The authors sent complementing questions to all five respondents regarding social media – three of them replied. *B* and *C* answered that they do not know if the companies they are working for are actively using social medias. *B* did not express any opinion about social media as those channels are not used, professionally or privately, by the respondent. *A* only replied that their company is not working with social medias, which also was confirmed by their Chief Information Officer. Furthermore, *C* cannot see the advantage in their job to use social media. One reason that makes social media an inappropriate communication channel is that it risks restraining the number of potential receivers. It can become some sort of age, attitude, or even principal discrimination. It is important not to take for granted that everyone can, or wants to use social media. It can also act as a potential risk for the company that information is spread to people that are not the intended receiver. Thereto, some companies do not allow their employees to use software that can be a security risk, such as some social media and Skype.

6.3 RQ2: Employees as PTMs

An individual with the right experience and knowledge should make contact for the matter at hand, according to *A*. Is the contact done in a project, it is better to have the project leader take the contact as that person has the insight into the project and matter at hand. In addition, the trustworthiness of a contact comes much from the company they are calling from. That being said, the personal chemistry between the contact person and the respondent has a big impact on the business relationship. Thus, foremost the relationship determines also how good the communication is between the two, a factor that affect the relationship's outcome.

B stated that a contact person should help to canalize and coordinate information between the customer and the company. It is not a problem if another person at the same company makes contact, especially in the case when that person is better suitable to present the matter. However, if the respondents company is to establish a close working relationship with another company, it is very important with a close personal contact. It is important to receive a response from that person to continue the relationship, and that applies to all working relationships.

Furthermore, *B* expressed that all companies have a responsibility to select a suitable contact person that the customer can turn to with their questions, and be directed to other experts if necessary. Furthermore, the contact person could be more aggressive when "selling" research projects. Today it is more consultancy contact over technical issues, rather than asking directly if *B* would like to take part in such a research project. Another aspect to this is the timing of the communication. It is important that a new project is well communicated to the parties that may have an interest in the project, prior to the start and final definition of the project and project participants. Eliminating the situation where Swerea Mefos communicate a project after the start and cannot let the respondent's company to participate.

If there should be a change in the relationship with *B's* company and Swerea Mefos, the initiative most likely must come from Swerea Mefos' management team, otherwise the risk is that the situation gets stuck in status quo. Thus, generally it is very interesting for *B* to understand what projects Swerea Mefos are running and what projects that are in the pipeline.

A single contact person is preferred by *C*, as it is easy to know whom to contact and one person that can direct the respondent to the right person within the firm. However, is it a person that is assigned project leader for an upcoming project, that person is the best person to answer questions regarding that project. The communication should not go through someone else that is not that familiar with the project. Thus, the respondent cannot know who is the correct person to talk to from the beginning. Considering the description of a problem from *B*, the contact person should discuss it internally and then direct the respondent to the right person within the company for that specific problem.

To that, *C* hoped that any contact person is active in a relationship, working with frequent contacts. The respondent has poor experience with institutes not being active in the communication. The active role is especially important at the start of a new project that might be of interest. The person taking the contact must not be the contact person, it can be the project leader that is more familiar with the project. As it is today, the contact person is often the initiator of the communication between the respondent and Swerea Mefos.

The Swerea Mefos contact person's conduct does have some impact on the respondent's relation to Swerea Mefos. However, *C* stressed that in a relationship with a research institute, the activity is what counts. This as some of the persons one may meet are better verbally, and other not or more of a researcher stereotype. When it comes to specific technical issues, it is not necessary that the person is like a sales representative, rather that there is factual matters behind the answers. In addition, *C* saw some of the material sent by Swerea Mefos as a tool to help selling in Swerea Mefos internally at the respondents company. The material is easily distributed to the selected persons, and can be used to show that Swerea Mefos is conducting serious research and that their findings are giving results to industry.

The business relationship is not dependent on the commitment or involvement of the management team at Swerea Mefos. Only in a few negotiations have the management team been involved, and most of the contact is done with the contact person or a project leader. *A* said that the engagement of a company's management team show a greater interest and how important the firm value the relationship. Thus, in an ongoing project, the management teams involvement is not expected, in that instance perhaps the branch-manager are involved.

D did not see it as important to have an appointed contact person at Swerea Mefos, this as the respondent know many at Swerea Mefos. To that it is another type of relationship, and that it is a research institute [research service firm] and by that it does not matter whom is taking the contact. However, in the context of another company the respondent prefers a special contact person and preferably a person that the respondent previously has met.

This to know if the person knows what he or she is talking about or if it is a person that can sit and fantasize, in that case it is about reliability. If the respondent does not know who is calling, the first thing is to understand what they want, and what they know. Because some that are calling are sales people and have no technical knowledge whatsoever, and that can take some time to see through. If one have had contact before, it is better to let that person take the contact according to *D*.

When it comes to the conduct, or endeavor of contact persons in a business relationship, it has a significant bearing to the relationship. However, D called the relationship with Swerea Mefos as a research relationship. A good relationship makes it easy to talk about new ideas, and not only calling to sell new projects to *D*. Thus, Swerea Mefos is always mentioning new projects to catch the respondent's attention and interest, but they are always discussing things objectively. This is in contrast with some sales companies that can conduct research and development, but they have to sell the product simultaneously. Swerea Mefos sells the research work, while other companies come with a product, which not necessarily are completed and working, thus the company claims so.

