Online communication practice and strategy of Finnish manufacturers of agricultural and forest machinery
In order to interact effectively with their stakeholders organisations need to manage communication activities across all functions and channels, including online channels. Monitoring online communication can also contribute to overall strategy formulation. Successful organisational online communication covers three dimensions: effective own communication channels, visibility in other channels and the participation on the social website. Organisations’ online communication strategy appears to be influenced by stakeholders’ behaviour as well as the overall and communication strategies.

This study investigated the online communication practice and strategy of Finnish manufacturers of agricultural and forestry machinery. The manufacturers’ web presence was assessed by analyzing and rating website effectiveness and measuring online visibility in a quantitative study. A subsequent qualitative study consisted of seven interviews with online communication professionals of a representative part of the industry. The results showed that the organisations within the industry are taking a hesitant approach to online communication. The centre of their focus is maintaining the organisations’ websites with product and contact information. The organisations interviewed engaged only sporadically in other online communication activities such as two-way communication or online advertisement. Online communication was not systematically monitored or utilized to provide input for the organisation’s strategies. As the digital divide between urban and rural populations and between age groups is reducing, Finnish manufacturers of agricultural and forestry machinery need to review their online communication strategy in order to keep up with international competition and with the online communication habits of their stakeholders. Though high-investment products will continue to be sold via hands-on demonstrations, there is a clear potential to create a favourable environment for purchasing decisions with effective online communication.
# TABLE OF CONTENTS

1  INTRODUCTION......................................................................................................................... 1

2  ORGANISATIONAL COMMUNICATION AND STRATEGY .......................................................... 3
   2.1  Defining organisational communication ................................................................................. 3
   2.1.1 Stakeholders - communicating with the organisational environment .............................. 6
   2.1.2 Communicating effectively with two-way communication................................................. 8
   2.2  Defining organisational strategy ........................................................................................... 10
   2.2.1 Strategy on organisational levels ....................................................................................... 11
   2.2.2 The process of strategy formulation ................................................................................... 13
   2.3  The relationship between organisational communication and strategy ............................. 14
       2.3.1 The role of communication in the strategy process ......................................................... 15
       2.3.2 Communication planning and strategy on a functional level ......................................... 16

3  ONLINE COMMUNICATION MANAGEMENT ........................................................................... 19
   3.1  The internet as an everyday communication space ............................................................. 19
       3.1.1 A brief history of the internet ............................................................................................ 20
       3.1.2 Social implications of modern ICT .................................................................................. 21
       3.1.3 Impacts of ICT on organisations’ online communication ............................................. 26
       3.1.4 Development stages of online communication strategy .................................................. 29
   3.2  Dimensions of organisational online communication .......................................................... 32
       3.2.1 Effective own channels ...................................................................................................... 33
       3.2.2 Visibility on external online communication channels ..................................................... 35
       3.2.3 Participation on the social web .......................................................................................... 36
   3.3  A model for strategic online communication ........................................................................ 39

4  STUDY DESCRIPTION ............................................................................................................... 42
   4.1  Finnish agricultural and forestry machinery manufacturers ............................................... 42
   4.2  Research questions and research phases ............................................................................. 45
   4.3  Quantitative study: web presence analysis ............................................................................ 47
       4.3.1 Conceptualisation and variables ....................................................................................... 48
       4.3.2 Data collection and analysis ............................................................................................ 51
   4.4  Qualitative study: interviews with the organisations ............................................................. 53
       4.4.1 Sample and data collection ............................................................................................. 53
       4.4.2 Analysis of interview data ............................................................................................... 55

5  RESULTS .................................................................................................................................... 57
   5.1  FMAFM web presence analysis ............................................................................................ 57
5.1.1 Stakeholder groups targeted ................................................................. 57
5.1.2 Effectiveness of the organisations' homepages ..................................... 61
5.1.3 Other dimensions of online communication ......................................... 67
5.1.4 Summary web presence analysis .......................................................... 70
5.2 FMAFM online communication practises and drivers .............................. 71
  5.2.1 Websites as the centre of online communication activities .................. 71
  5.2.2 Supporting the execution of communication and marketing strategies .... 72
  5.2.3 Engaging with customers important but not (yet) via ICT ................... 76
  5.2.4 Effective online communication requires resources ............................ 79
5.3 Results summary ......................................................................................... 80

6 Discussion ...................................................................................................... 83
  6.1 Online communication on the radar of FMAFM but nearly falling off ........ 83
  6.2 Practical recommendations for target organisations ............................... 91
  6.3 Study evaluation ....................................................................................... 93
  6.4 Recommendations for further study ....................................................... 95

BIBLIOGRAPHY ............................................................................................... 97
1 INTRODUCTION

The Internet has become part of the Western world’s everyday lives, and it is facilitating new ways of how we interact with one another. We live in an information society in which the significance of online communication is continuing to grow as we stay in contact with others via social networks, shop for goods on the Internet, rely on online services by our bank or health centres, and read or watch news via computers and mobile devices.

Information and communication technologies (ICT) have had a deep impact on how organisations communicate with their stakeholders. Besides offering a multitude of new touch points via which to communicate with consumers, the narrative about organisations has also become more complex, and communication multi-directional. Online communication has been firmly on the radar of organisational communication research and practise for well over a decade (e.g. de Bussy, Watson, Pitt & Ewing 2000; Hintikka 2007; Hoffman & Novak 1996). A large body of literature exists about how organisations can communicate effectively with their stakeholders via information and communication technologies (e.g. Hallahan 2001; Hearn, Foth & Gray 2009; Kent & Taylor 1998; Parkin 2009). In addition several enquiries have been made into the adoption of online communication means and...
practises among communication professionals (Fjeld & Molesworth 2006; Porter, Sweetser & Chung 2009; Summerville, Wood & Gillham 2007). According to these studies adoption of online communication has been slow, though for many years PR practitioners have expected the significance of online communication to grow (Zerfass 2007; Zerfass, Verhoeven, Tench, Moreno & Verčič 2011). Even to date only few studies have shown that organisations are actually using the Internet to its full potential when communicating with their stakeholders.

This study aims at contributing to the existing research body by investigating to which extent and how strategically profit-orientated organisations utilize online communication means to communicate with their stakeholders. The study is unique because it aims at investigating online communication within an entire industry. By examining a group of organisations which all operate in the same environment and according to similar processes, this study identifies common patterns in the decision-making of the organisations and factors that drive the adoption of online communication in organisations. The study does not only give an insight into online communication of the industry in question and serve as a best practises benchmark for the organisations included in the investigation. It also serves as an example for enquiries into the online communication strategy of similar industries, both on a national and international level.

This thesis is divided into six chapters. Following this introduction, chapter two defines the central concepts related to organisational communication management and strategy. Chapter three introduces the current trends and research related to online communication and its impacts on organisational communication. The fourth chapter is dedicated to introducing the target industry as well as the research methods. Chapter five presents the findings of the study. These are discussed and the chapter evaluated in chapter six.
2 ORGANISATIONAL COMMUNICATION AND STRATEGY

This chapter defines communication management in an organisational context and discusses the relationship between organisational communication and organisational strategy.

Different scholars use different terminology for describing the disciplines and functions of organisational communication. In this thesis the term “organisational communication” is used to describe the planned and managed communication between an organisation and its stakeholders. Some scholars refer to this management activity as corporate communication or public relations, but these terms make it easy to neglect that organisational communication covers all aspects of the organisational communication activities.

2.1 Defining organisational communication

Communication as a word stems from Latin *communicare*, to participate in or to make common. Communication can be defined as the process of creating and
exchanging messages and the mutual construction of meaning between humans (Fawkes 2004, 21-25). Communication can be verbal or non-verbal and the exchange of messages and meanings can be either interpersonal or mediated.

Organisations have been examined by scholars for decades, resulting in different theoretical perspectives on organisations’ structures and behaviours. For the purpose of this thesis an organisation is defined as an organised social grouping that is formed to pursue specific meanings or goals, and which has a structure by which certain individuals or groups of individuals fulfil roles and responsibilities assigned to them. (Andrews & Herschel 1996, 7; Luoma-aho 2005, 25.)

In spite of different perspectives on what constitutes an organisation, modern organisation theories emphasise the significance of communication. From a functionalist perspective communication can be seen as an essential means for the functioning of the organisation, which enables the agreement on common goals and the interaction with the organisation’s environment. This perspective focuses on the outcomes of organisational communication processes. Organisational communication can additionally be approached from an interpretive perspective, which focuses on the process and meanings through which organisations are socially constructed. (Andrews & Herschel 1996, 13-14).

According to Deetz (2001, 4-6) organisational communication can be conceptualised in three ways:

- Organisational communication as something that is done by people in specialized communication departments.
- Organisational communication as a phenomenon that exists in organisations.
- Organisational communication as a way to describe and explain organisations and organisational behaviour.

For the purposes of this thesis organisational communication is regarded primarily according to the first conceptual approach as something an organisation’s
communication department or communication specialist does. The main aim of the study is to identify the planned online communication activities of the target organisations. Planned communication can be summarized applying Åberg’s (1989, 67) total communication model according to which organisational communication fulfils four main functions:

- **Profiling.** One of the main functions of communication is the management and ongoing evaluation of the image of the organisation as a whole as well as its products and services.

- **Informing.** Another function of organisational communication is informing the organisation’s external and internal stakeholders about organisational actions and developments.

- **Socialisation.** Communication is further needed to socialize external and internal stakeholders. In concrete terms this may be the preparation of information material aimed at familiarizing stakeholders with the organisation’s industry.

- **Support of core operations.** Communication is the basis of organisational success, i.e. for the effective cooperation between individuals and groups. The communication professionals’ role is to facilitate and consult effective communication among the various organisational functions.

Another aim of this study is to identify what strategy or strategies drive organisational online communication. As will be shown in chapter 2.2 strategy building cannot be accomplished without communication between organisational members. For this purpose communication is additionally understood as a phenomenon in an organisation through which common meaning is constructed. This can also be referred to as, *social interaction*, without which the organisation would not exist. (Åberg 1989.)
2.1.1 Stakeholders - communicating with the organisational environment

The role of organisational communication is usually seen as that of facilitating “adjustment and maintenance” of the organisation in its ever-changing environment (Cutlip, Center & Broom 2006, 25). Steyn (2003, 172) defines the environment of an organisation as the “patterning of strategic, social, political and ethical issues” that are related to the organisation and the entirety of groups and individuals on which the organisation depends. Such groups and individuals are usually referred to as publics or stakeholders (Bentele, Brosius & Jarren 2006; Cutlip et al. 2006). As illustrated in Figure 1 stakeholders are all publics that “can affect or are affected by the actions, decisions, policies, practices or goals of the organisation” (Freeman 1984 quoted in Grunig & Repper 1992, 126).

![Stakeholder view of an organisation](image)

In organisational communication theory and practise there has usually been a distinction between internal and external communication (Cutlip et al. 2006, 22; Grunig 1992, 4-5). Internal communication refers to the maintenance of favourable relations with employees. External communication refers to the management of relations with external stakeholders such as consumers, media, shareholders and other stakeholders that are not members of the organisation. This thesis focuses on communication with external stakeholders.

For many organisations consumers are of special interest and building relations with consumers requires a somewhat different approach than communication with other external stakeholders (Vos & Schoemaker 2005, 31). External communication can therefore be further divided into two separate domains: marketing communication, which aims at consumer relations and thus supports the organisation’s marketing function, and concern or corporate communication, i.e. communication with other external stakeholders. (Varey & White 2000; Vos & Schoemaker 2005.)

In contrast to the traditional divide, Cheney and Christensen (2001) note that an organisation’s environment is complex and organisational boundaries are often fuzzy. They challenge the conceptual divide between external and internal communications in arguing that internal matters of an organisation is often also of interest to external stakeholders and vice versa. (Cheney & Christensen 2001.)

External and internal communication cover a variety of communication disciplines such as internal relations, publicity, advertising, press agency, public affairs, lobbying, issues management and investor relations which in an organisational context may be handled by different individuals or different functions (Cutlip et al. 2006, 9-22). Since the 1990s an increasing number of scholars and practitioners have been calling for an integration of the various communication disciplines in order to manage organisational communication effectively (Radford & Goldstein 2002; Van Riel 1995; Varey & White 2000). The concept of integrated communication emerged at
a time when new, interactive communication technologies were proliferating and organisations became increasingly aware that individuals form their opinions based not only on PR or advertising campaigns but on “a multitude of contacts and impressions” (Cornelissen & Lock 2001, 426-427).

It is notable that in spite of the popularity of the integrated communication approach during the 1990s, not a lot of empiric evidence has been produced to prove its advantages over separately functioning communication disciplines. It has further been criticised that no beneficial organisational structure has been suggested to date which would result in the highest level of integration and thus communication excellence. (Cornelissen & Lock 2001, 427.) On the other hand, researchers agree that the various communication disciplines need to cooperate or at least be managed on a common level in order to achieve consistent messaging, because consistent messaging does appear to have greater effects on stakeholders (Cornelissen & Lock 2001, 427-428; Gurău 2008). Radford and Goldstein (2002) approach integrated communication from an additional angle. They view communication disciplines as increasingly knowledge-based professions as a result of which research becomes an essential part of an organisation’s communication strategy. They conclude that the increased emphasis on research in the various communication disciplines will cause media relations, issues management, advertising and other communication disciplines to converge. (Radford & Goldstein 2002).

2.1.2 Communicating effectively with two-way communication

An organisation can take different approaches when communicating with external and internal stakeholders. James Grunig and Todd Hunt summarized these in their four public relations models, which are among the most widely studied models in PR theory: 1) press-agentry/publicity model, 2) public information model, 3) two-way asymmetric model and 4) two-way symmetric model (Grunig & Grunig 1992).
In the press-agentry/publicity and public information models one-way communication is applied with the purpose of influencing attitudes or behaviour of the recipients of the message. While the press agentry model is used for propagandistic purposes, such as the promotion of sports events or products, the aim of the public information model is to disseminate information for the purpose of educating stakeholders for example as part of a governmental information campaign. (Grunig & Grunig 1992, 286-287.)

In contrast to the first two communication models, information exchange occurs in both directions between the organisation and its stakeholders in the two-way asymmetric and two-way symmetric models (Laskin 2009). The aim of the two-way asymmetric model is still to influence attitudes and behaviour, i.e. persuade, the public. However the underlying assumption of the model is that organisations can only communicate effectively if they first research and identify the recipient’s motivations. In the two-way symmetric model such scientifically-based manipulation attempts are replaced by open dialogue. The aim of the model is to create a mutual understanding between the organisation and its stakeholders. (Grunig & Grunig 1992, 289.)

When the models were first conceived, they were said to reflect a historical development of organisational communication (Grunig & Grunig 1992, 286-289), which would suggest that the prevailing communication model in modern organisations is two-way symmetric. Grunig & Grunig (1992, 292) in fact argue that two-way symmetrical communication is the most efficient and ethical way of interacting with stakeholders. However, each of the four models is still being employed by modern organisations in the US and Europe (Fawkes 2004, 12-16; Grunig & Grunig 1992, 289; van Ruler 2004, 124).

The two-way symmetric communication model has been criticised as an idealistic, purely academic concept which could not be supported reliably by empirical evidence (Laskin 2009, 45). In spite of the criticism Grunig and Hunt’s four models
are still recognized as a basis for organisational communication research. The models remain a valuable tool for describing and evaluating organisational communication activities. (Laskin 2009; van Ruler 2004, 138-139.)

