

# Exchange of Market Information in Retail Trade - Insights on the Termination of ScanTrack in Finland

Marketing  
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## **EXCHANGE OF MARKET INFORMATION IN RETAIL TRADE**

Insights on the Termination of ScanTrack in Finland

### **Research Objectives**

The objective of this study is to analyse the exchange of market information in an organizational setting between a retailer and a supplier. This is influenced primarily by the industry structure and environment as well as relationship traits of the firms and the internal strategy of companies. This study aims to identify the key influencing factors and analyse their effect on the sharing of market information.

### **Research methods**

Empirically the study is positioned in the Finnish retail trade sector that is characterized by high retailer market concentration. The research takes on a qualitative industry-level approach to interview a total of fifteen people representing suppliers, retailers, trade associations and regulatory authorities. The frames for the research arise from the recent termination of ScanTrack –based sharing of consumer sales information.

### **Summary of Findings**

The research identified fourteen key factors related to industry setting, competition regulation, company relationships and retailer strategies that have an effect on market information exchange. In analysis of these factors regarding the ScanTrack case, it was found that the complete termination of the system in Finland was more of a retailer-based decision than an outcome of competition regulation.

### **Keywords**

Information exchange, market information, ScanTrack, retail trade, buyer-seller relationships, antitrust regulation



## **MARKKINATIETOJEN VAIHTO PÄIVITTÄISTAVARAKAUPASSA**

Näkökulmia ScanTrackin lakkauttamiseen Suomessa

### **Tutkimuksen tavoitteet**

Tutkimuksen tavoitteena on analysoida kaupan ja teollisuuden välistä markkinatietojen vaihtoa. Kyseiseen tietojenvaihtoon vaikuttaa keskeisesti toimialan rakenne ja yrityksiä ympäröivä toimintaympäristö. Lisäksi myös yritysten välisten suhteiden ominaispiirteet sekä yrityskohtaiset strategiat ovat kiinteästi yhteydessä tietojenvaihtoon. Tutkimuksen tavoitteena on tunnistaa keskeiset markkinatietojen vaihtoon vaikuttavat tekijät ja analysoida niiden merkitystä.

### **Tutkimusmenetelmät**

Työn empiirinen osa käsittelee Suomen päivittäistavarakauppaa, jossa markkinat ovat erittäin keskittyneet kaupan keskusliikkeiden osalta. Tutkimuksen lähestymistapana on toimialakohtainen laadullinen tutkimus, jossa haastatellaan yhteensä viittätoista henkilöä, jotka edustavat kauppaa, teollisuutta, alan liittoja sekä kilpailuviranomaisia. Tutkimuksen perustana on Suomessa vastikään lakkautettu ScanTrack –järjestelmään pohjautunut myynti- ja markkinatietojen vaihto.

### **Yhteenveto tutkimustuloksista**

Tutkimuksessa havaittiin neljätoista eri markkinatietojen vaihdon vaikutinta liittyen toimialarakenteeseen, kilpailulainsäädäntöön, yritysten välisiin suhteisiin ja kaupparyhmittymien strategioihin. Näitä vaikuttimia analysoitaessa todettiin ScanTrack –tapauksen osalta, että järjestelmän lopettaminen kokonaisuudessaan oli pikemminkin kaupan liiketoiminnallinen ratkaisu kuin kilpailuoikeudellinen linjanveto.

### **Avainsanat**

Markkinatietojen vaihto, ScanTrack, päivittäistavarakauppa, kilpailulainsäädäntö



## ABSTRACT (English)

## ABSTRACT (Finnish)

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# 1 INTRODUCTION

For many companies, having market information is beyond a mere preference or a nice-to-have asset. Market information is vital for them on many levels and it may even create a competitive advantage. Therefore, it is surely something that companies notice if they no longer have access to it. Nonetheless, the market economy does not always follow pre-defined principles and for various reasons the flow of information between companies may be disrupted or altered. This study observes a situation, where a major source of market information is terminated and firms face a market with totally new reasoning. Ultimately, what are the factors that affect the exchange of market information between companies? This study aims to shed light into this prominent question.

## 1.1 THEORETICAL POSITIONING OF THE STUDY

This study relies on a pluralistic theory base consisting of the following theoretical fundamentals:

- (a) Political Economy Framework
- (b) Institutional Theory
- (c) Exchange Theory
- (d) Competition Regulation

This study turns to the political economy theory base and institutional theory to examine industry settings and networks. Similarly, findings of the exchange theory scholars enlighten the key issues in the interaction and information exchange that occur between these parties. Special market situations and regulations impact these relationships and exchanges and therefore the analysis of competition regulation and other restricting impacts have been included in this study. Next, these four theoretical backgrounds are discussed more elaborately.

A significant amount of research has been conducted on marketing channels founding on the *political economy framework* from the early 1970's and 1980's (Benson 1975, Stern & Reve 1980, Achrol et al. 1983). The political economy approach "...views a social system as comprising interacting sets of major economic and socio-political forces which affect collective behaviour and performance" (Stern & Reve 1980, 53). The political economy approach is used to analyse relations and influencers of an industry. Scholars have analysed the effects of the macro environment on micro dyadic channel structures and processes. The



special focus has been on economic and socio-political external factors and their influence on channel relationships. In early research papers, research channels are analysed predominantly through what later became known as an ‘efficiency-based task environment perspective’ (Grewal & Dharwadkar 2002; see also Frazier 1999). Instead of drawing attention only to the technologies employed within the channel or taking an economic vs. behavioural approach, the research of Stern and Reve (1980) now encompassed the influence of the external environment. They identified the main channel dimensions and studied how these different dimensions were interconnected, hence how the structure and behaviour in a distribution channel was shaped by the external environment.

In relation to the political economy approach, this study is also linked to the *institutional theory*. Grewal and Dharwadkar (2002) introduced the ‘legitimacy-based institutional environment approach’ and focus was placed on the institutional environment and how for instance regulations may require channel members to alter their behaviour so as to achieve legitimacy. Key influencers to institutional theory have been DiMaggio and Powell (1983), who discuss the concept of isomorphism (see also Scott 1995a). The institutional theory shows that firm actions are influenced by very subtle cues as well as an interest for unified behaviour with their environment.

The third foundation for this study is the *exchange theory*. The political economy framework and the exchange theory are justifiably interrelated: For instance Ross & Robertson (2007) analyse compound relationships basing their study on both theories. Exchange theory analyses resource transfers within exchange relationships (Frazier et al. 2009; see also Thibaut & Kelly 1959; Homans 1961). The theory dates back to as early as the 50’s and 60’s, where exchange relations of social groups were examined. Since then the scholarly discussion has broadened to examining business relationships and the interactions that occur between organisational actors. The exchange theory is used to evaluate information exchange between stakeholders in an industry. Among other things, it discusses the complexity of relationships as well as the power balances between companies.

The fourth theory is *competition regulation*. This is viewed through theorist and specialist analysis related to concentrated markets and antitrust regulation. For instance Kühn (2001) and Overgaard & Møllgaard (2005) approach regulatory restrictions on information exchange from a theoretical standpoint. In addition, this study introduces the key elements of EU’s antitrust



regulation and discusses whether it fits to scholarly views on how market economies should be regulated and allowed to function.