According to *E*, the contact person should be the person that is the project leader in a project. It is much more pliable than if someone else that is the contact person takes contact with limited knowledge of the projects. One would like to prevent too many people involved in the communication, as it may harm the communication. The contact persons at Swerea Mefos are easily to get through to, and easy to communicate with as well as professional in action. The persons that *E* are in contact with are always very conversant in their current projects as well as other projects at Swerea Mefos, and communicate the right and adequate information.

All respondents mentioned that in a joint-research project, most project members come from other companies. The project leader are most often a Swerea Mefos employee, but the total group of seven to eight people, only one to two are from Swerea Mefos. These project steering groups are composed by the project interests; companies and institutions. This assemble makes a great contact area for the respondents to other companies as well as other institutes, but foremost competencies.

A explained that there sometimes occurs situations of competition between project members, which leads to arguments over whom shall receive funding for what and the amount. This discussion has only been between institutions so far, according to *A*, and have affected the relationship between the two. Thus, respondent *A* did not experience that it affects their view, or relationship with Swerea Mefos. Additionally, by taking active part in these committees, *A* said it makes the person some sort of ambassador for Swerea Mefos within the company.

6.4 RQ3: Communication channels in working business relationships

A has not reflected about any specific expectations on a firm's communication to them based on their relationship to Swerea Mefos. Rather, the channel choice is determined after which channel is most suitable for the issue. On the other hand, *B*, *C*, *D* and *E* stated that depending on the close relationship they have to Swerea Mefos, the preference falls on communication channels that allow for a dialogue, mainly telephone calls and e-mail, but also personal meetings.

In addition, as the companies, and respondents, have close contact with Swerea Mefos, they are more open to direct contact over telephone rather than first sending an e-mail to schedule a meeting as proposed by *B*. According to *D*, if it is a company well known to the respondent, time is allocated to take listen to or read the information sent. *C* and *E* stated that the trustworthiness of communication increases if it is sent from a company to which the respondent has a good relationship to. To that, *D* said that the close relationship might result in an informal contact. This as the persons involved have been working together in projects for a very long time and know each others competencies as well as friends. *E* valued informal contact between them and their contact person at Swerea Mefos. Recently the respondent's contact person at Swerea Mefos paid a visit to their facilities, which was informal and a way to deepen the relationship between the two.

6.5 Concluding Interview With Swerea Mefos' CEO

Using the pilot study, gathered data, and initial data analysis, the concluding interview was organized to get the possibility to discuss additional data that might not have been considered initially. Building on the respondents' answers, certain qualities that research services possess may affect how the particular service is marketed. Carlsson stated that it is a balance of two features. First, the provided service must add value to customers' business, as with any other product. Second, one should appear competent. This is difficult however, as secrecy inhibits the use of other customers as references. Swerea Mefos cannot boast about its products, like car manufacturers or even other service products. Customers however, can market Swerea Mefos as only they can decide what to divulge.

When asked what drives purchases and repurchases, Carlsson stated that its dependent on several factors; secrecy, well executed trials with good results, projects within budget and time frame. Furthermore, customers were thought to return due to Swerea Mefos' communicative skills – it is 'fun' to work with Swerea Mefos, and should be. In summary, Carlsson said, Swerea Mefos strive to be professional. With communicative Carlsson meant Swerea Mefos should be easy to communicate with. Employees who interact with customers are positive, attentive, and give advice when customers appear not exactly knowing what they want.

Carlsson argued that customers purchase services from Swerea Mefos because; the company has a known brand; appears when searching Google; is well known throughout the industry; and appears in scientific articles. The CEO and head of departments take care of visits from potential customers. Within certain areas, others may partake due to their exceptional expertise. Depending on language and culture, others may also be sent as Swerea Mefos has people from different parts of the world. The company does however, not cover all continents sufficiently. Albeit so, Carlsson argued that knowledge outweighs cultural proficiency. Additionally, employees should to some extent be knowledgeable in marketing and understand the process of how agreement with customers are achieved.

Due to the demographics of the respondents, Carlsson was asked about the typical customers' contact individuals. A majority is male, older than 40 years and positioned in senior management. The relative homogeneity fueled the inquiry whether people in general through the industry regard themselves as colleagues. Carlsson stated that there is some collegiality, based on shared education which make people connect on a more informal level. This is to some extent used to build business relationships. In Carlsson's experience, many visitors quickly become at ease i.e. employ a more relaxed approach to language and clothing. Meetings during the first day tend to be more formal with more formal clothing, however the transformation the next day is dramatic with appearance and manners becoming more informal.

Carlsson thought that Swerea Mefos has made a name for itself through its customer projects, and doing presentations in international forums. Nationally the company is present in several different networks. As a follow-up, Carlsson was asked whether employees are encouraged to do presentations. Carlsson argued that every employee has this under consideration. Swerea Mefos can partake in conferences, but it wants to be able to present something. This was considered more effective in terms of marketing. There were improvements to be made, especially with younger employees. Carlsson concluded that employees are good at presenting, given the many years of experience many of the presenters have, and the support of good research. However, there is always the cost issue, Carlsson continued – Swerea Mefos cannot afford to send employees to every conference that is held. Swerea Mefos does however strive to hold at least 20 to 25 presentations internationally and publish five to ten scientific articles annually.