2.2 Defining organisational strategy

The word strategy in its original sense is derived from the Greek words στρατός (stratos), army, and ἀγω (ago), to lead, referring to the art of warfare or the skills to achieve military goals by means of warfare (Eskola et al. 1998, 689). In a figurative sense strategy refers to a long-term and planned activity in order to reach a target or an advantageous position (Strategie, 2007). Bryson defines strategic planning as “a set of concepts, procedures, and tools designed to assist leaders and managers” improve organisational achievements. In contrast to tactics, which are often employed for reaching temporary goals, strategy concerns a larger, more long-term target. (Bryson 1995, 10.)

In business and management studies strategy has been discussed for decades, resulting in a multitude of definitions and application areas within the organisational context (Mintzberg, Ahlstrand & Lampel 1999, 396-401; Nickols 2000). Scholars have considered strategy for example

- a planned guideline for future action of the organisation (Ansoff 1965 paraphrased in Mintzberg et al. 1999, 396),
- a pattern in the organisation’s actions and decisions (Mintzberg 1994),
- the competitive position of an organisation (Porter 1998) or
- a perspective on the organisation’s future position (Hämälainen & Maula 2004).

Mintzberg et al. (1999, 17-19) identifies ten major strategy schools in the literature. These can be grouped into three approaches: prescriptive, descriptive and emergent. According to the prescriptive approach strategy formulation is a staged, linear process that begins with a situational analysis and ends with the formulation of an
implementation plan to achieve future goals and actions. In this approach the aim is to provide organisations with the tools for ideal strategic behaviour. In the descriptive approach the aim is not to strive for ideal behaviour, but rather for a description of how strategies are actually formed and who is involved in the strategy formulation process. The third and most recent approach to strategy formulation combines elements from the prescriptive and descriptive approaches. This type of strategy formulation, which Steyn (2003) calls the emergent approach, also starts out with a situational analysis and proceeds in a staged fashion. However, the approach recognises that elements of the strategy process are constantly developing according to changes in the organisation’s internal and external environment. The approach also acknowledges that some areas of strategy emerge as a pattern that can be seen only in hindsight on the organisation’s past action. As such the emergent approach does not only produce a roadmap for implementing change, but the implementation is an actual part of the strategy formulation process. (Mintzberg et al. 1999, 17-19; Steyn 2003, 171.)

In summary one can say that a strategy is an organisation’s approach to achieving goals. Strategy provides an organisation with guidelines for actions to be taken, but these guidelines continuously change under the influence of the organisation’s actions and its environment.

2.2.1 Strategy on organisational levels

There appears to be a consensus in literature that strategy is formed on different levels of the organisation (Cole 1994). A common distinction of strategic levels is between corporate, business and functional strategies. There are different priorities on each of these levels and, accordingly, different stakeholders are affected by the different strategies.

On a corporate level the purpose of strategy is to define the mission (i.e. the purpose) and the profile (i.e. the decision about mergers or joint ventures) of the business and
to ensure organisational effectiveness by managing corporate resources. Steyn (2003, 172-173) notes that the focus of the corporate strategy is often on the “macro environment, especially its economic and technological components”. On a business-unit level strategy addresses the organisation’s competitiveness, i.e. the focus is on supporting the organisation’s financial goals, its effectiveness and efficiency. The primary stakeholders concerned at this strategic level are customers, suppliers, distributors and employees. (Steyn 2003, 172-173.) On a functional level the main focus of strategy is on objectives for each of the organisation’s key functions as well as on the efficient deployment of resources. The primary stakeholders on this strategic level are each individual function’s own stakeholders. (Hofer & Schendler 1986 referenced in Cole 1994, 96; Steyn 2003, 172-173.) An organisation’s functions are for example product development, finance, communication or marketing and sales. Thompson and Strickland (1990) consider another hierarchical level below the functional strategy – the operational strategy in which the objectives of individual organisational groups (e.g. departments or teams) are to be achieved. The main focus of strategy formulation at this level is to identify synergies and maximise the efficient use of resources. This strategy concerns mainly internal stakeholders. (Thompson & Strickland 1990 referenced in Cole 1994, 98.)

The role an organisation plays as part of society has become increasingly important, and building a trust relationship between the organisation and its stakeholders has become a major objective (e.g. Luoma-aho 2005). A fifth level of organisation is thus of great significance. Enterprise strategy focuses on the management of the organisation’s image, its role within society and its ability to deal with crisis situations in a constructive manner (Freeman 1984, 90-91; Steyn 2003, 172-173). On the enterprise level, the main stakeholders considered are society in general, the media, activist groups or communities.

Figure 2 provides an overview of the levels of business strategy. Thompson and Strickland (1990 referenced in Cole 1994, 97-98) maintain that these levels form a hierarchy and that on each hierarchically higher level the strategies of the lower
level should be reviewed and if necessary revised and unified. Steyn (2003, 172-174) adds that strategies on the lower levels should support strategies on the higher levels.

![Figure 2: The levels of business strategy and their interrelationship. Adapted from Steyn (2003, 172-174) and Thompson and Strickland (1990 referenced in Cole 1994, 97-98).]

### 2.2.2 The process of strategy formulation

A multitude of competing models and plans have been suggested for the process of formulating strategy. What is common to the majority of models is that they regard strategy formulation as a staged process which occurs or is undertaken cyclically. One can summarize the models to the following iterative process (adapted from Cole 1994, 203; Hämälainen & Maula 2004, 47; Steyn 2003, 174-175):

- Environmental analysis
- Strategic thinking
- Setting operational aims and plans
- Implementing plans
- Control phase
In the environmental analysis phase the organisation’s environment is analysed and special note taken of critical issues. The strategic thinking phase involves the weighing up all aspects found in the environmental analysis, i.e. the market situation, the opinions of stakeholders as well as societal, political, technological and economical trends. Operational aims are the outcome of the strategic thinking process. After they have been set, a plan is created which outlines strategic actions and objectives. In the implementation phase, the strategy is realised, usually by translating the core strategy into more detailed and shorter-term plans. A regular strategic review is an essential instrument for ensuring that the strategy stays on track and is achieving the goals. (Cole 1994, 203; Steyn 2003, 174-175.)

The strategy process described above stems from a linear approach to strategy formation. If one understands strategy as emerging from a pattern of organisational behaviour the cycle of the strategy phase may begin with a situational analysis, then set a loose course of intended actions and continue with the implementation of these actions. The intended actions may change during the implementation phase and the realization of objectives would need to be adjusted. It is only after several of these cycles have been completed that a strategy may emerge from the pattern of organisational actions.

2.3 The relationship between organisational communication and strategy

The previous chapter already touched on the interesting relationship between strategy and communication. Communication has an integral role in the creation and implementation of strategy, referred to as strategy communication (Hämälainen & Maula, 2004). But communication is also a functional area of an organisation, where a communication strategy, also referred to as communication policy, is created.
2.3.1 *The role of communication in the strategy process*

Strategy formulation is usually seen as the responsibility of the organisation’s senior management (enterprise, corporate and business levels) and mid-management (functional and operational levels) (Cole 2004, 8; Porter 1998, 70-71). However, it has been suggested that the basis of strategy formulation can also be provided via participation of non-management employees. Their ideas and opinions are often important input for strategic decision-making (Hämälainen & Maula 2004, 55) and the involvement in strategy-making may improve commitment towards the organisation and thus organisation effectiveness (Hargie & Tourish 2000, 18-19).

Even though it may not be possible to involve all of staff in strategy formulation, informing stakeholders about the strategy facilitates commitment to the process and possible subsequent changes. Furthermore, once the implementation stage of strategy begins, the strategic objectives need to be translated into plans and goals on the operational level and communicated to each individual. Whether strategy formulation is based on a top-bottom or bottom-top approach, it is apparent that strategy is always a group effort. Hämälainen and Maula point out that the process requires effective communication management, which calls for an involvement of the communication function throughout the complete process of strategy formulation (Hämälainen & Maula 2004, 55).

In addition to the question how strategy is communicated, one might also ask how the communication function can contribute to strategy. Ströh argues that organisational communication planning should not only be concerned with the mere planning and evaluating strategies, but communication professionals should rather actively contribute to strategy by facilitating dialogue between the organisation and its stakeholders. She adds that participation enhances the relationship between organisations and stakeholders positively. (Ströh 2004.)
As part of its responsibilities of profiling and informing, the communication function continuously monitors the organisational field of forces (Vos & Schoemaker 2005, 21-22), including internal and external stakeholders, trends and issues relevant on all levels of organisational strategy. Given that one of the aims of strategic management is the efficient deployment of resources, the information retrieved in those environmental scans can and should be used to support the first phase of the strategy process of enterprise, corporate, business unit, functional and operational strategies.

To sum up one can say that strategy communication consists of three elements (adapted from Hämäläinen & Maula 2004, 28):

- Communication about the content of strategy.
- Communication that supports the process of strategy implementation.
- Communication about and contribution to the strategy process.

2.3.2 Communication planning and strategy on a functional level

In addition to the role of communication in supporting the organisation’s overall strategy process, communication planning appears on a functional and operational level. Different terms are used in the literature to describe the strategic planning of communication. Usually it is referred to as communication strategy, communication policy and communication planning (Åberg 2000, 228; Vos, Otte & Linders 2003).

Åberg (2000, 226-227) distinguishes three interrelated levels of communication planning: strategic, tactical and operational:

- Strategic communication planning relates closely to the organisation’s enterprise strategy. In the communication strategy the organisation’s long-term vision and target image are defined based on SWOT analysis and situational analysis.
- On a tactical level communication planning means monitoring trends in the organisational environment, defining stakeholder groups, creating
guidelines for various communication disciplines such as crisis communication and the planning of required resources (manpower, financial, technical).

- On an operational level communication planning refers to the coordination and budgeting of everyday communication activities. This includes the creation of an annual communication plan and budget and the planning of campaigns and investments.

Åberg (2000, 245) points out that only planned communication will help the organisation achieve its objectives. Individual communication activities should therefore always be based on tactical and operational communication plans, which in turn are based on the strategic communication plan, i.e. the communication strategy. Also Vos et al. underline the hierarchical nature of communication strategy. They define communication strategy as an action plan, aimed at solving structural communication problems or at promoting a favourable situation for the organisation, which has clear objectives, clearly defined means of achieving the objectives and a clearly defined timeframe in which to achieve the objectives. (Vos et al. 2003, 9-10.)

Like the scholars of management also Vos et al. (2003, 12-13) see communication strategy building as a staged process and cyclical. The authors acknowledge that some premises of a previous stage may change before the strategy cycle is completed. They therefore advice to review each step of the strategy process carefully and several time throughout the complete strategy formulation process. As such the approach of Vos et al. (2003) to communication strategy can be considered as that of an emergent strategy. Table 1 gives an overview of the activities and outputs of each of stages of the communication strategy process.
<table>
<thead>
<tr>
<th>Stage</th>
<th>Tasks</th>
<th>Results of stage</th>
</tr>
</thead>
</table>
| 1. Assignment | Roughly define the communication problem, agree on a collaboration plan | • Consensus on the nature of the problem  
• Agreement on project team  
• Budget and timetable |
| 2. Environmental analysis | Define the communication problem, causes for the problem and the relationship with other problems | • Report outlining the (re)formulated problem, influencing factors and strategy objectives |
| 3. Communication analysis | Analyse field of forces (organisational environment), communication network, communication climate | • Definition of groups involved in the problem and solution  
• Target groups of communication and objectives for each group  
• Other possible (non-communication) solutions for problem |
| 4. Target groups and objectives | Target group analysis (characteristics of each group, possible segmentation of target group) | • Prioritized list of target groups  
• Measurable communication objective (knowledge-based, attitude-based, or behavioural objective) |
| 5. Communication approach (strategy) | Choose communication approach and positioning, define central theme. Choices in approaches are e.g.: • One-way/Two-way communication  
• Rational/Emotional messaging  
• Direct/Indirect communication  
• Pro-active/Reactive  
• Long-term/Short-term | • Central communication theme  
• One message for each target group derived from the central theme |
| 6. Organisation | Finalize strategic plan in broad terms (detailed plans will be made in operational planning phase). | • Two versions of communication plan, one by sequence and one by target group  
• Plan includes the communication instruments/channels  
• Budget plan  
• Manpower plan  
• Research & Evaluation plan  
• Concept test / pre-test |

TABLE 1. Stages of the communication strategy process (Vos et al. 2003).
"The Web is no longer a collection of static pages of HTML that describe something in world. Increasingly, the Web is the world – ~" (O’Reilly & Battelle 2009)

3 ONLINE COMMUNICATION MANAGEMENT

This chapter defines the term online communication by first briefly discussing the history of the Internet and some of the implications of information and communication technologies for individuals and organisations. The second part of this chapter introduces the dimensions of organisational online communication and subsequently a model for organisations’ online communication management is proposed.

3.1 The Internet as an everyday communication space

Over the past decades information and communication technologies and especially the Internet have made their way into individuals’ and organisations everyday life,
changing in many ways how we communicate with each other. This chapter introduces some of the past and current issues related to online communication.

3.1.1 A brief history of the Internet

In computer science the term “online” means being connected to an information network (Schneider & Werner 2001, 428). It is most commonly used when referring to the Internet, meaning that an individual user or communication device is connected to the Internet or to a service available on the Internet. The Internet is the world’s largest global network of individual computers and sub-networks, which communicate with each other via a unified language, the TCP/IP protocol. Initially conceptualized for military purposes in the 1950s, the Internet became popular in and across universities and research organisations during the 1970s and 1980s, offering news services, the possibility to exchange messages via e-mail or real-time chat and the possibility to transfer files from one user to another. In the 1990s the World Wide Web (WWW) information service was introduced with the aim of facilitating easier access to information on the Internet. With the introduction of hypertext mark-up language (HTML), all online information and services could now be linked to other content. It was also possible to create multimedia WWW-documents. It has been claimed that the possibility to include multimedia on web pages is one of the reasons for the breakthrough of the WWW in commercial use. Especially since the mid-1990s the Internet has seen an exponential growth in the amount of WWW services as organisations have embraced the possibility of introducing their activities, products and services on web pages. As a result the term Internet is now commonly used even when “only” referring to the World Wide Web. (Schneider & Werner 2001, 687-702.)

By the early 2000s the WWW had developed significantly. Increased access speed to the Internet as well as a reduced cost of computer memory and WWW-storage space meant that the WWW could be used in a more dynamic fashion (Hintikka 2007, 8). A new range of technologies, trends and ideas came into wide use (Musser &
O’Reilly 2006, 4), for the sum of which Tim O’Reilly coined the term Web 2.0. Among these new trends were for example podcasts, software as a service or RSS-feeds. The most prominent trends, however, were services that allowed for user-created content (social media) such as blogs, video, image or bookmarks, and social networking, i.e. profiles and connections with other users (Shih 2011, 17). With more than 750 million people accessing social networking sites worldwide, the so-called social web represents a significant portion of the use of the Internet (Shih 2011, 11).