## 1.2 EMPIRICAL POSITIONING OF THE STUDY

Between early 2007 and June 2008 the Finnish Competition Authority (FCA) investigated the information exchange in the Finnish grocery retailing sector, which has an over €12 billion market size (FCA Yearbook 2008, 17). The three main players Ruokakesko Oy (Kesko), Suomen Osuuskauppojen Keskuskunta (SOK) and Suomen Lähikauppa Oy<sup>1</sup> (former Tradeka Oy) had exchanged up-to-date sales information collected by the ScanTrack system which was operated through AC Nielsen, a global information and media company. Due to the highly oligopolistic nature of the Finnish retail sector, the FCA was concerned that the exchange of precise and fresh sales information may have consequences that hinder competition. The three biggest retailers accounted for 85% of the market with the two most notable companies clearly being SOK and Kesko<sup>2</sup>. In June 2008 the FCA concluded that the procedure could have been harmful for competition in the industry and it may have had price increase implications.

However no further actions were taken since SOK and Kesko were initially the ones who had informed FCA about the system and secondly since they had already shut down its operation by deciding to withhold their cash register information. What may seem like an easy closure of the matter nevertheless affected also other companies in the industry. For instance suppliers had been relying on the ScanTrack information from AC Nielsen in their operations. The preciseness of the information had been crucial for the suppliers as they identified the demand and sales growth of specific product categories. A concern that rose from the supplier side was whether the lack of information may in the future in fact hinder competition or be a drawback even for R&D and product development. Also, information brings power and some industry practitioners argue that the mantle has now shifted in favor of the retailers since they have exclusivity to sales statistics that can be used for instance in procurement activities for instance when conducting business with the suppliers. Some of these concerns may be overstated, yet what is clear is that information exchange in the industry has altered. This study aims to

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<sup>1</sup> Suomen Lähikauppa Oy is the firm's official name in both Finnish and English. Therefore it will be used throughout this study. As a direct translation it means 'Finland's Local Store'. (<http://www.lahikauppa.fi/en/>)

<sup>2</sup> The market shares on the Finnish daily consumer goods retail trade sector were the following in 2006: S-Group (SOK) 39,9%, K-Group (Kesko) 33,5%, Tradeka 11,9%, Lidl 4,1%, others 10,6% (Finnish Competition Authorities 2008, 154/61/2007, 2)



analyze the focus and reactions of the stakeholders as well as their mutual interaction with regards to market information exchange.

### 1.3 RESEARCH PROBLEM

To arrive to discussing the research problem, it is important to first highlight the relevant research gap upon which the content of this research have been set upon. This paper focuses on the sharing of market information in the retail sector, especially between retailers and suppliers. According to Frazier et al. (2009, 31), the sharing of strategic information from distributors to their suppliers remains an under researched subject and thus it deserves more attention. Especially in cases when market information is not shared through third parties, the critical issue becomes the relationship between the retailer and supplier. The empirical part of this study shows a situation where information exchange is limited by both regulatory and commercial factors. It can be argued that high market concentration is an element for these limitations of the given market and its impact on the outcome is an interesting issue. Frazier (2009, 42) notes that research is needed to establish the effect of market concentration on the sharing of strategic information. This study is placed in the midst of these recently pointed out very interesting research topics.

The *research problem* of this study is the following:

Exchange of market information in an organizational setting between retailers and suppliers and the factors that influence it.

This problem has been divided into two *research questions*:

1. How does industry structure and environment affect information exchange?
2. How do intra-organizational factors and relationship traits affect the nature and content of information exchange?

### 1.4 KEY DEFINITIONS

The concepts and terminology that are central for the understanding of this study are linked to the notion of *information*. The following will discuss information from different perspectives and frame the issues relevant for this study. Further terminology and frameworks are brought up gradually throughout the paper.



### Data, information and knowledge

Information is often confused with *knowledge* and *data*. These are all broad terms and are in fact linked to each other. The simplest way to view their relationships is to think of it as a continuum like presented in figure 1 below. Data is the lowest level in the hierarchy and once it is being processed, it evolves into information and eventually knowledge (Ackoff 1989).

*Figure 1. The Relationship between Data, Information and Knowledge*



Furthermore, the focus of this study is not on information itself, but the *exchange* of it. Both the theoretical and empirical parts of this research likewise put emphasis on the exchange of market and sales information. Hence our concentration is constantly on the factors that influence information *exchange*: the environment including regulation, relationships between companies and company-specific factors.

### ScanTrack information exchange

In analysing the exchange of market information, this study takes *ScanTrack* –based exchange as the starting point in the empirical section. ScanTrack is service provided by AC Nielsen in several countries. However in Finland some aspects of it were in conflict with antitrust regulation, which eventually led to the abandoning of the entire system. Like in other countries, the ScanTrack in Finland was an information exchange system based on historical consumer sales information. Bar code data was collected from cash registers in retail stores. This data is then assembled and processed. Retailers and suppliers as well as other industry players all benefit from the data. Many firms establish contracts to receive the information even at frequent one-week intervals. However, the fact that information is a very broad term applies also in the Finnish consumer goods retail sector. The division is not clear-cut between ScanTrack –information (or information that has replaced it) and other information shared by the stakeholders. Especially in the current situation a lot of information is exchanged in face-to-face meetings, which increases flexibility in what is exchanged. In the scope of this study, ScanTrack works as a basis for the empirical discussions. Information sharing is restricted to



what is linked to ScanTrack as well as exchange that resulted after the termination of the system.

### Intelligence and strategic information

Information is also sometimes referred to as *intelligence* (see for instance Frazier 1999). It is often associated to market intelligence, which is knowledge and information available on the market (Maltz and Kohli 1996). According to the authors, market intelligence can be obtained through formal and informal mechanisms. They also introduce the concept of ‘intelligence dissemination’ within a firm; however our interest for now is only on the procurement of market intelligence.

Lastly, *strategic information* is a key term for this study. It is essentially related to perceptions and prioritizations of companies. Information that is central in applying the firm strategy is referred to as strategic information (Frazier et al. 2009). Therefore, strategic information may come from very different sources. We will later distinguish between internal and external strategic information of companies and how this is exchanged.

## 1.5 STRUCTURE OF THE PAPER

This study has been structured into six main chapters. In this first chapter we have gone through the theoretical and empirical background of the study, the research gap and problem as well as the key concepts and terminology definitions. Attention will now be drawn to the scholarly research on the issue as the second chapter takes a pluralistic theory approach and elaborates on the various viewpoints to information exchange in different environments and relationships. As a result of this analysis a framework is constructed in part 2.4 incorporating the different factors affecting information exchange.

Chapter three describes the methodology of the empirical part of the study including the qualitative study approach and the stakeholders of the study. Hence, chapter four goes into the empirical part of the study, which is based on the stakeholder interviews. The theoretical discussion is mirrored to practice and further analysed in this chapter. To sum it up a refined framework is presented in part 4.5. In the fifth chapter the outcomes of the theoretical and empirical sections are given a critical analysis and the results are opened up through discussion. The managerial and empirical relevance and implications of the study are



highlighted as an important part of this chapter. Directions for further research and limitations of the study are also discussed. To end with, a brief summary of the study and its results is presented in chapter six.