The board of directors is interested in these benchmarks, as well as the frequency of press releases, and news broadcast participation. Carlsson thought that it is good that employees appear in scientific journals, but he did not have anything to substantiate his claim. To that, he had also begun to consider start measuring how many times employees' scientific articles have been cited by others. An important part of this is gaining a doctorate so that employees become good at doing scientific articles. Carlsson argued that it is important that Swerea Mefos' employees appear in scientific channels, not only conferences. Conferences is more direct marketing than scientific articles. Scientific articles can always be used as a complement, in conferences for example.

When the customer visits, anyone from Swerea Mefos taking part in the project is active in marketing. If customers are not comfortable and do not consider Swerea Mefos professional, they will not likely make repurchases. Carlsson thought that many at Swerea Mefos do see themselves as marketers, although that is not their primary function. Carlsson was asked what he considered to be the main drivers for potential growth among current customers. The physical meeting between Swerea Mefos and its customers were considered crucial for future growth. Carlsson would not say the purpose is to sell service offerings, rather to identify potential areas where customers have needs that Swerea Mefos potentially could aid. After that comes the selling work at senior level.

During initial dialogues with Carlsson, he had lifted the question of social media. He clarified himself and stated he was merely interested due to the widespread use in society as a whole. To that, Carlsson was asked whether he thought there are channels less suitable for research service firms. There is a credibility hurdle that is higher for research service firms, Carlsson argued. Swerea Mefos must express itself interestingly yet credible, based on a scientific base. Also, with article advertisements (several pages) Swerea Mefos can develop its message more deeply which is difficult with TV, for example.

7. ANALYSIS

The analysis will synthesize gathered data on respective research question. Data will be discussed and analyzed based on the theories presented in the frame of reference. Findings and conclusions will be presented in the following section.

7.1 RQ1: Preferred Marketing Communication Channels

The data collected indicates that there are certain communication channels more preferred then others. The respondents prefer channels that allow dialogue, lifting forward telephone calls and e-mail as the two most preferable communication channels. Furthermore, meetings seem to be an appreciated communication channel as it too allow dialogue, which is often necessary given the advanced nature of the service. Some respondents stated that they preferred to meet a person they never had met before to get to know the individual. Danaher and Rossiter (2011) argue in their research that telephone calls and e-mail were two of the least effective communication channel to increase purchasing intentions. This might be a reason that businesses are not comfortable making purchases through these two channels. However, these channels can act as an initial way of contact to establish a relationship, which can grow to a purchase decision. Therefore, in a relationship these two channels grow to become the two most important communication channels.

Existing customers were found to have a higher level of purchasing intention. The data for this study indicates that an initial resistance is applied by the respondents if they do not know or have any relationship to the sender of the information. Moreover, the respondents stated that they asserted time to consume information sent from known companies in a much greater extent. Information sent by unknown firms, were most likely discarded. This data give support to Danaher and Rossiter's (2011) findings. Danaher and Rossiter did propose that other communication channels might be irrelevant to some firms, or even industries, industry specific communication channels could be added to the list. The pilot study indicated that there are two channels that are very specific and important for any research firm namely conferences and scientific articles. These two communication channels was deemed very important and trustworthy for the respondents as well.

Swerea Mefos and all five customer respondents claimed the scientific articles to be a source of quality information about the research conducted at different research service firms. Published scientific articles in scientific journals have passed peer reviews, which guarantees that there are some new technical knowledge presented and that the research have been conducted accordingly. Furthermore, if researchers at Swerea Mefos get their work published in an acknowledged publication, not only the does the researcher but also the firm receive credit and strengthen the view of the research firms abilities and competences. Conferences was seen as a good platform to present scientific work, which often also have been presented in scientific articles. Moreover, this medium allows for thorough presentation of scientific work, which may not always be the case in an article. Additionally, it also allows for a direct contact with researchers responsible for the work, in other words the competence itself.

Data suggests that some communication channels such as TV, radio commercials, brochures, unaddressed catalogues, unaddressed letters to the manager and text-messages (SMS) are not suitable for research service firms. These channels were deemed less trustworthy among the respondents, and three respondents explicitly dismissed TV and radio as potential communication channels in their business context. Furthermore, messages put through these channels would most likely harm the firms trustworthiness, rather than helping it. Two respondents explained this as these channels are more applicable for B2C-communications. One of them called these channels “Coca-Cola channels” and explained that it would be a surprise if Swerea Mefos were to use TV, and/or radio commercials.

The additional data collected regarding social media showed that none of the two respondents knew whether their companies were actively using any social media or not. Furthermore, neither one of them were active users of social media, neither in their profession or privately. One respondent argued that it is not a suitable communication channel as it risks spreading information to non intended recipients, as well as it excludes those not actively using these channels. Social media represents two-way communication but does not seem to attract the respondents attention. Only respondent *A* gave a more comprehensive answers, stating that the benefit of using social medias was not clear for the respondent, nor their company. The data indicates that more traditional media are the preference for research service customers. This also includes supplier published magazine, which appeared to be very appreciated by the respondents as a good source of information. However, it was deemed a good channel as the respondents are very familiar with the publication and the company behind it. If the situation would be the opposite, most likely the supplier published magazine would never be read.