3.1.2 Social implications of modern ICT

For the purpose of this study examining the Internet and ICT from a historical and technological perspective is not sufficient. One also needs to consider the social implications that resulted from the development. ICT have become part of everyday life in the developed world (Aula et al. 2006, 9). In fact today’s society is often referred to as an information society (though there is an ongoing debate whether a profound new way of living with each other has evolved or if society is merely seeing an increase of information). According to Webster (2004) the information society can be characterized by five phenomena:

- Technological innovation and the volume and speed in which new technologies are becoming available. Such innovations include e.g. cable and satellite television, word-processing, the personal computer, the Internet or mobile technology.
- Occupational change, which refers to the rise in employment in the third sector and a reduction of manual labour employment.
- The increased economic value assigned to information businesses as opposed to agricultural labour or industrial manufacturing.
- Information flows that overcome geographical boundaries thanks to the increased proliferation of information networks.
- The constant flood of symbols and signs, in today’s “information laden” and “media-saturated” world. (Webster 2004, 22-26.)
In socio-political decision-making the Internet is often regarded as the backbone of the Information society (Europa 2010). The European Union’s i2020 initiative aims at building a single European information space, providing all European citizens with affordable high-speed access to the Internet by 2013 and the possibility to use mobile technology in dealing with public services by 2015 (Europa 2010). The i2020 strategy also aims at tackling the digital divide in Europe. Digital divide refers to the fact that some individuals do not have access to digital services due to underdeveloped infrastructure, a lack of access to computers, age or other factors. The digital divide is often discussed in an international context, comparing numbers of individuals that have access to information technology in different regions (DiMaggio, Hargittai, Neumann & Robinson 2001, 310-314; Sassi 2006). However, a digital divide can also be seen on national levels. In the European Union there is a discrepancy in the availability of high speed Internet access via fixed (DSL) or mobile (3G+) broadband connections in rural areas and urban areas. In 2009 fast Internet access was not available in 20% of the EU’s rural areas as opposed to only 6% of urban and suburban areas (Figure 3), a gap that is decreasing, though more slowly in some countries than in others (IDATE 2010). Availability of DSL access should not be confused with the penetration of DSL, i.e. the level to which the population is actually taking up the usage of high-speed Internet. This is influenced by factors such as the affordability of data transfer and personal computers, but shall not be discussed further here.
Finland has been among the states that initiated national strategies for building information networks already in the 1990s (Huuhtanen 2001, 26). By the end of 2009, DSL coverage levels in Finland were at 99% in urban and 90% in rural areas (IDATE 2010) and overall national 3G mobile network coverage at 95% (Liike- ja viestintäministeriö 2010). Though the discrepancy in Finland is smaller than in other European countries, this gap can be considered significant as many farms and rural businesses depend on the availability of high-speed Internet access to operate profitably (Haantie & Ojaniemi 2008, 33). The timely achievement of the goals of the i2020 initiative is therefore of great importance for their livelihood.
Besides the discussion about the technical infrastructure of the information society one also needs to consider the individuals that use the Internet. Aula et al. (2006, 20) remind us that after all society’s task is to make access to the Internet possible, while the decision to “go online” ultimately lies with the individual. Statistics suggest that the Internet has become an important part of the daily life of large parts of the population in countries where Internet access is available. In 2011 more than two thirds of European Union citizens accessed the Internet at least once a week. In Sweden, The Netherlands, Denmark, Luxemburg, Finland and the United Kingdom more than 70% of the population use the Internet almost every day (Seybert 2011, 1). A significant gap in Internet usage can be observed when comparing different age groups (Seybert 2011, 2), but the overall trend in Internet usage is positive as illustrated in Figure 4.

FIGURE 4. Annually growing percentage of individuals of the European Union who used the Internet on average at least once a week (Eurostat 2012a).

But what is it that individuals use the Internet for? According to Green the Internet can be considered a “private and/or public space” which offers a wide range of communication possibilities including “information access and retrieval”, “private interactive communication with individuals” and “public interactions”. The author also points out that the level of interactivity in each of these online communication
types may vary from mere access to active production. (Green 2002, 196.) Also DiMaggio et al. consider the Internet a unique medium that allows for different forms of communication (e.g. broadcasting, individual or group interaction) utilizing a variety of different contents types (e.g. text, image, audio) (DiMaggio et al. 2001, 308).

Internet users make use of the various online communication possibilities regularly. As shown in Figure 5 a majority of European Internet users search for information and news, consult wikis, participate in social networks, and buy services and products online (Seybert 2011). Though not included in the latest Eurostat data collection, e-mail is also among the most common uses of the Internet with 61% of individuals sending or receiving e-mail on a regular basis (Eurostat 2012b).

![FIGURE 5. Uses of the Internet by percentage of Internet users in the European Union. Adapted from Eurostat (2012b) and Seybert (2011).](image)

While there are no European studies that investigate Internet usage based on the users’ living environment, an analysis in Finland suggests that individuals in rural areas use the Internet for the same purposes as the urban population (Haantie & Ojaniemi 2008).
3.1.3 Impacts of ICT on organisations’ online communication

Just as the Internet is affecting everyday lives of individuals, ICT have also had an impact on the way organisations and individuals interact with each other, and ICT form a vital role in modern organisations (Jokinen, Aula & Matikainen 2006). While a vast majority of businesses utilize e-mailing, intranets and the Internet for communicating with stakeholders on a regular basis, increasingly ICT have also moved to the core of organisations’ activities as organisations seek to collect, transfer and process information effectively and globally (Pohjanoksa, Kuokkanen & Raaska 2007). Jokinen et al. (2006, 198) further observe that information relevant for the organisation’s operations is available in an ever increasing amount and speed, making the Internet ideal for monitoring information relevant to the organisation and its stakeholders.

The significance of ICT in an organisations’ communication becomes especially apparent when considering organisational communication from an interpretative tradition. In this approach an organisation is understood as a social and cultural construct, which is formed through both planned and spontaneous interaction with stakeholders (Aula & Vapaa 2006, 222). The Internet serves as a communication platform where meanings can be constructed and where organisations can manage relations with their stakeholders (Aula & Vapaa 2006, 225). The various possibilities for two-way communication let organisations build a rapport with their stakeholders (Ihator 2001, 17-18).

Before the advent of ICT, organisational communication could be referred to as unidirectional and simple (de Bussy et al. 2000, 139). This meant that organisations could form the centre of communication by sending information via their preferred communication channels, while the organisation’s stakeholders were merely receivers of these messages (Ihator 2001, 16). Of course it needs to be noted that one challenge for organisational communicators was that of gaining the attention of the mass media via which to disseminate messages. In the age of modern information...
technology this challenge still exists, but organisations can now also establish direct communication channels with their stakeholders via e.g. organisational websites, e-mail or social network profiles, and reach them independently of time or geographical constraints. However, at the same time organisations do not have the monopoly over their narrative anymore. Stakeholders can just as easily disseminate their viewpoint on the Internet and engage with other stakeholders. Organisational communication has thus become multidirectional and more complex as illustrated in Figure 6. (de Bussy et al. 2000, 139-140.)

FIGURE 6. Organisational communication has become multidirectional and complex in the age of the Internet. Arrows depict the direction of communication. Illustration adapted from the stakeholder view of an organisation (Freeman 1984, 25) and the complexity of online communication (de Bussy et al. 2000, 141).
Also Gurău identifies a great impact of the Internet on organisational communication, especially marketing communication. According to the author this can be attributed to three basic characteristics of the Internet: *interactivity*, i.e. multiple possibilities for interactive communication, *transparency*, i.e. most information published on the Internet can be accessed by any other user, and *memory*, i.e. once published the information remains on the Internet until it is deleted. The author argues that these characteristics have shaped the behaviour of organisations’ stakeholders online and that organisations need to understand how audiences retrieve and use information. He summarizes stakeholders’ behaviour as follows:

- “The audience is connected to the organisation” via the organisations’ online channels
- “The audience is connected to one another”, e.g. via social networks
- “The audience has access to other information”, e.g. via websites or discussion boards
- “Audiences pull information” that suits their interests and needs from the vast amount of information available both online and offline, such as on the Internet, TV, radio, print media, telephones etc. (Gurău 2008, 173-174.)

This behaviour poses the following challenges for organisational communication. Firstly, organisations need to carefully manage their entire online presence to maintain cohesive messaging (de Bussy et al. 2000). According to Gurău (2008, 177) there is already a trend towards a more integrated messaging of marketing and public relations function on organisations’ websites. Secondly, not only do communication activities need to be coordinated, but they should also be aligned with the organisation’s offline communication activities. Charlesworth (2009, 341) points out that stakeholders interact with organisations via a variety of contact points such as online channels, offline media (TV, direct mailing), or other offline channels such as company premises (e.g. restaurants, shops, offices). Utilizing online communication in addition to traditional media can help organisations
maintain and develop relationships with stakeholders, also with those that were previously difficult to reach (Hearn et al. 2009).

3.1.4 Development stages of online communication strategy

As shown in the first section of this chapter there may be differences in the Internet usage activity of an organisation’s stakeholders. Pohjanoksa et al. (2007, 59) point out that organisations should take into account their stakeholder’s behaviour as well as the whole industry’s (e.g. competitors’) practises, when developing their online communication strategy. A number of prescriptive and descriptive models are available in management literature which explain the various stages of online communication adoption (Cheney, Christensen, Zorn & Ganesh 2004, 366).

One interesting model has been proposed by the Gartner Group (paraphrased in Pohjanoksa et al. 2007, 59-67). According to this model organisations tend to go through four consecutive stages when developing their online communication strategy. Each stage adds more value the organisation’s operation and to stakeholders than the previous stage. While in the Presence stage the organisational communication activities focus on offering a static, brochure-like website, in the Benefits stage organisations tend to offer some interactive services to their stakeholders via the organisation’s website(s), such as a list of frequently asked questions or a contact form. In the Competition stage the online communication strategy is carefully developed, communication content is more targeted to specific stakeholders and more multimedia is used. Many parts of the organisation’s operations are now dealt with online, and the online activities of competitors increasingly serve as a benchmark for the organisation’s own online communication. In the Integration stage the organisation’s operations are strongly integrated with online communication. Businesses may offer an online shop to sell their products and services, and in public organisations citizens may be able to access public services via the organisation’s website.
Pohjanoksa et al. (2007, 59-67) point out that the organisation’s internal structure and resources influence the level to which the organisation adopts online communication. They also note that the development of online communication to the next stage usually requires more resources and dedication inside the organisation. Table 2 provides an overview of the aforementioned stages and typical characteristics of these.
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Be online</td>
<td>Create valuable service for visitors</td>
<td>Be better than competitors online</td>
<td>Support organisation and be part of core operation</td>
<td></td>
</tr>
</tbody>
</table>

| Characteristic    | Service of little significance | Traditional tasks are now dealt with via online communication | Benchmark is the basis of development | Service is strongly integrated in and essential for overall operations |

| Content           | Static, brochure-like | Some services, basic communication | In addition to service, target group specific, appealing communication and multimedia | All content relevant for operations: services and communication |

| Actuality         | Often lacking actuality | Sufficient and up-to-date information | Often on very good level, differences in different services | Extremely up-to-date, partly user-generated content, accessible via various channels |

| Process           | No process | Content management system, content management process defined at least partly | Focus on communication processes, more business-integration, IT function acts as enabler | Integrated with operational processes, decentralized content management and responsibilities, IT function important as enabler |

| Key to success    | Interested manager | Cooperation of communication and IT functions, service level defined | Brand value development in online service, seamless interplay of other communication and the online service | Good management model, service model and clear responsibilities |

| Benefits          | Few | Operational tasks handled more effectively, new service channel | Can be very large | Service is essential for the operations |

**TABLE 2. Development stages of online communication strategy by organisations. Adapted from Pohjanoksa et al. (2007, 59-67).**
3.2 *Dimensions of organisational online communication*

The previous subchapters discussed the social context in which organisations communicate. This chapter investigates the means of communication which organisations can use to engage with their stakeholders online.

An organisation’s online communication activities can be divided into three key dimensions: the organisation’s own online channels, its presence in external communication channels and the presence in online communities. An organisation that takes full use of online communication means will include elements of all these three dimensions in their online communication strategy, while organisations at lower levels of online communication adoption may focus only on some of these dimensions (Nyman & Salmenkivi 2007, 70-71). Table 3 gives an overview of the three online communication dimensions and examples of means associated with these. Some of these will be discussed in more detail on the following pages.

<table>
<thead>
<tr>
<th>Online communication dimension</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own channels</td>
<td>Corporate website, product sites, campaign sites, Organisational blog(s) E-mail newsletters Podcasts RSS feeds</td>
</tr>
<tr>
<td>External channels</td>
<td>Other websites and blogs Search engines Online advertisements Games Wikipedia</td>
</tr>
<tr>
<td>Social web</td>
<td>Social networking sites (e.g. Facebook, YouTube) Organisation’s own social network</td>
</tr>
</tbody>
</table>

*TABLE 3. The dimensions of an organisation’s online communication. Adapted from Nyman & Salmenkivi (2007, 70-71).*
3.2.1 Effective own channels

Own channels, such as the organisation’s own website(s), blogs or newsletters, are controlled by the organisation or representatives of the organisation themselves. In other words the content, layout and level of interactivity of these channels are defined by the organisation. Charlesworth (2009, 286) points out that the organisation’s own channels include both traditional technology such as website(s) and web 2.0 technology such as the organisation’s blog(s) or discussion forum. There is a range of publications that advise organisations on the creation of effective organisational blogs and e-mail newsletters (e.g. Parkin 2009). These will however not be discussed in detail as this study concentrated on the effectiveness of organisational websites.

With more than 120 million domain names active on the Internet (Domain tools 2010), one can say without exaggeration that the amount of information and services available online is immense. Considering the vast amount of potentially competing messages and narratives, it is apparent that organisations need to establish a reliable source of information about its values, products and activities. An organisation’s own online channels, especially the organisation’s own homepages, therefore form the base of the organisation’s online communication (Aula & Vapaa 2006; Leichty & Esrock 2011). It is thus not surprising that a lot of research has been dedicated to investigating what constitutes an effective website or in other words how websites need to be designed in order to allow organisations to communicate effectively. Besides extensive lists of the do’s and don’ts of web design (e.g. Parkin 2009, 130-146), three criteria have been suggested for measuring the effectiveness of websites: relevance of content, simplicity of design and interactivity (Hallahan 2001; Kent et al. 2003). Searson & Johnson (2010) propose technical sophistication as a fourth criterion.

Relevance of content refers to the quality of the content of the website, i.e. to which extent the information provided is useful for the individual accessing the
information (Hallahan 2001, 232). According to Kent and Taylor content is valuable to the user if it is provided in a well-organized and compelling fashion, addressing both general and specific audiences. Such content may be contact information for organisational members or information about products and services. (Kent & Taylor 1998, 328.)

The relevance of a website’s content is only significant if the web user is able to locate the information, in other words if the website is simple to use (Hallahan 2001, 233). Several website features have been identified that constitute an easy-to-use design. These include for example short page loading times, site compatibility with various operating systems and browsers, a clear and compact navigation structure, sitemaps, the possibility to perform a site search, the possibility to adjust font sizes or optimized print versions of the sites (Searson & Johnson 2010).

A third measurement of the effectiveness of a website is the level of interactivity it provides for the user (Constantinides 2004, 114; Hallahan 2001). When considering interactivity features of a website, two categories can be distinguished: features that enhance interactivity with the organisation and features that allow for interactivity with other users of the website (Constantinides 2004, 118). Basic features for interaction with the organisation include feedback forms and the publication of e-mail addresses, telephone numbers and other contact information. Features that allow for interactivity with other users of the website, referred to as advanced features, include commenting functions, surveys, polls and chat rooms (Searson & Johnson 2010, 125). It has been pointed out that besides providing interactivity features on their websites, organisations also need to establish a process for handling feedback from web users (Kent & Taylor 1998, 327) and guaranteeing reliable and quick responses to user enquiries (Constantinides 2004, 118). In other words the level of interactivity offered on a website is closely related to the readiness of the organisation to engage in two-way communication.
Though the technological sophistication of a website may not affect its usability or interactivity, it does have an impact on the way users interact with the website. Searson and Johnson define technical sophistication as the sum of “advanced features separate from usability or interactive features” a website contains. These are for example indications of when content was created, legal notes, information about data protection, graphics or moving images. (Searson & Johnson 2010, 122-123.)