## 2 THEORETICAL BACKGROUND

The theoretical discussion concerning information exchange has been divided into two different areas: *information exchange environment* (2.1) and *information exchange relationships* (2.2). Based on this analysis a framework is developed at the end of the chapter to pull together the different factors affecting information exchange.

### 2.1 INFORMATION EXCHANGE ENVIRONMENT

In the early 1980's Stern and Reve (1980) begun mapping the distribution channel with an aim to identify and dimensionalize the key variables influencing and ordering channel structure and behaviour. Before their work a major part of distribution channel research had been focused on the technologies employed by the channel members as well as on economic viewpoints regarding channel efficiency. Some research had also been conducted regarding behavioural aspects resulting in socially oriented studies on power and conflict phenomena. Primarily, the prior research had focused on dyadic relationships excluding the analysis of a more complex network with for instance institutional influences.

In their research, Stern and Reve (1980) identified the channel dimensions as *fields*. By doing this, they attempted to classify channel interaction in a larger context to build the basis for future research. They emphasized *multilateral interactions* (see also Mouzas et al. 2008) where the interactions within the complex socioeconomic setting were more than merely cause-effect mechanisms, such as the effect of channel design on costs. This section includes analysis of strategic industry positioning as well as the channel environment and actors. Moreover, the regulatory context is taken into consideration and included in the evaluation of the information exchange environment.

#### 2.1.1 Industry Structure and Networks

The network of a company is crucial to its financial performance and profitability (Gulati et al. 2000, Piskorski 1999, Cool & Schendel 1988). Information sharing is carried out through the company's network when it does not occur through a centralized system. In situations when a centralized system is not in operation (as discussed in the empirical part of this study), the significance of the relationships increase. Attaining relevant market information is often of strategic importance for companies. It is vital that firms consider their strategic ties also from



this perspective, since information networks can be critical to a firm's performance. Moreover, when analysing an industry from the outside, it is interesting to look at the strategic networks since these have an imminent effect on the information exchange (Kale et al. 2000, Zaheer & Zaheer 1997). Unfortunately they are not always easily identifiable. Additionally, companies often share detailed market information only with those organizations that are of strategic importance to them. Hsu et al. (2008) indicate a positive correlation between information sharing capabilities and buyer-supplier relationships and performance.

Recent views (Gulati et al. 2000) have brought up the notion of *strategic networks* and propose the studying of them to allow a more refined understanding of an *industry structure*. The authors identify the following elements as having an impact on profitability in the industry: industry structure, positioning within an industry and inimitable firm resources and capabilities. Next, these and a few additional aspects are analysed more closely.

Firstly, strategic networks can influence competition and profitability in the industry through three different types of relational characteristics interlinked with *industry structure*: network structure, network membership and tie modality (Galaskiewicz & Zaheer 1999). *Network structure* is the overall pattern of relationships embedded within the industry, for instance how dense the interfirm ties are. Likewise the composition of the network, such as identities, resources and access of the members, are analysed through *network membership*. Here it is not only relevant how the resources flow within the industry; instead the industry is viewed in a broader network of resource flows. The relations towards supplier and buyer industries may also affect the membership in the network. As an example, favourable ties to either upstream or downstream industries can increase profitability and create entry barriers to the industry.

In taking a strategic network perspective to sources of differential returns, the second aspect is the positioning within an industry. This has also been referred to as the *intra-industry structure* and it proposes identification of strategic groups in the industry. The firms can be grouped based on similarities and attributes. Similarities could be detected for instance in scale, product and service prices, features and quality, technology, or customer base (Gulati et al. 2000). The reason why the industry structure and strategic groups can affect the profitability of firms is that they act as enablers and impediments of business transactions. The boundaries are hard to traverse due to mobility barriers (Caves & Porter 1977) and belonging to a group or being left



outside of the bloc has straight-forward implications on the firms' performance and even profitability (Cool & Schendel 1988).

Going a step further, the network perspective allows for a different kind of intra-industry grouping. Strategic cliques or blocs can be identified by firm interactions and relationships (Nohria & Garcia 1991). This is a very practical view since it is in fact the interaction between the firms that binds them together. Interaction-based grouping also draws focus to the exchange relationship, including information exchange. Logically belonging to the same clique should give a relationship advantage in contrast to those firms that operate outside of it. Firms outside the bloc do not have the same intensity of interaction with firms within the clique as those belonging to it. Evidence provided by Piskorski (1999) indicates that not being inside a strategic bloc can result in significant profit differentials which are attributable to the clique. Škapa and Kubátová (2009) also underline that the economic performance of a firm is highly dependent on its relationships and ability to create value through these. On the long run, *managing the firm's network* becomes very important, especially when there is also a need to develop interfirm knowledge sharing routines (Kale et al. 2000). Noteworthy is that any of these network structures or ties can also lock the firm into undesirable strategic relations and thus have a negative effect on the firm.

The third aspect for analysis is the possession of inimitable resources and capabilities. Resource-based theory highlights that an enduring competitive advantage can be gained when the firm controls or owns unique and non-substitutable resources (Peteraf 1993). Typically these have been sought for within the firm or thought to have been developed internally by the company. However, the external network of a company can also be a resource in itself or act as an access channel to inimitable and non-substitutable capabilities and resources including information. These can be referred to as *network resources* and they also have the potential to create a sustainable competitive advantage for the company. Gnyawali and Madhavan (2001) also underline the importance of dynamic resource flows in influencing a firm's competitive behaviour (see also Gadde et al. 2003). The structure of the network is important especially if the relationships are unique compared to others in the industry. Some researchers highlight specifically the importance of information and even conceptualize the company relations as *information networks* (Zaheer & Zaheer 1997; see also Gulati 1999). Information provided by the network relations enables the firm to act quicker than rivals, which in turn provides a strategic advantage.



As can be seen, a strategic network is a fairly broad term. It encompasses both horizontal and vertical relationships of a firm. By taking a relational approach rather than an atomistic one it shifts the focus from within the firm to its surroundings (Gulati et al. 2000). What is then the strategic side to it? The interorganisational ties must be enduring and of strategic significance for the companies entering them. Examples include strategic alliances, joint ventures and long-term buyer-supplier relations. When looking closer at a strategic buyer-supplier relationship, the network can potentially provide the firm access to information, resources, markets and technologies that would otherwise be out of its reach (Gulati et al. 2000). Especially the information flows are within the focus of this study.

As a whole, industry structure is characterized by a) the *extent of concentration*, b) *market power* relative to upstream or downstream industries and c) the *extent of collusion* –tacit or any other (Scherer & Ross 1990; see also Kühn 2005). The structure of an industry radically influences its profitability. In existence of an oligopoly or greater concentration, the profitability of the companies is higher. A company is assumed to strive for competitive advantage from internal capabilities and resources or external industry sources. However, this approach fails to look past the single firm entities at the entire industry and how the firms are embedded into it. How the firm is situated and related to other companies also has a profound impact on the company's performance and profitability like discussed earlier. The following section takes a deeper look at how organisations are embedded into an industry environment.