7.2 RQ2: Employees as PTMs

The respondents indicated that PTMs are more production oriented than sales oriented, as three respondents said that their contact person at Swerea Mefos could be more aggressive when selling research projects to them. In addition, the respondents seem to value the competence and knowledge very high among employees and contact individuals at Swerea Mefos. Employees at Swerea Mefos must act as sales representatives, project leaders, researchers, and as intermediary towards its customers. Two respondents stated that they saw themselves as ambassadors for Swerea Mefos at their own companies, and saw also the possibility to help sell Swerea Mefos to their colleagues. This fits with Gummesson’s (1991) definition that the PTM is “someone associated with the company (at least in the mind of the customer) who can make an impression on the customer’s judgement of the firm, regardless of the role in which the person is officially employed” (62).

By that definition, suppliers’ contact person at customer firms could also be PTMs, in a sense representing suppliers at customer firms. Moreover, data showed that these PTMs are using materials sent to them as tools to strengthen their case. Therefore it is important to distribute trustworthy, comprehensive, and relevant information, build on knowledge and competencies possessed within research service firms. Furthermore, the communication is mostly conducted between these two (or more) individuals using certain communication channels. The relationship between the respondents and PTMs appear highly practical, i.e. the purpose appeared to be the discussion of ongoing projects. It could be that the respondents have not considered their contact person as a marketer. Instead, the individual has been considered a peer within a field of research – the PTMs might not even consider themselves “part-time marketers”, as their focus is on production, together with customers.

PTMs in industrial research services seem to do well, regardless of their marketing efforts, given that they possess sought after competencies and can convey them to the customers (potential customers). Hence, the concept of PTMs developed by Grönroos (1996) is somewhat redundant. However, the competencies associated with an individual positively affects the reputation of the research service firm, which is to be expected given that the success of a research service firm is also dependent on the employees competencies. That said, some basic knowledge of marketing and sales could have a multiplying effect.

From a communication strategy perspective, research service firms should strive to have an employee base that not only comprehend, but also appreciate the use of marketing. This is not to say that everyone should become a marketing expert. This underline what Grönroos (1996) concludes; the bulk of a service firms marketing efforts stem from its service personnel. Or, as Gummeson (1991) stated, "how do I contribute?" (60). Working more strategically with PTMs within industrial research services can positively affect turnover, as respondents have indicated that increased effort by the contact person could yield more purchases. The large affect of PTMs (in theory), and the observed effect in this particular case (industrial research firm), part of the marketing budget could be allocated to employee training in training.

7.3 RQ3: Communication channels in working business relationships

The respondents answers indicate that a close relationship to a supplier narrows down the preferred communication channels to those that allow for dialogue. The channel should still be chosen after the issue, as some issues are better suitable through some channels than other. This data is in line with the conclusions of Grönroos (2004), that marketing communication in a relationship marketing context strives to use, or create, two-way (if not multiple) communication channels.

The interviews showed that the respondents are more open to a direct contact via a telephone call from someone that they are working closely to, rather than someone not known to them before. Furthermore, the respondents are more open to allocate time to take part of communication sent from a known source, while they mostly treat communication from unknown senders as not interesting or scrap. Furthermore, the interest in, and trustworthiness of communication increases if the sender is known to the receiver, which is in line with the findings of Danaher and Rossiter (2011). Not discussed in any of the relationship theories or marketing communication theories reviewed, is that a longer and foremost closer relationship may result in an informal contacts. However, it is a phenomena that have been researched by scholars in other contexts (Grayson 2007; Price and Arnold 1999; Swan, Goodwin, Mayo, and Richardson 2001).

The customer respondents indicated that the more informal relationship grows as the relationship intensifies, and when persons have been working together during a long time. These relationships are sometimes also growing to friendships which is valuable in the business relationship according to the respondents. This informal contact, especially with a contact person, is apparently valued very high by some of the respondents. In contrast, Grayson (2007) argues that a friendship may have negative impact on business relationships.

8. CONCLUSIONS AND IMPLICATIONS

This study will conclude the thesis by discussing the conclusions and implications of the study on theory and practice. The chapter will end with recommendations for future research and the limitations of the thesis.

8.1 Conclusions

As discussed in the frame of reference, the marketing communication stems from the corporate level. The communication sent from firms, or through PTMs, differ considerably. Communication from firms are more general in nature, often targeting larger target groups, while PTMs' communication is mostly directed to potential as well as existing customers. The communication channels available for research service firms are mainly advertisements in industry magazines, supplier published magazine, and arrange conferences, channels that were deemed acceptable and trustworthy by the respondents.

8.1.1 RQ1

How can research service customers' perceptions of different marketing communication channels be described?

The research customers' preferences fall on communication channels that primarily allow for dialogue. This is allowed through telephone calls, e-mails and personal meetings. To this the customers preferred to receive communication through conferences and scientific articles. Communication, and advertisement through branch specific magazines were also viewed as acceptable, but other mass media marketing through for instance radio, or TV, were not applicable to research firms according to the respondents. Using these channels would harm the company's reputation if the intended target group were the customers. In addition, social media channels were not used by the responding companies, indicating that it is not a communication channel suitable for a research service firm.

The authors have found two industry specific communication channels, namely conferences and scientific articles. These channels are important as the forums allow the firm to communicate their work, and competencies, in channels which are deemed important, trustworthy, and appropriate by the receivers. The respondents perception of marketing communication of research services and research service firms, are therefore that it should represent trustworthy, factual based, and mutual communication.