3.2.2 Visibility on external online communication channels

External channels include websites and online services via which information about the organisation is available, but which are not directly controlled by the organisation. These include for example news websites, individuals’ blogs, discussion boards, Wikipedia, or websites and portals on which the organisation can place advertisements. Search engines such as Google or Yahoo can also be considered important external channels, as they help web users find information relevant to them from the vast amount of websites and services available on the Internet (Parkin 2009, 147-148). According to Jascó (2008, 864) search engines are in fact used on a daily basis by over half of all Internet users. The visibility of the organisation in search engine results is influenced by a range of factors such as the websites’ technical design and the relevance of the site content to the search term. The efforts directed at placing a website among the top search results are referred to as search engine optimisation (SEO) (Charlesworth 2009, 176). In addition to scrutinizing content and the technical structure of a website, each search engine uses their own complex algorithms to serve relevant results to the users. Part of Google’s search algorithm is a page ranking, which measures the popularity of a website with other web users. In practise this means that the more other websites link to an organisation’s website, the higher this site is going to be ranked and the more likely it will appear among the top search results on Google (Machrone 2003). For the organisation this means that in addition to providing technically sound, well-written and well-designed websites, it should also make an effort to create a link
environment to its services. This could be achieved via online advertisement on other external sites (including search engine advertisement), sponsored blogs, and via the participation in social networks. It is also easy to imagine cases where offline PR will have an impact on the organisation’s visibility in other channels. Stakeholders such as the media, local communities and partner businesses often also maintain websites, so media and other public relation activities are likely to impact the visibility of the organisation on external channels. Pohjanoksa et al. further remark that brand matters also on the Internet. It has been shown, that Internet users rarely use generic search words for products or services, but they will search by brand names. Offline communication and online communication are thus inextricably linked and dependent on each other. (Pohjanoksa et al. 2007, 21-23.)

According to Charlesworth (2009, 286) social networks should not be neglected as external channels in an organisation’s online communication strategy. Social websites are among the most popular websites used in the world today. Facebook and YouTube are among the top 20 most accessed websites in the world (Alexa 2010; Hitwise 2010a, 2010b). While organisations cannot influence the functionality and basic layout of social media sites, they have the possibility to set up sponsored profiles and add content freely. Social media also allow for more interactivity than the aforementioned external channels, and as such require more attention and resources by the organisation. For this reason, social networking sites and an organisation’s own online communities can be considered a separate online communication dimension (Nyman & Salmenkivi 2007).

3.2.3 Participation on the social web

The social web can be defined as “the sum total of people who create content online, as well as the people who interact with it or one another” (McConnell and Huba 2007 cited in Charlesworth 2009, 286). As the Internet usage numbers described in subchapter 3.1.2 suggest, participation on the social web represents a significant part of people’s Internet activities today. Social networking sites, especially
Facebook, are serving as the portal to the Internet for many users and in some cases have even replaced search engines as a source for information retrieval (Shih 2011, 11).

Two studies commissioned by AGCO Corporation, a global manufacturers of agricultural and forestry machinery, show that Facebook, YouTube and Twitter are the most commonly used social media among farmers in North America and Europe (Envano 2009; Scheuermann 2011). In 2009 Envano found that manufacturers in the agricultural industry had participated on social media only to a small extent, while many farmers, fans and opinion leaders (trade experts and press) were already actively discussing these brands on the social web. The passive approach chosen by the manufacturers appears to follow the recommendation of social media communication guidelines (Charlesworth 2009, 289-300; Shih 2011, 183-185): before diving into the conversation on the social web, organisations should formulate a social media strategy. The first step of this strategy includes understanding what is already being said about the organisation and where the discussion is taking place. As Young (2010, 80) points out listening in on the discussion on social media will further provide organisations with valuable information about their stakeholders’ attitudes.

While organisations cannot control what is being said about them on the social web, Mangold and Faulds suggest that organisations can pro-actively participate and steer the online communication. The authors further propose a set of guidelines for shaping existing conversations and for engaging stakeholders that are not “naturally” engaged with the product or service:

- Organisations can influence the narrative about them by supporting topics that are relevant to their stakeholders and by providing online communities around these topics.
- Stakeholders feel more engaged when organisations are open for dialogue. The organisation’s blogs and social network profiles provide the platform for stakeholders to discuss the topic with the organisation and others.
- Stakeholders are more likely to talk about an organisation and its products and services if they know a lot about them. Effective and informative homepages and blogs therefore also form the base of the organisation’s social media strategy.

- People are more likely to talk about topics that are outrageous or funny.

- Give-aways (products or white papers), competitions and opinion polls are means of engaging stakeholders that are not naturally interested in the organisation’s products and services. (Mangold & Faulds 2009, 261-265.)

Based on the previous paragraphs it appears that organisations are beginning to “go social” and utilize the Internet for engaging in two-way communication with their stakeholders. This is supported by the findings of the most recent European Communication Monitor study. In 2011 forty percent of European communication professionals considered social media an important method for addressing stakeholders and over eighty percent expect social media to be important, and even more important than face-to-face communication, in 2014. (Zerfass et al. 2011, 89.)

The decision to participate on the social web is undoubtedly influenced by many factors including resources (Scheuermann 2011, 93) or social media skills (Zerfass et al. 2011, 110). The relevance of social media for addressing stakeholders in a particular industry may be another reason. In his analysis of the relevance of social media in the German agricultural machinery industry Scheuermann (2011, 86-88) concludes that organisational communication on social media has little impact on the purchase decision making of the organisations’ key stakeholders, the broad customer base. The reach of social media can be considered low compared to more traditional communication and marketing communication tactics. Scheuermann bases this assessment on three considerations:

- The percentage of active Internet users in rural areas is below the national average (see also chapter 3.1.2).

- At the time of the study social media users in rural areas tended to be young people.
At the time of the study practise in one large German manufacturer of agricultural equipment suggested that traditional offline marketing communication activities (e.g. shows, demonstrations, customer magazines, direct mailing campaigns and press events) still have a higher impact on the creation of a positive image of the organisation than online communication.

The latter observation is hardly surprising given that agricultural machinery is highly technical and a considerable investment for any farming operation. Therefore a professional, personal consultation with a representative of the organisation and the possibility to test the machinery will have an impact on the assessment about the organisation and its products.

However, it has been shown that already today the Internet serves as an important information source for the purchase decision making among young and professional farmers (ABM Agri Council 2010; Deeter-Schmelz & Kennedy 2002). Scheuermann (2011, 87-88) further remarks that as the digital divide between urban and rural dwellers and between different age groups is being overcome, manufacturers of agricultural machinery will be able to provide professional consultation and engage with their customers via the social web.

3.3  A model for strategic online communication

In summary of this chapter a model for strategic organisational online communication can be formulated. The model is portrayed in Figure 7.

In today’s information society both individuals and organisations have the technical possibilities to interact with each other both online and offline. More and more individuals are actively using these possibilities, and more and more organisations consider engaging in two-way online communication with their stakeholders important. A digital divide between rural and urban areas still exists, but it is diminishing as socio-political decisions positively impact technical infrastructure.
The Internet has added a wide range of touch points, such as websites or social networks, for organisations to address their stakeholders. However, traditional touch points such as sales outlets or magazines continue to exist. Organisations thus need to align their online communication activities with the overall communication strategy in order to maintain consistency in their messaging. Monitoring online conversation, especially the social web, can provide valuable input for strategy formulation.

The online communication strategy of organisations tends to develop in four phases ranging from a merely static presentation of the product catalogue to integrated online communication, where business is conducted online. This development is mainly influenced by the level to which the organisations’ stakeholders, especially customers and competitors, have adopted online communication.

Organisational online communication covers three dimensions: the creation and maintenance of effective own channels, the management of visibility in external online channels and the passive or pro-active participation in conversations on the social web.
FIGURE 7. Model for strategic online communication management.
4 STUDY DESCRIPTION

This chapter gives an insight into the study process and methodological considerations. First the target industry of the study is introduced and the reasons for investigating this industry are discussed. The subsequent subchapters introduce the research questions, describe the study phases and give an insight into the research methods applied in this study.

4.1 Finnish agricultural and forestry machinery manufacturers

This study investigated the online communication of Finnish technology industry companies in the agriculture and forestry machinery sector, hereafter referred to as Finnish manufacturers of agricultural and forest machinery (FMAFM). These companies generate estimated annual net sales of 1.5 billion Euros, employ around 5,500 people in Finland and maintain large supplier networks which account for additional turnover and workplaces throughout the country (Teknologiateollisuus 2009a). It can thus be said that FMAFM form an important group among Finnish technology industry companies, and are representative also of other technology industry companies.
Finnish agricultural and forest machinery are high-investment products that are exported all over the world (Teknologiateollisuus 2009b). Their manufacturers operate in a complex environment which is influenced by global trends (increasing population with increasing needs for food and energy), environmental trends (climate change, water resources), technological trends (automatisation, precision farming), legal trends (farming subsidies, emissions regulations), political trends (import restrictions, new markets) and financial issues (banking crisis influencing funding for research projects, funding for investments) (Manni, Riipinen, Niskanen, Karhu & Järvenpää 2009).

Considering the organisational environment, and the different stakeholders’ interests and online communication habits described in chapter 3.2.3, the need for a strategic approach to online communication becomes apparent. Besides the significance of this study for FMAFM and related industries, this thesis is also of personal interest to the researcher, who is currently employed as the Digital Media Manager at Valtra Oy Ab, one of the largest FMAFM.

In 2009 the Federation of Finnish Technology Industries listed 32 manufacturers of agricultural and forest machinery in their member list (Teknologiateollisuus 2009b). This study investigated the online communication of 31 of these organisations. Myllykonepaja Pehrsson Kvarnverkstad was left out of the scope of analysis, since an initial examination of their website showed that the company does not primarily manufacture products that can be described as forestry or agricultural machinery or parts thereof. One Finnish manufacturer of agricultural machinery, Sampo Rosenlew Oy, was included in the scope of the analysis. Although the organisation is not a member of the Finnish Technology Industries Federation, it is among the largest Finnish manufacturers of harvesting equipment (Manni et al. 2009, 14).

The total sample of FMAFM for this study was thus N=32 (Table 4). The sample can be divided into different categories according to the type of products the companies manufacture: trailed implements (n=15, 47%), self-propelled vehicles (n=7, 22%),
solutions for farm produce storing and handling, hereafter referred to as produce solutions, (n=5, 16%), husbandry equipment (n=2, 6%) and other products (n=3, 9%).

Businesses are commonly divided into the following categories according to the amount of people they employ and annual turnover: micro- and small-sized enterprises, medium-sized enterprises and large enterprises. Based on a recommendation by the European Union (Commission of the European Communities 2007) and on the member register of the Federation of Finnish Technology Industries (Teknologiateollisuus 2009b) the business size is defined as follows in this thesis:

- Micro- and small-sized enterprises: businesses with 0-20 employees
- Medium-sized enterprises: businesses with 21-250 employees
- Large enterprises: businesses with 251 or more employees.

According to this definition 16% (n=5) of the FMAFM examined are micro- or small-sized businesses, 66% (n=22) medium-sized enterprises and 16% (n=5) large businesses. A distinction can further be made whether the organisation is headquartered in Finland or whether it is part of global organisation. 88% (n=28) of the organisations included in the analysis have company headquarters in Finland.
<table>
<thead>
<tr>
<th>Company</th>
<th>Product category</th>
<th>Business size</th>
<th>Headquarters</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Agromaster Oy</td>
<td>Implement</td>
<td>Micro/small</td>
<td>Finland</td>
</tr>
<tr>
<td>2 Antti-Teollisuus Oy</td>
<td>Produce solution</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>3 Avant Tecno Oy</td>
<td>Vehicle</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>4 Farmcomp Oy</td>
<td>Produce solution</td>
<td>Micro/small</td>
<td>Finland</td>
</tr>
<tr>
<td>5 John Deere Forestry Oy</td>
<td>Vehicle</td>
<td>Large</td>
<td>USA</td>
</tr>
<tr>
<td>6 Junkkari Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>7 Kesla Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>8 Komatsu Forest Oy</td>
<td>Vehicle</td>
<td>Medium</td>
<td>Japan</td>
</tr>
<tr>
<td>9 Kone-Ketonen Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>10 Koneosapalvelu Oy Aliranta</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>11 Laakson Metalli Oy</td>
<td>Implement</td>
<td>Micro/small</td>
<td>Finland</td>
</tr>
<tr>
<td>12 LH Lift Oy</td>
<td>Other</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>13 Maaseudun Kone Oy</td>
<td>Other</td>
<td>Large</td>
<td>Finland</td>
</tr>
<tr>
<td>14 Mepu Oy</td>
<td>Produce solution</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>15 Merivirta Oy</td>
<td>Husbandry solutions</td>
<td>Micro/small</td>
<td>Finland</td>
</tr>
<tr>
<td>16 Muko Oy</td>
<td>Other</td>
<td>Micro/small</td>
<td>Finland</td>
</tr>
<tr>
<td>17 Nipere Oy</td>
<td>Produce solution</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>18 Nokka-Yhtiö Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>19 Oy Kongsikide Juko Ltd</td>
<td>Implement, Produce</td>
<td>Medium</td>
<td>Denmark</td>
</tr>
<tr>
<td></td>
<td>solution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 Pellon Group Oy</td>
<td>Husbandry solutions</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>21 Ponsse</td>
<td>Vehicle</td>
<td>Large</td>
<td>Finland</td>
</tr>
<tr>
<td>22 Potila Tuotanto Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>23 Rakennustempo Oy</td>
<td>Vehicle</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>24 Reikälevy Oy</td>
<td>Produce solution</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>25 Sampo Rosenlew Oy</td>
<td>Vehicle</td>
<td>Large</td>
<td>Finland</td>
</tr>
<tr>
<td>26 Suokone Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>27 Tume-Agri Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>28 Valtra Oy Ab</td>
<td>Vehicle</td>
<td>Large</td>
<td>USA</td>
</tr>
<tr>
<td>29 Veljekset Ala-Talkkari Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>30 Vieskan Metalli Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>31 Waratah OM Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
<tr>
<td>32 Weckman Steel Oy</td>
<td>Implement</td>
<td>Medium</td>
<td>Finland</td>
</tr>
</tbody>
</table>

TABLE 4. Sample of FMAFM used in this study and organisation categories by type of product, business size and location of the company headquarters.

4.2 Research questions and research phases

The objective of this study was to investigate online communication activities of FMAFM as well as the strategies that drive these activities. While online communication also plays a significant role in an organisation’s internal
communication, this study concentrated on online communication between the companies and their external stakeholders by asking the following research questions:

**RQ 1: How do Finnish manufacturers of agricultural and forest machinery communicate online with their external stakeholders?**

This question aimed at finding out which stakeholders the FMAFM seek to address in their online communication and via which online communication dimensions. The question also considers how effectively the organisation’s own homepages are used in communicating with stakeholders.

**RQ 2: What strategy or strategies drive online communication practices?**

This question aims at explaining the goals of the organisation’s online communication activities and which strategy or strategies influence the organisation’s online communication activities.

**RQ 3: How does online communication contribute to the strategy making of the FMAFM?**

The aim of this question is to find out to which extent organisations use information collected from online sources in order to build their strategies. Is there a systematic process of collecting, analysing and reporting general online discussion trends? Do organisations strategically encourage dialogue with stakeholders, if so for what purpose?