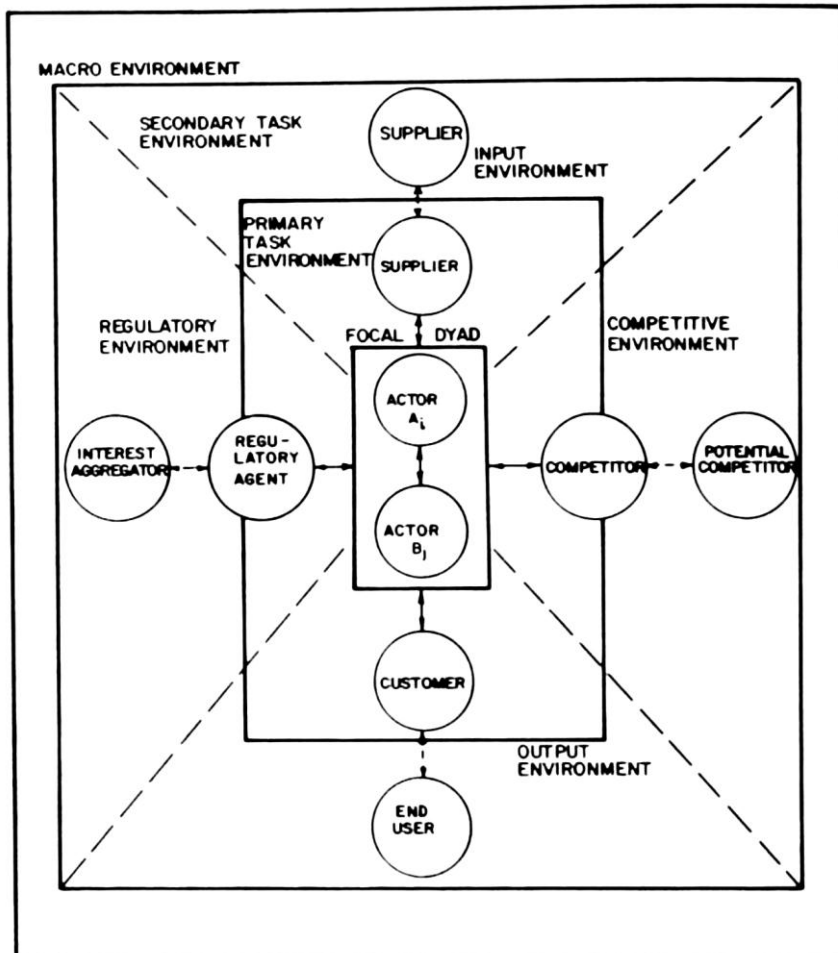
### 2.1.2 Channel Environment

When identifying a company's channel environment it is clearest to start from the centre of focus: the relationship of two companies that can be referred to as the focal dyad. Surrounding them are different types of environments such as the regulatory environment. A *channel dyad* can be identified simply by examining if 'direct, goal oriented social interaction occurs between actors in a channel' (Achrol et al. 1983; Iacobucci & Hopkins 1992). Noteworthy is that transactions within the dyad refer to more than the exchange of physical or monetary resources. What is relevant for the scope of this study is that the transactions include also for instance exchanges involving information. Fundamental in the discussion of channel dyads is in recognising that although the unit of analysis is a dyad, this does not exclude linkages and interaction among three or more actors in a channel system. In fact, in order to analyse these extra dyadic interactions and influences, it is necessary to identify the unit of analysis. Having



identified a channel dyad it is then possible to begin examining its environment. (Achrol et al. 1983)

Figure 2. Environment of Marketing Channel Dyads



Source: Achrol et al. 1983, 58

In their framework named as ‘Environment of Marketing Channel Dyads’ (see figure 1) Achrol et al. (1983) discuss what they call *environmental pluralism*. This refers to the different environments and forces that constitute direct and indirect dependencies for a channel dyad. The authors distinguish between three different types of environments: The primary and secondary task environments and the macro environment. The *primary task environment* is comprised of immediate suppliers and customers of the channel dyad. It is also possible that for instance regulatory agencies are part of this environment if they are drawn into direct exchange relationships with the dyad. However, typically regulatory agents are part of the *secondary task environment* together with interest aggregators and suppliers of the immediate



suppliers as well as customers of the immediate customers. Both direct and potential competitors are also categorized as the secondary task environment. Finally, the *macro environment* encompasses social, political, economic and technological forces that shape the two task environments. The macro environment cannot be traced back to specific actors like the task environments nor can it be acted upon proactively (Achrol et al. 1983).

Achrol et al. (1983) also identify four different sectors/environments (hereafter: sectors) in the channel dyad's primary and secondary task environments, to which the dyad relates. The input and output sectors capture vertical relationships of the channel dyad whereas the competitive and regulatory sectors refer to the horizontal relationships. To begin with, the *input sector* consists of the supplier side of the dyad, both direct and indirect actors. Consequently the *output sector* includes all direct and indirect customers, from distributors to end users. The *competitive sector* is comprised of actual and potential competitors and the *regulatory sector* of regulatory groups such as governmental agencies, trade associations and interest groups. When a channel dyad is dealing with the regulatory sector the critical dimensions are often related to dealing with uncertainty and handling the external dependencies (Achrol et al. 1983).

The perspective that companies are embedded in an institutional and regulatory environment is highlighted also in institutional theory. According to Granovetter (1985) organizations are set in networks of *social relationships*. Also used in literature is the term *organizational field*, which refers to the organizations that constitute a recognised area of institutional life (DiMaggio and Powell 1983). Organizational field is also defined by Scott (1995a, 43), who highlights that it “helps bound the environments within which institutional processes operate”. Taking it a step further, the institutional environment is said to “exert normative pressures for the structures and practices of social actors” (DiMaggio & Powell 1983, 148). Scott (1995a) also discusses *isomorphism*, which refers to the structural integration and homogeneity of organizations (see also Venard 2009). Organizations acquiesce to the existing environment with an aim to fit in their normative environment and become isomorphic (Srikantia 1997). The environment is mapped using institutional norms and rules, which are specifications to how things should be done and what are the legitimate ways to pursue firm goals (Scott 1995). The implication is that companies may even embrace institutional norms and processes that are taken for granted and may not be optimal for them (Morgan 1986, Dacin 1997).



A company's institutional environment is constituted of *social actors* that include trade associations, professional boards, church, unions, governments, politicians, families, environmental protection and consumer activist organizations (Scott 1987). These social actors shape *institutional norms* and evaluate the *organizational legitimacy* of organizations. The former – institutional norms – refers to behaviour in the institutional environment that is judged according to unwritten rules as acceptable social conduct. The latter – organizational legitimacy – shows the end result of the evaluation by the various members of the institutional environment. They contrast the organization's actions to the existent norms to determine, whether the company's practices and actions are legitimate and acceptable. (Suchman 1995)

It is noteworthy that the majority of these social actors do not have legal or regulatory power over companies or specifically the channel dyads in question. Nevertheless these institutional organizations are often able to influence the behaviour of companies due to the need the companies have for a larger acceptance. Organizational legitimacy is often an important base for support for the company and a factor affecting its financial success. Due to these reasons, broader acceptance of company policies is crucial for an organisation (Handelman and Arnold 1999; Burt and Carralero-Encinas 2000). Yet some parties of the institutional environment such as governments and trade associations are able to exert regulatory compliance from channel dyads that are acting under their scope. This research focuses more on these types of social actors, for instance competition authorities.