Therefore, the authors would like to argue that research service firms should use communication channels that foster depth rather than width. In other words, research service firms need space and time to build trust and interest. This is probably the reason communication channels that possess such characteristics have been found preferred by the respondents in this study. Conferences, scientific articles, and highlighting the number of times scientific articles have been cited – all indicate the level of knowledge and competencies at Swerea Mefos. Moreover, these channels help potential customers become more comfortable in their decision to employ research service firms.

8.1.2 RQ2

What is the role of research service firms' employees as part time marketers?

The data from the interviews with the customer respondents, showed that most of the PTMs within Swerea Mefos, were more production oriented. The knowledge and competence among the researchers (PTMs) are highly sought after by the customer respondents. Furthermore, the competence and knowledge possessed by the researchers, or production orientation, are far more important than if they were more marketing or sales oriented. Thus, when it comes to the contact person, it would be more appreciated with more of a sales orientation. This as the respondents saw possibilities to be involved in projects in a much earlier stage.

Research service firm's employees make up firms' knowledge base. Customers purchase their knowledge and competencies within the specific field of research. The research services are mainly sold, produced, communicated, and finally delivered by the employees. This can be compared with services provided by audit firms or law firms. Along with PTMs within the research service firm, this study saw that there is at least one PTM within the customer firm representing the supplier. This PTM tries to promote and sell the supplier within its own organization when the suppliers competencies and expertise is deemed suitable. This finding has been added to the frame of reference figure (Figure 4.1), in the developed Figure 8.1 below.

8.1.3 RQ3

How can the business relation between a research service firm and customer, affect the customers' preference for a certain type of communication channel?

The communication between a research service firm and its customers are affecting the customers' preference for communication channel choice. It is not only that the customer wants the dialogue with the supplier, which is possible with certain channels, but also the customers expectations to be contacted through certain channels. The customer respondents expressed that when they are involved in a project with Swerea Mefos, they expect to be contacted directly through either e-mail or telephone.

This expectation, or preference, is somewhat natural as it allows for the direct contact. All contact cannot be handled through these channels, it has to be complemented with personal meetings, that allow for a more detailed communication. In addition, a longer relationship can develop a much more informal relationship and communication. The business relationship develops to create a friendship between the persons, which often simplifies communication and work. Some of the customer respondents stated that they have known several persons within Swerea Mefos from when they studied at the university, helping the contacts today.

8.1.4 Overall research problem

How can marketing communication of industrial research services be described?

The results from this research show that the marketing communication of industrial research services can be described as using and relying on industry specific and trustworthy marketing channels. To that, the communication must reflect the high knowledge-level the company, or rather the research service firm's employees possess. The customers' preferences, and expectations, affect the industry specific channels; scientific articles, and conferences. Finally, the marketing communication is highly dependent on the research service firm's employees, or PTMs. This as they most often are the senders in communication, representing the company.

8.2 Implication for Theory

Based on the data analysis, the authors suggest further development of the frame of reference (Figure 8.1). Changes include adding a PTM at the customer firm. Additionally, the authors separate communication between the firms, and the part time marketers. This as the communication between the firms is less direct, and not as personal, therefore the communication between PTMs are direct, and differ in content.

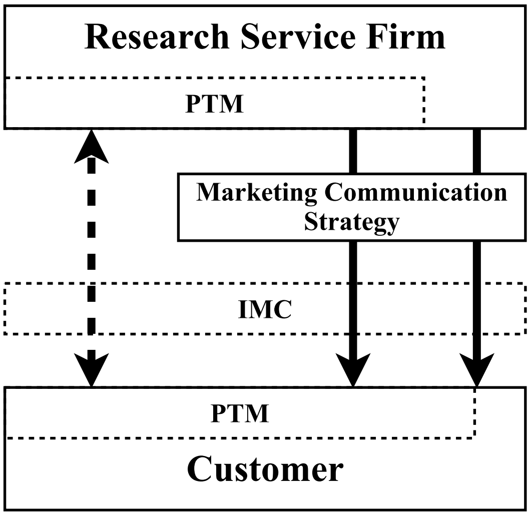

FIGURE 8.1: Developed Figure from the Frame of Reference

Furthermore, the authors believe that this study show that marketing theories preferably should be tested to specific industries to understand very important and specific characteristics that affect marketing communication, and preferred communication channels. Furthermore, PTM theory has a large focus on PTMs' role within the service firm, and do not take into account the importance of the PTM within the customer firm when looking at B2B service firms.

8.3 Implication for Practice

When it comes to implication for practice, the authors suggest that research service firms focus marketing communication mainly to conferences, scientific articles, direct communication and firm-published magazines. Conferences seem to be a good platform to distribute marketing communication, and where the receivers are susceptive to communication. Swerea Mefos has to serve their customer contact, the PTM at the customer firm, with information and material making it easier for that person to sell Swerea Mefos internally – material such as the supplier published magazine and scientific articles.

8.4 Limitations

As a result of this study's research design, it is hard to generalize results. The thesis indicates that within the research service business some channels are of utter importance to pass messages and show knowledge. The findings may also be different if tested in a geographical wider setting, as the cultural aspects may affect communication as suggested by Anderson and Narus (1991). This study has only researched the communication between a supplier and its customer/potential customers. Other target groups for communication may be prospective employees and other stakeholders. The findings in this study show that the intended target group may change the preference for in which channels to receive or find information.