In order to answer these questions the study was conducted in two parts, a quantitative analysis of the target organisations’ websites and a qualitative investigation into the drivers and assumptions behind the organisations’ web activities. Investigating a phenomenon by means of different methods is referred to as methodological triangulation. It is usually seen as advantageous because the quantitative analysis enhances the precision of the study while the qualitative
measure helps the researcher better understand the context of the phenomenon (Frey, Botan & Kreps 2000, 84-85; Lindlof & Taylor 2002, 241).

In this study the purpose of the quantitative analysis was to analyse the web presence of the organisations, which produced an insight into the effectiveness of the organisations’ websites and the organisations’ visibility in other online channels. The quantitative study also allowed for conclusions about which stakeholders the organisations address online. These conclusions were tested in the second part of the study. The aim of the qualitative investigation in phase two was further to uncover factors which influence and drive the organisations’ online communication.

Table 5 gives an overview of the research phases and which research questions they were designed to answer. The research phases are discussed in detail in subchapters 4.3 and 4.4.

<table>
<thead>
<tr>
<th>RESEARCH PHASE</th>
<th>1) Online communication with external stakeholders</th>
<th>2) Strategic driver(s) of online communication</th>
<th>3) Contribution of online communication to strategy process</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Quantitative analysis of web presence</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Qualitative analysis of interview data</td>
<td>(X)</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

TABLE 5. Research questions and phases during which these were addressed. The results from the quantitative study concerning the stakeholder groups targeted via online communication were validated in the second phase of the study.

4.3 **Quantitative study: web presence analysis**

During the first part of the study the target organisations’ online presence was analysed using quantitative measures. The aim of this phase was to gain an overview of the organisations’ online communication activities as well as an
indication of the stakeholders the organisations is communicating to and via which channels.

As was shown in subchapter 4.1 FMAFM operate in the same complex environment, but they do not form a homogenous group. The organisations vary significantly according to size, product offering and location of headquarters. The literature review suggested that the adoption of online communication can vary by the types of organisations, and is often influenced by resources available to the organisation. Based on these observations the following hypotheses were formulated and tested in the first part of the study.

_Hypothesis 1:_ FMAFM address the same stakeholder groups with their online organisation, irrespective of the type of organisation.

_Hypothesis 2:_ Depending on the type of organisation, there is a difference in the effectiveness of the websites of FMAFM.

_Hypothesis 3:_ Depending on the type of organisation, there is a difference in the visibility of FMAFM in other online channels.

### 4.3.1 Conceptualisation and variables

The following variables were measured as part of the quantitative analysis:

a) stakeholder groups targeted with the organisation’s website  
b) effectiveness of the organisation’s homepage  
c) other online communication channels in which the organisation is active.

**Stakeholder groups targeted**

It can be assumed that organisations provide certain types of information for certain stakeholders. An analysis of the organisation’s website can therefore provide information about the stakeholders which the organisations intend to target. Table 6 shows a list of content areas that were expected on the websites of FMAFM before the study and a proposition of the stakeholders that are primarily targeted with these content areas.
<table>
<thead>
<tr>
<th>Content area</th>
<th>Primary stakeholder group(s) addressed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product description</td>
<td>Customers</td>
</tr>
<tr>
<td>Press room / Press information</td>
<td>Media</td>
</tr>
<tr>
<td>Investor relations</td>
<td>Investors</td>
</tr>
<tr>
<td>Extranet</td>
<td>Current staff, suppliers</td>
</tr>
<tr>
<td>Careers</td>
<td>Future staff</td>
</tr>
<tr>
<td>About us</td>
<td>All stakeholders</td>
</tr>
<tr>
<td>Online Shop</td>
<td>Customers</td>
</tr>
</tbody>
</table>

TABLE 6. Content areas of websites and stakeholder group(s) addressed with this area.

**Effectiveness of homepages**

Testing the effectiveness of an organisation’s website may require extensive usability testing in a laboratory setup and involve a triangulation of both observations, clicking behaviour analysis and user interviews (Hallahan 2001). Due to the scope of the first phase of the study and the limited resources available for this research, the effectiveness of the organisations’ websites was evaluated heuristically using a checklist derived from effectiveness studies by Hallahan (2001), Kent et al. (2003), Searson & Johnson (2010) and Xifra & Huertas (2008).

The checklist, shown in Table 7, included measurables of the four elements of effectiveness: relevance, design simplicity, interactivity and technical sophistication. The higher a website can be rated on these elements the more effective the website can be considered. For the purpose of the checklist, relevance of content was conceptualised as the existence of information about the organisation’s products and the availability of that information to a large audience. As Finnish agricultural and forestry machinery is exported around the globe, the website of an organisation can be considered relevant if it offers information about its products in more than one language. Previous effectiveness studies showed that certain design features improve the simplicity of a website (Table 7). For this study it was assumed that a website is simple to use if it contains at least three of these features. The level of interactivity of a website can be described as low if the site does not offer any
possibility for online communication with the organisation. A basic level of interactivity refers to the possibility to contact the organisation via a contact form or via e-mail. The level of interactivity of a website can be considered high if it contains advanced online communication features such as commenting functions, surveys or links to social media channels. The sophistication of a website is usually determined by the usage of multimedia elements on the homepage. It is considered low if the website does not contain any images. A website with basic sophistication levels contains images and or animated graphics in addition to text. If a website contains videos, sound or flash animations, the website can be considered highly sophisticated.

<table>
<thead>
<tr>
<th>Element of effectivenes</th>
<th>Measurable</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELEVANT CONTENT</td>
<td>Amount of language variants</td>
</tr>
<tr>
<td></td>
<td>Product information</td>
</tr>
<tr>
<td>DESIGN SIMPLICITY</td>
<td>Site map</td>
</tr>
<tr>
<td></td>
<td>Site search</td>
</tr>
<tr>
<td></td>
<td>Less than or exactly three navigation levels</td>
</tr>
<tr>
<td></td>
<td>Breadcrumb (if more than 3 navigation levels)</td>
</tr>
<tr>
<td></td>
<td>Font adjustment</td>
</tr>
<tr>
<td></td>
<td>Page print style</td>
</tr>
<tr>
<td>INTERACTIVITY</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Offline contact information (address, phone)</td>
</tr>
<tr>
<td></td>
<td>Basic</td>
</tr>
<tr>
<td></td>
<td>Online contact information (form, e-mail)</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Chat, forum, commenting function</td>
</tr>
<tr>
<td></td>
<td>Polls</td>
</tr>
<tr>
<td></td>
<td>Surveys</td>
</tr>
<tr>
<td></td>
<td>Share/send to friend</td>
</tr>
<tr>
<td></td>
<td>Link to social media channel</td>
</tr>
<tr>
<td>SOPHISTICATION</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Text only</td>
</tr>
<tr>
<td></td>
<td>Basic</td>
</tr>
<tr>
<td></td>
<td>Still pictures</td>
</tr>
<tr>
<td></td>
<td>Moving graphics</td>
</tr>
<tr>
<td></td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Flash</td>
</tr>
<tr>
<td></td>
<td>Videos</td>
</tr>
<tr>
<td></td>
<td>RSS</td>
</tr>
<tr>
<td></td>
<td>Sound</td>
</tr>
</tbody>
</table>

TABLE 7. Checklist for measuring the effectiveness of a website.
Other online communication activities

An empirical measurement of the online communication activities of an organisation outside of its own homepage is quite impossible. This would require accessing all pages and databases on the Internet – itself an impossible task – and determining the origin of that information. However, one measurement which gives at least an indication of the organisations’ activities in other online channels are backlinks, i.e. links on other online channels that lead back to the organisation’s own website. The amount of backlinks can be considered indicative of online advertisement and online PR activities. Backlinks are also indicative of the communication on the Internet about the organisation or its brands, i.e. communication acts that have not been initiated by the organisation itself.

Another measurement which gives an indication of activities in other channels and also shows the organisation’s involvement building activities is the organisation’s presence on the social web. The choice of social media channel is influenced by social media preferences of stakeholders in different regions. The limited scope of this study did not allow for an analysis of all social media channels, so only one social networking site (Facebook), one video sharing site (YouTube) and one microblogging site (Twitter) were investigated. These social media were selected based on their high usage ranking (Alexa 2010; Hitwise 2010a, 2010b) and because of their popularity in the agricultural industry (Envano 2009).

4.3.2 Data collection and analysis

The data was collected in October 2010 from the websites of all 32 target organisations and other channels. The URL of the organisations’ website was taken from the member directory of Teknologiateollisuus (2009b). In the case of Sampo Rosenlew Oy, the URL of the homepage was found via Google search (http://www.google.com). The website of each organisation was accessed and evaluated individually. All links within the website and to organisation-branded websites were followed using the snowball principle. In those cases where a website was available in several languages, note was taken of the amount of language
variants, but only the Finnish language was considered for further analysis. This way a common basis for comparison was preserved, since not all organisations offer other language versions than Finnish. If the organisation was involved in producing other than agricultural or forestry equipment, the pages covering non-agricultural or non-forestry products and services were left out of the scope of analysis.

Backlinks were searched for using the link: command on Google Search (http://www.google.com) and Yahoo Site Explorer (http://siteexplorer.search.yahoo.com). In both cases the URL of the organisations’ main website was entered into the respective search field and the number of search results (Google) and InLinks results (Yahoo) noted. The organisation’s presence in Facebook, Twitter and YouTube was tested by searching for the company name or those of its brands among the profiles (Facebook, Twitter) and channels (YouTube) in these services. A positive search result was noted if the profile or channel was branded in a similar way to the homepage of that organisation (e.g. same logo and same colour scheme) and if there were other hints that the profile might be an officially maintained channel.

The collected data was coded into SPSS and the frequencies of the observed variables were analyzed. The hypotheses were tested by analysing cross-tabulations of the frequencies of observed variables in relation to the category of FMAFM (business size, headquarters and type of product). Possible differences in the online presence of FMAFM organisations were tested using Pearson’s chi-square and analysis of variance (ANOVA) procedures. Pearson’s chi-square was used for analysing the significance of differences between nominal variables, as it is commonly used for this purpose (Frey et al. 2000, 336-342). In addition ANOVA was chosen as it is a suitable procedure for testing the statistical significance of independent nominal variables (e.g. business size) with respect to dependent interval variables (e.g. number of simplicity features) (Miller, Acton, Fullerton & Maltby 2009, 241). The significance testing was carried out at the at the 5 per cent confidence level.
4.4 Qualitative study: Interviews with the organisations

As the organisations’ online communication activities may not be interlinked, badly designed or not promoted on all online channels, the indications from the first research phase themselves may not provide sufficient evidence to answer the research questions. This is why in the second research phase selected organisations were interviewed about their online communication activities, processes and underlying assumptions.

Semi-structured interviews can be considered a useful research method for this phase of the study. On one hand they provide a standardized way of asking about attitudes and certain behavioural aspects of the organisation (Hirsjärvi & Hurme 2000, 48). On the other hand interviews also allow for a flexible way of collecting data as questions and topics can be adapted through the course of the interview (Frey et al. 2000, 101; Hirsjärvi & Hurme 2000, 48).

4.4.1 Sample and data collection

The interview sample included eleven organisations of the overall FMAFM sample. To ensure richness and relevance of the interview data, the sample included organisations whose websites contained at least two navigation levels, more than one content area and whose website suggested that it had been updated within the last 24 months. The interview sample also only included those organisations whose websites suggested that the main business focus is the assembly and manufacture of equipment used for the production of agricultural and forestry goods. In other words, the sample excluded organisations that, upon inspection of their websites, could be considered suppliers of other FMAFM or manufacturing mainly other goods. A summary of the interview sample and the final interviews is displayed in Table 8.
The initial contact with the target organisations was made by telephoning the central telephone number displayed on the organisation’s Internet site and asking for the person in charge of communication and especially online communication. The researcher subsequently contacted each of these people between 1 and 4 times via telephone and e-mail to arrange an interview. Overall seven people responded and agreed to be interviewed. The interviews were conducted via telephone 2 - 22 March 2011. The length of the interviews varied between 16 and 43 minutes and covered questions from three central themes (Appendix I). The respondents and the characteristics of the organisations they represent are shown in Table 9.

TABLE 8. Interview sample by FMAFM business size and product type categories. Each X marks an organisation. Cases marked (X) were not willing or available for the interview.

<table>
<thead>
<tr>
<th>BUSINESS SIZE</th>
<th>IMPLEMENT</th>
<th>VEHICLE</th>
<th>PRODUCE SOLUTION</th>
<th>HUSBANDRY SOLUTION</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMALL</td>
<td>X</td>
<td>(X)</td>
<td>(X)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEDIUM</td>
<td>XX</td>
<td>(X)</td>
<td>(X)</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>LARGE</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

TABLE 9. Job title of interviewees and characteristics of the organisations they represent.
The researcher took note of her first impressions immediately after each interview and transcribed the interviews within 1-12 days of the conversation. All interviews were conducted in Finnish language, the native language of the interviewees but not of the researcher. This is why special care was taken during the transcription phase. In one case five seconds of clear speech could not be transcribed by the researcher. This sequence was extracted into a separate audio file and played to a native speaker of Finnish for transcription.

4.4.2 Analysis of interview data

In order to make sense of qualitative data, researchers usually go through one or various cycles of categorization and coding of the data. Spriggle (1994, 493 quoted in Lindlof & Taylor 2002, 214) describes the process of categorization as “identifying a chunk or unit of data (e.g. a passage of text of any length) as belonging to, representing, or being an example of some more general phenomenon.” According to Lindlof and Taylor a common approach is to develop the categories from the data itself in an inductive manner. In this approach the categories emerge, usually after several coding cycles, from the way the data is configured. The authors point out that the researcher needs a deep understanding of the phenomenon studied in order to derive meaningful categories. (Lindlof & Taylor 2002, 214-216.) Hirsjärvi and Hurme (2000, 148) note that categories can also be inferred in a deductive manner from existing theory or the research questions.

During the analysis of the interview data of this thesis, the categorization was carried out both in a deductive and an inductive fashion. At the beginning of the analysis each interview transcript was read through several times and note taken of central themes within the topics of the semi-structured interviews. In subsequent readings special attention was paid to the occurrence of similar themes in the rest of the data. Themes that occurred across the data were noted separately and compared with the researcher’s notes made immediately after the interview. During later
readings more attention was paid to the context in which the themes appeared and they were further expanded into categories with these attributes. Finally the findings were grouped into the following themes:

- Websites form the centre of online communication activities
- Online communication supports the execution of communication and marketing strategies
- Engaging with customers is considered important but not (yet) via ICT
- Effective online communication requires resources

The reporting of interview data according to themes which emerge from the data is considered the most common way of reporting qualitative data (Hirsjärvi & Hurme 2000, 193).
5 RESULTS

In this chapter the results of both research phases are presented. The first sub-chapter is dedicated to reporting the results of the quantitative study about the organisations’ web presence and in the second sub-chapter the result of the qualitative analysis are reported. A summary of the results of both phases is provided in chapter 5.3.

5.1 FMAFM web presence analysis

The results are grouped by the three main themes established in the conceptualisation phase, targeted stakeholders, effectiveness of the websites and organisations visibility in other online channels. A summary of the results is presented at the end of this subchapter.