It can be argued that organizational legitimacy is ultimately the reason for *isomorphism*. According to claims of the institutional theory, integrated and strong institutional environments encourage isomorphism between practices and structures of organizations (DiMaggio and Powell, 1983). Hence, when companies go towards identical practices it is in fact a result of companies thriving for industry or consumer acceptance in other words organizational legitimacy. Processes of isomorphism are caused by three different types of pressures: Legislative, normative and uncertainty-based (applied from DiMaggio and Powell, 1983). Legislative isomorphic pressures result from actors such as the government imposing legislations or control mechanisms on companies. Normative pressure is created mainly by professional communities and networks which are often rooted in universities or legitimated by university credentials. The third type of an isomorphic pressure, uncertainty, is triggered by a pinch of assumption and imitation. Organizations may take for granted the structures and



practices prevalent in an industry and interpret these as best practices leading to mimetic isomorphism.

Coming back to the central dyad and its external channel members, the relationship between these two elements can be analysed in four different dimensions (Achrol et al. 1983). First, the *economic structure* of the relationship can be described. This refers to the occurrence of market transactions or hierarchical transactions between the channel members. Second, the decision-making mechanisms are considered in more detail to seek an answer for the question of what *economic processes* are used to establish the terms of trade. Third is the *political structure*, which puts focus on the power relations –whether power is minimal, balanced or imbalanced, or centralized. The fourth aspect in describing the relationships of commercial channel members are their interactions: what types of sentiments and behaviours are typical? These *political processes* can often be identified as cooperative or conflictive. To sum it up, the four dimensions for analysing relationships between a dyad and its direct exchange parties are economic and political structure as well as economic and political processes.

### 2.1.3 Market Concentration

There are numerous factors that can potentially limit information exchange, industry and market structure being one of them. When an industry is *highly concentrated* it faces a challenging set of obstacles (Brock & Obst 2009). However, this analysis needs to be taken further from the industry structure of the broader environment to identify how the circumstances affect information exchange.

In highly concentrated markets, a few companies have a significant market share and the interaction between them is very crucial (Overgaard & Møllgaard 2005). First, the power relations between the companies are rarely balanced and at some level of the value chain there is a high concentration of power. This can have an adverse effect on information exchange since those controlling the information may not see benefits in sharing it and they are protected by a strong position. In many cases, high market concentration also draws attention from antitrust regulators. Competition authorities analyse the market structure and firm interaction to identify possible disrupts to effective competition. Antitrust regulators may need to limit the flow of information to guarantee a functioning market economy. Their resolutions have an imminent effect on companies and the communication between them. In some situations



regulatory decisions can transform the information exchange of entire sectors like discussed in the empirical section of this paper. In the coming sections these possibilities are opened up in more detail.

When looking at industry structures it is those situations of imperfect competition, such as highly concentrated markets which by definition have the most challenges with fair competition (Brock & Obst 2009). Highly concentrated markets can take on several forms: The ultimate case is monopoly, where there is only one seller of a good (Blythe 2006; Rowley 2009). In oligopoly situations there are a few sellers. A specific variation of an oligopoly is duopoly, which exists when two firms hold a major share of the market (Overgaard & Møllgaard 2005). These terms should not be confused with monopsony and oligopsony, which refer to the amount of *buyers* present on the market. This paper will focus on oligopolistic cases of highly concentrated markets, which enables the study of information flow between the different firms since there are at least two parties (in comparison to a monopoly situation with only one firm). It also builds a solid basis for the empirical analysis conducted later in this paper.

The typical behaviour of rivalry oligopolists has been to strive towards a monopoly-like stance, which is characterized by high prices and limited quantities. However, since there are several companies involved it requires a high level of coordination between them to attain such a situation. The key is having liberal information flow between the firms: Both parties need rather detailed and firm-specific information of past actions and future intentions. In a natural state of competition, firms have strong motives to undercut each other's prices to take over business from them. With increased information flow the firms are able to analyse one another's behaviour and act faster according to it. The need to make blind-eyed price-cuts is not so pressuring since the companies are able to monitor each other's comportment (see also Uusitalo & Rökman 2007). In addition, any sudden or unexpected actions are quickly noticed by the rivalries that follow suit. To sum up, improved information flow between oligopolists can be seen as more precise observations, shortened detection lags and in in-depth communication of future intentions (Overgaard & Møllgaard 2005). Such a fluid flow of information builds the foundation and incentive for *coordinated behaviour* in a highly concentrated market (see also Kovacic et al. 2009). This coordination can be either explicit or more subtle and referred to as tacit, in which case the behaviour is not so openly planned and discussed between the parties (Anderson et al. 2010, Kahai & Kaserman 2007).



The liberal flow of information and well-informed decision making is often regarded as the necessary transparency within the market (Georgantzís & Sabater-Grande 2002, Bloomfield & O'Hara 1999). It could be argued that firms need to be able to base their decisions and actions on up-to-date information regarding overall sales, price levels and so on. Nevertheless, market transparency cannot always be seen in a positive light. In highly concentrated markets a high level of transparency may in fact destroy competition (Møllgaard & Overgaard 2000). Uncertainty and secrecy can be important elements in markets with high collusion tendency. When information is exchanged at high frequency the surprise element of a firm's action is removed. Their competitors can respond swiftly and all temporary competitive advantages are greatly reduced (Møllgaard & Overgaard 2000). Similarly, the deviation from the normative behaviour within the collusion can be localized to the specific firm and 'penalising' actions act as an effective deterrent to future 'misbehaviour'.

Although knowing how their rivals have acted in the past, firms still thrive to know how business will proceed in the future. In order to do this some, resort to communication with their rivals to determine future courses of action. This largely eliminates *strategic uncertainty* of the future and often also intensifies communication of past actions (Van Huyck et al. 1990). Knowing one another's future intentions frees firms from having to speculate it and take risks to stay in the play. Agreeing on such a mode of coordinated practice is critically facilitated by the exchange of information between firms. Needless to say, it often violates the antitrust objectives - especially the efficient allocation of scarce resources. Since communication is central in these types of situations, authorities naturally analyse interfirm interactions closely. With contemporary modes of communication it is becoming increasingly hard for antitrust authorities to reveal conscious cases of regulatory violations. More often than not, they are being tipped by an insider or notified by someone involved (Overgaard & Møllgaard 2005).