8.5 Suggestions for Future Research

Future research could study the effect of communication directed to other target groups, such as prospective employees, society, financiers, and other stakeholders. The findings from this study cannot be directly linked to other target groups without further research, as discussed under the limitations of this research. The findings suggest that industry specific communication is of importance, research other industries may give a better understanding of channel choice. This to improve and rationalize/make more effective marketing, and to get "more bang for the buck"! If there is money to save for companies by improving its marketing, the authors believe many firms are interested. The authors also suggests that the research could be done considering the respondents age, and internet usage, as this can influence the respondents perception and preference of certain communication channel. Furthermore, to further develop the findings presented in this study, it is proposed to conduct a quantitative research on this matter to test whether these findings are generalizable.

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APPENDIX I – QUESTIONNAIRE DESIGN

	Attribute Wording	Lower Scale Anchor (1)	Upper Scale Anchor (5)
Q1	How easy do you find it to reject communications received from companies in the following ways	Not at all easy to reject	Extremely easy to reject
Q2	In general, how enjoyable do you find communications you receive from companies in the following ways	Not at all enjoyable	Extremely enjoyable
Q3	How trustworthy do you consider communications you receive from companies in the following ways	Not at all trustworthy	Extremely trustworthy
Q4	In general, how informative do you find communications you receive from companies via...	Not at all informative	Extremely informative
Q5	How convenient do you consider communications you receive from companies via ...	Not at all convenient	Extremely convenient
Q6	How acceptable to you are communications you receive from companies via . . .	Not at all acceptable	Extremely acceptable
Q7	In general, how entertaining are communications you receive from companies via . . .	Not at all entertaining	Extremely entertaining
Q8	How reliable do you consider information you receive from companies via . . .	Not at all reliable	Extremely reliable
Q9	How appropriate do you consider communications you receive from companies via ...	Not at all appropriate	Extremely appropriate
Q10	Assuming you did not directly provide any personal details to a company, how objectionable would you find it if that company communicated with you through the following way	Not at all objectionable	Extremely objectionable
Q11	How annoying do you consider communications you receive from companies in the following ways	Not at all annoying	Extremely annoying
Q12	How personally time-consuming do you consider communications you receive from companies in the following ways	Not at all time consuming	Extremely time consuming
Q13	How difficult to ignore do you consider communications you receive from companies via ...	Not at all difficult	Extremely difficult
Q14	When you receive a communication from a company, it can interrupt what you are doing at the time. How disruptive do you consider communications you receive from companies via ...	Not at all disruptive	Extremely disruptive

SOURCE: Danaher and Rossiter 2011, 40

Additional Questions		Lower Scale Anchor	Upper Scale Anchor
Q15	When the first contact were established with Swerea Mefos, was your interest affected by the contact person's position?	No	Yes
Q16	When the first contact were established with Swerea Mefos, was your interest affected by the contact person's position?	No	Yes
Q17	How important is the Swerea Mefos contact person's treatment for your business relationship?	Not at all important (1)	Very important (5)
Q18	When you are personally contacted by Swerea Mefos, do you expect to be contacted by a certain person?	No	Yes
Q19	If you answered "Yes" on the previous question, who do you expect to be contacted by from Swerea Mefos?	Open answer	
Q20	When you are personally contacted by Swerea Mefos, via what communication channels do you expect to be contacted through?	Multi-answer (all 14 communication channels possible)	
Q21	What industry is your company active within?	Open answer	
Q22	What position do you hold within your company?	Open answer	
Q23	What is your company's turnover?	Open answer	

APPENDIX II – INTERVIEW GUIDE, TELEPHONE INTERVIEW

1. Can you describe how you came into contact with Swerea Mefos?

2. What reason(s) got you to contract, or start working with Swerea Mefos?

3. How do you keep contact with Swerea Mefos?

    a. Are you the active part in the contact or is it Swerea Mefos?

4. Are you, or have you been active within any committee within Swerea Mefos?

5. Could you develop why do you prefer to be contacted through the channels you choose in the questionnaire?

6. Can you develop why you consider it important, or not important, to be contacted by a special person within Swerea Mefos?

7. Can you develop why you consider the channels you choose in the questionnaire less trustworthy?

    a. Do you consider marketing commercial in general or specifically from Swerea Mefos in your answer?

8. Can you develop why you consider the channels you choose in the questionnaire as more trustworthy?

9. Can you develop your answer on the question; How important is the treatment from Swerea Mefos contact person to your business relationship?

10. Nevertheless what communication channel information is sent to you from Swerea Mefos, is there any feedback to you from your contact person at Swerea Mefos?