5.1.1 Stakeholder groups targeted

As shown in Table 10 the most frequently covered topics on the websites of FMAFM are product information (100%) and general information about the organisation (97%). The second most frequently covered topics include press information (31%) and information about careers at the organisation (41%). It can thus be assumed that the stakeholders targeted most frequently are customers, media and future staff.
Table 10 shows a cross-tabulation of the business sizes of FMAFM and the content areas provided on their websites. A moderately significant difference between the business size and the provision of press information ($\chi^2=6.57$, df=2, p=0.037), investor information ($\chi^2=5.57$, df=2, p=0.062) and the existence of an online shop ($\chi^2=5.83$, df=2, p=0.054) on the organisation’s website could be found. This suggests that the online communication of larger organisations tends to be driven by press relations, marketing and investor relations strategies more so than in smaller organisations. A highly significant difference ($\chi^2=10.89$, df=2, p=0.004) was found between the business size and the existence of a careers section on the website. This suggests that human resources strategy is more likely to play a role in the online communication of large organisations than that of smaller-sized enterprises.

<table>
<thead>
<tr>
<th>Content</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td>32</td>
<td>100</td>
</tr>
<tr>
<td>Press</td>
<td>10</td>
<td>31</td>
</tr>
<tr>
<td>Investors</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Extranet</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Careers</td>
<td>13</td>
<td>41</td>
</tr>
<tr>
<td>About us</td>
<td>31</td>
<td>97</td>
</tr>
<tr>
<td>Online shop</td>
<td>7</td>
<td>22</td>
</tr>
</tbody>
</table>

TABLE 10. Frequency of content areas on FMAFM websites (N=32).
A cross-tabulation of the FMAFM headquarters with the content areas on the websites of the organisations showed a moderately significant difference in the category press information ($\chi^2=4.07$, df=1, $p=0.04$) and a highly significant difference in the category online shop ($\chi^2=7.55$, df=1, $p=0.006$) (Table 12). These results suggest that online communication of FMAFM is more likely to be driven by press relations and sales strategies if the organisation is part of a global organisation.
Table 13 shows a cross-tabulation of the types of products FMAFM produce and the content areas provided on their websites. A highly significant difference between categories was found in the provision of press information ($\chi^2=14.36$, df=4, p=0.006) and the availability of an online shop ($\chi^2=15.25$, df=4, p=0.004). Of all FMAFM the producers of self-propelled vehicles offer online press information in 86% of the cases and an online shop in 72% of the cases. In comparison this type of information could be found only on a small portion of websites of the manufacturers of other product groups. A moderately significant difference was also found in the careers category ($\chi^2=10.76$, df=4, p=0.029). Careers information could be found on the websites of 86% of producers of self-propelled vehicles, 60% of produce solution manufacturers, 20% of implement producers and 1% of manufacturers of other machinery. These figures suggest that on average the websites of manufacturers of self-propelled vehicles offer the most diverse content.

<table>
<thead>
<tr>
<th>Product type</th>
<th>Implement</th>
<th>Vehicle</th>
<th>Produce solutions</th>
<th>Husbandry solutions</th>
<th>Other</th>
<th>Sign.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Products</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>non.</td>
</tr>
<tr>
<td>Freq. %</td>
<td>15/100</td>
<td>7/100</td>
<td>5/100</td>
<td>2/100</td>
<td>3/100</td>
<td></td>
</tr>
<tr>
<td>Press</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Freq. %</td>
<td>4/27</td>
<td>6/86</td>
<td>0/0</td>
<td>0/0</td>
<td>0/0</td>
<td></td>
</tr>
<tr>
<td>Investor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>non.</td>
</tr>
<tr>
<td>Freq. %</td>
<td>0/0</td>
<td>1/14</td>
<td>0/0</td>
<td>0/0</td>
<td>0/0</td>
<td></td>
</tr>
<tr>
<td>Extranet</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>non.</td>
</tr>
<tr>
<td>Freq. %</td>
<td>4/27</td>
<td>2/29</td>
<td>2/40</td>
<td>0/0</td>
<td>0/0</td>
<td></td>
</tr>
<tr>
<td>Careers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>*</td>
</tr>
<tr>
<td>Freq. %</td>
<td>3/20</td>
<td>6/86</td>
<td>3/60</td>
<td>0/0</td>
<td>1/33</td>
<td></td>
</tr>
<tr>
<td>About us</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>non.</td>
</tr>
<tr>
<td>Freq. %</td>
<td>14/93</td>
<td>7/100</td>
<td>5/100</td>
<td>2/100</td>
<td>3/100</td>
<td></td>
</tr>
<tr>
<td>Online shop</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Freq. %</td>
<td>1/7</td>
<td>5/71</td>
<td>0/0</td>
<td>1/0</td>
<td>0/0</td>
<td></td>
</tr>
</tbody>
</table>

TABLE 13. Frequency of content areas on FMAFM websites (N=32) by product type. * denotes a difference that is moderately significant (p<=0.05). ** denotes a difference that is highly significant (p<= 0.01).
No significant difference was found in the FMAFM categories concerning product information and general company information. This suggests that the general purpose of FMAFM websites is to communicate about the organisation and its products.

5.1.2 Effectiveness of the organisations’ homepages

Relevance

As the results from the previous section show, all websites of FMAFM contain product information, so in the investigation regarding the relevance of the website was concentrated on the amount of language versions provided on the organisations’ websites. Overall the websites of FMAFM are available in an average of 4.8 languages.

As the deviation (s=5.3) from the average shows, the availability of language version varied greatly. Figure 8 shows the average amount of language versions on FMAFM websites in relation to organisation size. A somewhat significant difference (p=0.06) was found between the amount of language variants available on micro-/small-sized enterprises (M=2.5; n=5) and large enterprises (M=9.2; n=5).

![Figure 8. Average amount of language versions of FMAFM websites by organisation size.](image-url)
Furthermore a highly significant difference (p<0.001) was found between the amount of language versions on FMAFM websites according to the organisation’s headquarters. Organisations with headquarters in Finland (n=28) displayed an average of 3.1 language versions while the websites of non-Finnish organisations (n=4) included M=16.8 language variants (Figure 9).

Figure 10 shows the average amount of language versions on FMAFM websites according to product type. There is a significant difference for the category for self-propelled vehicles and the product categories implements (p=0.001), produce solutions (p=0.009), husbandry solutions (p=0.057) and other products (p=0.01).
FIGURE 10. Average amount of language versions of FMAFM websites by product type.

**Simplicity of design**

The websites of FMAFM contained an average of 1.7 design features that can be considered beneficial for the sites’ usability. The websites of large-sized organisation employed slightly more design features (M=2.2) than those of other organisation sizes, however no statistically significant differences were found (Figure 11).

FIGURE 11. Simplicity features (M) of FMAFM websites by organisation size.
The comparison of FMAFM according to the organisation’s headquarters did not show any significant differences either. Companies with headquarters outside of Finland displayed more design features (M=2.3) than websites of Finnish-owned organisations (M=1.6) as shown in Figure 12.

![Figure 12](image.png)

**FIGURE 12.** Simplicity features (M) of FMAFM websites by organisation headquarters.

The analysis of organisations’ websites according to the product offering showed that, though not statistically significant, more design features were used on the websites of manufacturers of produce solutions than on the websites of other organisations (Figure 13).

Overall it can be said that large, international FMAFM and manufacturers of produce solutions manufacturers contained more usability-enhancing features than the websites of other organisations. However, it should be noted that overall the websites of FMAFM score an average of below 3 on the simplicity feature scale and thus cannot be considered simple to use.
3.

Simplicity features (M) of FMAFM websites by product type.

Interactivity and sophistication

78% (n=25) of FMAFM websites offered at least a basic level of interactivity. Furthermore 22% (n=7) allowed for a high level of interactivity, i.e. the site contained at least one website feature that facilitates two-way communication with the organisation or with other internet users. Sophistication of the websites was on a basic level for 47% of the organisations and on a high level for 53% of the FMAFM (Figure 14).

A comparison of the scores in different categories showed a moderately significant difference within the product type category for interactivity ($\chi^2=13.5$, df=4, p=0.009). As shown in figure 15 a high level of interactivity was found on the websites of 71% (n=5) of the producers of self-propelled vehicles and 13% (n=2) of FMAFM
producing trailed implements. Websites in other product categories scored at a basic interactivity level.

There was also a somewhat significant difference in scores for website sophistication within the category product type ($\chi^2=10.72$, df=4, p=0.03). A high sophistication level was found on the websites for self-propelled vehicles (100%, n=7), produce solutions (60%, n=3), husbandry solutions (50%, n=1) and implement (40%, n=6). Other websites scored at a basic sophistication level as shown in Figure 16.

FIGURE 15. Interactivity levels of FMAFM websites by product category.

FIGURE 16. Sophistication levels of FMAFM websites by product category.
To sum up the effectiveness of FMAFM websites scored high in terms of relevance of their website. All websites contained product information and on average the information was available in several languages catering for stakeholders from different countries. However, FMAFM websites scored lower on other measures of the effectiveness analysis. Though a slight majority of the websites scored high on the sophistication scale, the design of the websites could not be characterised as easy to use. Furthermore the interactivity level was merely basic on the majority of the websites, suggesting that two-way online communication with stakeholders is generally not encouraged by the organisations. Large organisations and FMAFM that produce self-propelled vehicles generally offered more effective websites which include a large amount of language variants and a higher level of interactivity than other websites.

5.1.3 Other dimensions of online communication

**Backlinks**

Overall the search for backlinks to FMAFM totalled in 799 on Google and 17044 on Yahoo, resulting in an average of $M_{Google}=24.9$ and $M_{Yahoo}=532.6$ backlinks to FMAFM websites. Moderately significant differences were found for Google backlink means between groups in the categories business size ($p=0.003$) and product type ($p=0.009$). Large FMAFM scored 92.4 backlinks on average (Figure 17), which is significantly higher than backlinks for micro- and small-sized organisations ($M=2.2$, $p=0.003$) and medium-sized organisations ($M=14.8$, $p=0.001$).
FIGURE 17. Google backlinks (M) to FMAFM websites by business size.

As Figure 18 shows, websites of vehicle manufacturers scored the highest average amount of backlinks (M=84), a significantly higher score than backlinks for the categories Implement (M=8.9, p=0.001), Produce solutions (M=8.0, p=0.006) and Other (M=1.7, p=0.01).

FIGURE 18. Google backlinks (M) to FMAFM websites by product type.
**Presence on the social web**

The search for FMAFM presence on the social web resulted in five Facebook channels, two branded YouTube channels and one Twitter profile. Chi-square tests showed highly significant differences in the categories business size and headquarters. Of the large organisations 80% (n=4) had a Facebook profile compared to one profile in all other categories. 40% (n=2) of the large organisations also maintained their own YouTube channel, while none of the other organisations maintain channels. Though not statistically significant the only Twitter profile of FMAFM was also maintained by a large organisation. Organisations with Finnish headquarters showed a lower percentage of presence in social web channels than others. 11% (n=3) of these organisation maintained a Facebook profile, but have no official presence in YouTube or Twitter. Of the organisations headquartered abroad 50% (n=2) have a Facebook profile, 50% (n=2) maintain a YouTube channel and 25% (n=1) have a presence on Twitter. A moderately significant difference in the Facebook presence was found in the category of product type. Four vehicle producers (57%) maintain a Facebook profile compared to only one implement producer (7%) and no profiles in the other categories. The presence of FMAFM on the social web is summarized in table 14.

In summary one can say that FMAFM enjoy online visibility outside of their organisations’ homepages. However, the amount of backlinks appears to be low when relating the figures to an estimated 270 million websites (Netcraft 2011) and 1.6bn Internet users worldwide (International Telecommunication Union 2010).

Large sized organisations and manufacturers of self-propelled vehicles are more visible on the Internet than those manufacturers in other categories. Some of the organisations that scored higher on the backlink count were also present on the social web. The overall visibility of FMAFM in social media, however, can be considered very low.
<table>
<thead>
<tr>
<th>Category</th>
<th>Facebook</th>
<th>YouTube</th>
<th>Twitter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total sample (N=32)</strong></td>
<td>5 (16%)</td>
<td>2 (6%)</td>
<td>1 (3%)</td>
</tr>
<tr>
<td><strong>Business size</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significance</td>
<td>**</td>
<td>**</td>
<td>non.</td>
</tr>
<tr>
<td>Large</td>
<td>4 (80%)</td>
<td>2 (40%)</td>
<td>1 (20%)</td>
</tr>
<tr>
<td>Medium</td>
<td>1 (5%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Micro/small</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td><strong>Product type</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significance</td>
<td>*</td>
<td>non.</td>
<td>non.</td>
</tr>
<tr>
<td>Implement</td>
<td>1 (7%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Vehicle</td>
<td>4 (57%)</td>
<td>2 (29%)</td>
<td>1 (14%)</td>
</tr>
<tr>
<td>Produce solutions</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Husbandry solutions</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Other</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td><strong>Headquarters</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Significance</td>
<td>*</td>
<td>**</td>
<td>**</td>
</tr>
<tr>
<td>Finland</td>
<td>3 (11%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Abroad</td>
<td>2 (50%)</td>
<td>2 (50%)</td>
<td>1 (25%)</td>
</tr>
</tbody>
</table>

TABLE 14. Frequency f (%) of the presence of FMAFM in social media channels. * denotes a difference that is moderately significant (p<=0.05). ** denotes a difference that is highly significant (p<= 0.01).

5.1.4 Summary web presence analysis

The most important stakeholder group which the websites of FMAFM appear to address are customers. Some focus on other stakeholders such as press, investors and job seekers can be seen especially with large, international organisations and manufacturers of self-propelled vehicles.

The effectiveness of FMAFM can be considered intermediate. While the sites scored high on the relevance of the information, the scores for design and levels of sophistication and interactivity were merely basic. Large organisations and producers of self-propelled vehicles offered more effective websites.

FMAFM appear to focus on communicating via their homepages and use other online channels only sporadically for communication with stakeholders. Large
organisations and producers of self-propelled vehicles are talked about more online and encourage social media more often.

5.2 **FMAFM online communication practises and drivers**

The results of phase two are presented according to the main themes which emerged from the interview data. Each theme is presented in an own subchapter.

5.2.1 *Websites as the centre of online communication activities*

**Organisations maintain own channels**

Each of the interviewees reported that his organisation engages in some form of online communication. When asked to describe their organisations’ web presence all respondents first named the URL of their organisations’ homepage. Two respondents also mentioned other regional versions of their homepage as part of their web presence, though in one case the regional website is maintained by a subsidiary of the respondent’s organisation.

“On meillä periaatteessa yksi tytäryhtiö, jolla on omat internetsivustot sun muuta […]. Heillä on ihan erillinen organisaatio, eli heillä on erillinen viestintä ja verkkosivut.” (R5)

**Dealer network is an important stakeholder and multiplier of messages**

The web presence of business partners was considered an additional dimension to the organisations’ online communication. Four of the respondents considered content and channels maintained by others part of their own web presence. Two of the respondents mentioned an active cooperation between the organisation and their distribution partners to produce content for their respective homepages.

“Jälleenmyyjillä on aika paljon omaa toimintaa verkossa ja sieltä saattaa löytyä verkkokauppoja tai sellaista.” (R4)
With the exception of one respondent the interviewees also mentioned other online channels maintained by their organisations, however only after the interviewer specifically asked about other channels. These included e-mail newsletters (4 mentions), extranets (3 mentions), online shops for spare parts and for trade-in machinery (3 mentions), and a Facebook page mentioned by one respondent.

**Visibility in other channels is not managed**

With the exception of one, all respondents reported that in the past their organisation tried to increase visibility in other online channels by advertising online. These were singular efforts and were not continued after the initial trial period. According to one respondent, online advertising is not significant if the product is already well known among the organisation’s stakeholders.