From a basic stand point, the positive effects of improving consumer information generally prevail. Nevertheless, an isolated situation is impossible and the information always spills over to competitors. Ideally antitrust practitioners should attempt to create a system where information reaches customers and potential entrants, yet is under veil for vertically placed companies. This would promote competitive behavior and aggressive pricing (Guiltingan et al. 1996, OECD 2001). Realistically such an information exchange pallet is largely a caricature and virtually impossible to implement. Therefore regulators should keep in mind that intervention does not leave the other side unaffected (Overgaard & Møllgaard 2005). In



concentrated markets it is often the consumer side that needs to be flexible in order to limit the effects of concentration and not so much vice versa.

#### 2.1.4 External Regulation

Competition regulation has been developed especially far in the US and the EU starting with the Sherman antitrust law in 1890 in the US (Gupta 2002). In the European Union the *Act on Competition Restrictions* lays the premises for the regulation. Each EU country has a local competition agency that is the primary responsible for each country. Antitrust regulation is often very closely linked to collusive behaviour. In the following antitrust regulation will be analysed from both a theoretical and a practical standpoint.

Communication between firms and *information dissemination* play an important role in antitrust discussion (Overgaard & Møllgaard 2005; see also Zhang et al. 2006). Both terms refer to the distribution and diffusion of information, which is often firm-specific, sensitive and strategically relevant to the companies. Antitrust regulators have historically focused on the systematic evaluation of sales patterns and price evolution. This focuses on the analysis of how firms have acted. However, it is difficult to define whether oligopolists have acted in a monopolistic fashion and adjusted their actions based on those of their competitors. In most situations, sufficient data is not available to make reliable conclusions. More recently it has been suggested that attention should be shifted to the *communication* between firms (Kühn 2001). Regulators should evaluate whether there are practices that facilitate coordination and that enlarge the room for collusion. The focus is hence taken away from the historical patterns and events, and moved to the channels and methods that can or could be used for this type of interaction.

In addition to the flow of information *between firms*, a lot of theoretical discussion also revolves around information flow on the *consumer side*. There are several distinctions that can be made on information flows and who benefit from them. Companies ease customer access to price information and product characteristics and give way to comparison shopping. Extreme examples are online shop-bots that allow consumers to compare various products or service providers. As a result, pricing is also visible to competitors. This leaves little chance for companies to succeed without fierce competition or even collusive action. Yet this “consumer view” is in potential conflict with the “antitrust view” (Overgaard & Møllgaard 2005).



Enabling consumers to compare companies and their products has an increasing effect on the amount of competition. However, the consumer view makes the assumption that the information given out does not benefit the competing firms. This simple notion may be far-fetched, since often companies seek exactly this kind of information. What may draw a line between the two views is *how* the information is being transmitted. Antitrust practitioners scrutinise the *exchange* of information between firms, whereas consumer protectionists support the *flow* of information to the consumers. From a regulatory perspective the issue is to find a balance between these views and strike an optimal level of market transparency.

In a market of transparent information exchange new entrants and small players are better equipped to identify the weak spots of the strongest players and withstand the competition (Overgaard & Møllgaard 2005). This is characterized as a potential and important *efficiency gain* of information exchange (see also Georgantzís and Sabater-Grande 2002). As well as achieving potential benefits for consumers through increased information flow, it can also benefit potential entrants. The entry barriers (Scheffman & Spiller 1992) may be lower since potential entrants can seek profit opportunities more effectively. It is noteworthy that this type of market benefit can only be achieved if communication is open and not limited between distinguished companies. Information may be available to all but practical issues such as the cost of the information may deter companies from accessing it and as a result the scope to which the information is disseminated becomes limited. Efficiency gains can also be achieved within companies in a way that overall competition benefits or consumer interests are met. Therefore analysing potential efficiency gains is importantly integrated in the work of antitrust practitioners.

Kühn (2001) classifies that communication can be either about future plans or past and present actions. Authorities should analyse whether this communication has the *potential* to facilitate coordination or collusion. As a second step, authorities should analyse whether the communication has positive *efficiency-enhancing effects*, which are only achievable thanks to the communication (Kühn 2001; Overgaard & Møllgaard 2005). Furthermore, a variant that is analyzed is whether the information flow is *private* or *public*. Private communication occurs in a dual relationship between the two companies whereas public information is available to parties outside the dyad (Achrol et al. 1983). Private communication benefits only the two firms involved and it is understandably much harder to control. When the information flow occurs more in the open it benefits a larger audience, often including new entrants and even



consumers. Communication carried out between horizontal competitors – often in private – is examined very closely since it is a trigger for antitrust and cartel behavior.

In addition to the previous distinctions, it is also useful to identify whether the information is *aggregated* or *individualized* (Mumtaz et al. 2009). Antitrust practitioners note this as a very important point in their analysis. Individualized information is firm-specific or transaction-specific and increases the likelihood of collusion more than aggregated information would (Overgaard & Møllgaard 2005, Coccoresse 2010). Individualized information – also known as *disaggregated* information – encompasses recent and accurate knowledge on the conduct of specific firms and hence allows swift and precise reactions from rivals. This type of information is very different from aggregated information, which typically is an industry-level average or another form of statistics that disguises the individual entities. What usually occurs is however not the case each time: In situations where two or three companies hold a significant share of the market they are able to pull out individualized information regardless of the aggregation. It is especially these cases of concentrated markets that antitrust agencies need to scrutinize very carefully.

Laying out suggestions and rules for the application of antitrust to collusion cases is a tough challenge that has even been dubbed as impossible by some (Matutes in Kühn 2001). The question is whether it is possible to define specific flows of information that have the same effects case after case and these flows should hence be treated in the same way. Kühn (2001) makes an attempt to do this whilst highlighting the importance of having pre-set guidelines for antitrust regulators. He clarifies that some forms of communication need to be prohibited within the European Union based on the Art. 81(1)<sup>3</sup> of the Treaty of Rome, which is in fact the same as Art. 4<sup>4</sup> of the Competition Act. These read as follows:

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<sup>3</sup> Art 81(1) of the Treaty of Rome, Source: European Union, [http://eur-lex.europa.eu/en/treaties/dat/12002E/htm/C\\_2002325EN.003301.html](http://eur-lex.europa.eu/en/treaties/dat/12002E/htm/C_2002325EN.003301.html); Accessibility verified as of 30.3.2010.

<sup>4</sup> Art 4 of the Competition Act. Source: FCA home page. <http://www.kilpailuvirasto.fi/cgi-bin/english.cgi?luku=antitrust%2Fcartels&sivu=cartels>. Accessibility verified as of 30.3.2010.



The following shall be prohibited as incompatible with the common market: all agreements between undertakings, decisions by associations of undertakings and concerted practices which may affect trade between Member States and which have as their object or effect the prevention, restriction or distortion of competition within the common market, and in particular those which:

- a) directly or indirectly fix purchase or selling prices or any other trading conditions;
- b) limit or control production, markets, technical development, or investment;
- c) share markets or sources of supply
- d) apply dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage;
- e) make the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.