11. How does your business relationship with Swerea Mefos affect your expectations on their communication?

12. Are your business relationship with Swerea Mefos dependent on the involvement from Swerea Mefos managing team?

APPENDIX III – PRESENTATION OF QUESTIONNAIRE DATA

Communication Channel		Min	Max	Mean	Responses (n)
	Letter personally addressed to you at work	2	4	3	5
	Telephone call at work	2	4	2.8	5
	E-mail to your work address	2	5	3	5
	TV ad	1	5	3	5
	Unaddressed letter “to the manager” in the work mail	1	4	2.6	5
	Unaddressed catalog or brochure in the work mail	1	4	2.4	5
	SMS message to work mobile	2	4	3	5
Q1	Radio ad	1	5	3	5
	Newspaper ad	1	5	3	5
	Magazine ad	1	5	3	5
	Conferences	1	4	3.2	5
	Scientific articles	2	4	3	5
	Supplier published magazine	2	4	3.2	5
	Personal meeting	1	4	3	5
	Letter personally addressed to you at work	1	4	2.8	5
	Telephone call at work	1	4	2.4	5
	E-mail to your work address	1	4	2.6	5
	TV ad	1	3	2	5
	Unaddressed letter “to the manager” in the work mail	1	3	2.2	5
	Unaddressed catalog or brochure in the work mail	1	4	2.6	5
	SMS message to work mobile	1	3	2.2	5
Q2	Radio ad	1	3	2.2	5
	Newspaper ad	1	3	2.2	5
	Magazine ad	1	3	2.6	5
	Conferences	3	4	3.6	5
	Scientific articles	3	4	3.6	5
	Supplier published magazine	2	4	3.2	5
	Personal meeting	3	4	3.8	5
	Letter personally addressed to you at work	2	4	3.2	5
	Telephone call at work	2	4	3.2	5
	E-mail to your work address	1	3	2.4	5
	TV ad	1	3	2	5
	Unaddressed letter “to the manager” in the work mail	2	3	2.6	5
	Unaddressed catalog or brochure in the work mail	1	3	2	5
Q3	SMS message to work mobile	1	3	2	5
	Radio ad	1	2	1.8	5
	Newspaper ad	1	3	2	5
	Magazine ad	2	4	3	5
	Conferences	3	4	3.6	5
	Scientific articles	3	4	3.8	5
	Supplier published magazine	3	3	3	5
	Personal meeting	3	4	3.6	5

	Letter personally addressed to you at work	1	3	2.6	5
	Telephone call at work	1	4	3	5
	E-mail to your work address	2	4	3	5
	TV ad	1	2	1.4	5
	Unaddressed letter "to the manager" in the work mail	2	3	2.4	5
	Unaddressed catalog or brochure in the work mail	2	3	2.4	5
	SMS message to work mobile	1	2	1.4	5
Q4	Radio ad	1	2	1.6	5
	Newspaper ad	1	2	1.6	5
	Magazine ad	2	4	2.8	5
	Conferences	3	5	4	5
	Scientific articles	4	5	4.2	5
	Supplier published magazine	2	4	3.2	5
	Personal meeting	3	4	3.8	5
	Letter personally addressed to you at work	1	4	3	5
	Telephone call at work	1	4	3	5
	E-mail to your work address	1	4	2.8	5
	TV ad	1	4	2.2	5
	Unaddressed letter "to the manager" in the work mail	1	4	2.4	5
	Unaddressed catalog or brochure in the work mail	2	4	3	5
	SMS message to work mobile	1	4	2.2	5
Q5	Radio ad	1	3	1.8	5
	Newspaper ad	1	3	2	5
	Magazine ad	2	3	2.8	5
	Conferences	3	4	3.6	5
	Scientific articles	3	4	3.8	5
	Supplier published magazine	2	4	3	5
	Personal meeting	3	4	3.6	5
	Letter personally addressed to you at work	2	5	3.2	5
	Telephone call at work	1	5	3	5
	E-mail to your work address	2	5	3.4	5
	TV ad	1	3	2	5
	Unaddressed letter "to the manager" in the work mail	2	4	2.8	5
	Unaddressed catalog or brochure in the work mail	2	5	3.2	5
	SMS message to work mobile	1	3	1.8	5
Q6	Radio ad	1	3	2	5
	Newspaper ad	2	3	2.8	5
	Magazine ad	3	3	3	5
	Conferences	3	5	3.8	5
	Scientific articles	3	5	3.8	5
	Supplier published magazine	3	5	3.8	5
	Personal meeting	3	5	3.4	5
	Letter personally addressed to you at work	1	4	2.8	5
	Telephone call at work	1	4	3	5
	E-mail to your work address	1	4	2.8	5
	TV ad	1	2	1.8	5
	Unaddressed letter "to the manager" in the work mail	1	3	2	5
	Unaddressed catalog or brochure in the work mail	1	3	2	5
Q7	SMS message to work mobile	1	2	1.4	5
	Radio ad	1	2	1.8	5
	Newspaper ad	1	3	2	5
	Magazine ad	1	3	2.2	5
	Conferences	1	4	2.8	5
	Scientific articles	1	4	3	5
	Supplier published magazine	1	3	2.6	5
	Personal meeting	1	4	3	5