"Kyllä meillä silloin tällöin on ollut [verkkomainontaa]. Mutta ollaan huomattu, ettei sitä kautta kauheaa positiivista feedbackia oo tullut. Eteenkin täällä kotimaassa ja muuallakin, meidän kone on jo niin tunnettu, että siitä tiedetään jo tosi, tosi paljon." (R6)

5.2.2 Supporting the execution of communication and marketing strategies

**Objectives and target groups of online communication**

According to the respondents the main objective of online communication is to provide stakeholders with information about the organisation, its products and contact information of dealers. Customers were considered the most important target group of online communication, but the respondents also mentioned dealers, media and investors as stakeholders.
A team effort under marketing lead

The main responsibility for planning and updating the content of the websites, and for promoting the website online, lies with the marketing and communication teams of the organisations. However, also company leadership and other organisational functions provide content for the website such as product information (engineering function), contact information (sales function), available trade-in machinery (sales function), spare parts (customer service function) and information for investors (finance function).

Website updates according to daily business and communication plan

The interview data revealed that organisations update their websites both as part of their daily business and as part of the overall marketing and communications plans. Regular web updates usually include the maintenance of the organisation’s and the dealer network’s contact information, as well as news articles and reports from exhibitions and shows.

Several respondents described the website updating process as being closely linked to the overall communication and marketing plan. Ongoing and future activities are considered in the web updating process as well as different communication approaches for different target groups.
“Se lähtee siitä liikkeelle, että joko saa jotain omaa uutta, mikä pitää verkoon saada, eli sellaisia vuosikalenteriin sidoksissa olevia asioita [...] Sitten loput aika paljon tulee markkinoinnista eri tuoteryhmiltä, jos on jotain messuja tai muita, se tulee sieltä [...] Huukan voi olla joskus markkinakohtaisia eroja, eihän kaikkia tarvitse kaikille markkinoille sanoa tai et halutakaa sanoa.[...] Päivitysprosessi on jatkuvaa, ja se on myös tarpeidenmukaista.” (R1)

The link with the overall communication and marketing strategy also shows in the fact that none of the organisations interviewed follow a separate online communication strategy. Only one respondent considered the need for an online communication strategy.

“Ei vielä tällä hetkellä ole. Kuten sanoin, ollaan nyt kehittämässä verkkoviestinnän lähinnä verkkosivustojen uudistuksen muodossa ja siinä pitää tai kannattaaakin mietttää verkkoviestintästrategiaa. Olen sitä mieltä, että se on osaa viestintästrategiaa. Että ei ole erillinen asia, kyllä se liittyy niin vahvasti koko viestintään.” (R5)

An interesting result was the perceived relationship between websites and other communication channels. According to several respondents the organisations’ websites are often used for publishing information material primarily designed for other media. Publishing offline campaign materials such as newsletters or advertisements online was considered to increase the informational value of the website.

“Teemme aina semmosta asiakaskirjettä Suomessa kuukausittain. Se menee normaalisti postitse paperiversiona ja sitten sen saa myöskin tilattua sähköpostiin meidän sivuilta, että se laitetaan sitten pdf-muodossa niille menemään, ketkä sitä halua. [...] Periaatteessa käytetään sama sisältöä mitä esimerkiksi on printtina.” (R5)

“Kyllä me pyritään sihen, että meillä olisi aina se ilmoitus netissä joka maanantai. Tavoitallen se, että sivulla olisi aina ajankohtainen tieto siitä, mikä on milloinkin meneillään.” (R7)
Success of online communication is not measured

Though the respondents named clear objectives for online communication, the organisations do not actively monitor whether these objectives are being fulfilled. The organisations have tools such as Google Analytics for monitoring website usage and feedback received via website forms. The metrics collected include overall visits and visitor numbers per section of the website. However, the organisations do not process the gathered data systematically.

“One meillä laskurit olemassa, mutta rehellisesti sanottuna emme mitata verkkoviestinnän onnistumista mitenkään. Kuunnellaan vaan korvat hörönä, mitä joku sanoo.” (R1)

“Varsinaista mittaria, seurantamittaria tai jotain systeemiä ei oo, mutta se on tämän ollut epäsuoraa. Tavallaan, palaute se tulee ja sitten katotaan, miltä osin sitten toimia.” (R3)

One respondent deliberated that the lack of measurable objectives may be a reason why his organisation is not measuring the success of online communication. As long as the organisation does not create specific online campaigns, the success can merely be measured in the amount of website visitors.

“Kun ei varsinaisesti mitään verkkokampanjoita vielä olla toteutettu, ei oo oikein päästyt vielä todennäköisesti analyyseihin, miten se on onnistunut. Ei oo oikeastaan mitään mitattavaa hirveistä. Ainoastaan pystyttää viestitä sellainen kävijämäärä ja vähän semmosta, jos viestitään suurina, kuinka paljon se vaikuttaa verkkoliikenteessä.” (R5)

Manual information maintenance

The respondents reported a wide range of information that is available on their websites ranging from basic product and contact information, to advertisement as well as online shops for spare parts and trade-in machinery. The information for the online shops is partly served via integrations with the organisations’ back-end systems. However, the majority of the information on the website is maintained manually.
5.2.3 Engaging with customers important but not (yet) via ICT

Customers adopt online communication slowly

The respondents’ attitude towards online communication in their industry can be described as hesitant yet expectant. They consider their organisation’s website a useful and cost-efficient medium which customers turn to in order to collect and compare product information before seeking personal contact with the organisation. On the other hand, the organisations feel that online communication is only a relatively new trend among their customers. One respondent pointed out, however, that online communication can be an effective way for reaching more online savvy stakeholder groups such as investors.

"Kyllä minä uskon, että asiakkaistakin se on koko ajan nouseva trendi, että nykyäänkin ihmiset ostaa ja hakee tietoa netistä tosi paljon. Onhan se erilainen, mutta kyllä se koko ajan kasvava on." (R2)

"Se riippuu taas siitä kenelle viestitään ja mitä viestitään. Esimerkiksi jos kohderyhmä on sijoittajat, niin verkkohan on oikeasti ainut jatkuva väline, jolla pystytään viestä. Vuosikertomus on kerran vuodessa, mutta se on kuitenkin hyvin pitkä väli viestiä sijoittajille." (R5)

Age and buying process influence online communication practises

The respondents see age as a decisive factor why their customers are not actively using the Internet. Currently the respondents consider the reach of online communication among their customers as low. However, as younger generations are coming of age and the customers are becoming more familiar with the Internet, online communication is gaining in significance.
But it is also the attitude of the organisation’s staff that affects how actively the organisations engage in online communication. One respondent commented that even though he would like to develop the organisation’s online communication more rapidly, the company’s priorities force him to take a more moderate approach. Another respondent admits that his own age and inexperience with the Internet may be part of the reason why his organisation is not engaging in online communication to its full possibilities.

Two other indicators for the hesitant attitude towards online communication emerged. One is the perception that agricultural and forestry machinery cannot be sold online, i.e. without seeing and testing the machine. The other reason is the perception that with the relatively small amount of machinery producers, customers are aware of all available options and use the website only for comparing technical information.

"Meidän alalla puhutaan aika kalliista hankinnoista, sanotaan 100 000 euroa ja yli. Suomessa puimurin puolella esimerkiksi on tällä hetkellä kolme eri merkkiä, mistä voi valita. Asiakkaat tietää, mikä on markkinoilla, että se on pitkälti sitten että haetaan teknisiä tietoja ja vertaillaan ja sen jälkeen puhutaan hinnoista." (R1)
Online conversation is considered interesting, but not widely encouraged

Though the respondents deem the personal contact with stakeholders an important factor in their industry, two-way online communication is currently restricted to feedback forms on the organisations websites. These forms are monitored regularly and the respondents report that questions received via feedback forms are responded to immediately.

"Kotisivujen kautta tulleisiin kysymyksiin vastataan. Kaikki viestit tulee täällä yhdelle henkilölle, joka jakaa sen oikealle henkilölle. Sitten vastataan sähköpostilla, jos sellaista löytyy.” (R1)

"[Organisaation kotisivut] eivät oo hirveän interaktiivisia. Että nyt ajatellaan interaktoilla sitä onko se viestintä kaksisuuntaista vai yhdensuuntaista. Ja jos kahdensuuntaista interaktio tarkoittaa, että se on sosiaalista mediaa, niin kyllä me ollaan pääasiassa yksisuuntaisia, varsinkin näillä julkisilla verkkosivuilla.” (R4)

Facilitating conversation among the organisation and its stakeholders is considered an interesting opportunity of online communication. Some of the organisations have already experimented with social media and with encouraging user-generated website on their websites, however ongoing interaction is not at the core of their online communication plans.

"Juhlasivustoa lukuun ottamatta meidän sivustot ei oo kovinkaan interaktiivisia. Tämä oli ainoa, minkä ollaankaan toteutettu, että verkon kautta asiakkaat voivat laittaa jotain esimerkiksi kuvia tai tarinoita. Se on ollut ainut interaktiivinen siihen nähden, että sisältö tuli käyttäjiltä. [...] Tämä on sellainen asia, jonka kuitenkin koko ajan mietitään, millä tavalla pystyisi ottaa asiakkaat tai esim. kuljettajat mukaan, mutta varsinaisesta päätöstä emme vielä tehnyt mitään kehityksen suhteen.” (R5)

Outside of the organisations’ own online channels, the respondents are either cautious or uncertain about participating in the conversation on discussion boards or social networks. None of the organisations have implemented guidelines for staff members whether or not they can or should comment or engage in conversation on other channels.
Monitoring online conversation not systematic

The respondents are aware that their organisations and products are being discussed online. This discussion, however, is not monitored actively or systematically by the organisations. Instead it is up to the individuals within the organisations to take an interest in what’s being said online and distribute this information as they see necessary.

5.2.4 Effective online communication requires resources

A prevailing theme throughout the data is that of making optimal use of the organisations’ resources in all communication activities. The organisations have a multitude of touch points towards their stakeholders and a limited number of staff and budget to address these. Hence several respondents mentioned that in theory they should be more active in developing the online communication practices of their organisations. However, in practice the organisations need to concentrate on their efforts on communication channels where immediate sales results can be achieved.

"Päivitysprosessi pitää olla jatkuvaa. Tosi aktiivisempaa tässä tapauksessa saisi olla. Kun valmiiksi ei saada mikään heti, vaan asiat tulee niin kuin vaiheittain. Se on tietysti tavalla strateginen valinta, mihin asioihin keskityy." (R4)
"Suoraan sanoen verkkosivujen päivitysprosessi toimii aivan liian huonosti. Siinä pitäisi kyllä olla vielä vahvemmin esillä ja muuttamassa juttuja, mutta se on resurssi- ja rahakysymys. Ei kertaakaan löydy sellaisia resursseja. Eikä se nyt ehkä ainut tule tarpeenkaan, että panostaa liikaa. […] Eli siinä täytyy sopiva tasapaino olla, mitä tehdä ja mitä ei." (R6)

5.3 Results summary

The results show that FMAFM concentrate their online communication activities around maintaining the organisations’ own homepages as only some of the organisations utilize other online channels for communicating with their stakeholders. FMAFM consider their homepages important channels for communicating product and contact information to the organisation’s main stakeholders, their customers. Other stakeholders are addressed online only in some cases, as it is the large enterprises and producers of self-propelled vehicles that communicate with investors or address potential future employees.

FMAFM engage in online communication as part of their marketing and communication plans and with the input from other organisational functions such as sales or investor relations. Though there is no separate policy for online communication, there are dedicated teams or individuals within the organisations who are responsible for maintaining the organisations’ online channels. The content on the websites is updated according to the overall communication plan and in cooperation with individuals from other organisational functions. This appears to result in a high level of relevance for the organisations’ websites. Especially the websites of large organisations and of producers of self-propelled vehicles offer diverse content.

Nearly a quarter of FMAFM go beyond merely offering information, and they use their websites to sell services and products via an online shop. However, the interview data suggests that the approach to online sales is still in its infancy as
some organisations maintain the shop data manually. Among some of the respondents there is also a perception that online communication cannot be used to drive sales in the agricultural machinery industry.

The results further suggest that managing their visibility in other online channels is not a priority of FMAFM online communication. Related activities extend to one-off advertising campaigns or to relying on the information available on dealers’ websites. None of these appear to have a large impact on the organisations’ overall online visibility. Though large-sized organisations and the manufactures of self-propelled vehicles enjoy a slightly wider online visibility than other organisations in the industry, the overall presence of FMAFM on the Internet can be considered very low.

FMAFM appear to struggle with the allocation of sufficient resources for online communication activities. The perception that online communication is not (yet) effective in establishing dialogue with their customers results in a practise whereby organisations address their web presence only with minimum effort and by repurposing content from other media. The relatively small amount of resource allocated to the organisations’ online presence is reflected in the low to intermediate scores the organisations’ websites achieved for effectiveness.

Only under one fourth of the FMAFM studied offered a facility for two-way communication as part of their web presence. This result is supported by findings from the second phase of the study in which interviewees reported a low level of interactivity of their organisations’ websites. One reason for not openly encouraging dialogue appears to be the organisations’ perception that customers of FMAFM are not using the Internet. Another possible reason could be a lack of skilled staff able to plan and execute online communication activities.
The conservative approach to maintaining the organisations’ own web presence is further reflected in the way FMAFM appear to monitor and collect information from online conversation. Though some of the organisations interviewed mentioned that individuals within the organisation may be following discussions on social media or discussion boards, this feedback is not systematically collected or distributed within the organisations.
6 DISCUSSION

This chapter discusses the results of the study in light of the research questions and existing literature and proposes a checklist for organisational online communication activities. The final two subchapters are dedicated to the evaluation of the study and the suggestion of further research topics.

6.1 Online communication on the radar of FMAFM but nearly falling off

The aim of this study was to investigate to what extent and how effectively the target organisations employ online communication means for interacting with stakeholders. On a more fundamental level the study also attempted to provide an insight into the strategies that drive the online communication activities of organisations and how organisations utilize information from online sources for establishing strategy. The study was guided by three research questions, the answers to which will be presented in the following paragraphs.
RQ1: How do Finnish manufacturers of agricultural and forest machinery communicate online with their external stakeholders?

Like in many European businesses and organisations (Zerfass et al. 2011) online communication has found a firm place in the communication strategy of Finnish manufacturers of agricultural and forestry machinery. The organisations have identified online communication as an important means to reaching their most important stakeholders, their customers, and some FMAFM are using online communication also to reach other stakeholders such as the media or prospect employees. A deeper view into the online communication practises reveals, however, that FMAFM are not utilizing online communication to its full potential. Organisational online communication can be considered successful if it appears on three dimensions: effective own online channels, the participation on the social web and visibility in search engines and other online channels (e.g. Charlesworth 2009; Nyman & Salmenkivi 2007; Parkin 2009). FMAFM focus on maintaining their homepages but to a large extent neglect other online communication means such as participation on social media, e-mail newsletters or online advertising. Furthermore, the results suggest that the effectiveness of the organisations’ websites will need to be monitored more systematically and in many cases improved. This is especially important as an organisation’s website tends to be the starting point for its online communication and, from an organisational perspective, the source of the most reliable information about the organisation (Aula & Vapaa 2006; Leichty & Esrock 2011).

While FMAFM operate in a similar environment and thus can be studied as an entire industry, the companies differ in terms of product type produced, organisation size and ownership. This is why this study also examined possible differences in the online communication practises of FMAFM. Three hypotheses were formulated and tested in the first phase of the study.
Hypothesis 1: FMAFM address the same stakeholder groups with their online organisation, irrespective of the type of organisation.

This hypothesis could not be confirmed. The results show that while all FMAFM provide information for customers, some organisations appear to address a more diverse audience with their websites. Large-sized organisations tend to offer more information for potential future employees. Organisations with headquarters abroad and producers of self-propelled vehicles appear to address the media more often than other FMAFM and offer more online shops.