Kühn (2001, 196) defines that such forms of communication generate significant danger of collusion without bringing any efficiency benefits that could not be achieved otherwise and hence they should be prohibited. Here is a summary of his recommendations:

1. All *private* communication of *future* prices and production plans should be prohibited based on the Art. 81(1). It is hard to distinguish efficiency gains in these cases – rather, oligopolistic behavior may lift its head.
2. *Public* communication of *future* intentions often includes some sort of commitment relative to customers and hence presents efficiency gains. Therefore such communication, including future price announcements, should not be considered as a violation of the European Union legislation as such.
3. *Disaggregated* information exchange about past and present *prices and quantities* can in general be assumed as contra-legislative. It is very hard to justify its efficiency gain apart from rare exceptions, for instance the sharing of customer information in the banking.
4. *Disaggregated* information on past and present *cost and demand data* is somewhat of a grey zone. Kühn suggests treating these situations with the presumption that the exchange is nonthreatening. This means that company-specific individualized data of



e.g. production costs could be forwarded to competitors if not proven competition-hindering by the authority.

5. *All aggregated data* should be allowed to flow within an industry. Although this may provide a challenge from a collusion perspective, the potential efficiency gains are the greatest with non-individualized data. Sharing of aggregated data is by default *public* and hence the prohibitions on private communication do not apply to it. Kühn makes a strong statement that this type of information flow should not be restricted.

In situations where rule-of-reason treatment is needed it is either the antitrust agents or the firms that have the burden to demonstrate their stand in order to change the general rule. In the event of *individualized price and quantity information* it is the firms that need to make an ‘efficiency defence’ and prove their case so as to avoid a ban. In contrary, *individualized cost and demand data* are presumed to be benign and in this case the antitrust authority should prove otherwise before placing a ban. Lastly, Kühn (2001) suggests that in case of *aggregated data* it should also be the authority that proves the adverse effects of the communication before applying restrictions on it. An aspect left out of the spotlight in Kühn’s study is *highly concentrated markets*. How do the above mentioned guidelines apply in those cases? Later theorists have taken a stricter approach towards aggregated data: Aforementioned Overgaard & Møllgaard (2005, 17) conclude that sharing of aggregated information seems “largely innocent”, however antitrust regulators should “carefully check the effective extent of the aggregation”. This is central in highly concentrated markets: when exchanging aggregated information, the firms may be pulling out information which they are able to disaggregate and hence the initially aggregated information should be under prohibition (see also Brock and Obst 2007).

Information exchange that infringes regulation often takes place in situations of collusion between companies. However, this is not always the case. An often mentioned case in the area of antitrust is the UK Agricultural Tractor Registration Exchange in 1992-1994, which was the first case the European Commission brought against information sharing without explicit allegations of collusion. The case has been analyzed in-depth by Georgantzís and Sabater-Grande (2002). An information exchange agreement had been in place since 1975 and it was based on data from the UK Department of transport concerning retail sales and market shares. The UK industry of manufacturers and importer of agricultural tractors was highly concentrated where the top four companies were controlling 77 percent of the market and the



top eight companies totalled for an 87 percent market share. The disseminated information included recent individualized sales data, which raised concern in the antitrust authorities. Thus, in addition to historical aggregate data, the companies were able to see firm-level sales information of the past months. Being able to detect one another's price deviations has commonly been considered a key factor to sustaining anti-competitive agreements. Assumptions of price deviations could be made based on suddenly increased sales amounts and gained market share.

The firms involved in the UK tractor's information exchange made an 'efficiency defence' claiming that the information was necessary to process warranty claims and that it brought efficiency gain to the entire industry. Nevertheless, the European Commission dismissed this by concluding that necessary information could be easily accessed through another route. The EC also noted that secrecy was an important element lacking from the industry and it generally gives lead time for firms to benefit from competitive actions such as promotional campaigns. Communication of individualized sales data had prevented 'hidden competition' and similarly increased entry barriers for newcomers (Overgaard & Møllgaard 2005). The commission concluded that own company data and aggregate industry data were sufficient to act on the market. Pessimistic sales figures during the years after the prohibition show that there probably was some sort of tacit collusive behaviour that was then forced to be abandoned (Georgantzís and Sabater-Grande 2002). The authors also conclude that non-price information can be crucial for collusive behaviour like in this case, since not all collusion is caused by price information.

Perhaps most importantly, several principles were laid down for further information exchange cases in the European agricultural machine manufacturers – and beyond (Georgantzís and Sabater-Grande 2002). First, a time frame of twelve months was established for withholding *individualized* sales data before it could be exchanged. As a result the disaggregated data should have turned into historical and not permit immediate actions to influence the 'present day sales'. Second, *aggregated* data could only be exchanged if it was supplied by at least three firms belonging to different industry or financial groups. This acts as a good guideline and the key issue is to distinguish that the companies should not be able to identify one another's figures from the mass. To sum up, the more public and collective information sharing gets the more lenient antitrust authorities are. Likewise, the older the data is, the less it poses a threat to competition (Overgaard & Møllgaard 2005).



## 2.2 INFORMATION EXCHANGE RELATIONSHIPS

A *relationship* is a connection between two entities with explicit roles, for which there are expected norms of behaviour (Ross & Robertson 2007). The entities can be organizations, people, societies or even nation-states. Two firms may be connected for instance by a customer-supplier or competitor-competitor relationship. Relationships have been elaborately analysed by the International Marketing and Purchasing (IMP) Group (Håkansson 1982, Håkansson & Snehota 1995, Möller & Halinen 1999, Ford & Håkansson 2006). However, this study will follow a slightly different path with stronger focus on the exchange of information. Next, the supplier-retailer relationships are analysed in more detail. Focus is put on the different types of information, how information is being shared between the firms, and the intra-company and relationship-specific factors that affect it.

### 2.2.1 Internal Company Strategy

It is worth pointing out the significance of a firm's *internal strategy* (Snow 1997), which is an underlying factor for many other elements. Any given strategy generates specific *goals* and *objectives*. Achrol and Etzel (2003) argue that the combination of task environment characteristics and reseller goals generates higher reseller performance. The authors also note that "channel member goals have played a secondary role in marketing channel theory" (2003, 148). They continue to identifying three different goal priorities for retailers:

- (a) Productivity goals
- (b) Market adaptation goals
- (c) Channel integration goals

The authors link the goal setting to the design of internal resource flows as well as to the offering of services and resources to firms in the network. The claim is that traditional mechanisms of control, such as market power, no longer foster good relations and emphasis should be turned to incentive-type offerings, such as the sharing of market information (Achrol & Etzel 2003). A conclusion that can be drawn from their research is that information sharing is a result of specific reseller goals and ultimately an important route to better reseller performance. Any strategically thinking company is prone to follow or prioritize one of the goals identified by Achrol and Etzel (2003). This has implications on the private dyad relationship between the retailer and their supplier, including the information exchange that is



carried out (Gadde et al. 2003). Next, the three different goal priorities are discussed in more detail.

To start with, a firm that is oriented towards *productivity goals* is likely to put effort on controlling operating costs and improving revenue flows of the business (Scott 1987). They aim to improve productivity and efficiency of their processes. From the supplier field these kinds of companies await efficiencies and leniency in credit terms and margins. The second potential goal prioritization for retailers is *market adaptation goals*. These types of companies focus on offering “superior selection, quality, location or customer service” (Achrol & Etzel 2003). Key issues are flexibility to market needs and openness to the environment (Pfeffer and Salancik 1978). These types of companies often have strong customer focus and this is something they also expect from their suppliers. Lastly, the third direction companies can aim to are *integration goals* (Stern et al. 1996; see also Su et al. 2008). These highlight open communication and information sharing to strengthen the structural and relational ties with supplier firms. The aim is to integrate channel operations and facilitate seamless cooperation with the upstream value chain.