	Letter personally addressed to you at work	2	4	3	5
	Telephone call at work	1	4	3	5
	E-mail to your work address	1	4	2.8	5
	TV ad	1	2	1.4	5
	Unaddressed letter “to the manager” in the work mail	1	3	2	5
	Unaddressed catalog or brochure in the work mail	1	3	2	5
	SMS message to work mobile	1	3	1.4	5
Q8	Radio ad	1	2	1.4	5
	Newspaper ad	1	3	1.8	5
	Magazine ad	2	3	2.2	5
	Conferences	3	4	3.6	5
	Scientific articles	3	4	3.8	5
	Supplier published magazine	3	3	3	5
	Personal meeting	3	4	3.6	5
	Letter personally addressed to you at work	1	4	3	5
	Telephone call at work	1	5	3	5
	E-mail to your work address	1	5	3.6	5
	TV ad	1	2	1.8	5
	Unaddressed letter “to the manager” in the work mail	1	3	2	5
	Unaddressed catalog or brochure in the work mail	1	3	2	5
	SMS message to work mobile	1	2	1.4	5
Q9	Radio ad	1	2	1.8	5
	Newspaper ad	1	3	2.2	5
	Magazine ad	2	3	2.6	5
	Conferences	3	4	3.4	5
	Scientific articles	3	4	3.4	5
	Supplier published magazine	3	4	3.4	5
	Personal meeting	3	5	3.4	5
	Letter personally addressed to you at work	1	5	2.8	5
	Telephone call at work	1	5	3	5
	E-mail to your work address	2	5	3.6	5
	TV ad	3	5	3.8	5
	Unaddressed letter “to the manager” in the work mail	2	5	3.4	5
	Unaddressed catalog or brochure in the work mail	2	5	3.4	5
	SMS message to work mobile	2	5	3.8	5
Q10	Radio ad	3	5	4	5
	Newspaper ad	2	5	3.8	5
	Magazine ad	1	5	3.6	5
	Conferences	1	5	3.2	5
	Scientific articles	1	5	3.2	5
	Supplier published magazine	1	5	3	5
	Personal meeting	1	5	3	5
	Letter personally addressed to you at work	1	3	2	5
	Telephone call at work	2	5	3.2	5
	E-mail to your work address	2	5	3	5
	TV ad	1	5	3	5
	Unaddressed letter “to the manager” in the work mail	1	4	2.6	5
	Unaddressed catalog or brochure in the work mail	1	4	2.6	5
Q11	SMS message to work mobile	3	5	4	5
	Radio ad	1	4	2.8	5
	Newspaper ad	1	3	2.2	5
	Magazine ad	1	3	2.2	5
	Conferences	1	3	2	5
	Scientific articles	1	3	1.8	5
	Supplier published magazine	1	3	1.8	5
	Personal meeting	1	3	2.2	5

	Letter personally addressed to you at work	2	4	2.8	5
	Telephone call at work	2	4	3.2	5
	E-mail to your work address	3	4	3.2	5
	TV ad	1	3	1.8	5
	Unaddressed letter “to the manager” in the work mail	1	2	1.8	5
	Unaddressed catalog or brochure in the work mail	1	3	2	5
	SMS message to work mobile	1	3	1.8	5
Q12	Radio ad	1	3	1.2	5
	Newspaper ad	1	2	1.2	5
	Magazine ad	1	4	2	5
	Conferences	1	4	2.6	5
	Scientific articles	1	4	2.6	5
	Supplier published magazine	1	3	2.2	5
	Personal meeting	1	5	3.6	5
	Letter personally addressed to you at work	2	4	2.8	5
	Telephone call at work	2	5	3.6	5
	E-mail to your work address	2	4	3.2	5
	TV ad	1	2	1.4	5
	Unaddressed letter “to the manager” in the work mail	1	2	1.8	5
	Unaddressed catalog or brochure in the work mail	1	2	1.8	5
	SMS message to work mobile	1	3	2.2	5
Q13	Radio ad	1	2	1.2	5
	Newspaper ad	1	2	1.2	5
	Magazine ad	1	2	1.6	5
	Conferences	1	3	2.2	5
	Scientific articles	1	2	1.8	5
	Supplier published magazine	1	3	1.8	5
	Personal meeting	2	5	4	5
	Letter personally addressed to you at work	1	2	1.8	5
	Telephone call at work	3	5	4.2	5
	E-mail to your work address	3	4	3.4	5
	TV ad	1	1	1	5
	Unaddressed letter “to the manager” in the work mail	1	2	1.2	5
	Unaddressed catalog or brochure in the work mail	1	2	1.2	5
	SMS message to work mobile	3	5	3.8	5
Q14	Radio ad	1	1	1	5
	Newspaper ad	1	1	1	5
	Magazine ad	1	1	1	5
	Conferences	1	2	1.2	5
	Scientific articles	1	3	1.8	5
	Supplier published magazine	1	3	1.4	5
	Personal meeting	3	5	4.2	5

APPENDIX IV – INTERVIEW GUIDE, CONCLUDING INTERVIEW

General

1. Do you believe that there are any characteristics of your service that distinguish your marketing from other types of services?

2. How does a purchase/re-buy emerge, and what underlying driving force(s) can be found?

3. How do you believe that a business relationship effects communication?

PTMs

4. You have a limited budget for marketing – how will you prioritize among marketing efforts in the future?

5. How are you arguing around the PTMs and the cost (wage) in comparison to your marketing budget?

6. What type of resource do you give your PTMs (marketing support)?

7. What is your view on the following quotation; "Grönroos (1996) posited that service personnel contributes greatly to the marketing efforts of service firms, and forms the bulk of the firm's marketing impact."

8. How does the employees view their own role as marketers? Do they even consider themselves as marketers?

9. What is your view on that your employees are more production oriented than sales-/ marketing oriented?

Target Groups, Customers

10. What is the age; experience; and title among the target group for your marketing communication?

11. How large potential for growth do you estimate that you have among your existing customers and member firms?

Communication Channels

12. During the initial interviews you had questions and thoughts regarding social media channels as potential communication channels for Swerea Mefos, how do you reason regarding this today?

13. Why do you think that some communication channels may not at all be suitable for your type of business? Can you name a few examples?