Hypothesis 2: Depending on the type of organisation, there is a difference in the effectiveness of the websites of FMAFM.

This hypothesis was confirmed, though only some significant differences between organisation categories were found. Overall the effectiveness of FMAFM websites was found to be moderate. Large organisations and FMAFM that produce self-propelled vehicles appear to offer more effective websites, providing more relevant content and a higher level of interactivity than other organisations.

Hypothesis 3: Depending on the type of organisation, there is a difference in the visibility of FMAFM in other online channels.

Also this hypothesis was confirmed. While the overall visibility of FMAFM on the Internet can be considered very low, large-sized organisations and manufacturers of self-propelled vehicles appear to enjoy a higher level of online visibility than other FMAFM.

The differences between the various FMAFM categories may be explained by organisational and environmental characteristics. According to the results large-sized organisations appear to offer more information for potential future employees. This may be explained by the fact that large companies tend to have more developed human resource functions (e.g. Heffernan & Flood 2000, 133-134). In turn, the fact that producers of self-propelled vehicles tend to provide more effective websites and be more visible on social media might be explained with the high
turnover and the high level of competition in this particular product segment (Manni et al. 2008, 12-24). A cautious interpretation would be that the more competitive the environment, the more diverse ways of communicating FMAFM are utilizing.

But why is it that the majority of FMAFM are hesitant in their adoption of online communication? The following discussion of the other two research questions aims to provide an answer to this.

**RQ 2: What strategy or strategies drive online communication practices?**

The results suggest that FMAFM have established processes and dedicated resources for maintaining their own web presence. Online communication appears to be mainly driven by marketing and communication strategies, yet a number of organisational functions participate in the actual online communication. This ensures that website activities are integrated with the organisations’ overall communication plans, which according to scholars (e.g. Åberg 2000; Cornelissen & Lock 2001; Gurău 2008) can be deemed beneficial for ensuring consistent messaging and thus greater effect of the overall communication activities.

On the Gartner Group model of the stages of online communication (paraphrased in Pohjanoksa et al. 2007), the majority of FMAFM appear to be operating between the presence stage, where the main objective of online communication is to simply be online and “claim one’s own identity on the Internet” (Pohjanoksa et al. 2007, 60), and the benefits stage. At this latter stage organisations handle many communication processes via their own homepage, but there are little efforts towards developing part of the business online or providing interactive service for web users. According to the development model, the move to the next stage of online communication is influenced by internal (e.g. organisational strategy) and external (e.g. competitors) factors. According to this study additional factors may be related to assumptions about stakeholders’ Internet usage, opinions about the role of communication in influencing purchase decisions as well as assumptions about the competitors.
Because the products of FMAFM tend to require significant financial investment the organisations stress that personal consultation is vital during the whole duration of the customer relationship i.e. from the consideration stage through to maintenance and service stages. Hence the organisations appear to take a two-way symmetric communication approach in their offline communication activities, which according to Grunig & Grunig (1992) creates a mutual understanding with its stakeholders. However, this communication approach has not been realized in terms of online communication, and FMAFM will in fact need to improve their online communication efforts, especially in terms of interactivity. Alarmingly, the organisations are of the opinion that improvements are not needed urgently because of their customers’ age and because of the small amount of Internet penetration among their stakeholders. This assessment is contradictory to the very objective that FMAFM associate with online communication, namely to provide product information to customers. The assessment is also in stark contrast to studies related to Internet penetration among European citizens. As the digital divide is closing between urban and rural dwellers, and between age groups, the key stakeholders of FMAFM increasingly utilize the Internet to research product information, shop online and communicate with peers (Gurău 2008; Haantie & Ojaniami 2008; Seybert 2011).

This development provides an opportunity for FMAFM to open up their online communication channels for dialogue and to online business, and to build a new kind of relationship with their stakeholders. However, FMAFM may need to critically review the online communication skills of their staff as well as prevailing assumptions about the role of organisational communication. Several interviewees suggested that the competitive arena for agricultural and forestry machinery is relatively small in Finland, and that as a result customers and distributors already know all available options. Therefore, the interviewees proposed, technical features and price are the only factors that influence customers’ buying decision.
In an age of a globalised economy and the information society, this viewpoint appears to be somewhat one-dimensional. Of course product features and price are an important part of doing business, but as Vos (1992, 52) points out a product’s or organisation’s image influences the behaviour of stakeholders. In addition Wind (2006) notes that business decisions are directly and indirectly affected not only by customers, but by all stakeholders. The fact that ICT allows customers, media, dealers, FMAFM employees and suppliers to engage with each other (de Bussy et al. 2000; Gurău 2008) means that recommendations and word of mouth are becoming more significant in the purchase decision process of FMAFM customers.

So by actively managing online communication, by participating in the online discussion and perhaps even openly encouraging two-way communication, FMAFM will be able to influence the climate in which purchase decisions are taken. Another aspect to consider is that most FMAFM also conduct business outside of Finland, where their products may not be among the well-known local names. As was shown, the digital divide between urban and rural areas has already closed in large agricultural nations such as Denmark, France, Netherlands or the UK (IDATE 2010), and in some countries nearly three quarters of the population uses the Internet on a daily basis (Seybert 2011). It is thus safe to assume that the competition in terms of gaining stakeholder’s attention online (as well as offline) will be harsher for FMAFM in those market areas. This assumption is also supported by the results of this study according to which large FMAFM and manufacturers of self-propelled vehicles offer more effective and diverse online services. As it happens, many of these belong to corporations that are headquartered outside of Finland.

RQ3: How does online communication contribute to the strategy making of the FMAFM?

Many publications on online communication and online marketing (e.g. Charlesworth 2009; Shih 2011; Young 2010) recommend that organisations monitor the Internet and listen in on conversations relevant to their industry and stakeholders, in order to identify emerging issues and in order to understand their stakeholders. Scholars of communication and management have further pointed out
that monitoring the public conversation will provide valuable input for organisational strategy both on a functional level and on other levels of strategy (Ströh 2004; Vos & Schoemaker 2005). In the case of FMAFM there appears to be no systematic approach to monitoring the organisation’s environment or collecting feedback via online sources. This has several implications. By not systematically following trends online, the organisations might recognize only too late when – by the organisations’ own standards – their stakeholders are ready for entering a dialogue online. In addition there is a risk that FMAFM will lag behind their international competition both abroad and in the Finnish market. The lack of a systematic monitoring process further implies that online communication has no role in the organisational strategy making process of FMAFM.

In summary the current state of online communication in the industry must be regarded as critical as the majority of FMAFM appear to take a hesitant and non-systematic approach to online communication. Figure 19 provides an overview of the current state of online communication strategy among FMAFM as found in this study.
What do these findings mean for Finnish manufacturers of agricultural and forestry machinery? With the continuing penetration of high-speed Internet access among the European population and the arrival and success of mobile communication devices and services, FMAFM need to recognize that online communication is not an issue of the future anymore, but that their customers, dealers, industry journalists, not to mention their current and future employees, are using the Internet already to seek information, utilize services and communicate with each other. In order to keep up with international competition FMAFM need to monitor these trends more actively and urgently build an online communication strategy that includes all dimensions of organisational online communication. The following subchapter provides some additional practical considerations.
6.2 Practical recommendations for target organisations

In addition to considering the three dimensions of organisational online communication discussed in chapter 3.2, here are some practical guidelines for the development of an organisation's online strategy. These apply to FMAFM, but can be adapted for other industries that operate in a similar (distribution) environment.

**Monitoring current discussions and issues**

There is a multitude of free and commercial tools, e.g. Google Reader or Meltwater Buzz, available for monitoring discussion boards and social networking sites systematically. These can be set up to scan and systematically report the online conversation concerning certain keywords. Monitoring keywords close to the organisation’s products and to the interests of customers (e.g. rural policy, machinery funding, women in agricultural or farm safety) will provide an input for the communication strategy.

**Monitoring the competition**

Following stakeholders’ online activities includes monitoring the (potential) competition. Many international manufacturers of agricultural and forestry equipment already maintain multi-language websites, online shops, and profiles on the most common social platforms. Benchmarking these will help organisations understand existing online communication patterns in the industry as well as (potential) customers’ real Internet usage level on a global level.

**Providing an online experience**

Rather than treating the internet as a passive repository for technical specifications of products, there is a potential to build an online experience which stakeholders can turn to during all phases of the machinery lifecycle (for customers) or for other information needs. Providing this experience starts with offering information in a format that is suitable for online use. Instead of republishing PDF versions of brochures and newspaper advertisements, information can be portrayed more...
effectively by reducing the amount of text and complementing with video or image material.

Organisations may also consider offering personal consultation via interactive chats with the organisation and other customers, machinery life-cost calculators, video tutorials and personalised online services related to machinery maintenance, virtual press rooms, recruitment services, online shops and many more.

**Involving the distribution network**

An interesting development topic that emerged from this study is the relationship between the online channels of FMAFM and those of their distribution network, in other words their dealers. In many cases the sales consultation and technical support for the products of FMAFM is given via third-party dealers. Aligning the online communication efforts of both bears several benefits for all parties involved:

- contradicting messaging can be avoided,
- FMAFM could provide high-quality digital assets such as video and tutorials for the dealers’ own web channels,
- developing a mutual link environment between the FMAFM and dealers’ web channels will enhance search engine ranking for both, and
- the knowledge and skills of both dealers and the FMAFM could be streamlined and channelled into one online knowledge base, thus offering the best possible service for buyers of FMAFM products.

**Tracking the success of online communication efforts**

In order to understand the value of online communication efforts, organisations need to define key performance indicators (KPI) and track these. Simply monitoring website visits will not allow organisations to calculate a return on investment for online communication activities. Common KPI include the number of leads received from other channels, i.e. the amount of visits that were directed to the organisations own channels via external channels, and the number of conversions. Conversions
could be either be micro-conversions, e.g. the amount a brochure was downloaded from the homepage, or hard conversions, e.g. the amount of quotation requests received via the homepage or actual sales on the online shop.

**Building a communication platform**

It has been pointed out that organisations cannot control what is being said about them on the Internet. However, the organisation can actively influence and steer the some of the conversation by offering a discussion platform where stakeholders can meet and communicate both with the organisation and with each other. Such a platform could be an existing social network such as Facebook, or a corporate blog.

**Updating the organisation’s skills**

Planning effective online communication activities requires knowledge of the possibilities the Internet and Web 2.0 applications offer as well as skills to implement these. Organisations need to consider updating the skills of their own staff and build teams with Internet and social media competencies.

**6.3 Study evaluation**

The final topic to discuss are the limitations of this study. Communication research is usually evaluated by looking into the reliability and the validity of the study.

The reliability of a study refers to the extent to which it will produce the same results if the measurement procedures, tests and analyses were repeated either in a different trial, or by different researchers (Hirsjärv et al. 2004, 226). The reliability of this study was ensured by a number of factors. The analysis checklist and the interview form were developed with great care and based on current research literature. The research process and interpretations of both the quantitative and the qualitative analysis were further described in great detail. The reliability of the measurements in the first study phase was ensured by selecting statistical tests relevant for the type of data collected.
According to Frey et al. (2000, 109-111) there are two types of research validity: external validity, which refers to the extent to which findings from the study can be generalized or transferred, and internal validity, which refers to the validity and reliability of the measurements, possible threats due to the research participants and limitations due to the researcher. The internal validity of the study was ensured by a number of factors, which have already been discussed in chapters 4.3 and 4.4. Methodological triangulation is usually seen as advantageous for the validity of a study (Frey et al. 2000, 84-85; Lindlof & Taylor 2002, 241). In this study this was also the case as it allowed the researcher to both describe the state of the target organisations’ online communication and to gain a deeper insight into the underlying assumptions that drive online communication activities. Conducting a qualitative investigation in the second phase of the study also helped validate the interpretations of the results from the quantitative study. This was necessary as the sample of the quantitative study was relatively small for statistical treatments and inferences made from these.

A possible threat to internal validity was the fact that the researcher had no prior interview experience. Data collected via interviews may be influenced by the interview situation and the tendency of interviewees to formulate socially acceptable answers (Hirsjärvi et al. 2004, 202). Also the interviewer can be the cause for poor validity of the study by inadvertently guiding the answers through conversational feedback (Frey et al. 2000, 217). In this study the risks related to being an inexperienced interviewer were minimized by the researcher familiarizing herself with literature on interviewing technique and by practising the semi-structured interview with test subjects several times before interviewing the actual respondents. During the transcription of the interview data, the researcher noticed some topics which would have been interesting to explore in more detail and which would have given an even better understanding of the underlying attitudes and processes of the target organisations. In hindsight, it might thus have been useful to gather and analyse data in several phases so that those additional questions could have been posed during later interviews.
From an analysis point of view the accuracy of the research findings can be viewed as high. According to Lindlof & Taylor (2002, 242) member validation is an important part of checking the validity of qualitative research. The fact that this study was carried out by a communication professional employed in one of the target organisations is thus beneficial. It should also be noted that this particular target organisation was not included in the second part of the study, as the researcher would have needed to interview herself based on the selection criteria.

The external validity of the study can be considered moderate. The quantitative part included the entire industry of FMAFM (at the time) and the measurements were conceptualized based on existing theory. As such the study can easily be replicated either in this industry or in other industries. It must be noted, though, that data gathered via interviews is always related to the context and situation in which it was obtained, which means that the results from such data may not be suitable for generalization (Hirsjärvi et al. 2004, 203). This is also true for this study as the investigation was restricted to a single industry which on a national level operates in a very specific environment. On an international level, the study does lend itself to a degree of generalization, as Internet penetration among farmers and forest contractors has been and continues to be an issue in many other countries.

6.4 Recommendations for further study

While this study provided some answers regarding the online communication of organisations, it also posed a number of questions which may be interesting to investigate in future studies.

An obvious topic for further investigation is to validate the findings from this study against studies from other countries. Is there really a relationship between the actual Internet penetration among the rural population and the state of online communication of manufacturers of agricultural and/or forestry equipment? Or are
the manufacturers’ assumptions found in this study perhaps also influenced by other factors?

Another recommendation touches upon the question whether online channels are more or less effective than offline channels in reaching the communication goals of FMAFM or other industries. The interview results hinted at an assumption that offline communication means can be more effective when communicating with certain stakeholders, while others can be reached better via online channels. A case study examining a particular communication problem and testing the effectiveness of reaching stakeholders via various channels would shed light on this question.

A third recommendation for further investigation relates to the fast development of online communication. During the concluding phases of this study mobile devices and mobile technology have been gaining immense popularity, so much so that several popular magazines have declared the year 2012 “the year of the tablet”. A further subject for investigation would therefore be the attitudes towards and adoption of mobile communication of FMAFM towards external stakeholders.
BIBLIOGRAPHY


APPENDIX 1

Semi-structured focus interview topics

Web presence

- Main company website
- Other websites
- Other online communication channels and activities (blog, newsletters, online advertising, online shop, extranet solutions)
- Social media channels (activity in networks or own channels)

Online communication strategy and practices

- Importance of online communication in the agricultural and forestry machinery industry
- Targets of own websites and other online communication activities
- Responsibilities and resources for online communication
- Integration of offline and online communication activities
- Online communication strategy? Communication strategy? Social media strategy/guidelines?
- Measuring of success of websites

Using the internet for strategy input

- Interactivity level of website
- Integration of websites and other online channels with back-office systems
- Monitoring of online sources, discussion forums etc.
- Engagement, participation in discussion forum
- Handling of online feedback