As a whole, the impact of company strategy is critical to the actions they pursue. These actions are then visible for instance in the processes and nature of information exchange that they take on. In the empirical part of the study the retailers are analysed also based on their strategic direction and goal prioritization.

### 2.2.2 Dimensions of Commitment

The topic of market information is elaborately discussed up by Frazier (1999). As he puts it, channel members typically process and retain information on the marketplace. A critical dimension of the marketplace is the relationships with other firms, service providers and trade associations. The information they retain is also known as *intelligence* (see also Lackman et al. 2000). Channel members with better market intelligence are likely to be more market oriented and enjoy several advantages. Namely, the sharing of intelligence can potentially alleviate decision-making uncertainty and give an advantage in forming and implementing marketing strategies. In contemporary business, the significance of electronic data sharing is also obvious. Electronic sharing is transforming many channel relationships and it is also elementary to the success of efficient consumer response (ECR) systems. The importance of data sharing



increases when a channel system faces high environmental uncertainty and competition. In these types of situations the freshness of intelligence is also vital. The significance of having market information is highlighted also in the most recent scholarly discussions. Frazier et al. (2009) discuss distributor-supplier sharing of what they call *strategic information*.

The relationship context of information exchange has a solid scholarly background in the Exchange Theory. Blau (1964) has been an important influencer in this discussion and he proposes that parties evaluate past experiences and future expectations, from the basis of which they then consider the potential cost, benefits and risks of alternative courses of action. He suggests that the option that is selected, should be the one with the highest expected net benefits on the long term. Over four decades later Frazier et al. (2009) underline similar reasoning. According to them, distributors make the choice of sharing strategic information based on factors affecting perceived benefits, costs, and risks. Suppliers can increase the amount of strategic information given to them by distributors by enhancing the benefits and decreasing the costs and risks perceived by the distributor.

Market information has also been spoken of as strategic information. This focus can be justified since the gathering and exchange of market information is primarily a strategic matter – rather than a tactical exercise (Frazier et al. 2009; see also Nakata & Sivakumar 1996). Two different types of strategic information can be distinguished within a distributor organisation: internal and external strategic information. *External Strategic Information (ESI)* refers to processed and retained data concerning the distributor's customers and competitors. In contrast, *Internal Strategic Information (ISI)* is processed and retained data on future plans of the distributor. Both types of information are of value to the distributor as well as the suppliers. Strategic information – by definition – has implications for the company's long-term decision making and therefore both ESI and ISI can enhance a firm's competitive advantage.

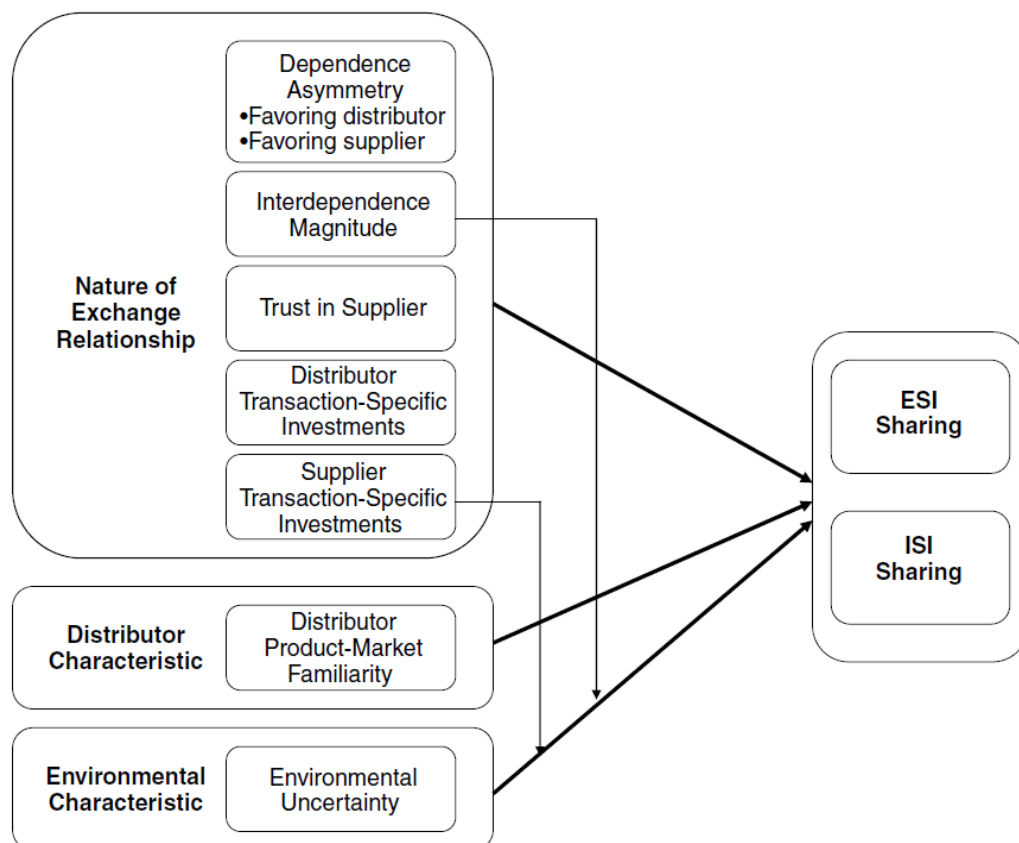
Various characteristics of the exchange relationship or environment may facilitate or enhance the sharing of ESI and ISI and in contrast other factors may decrease the sharing of them. The different aspects that can be analysed include interdependence and specialized investments within an exchange relationship as well as the uncertainty of the surrounding business environment. The factors affect ESI sharing differently than they affect ISI sharing due to the distinctions between these two types of strategic information. The nature of internal strategic information is more proprietary and sensitive. These issues may make the distributor more



reluctant to share ISI information than ESI information. Furthermore, it is only possessed by the top management and cannot be obtained by suppliers from other sources in the company. ESI in contrary is often available to the suppliers also from other sources than the distributor, such as industry studies or surveys. These compose the two critical dimensions that distinguish the pair of strategic information: sensitivity and accessibility (Frazier et al. 2009).

The factors that affect the sharing of strategic information can roughly be divided into three categories: First, those that are related to the exchange relationship, such as the magnitude of interdependence between the supplier and the distributor. Second, characteristics specific to the distributor or supplier, as an example distributor product-market familiarity. Lastly, characteristics of the environment, where environmental uncertainty can be highlighted. Environmental uncertainty is the level at which it is difficult to accurately predict the future. The figure below visualises all these factors.

*Figure 3. Distributor Sharing of Strategic Information with Suppliers*



Source: Frazier et al. 2009, 33



Next, the dimensions presented by Frazier et al. (2009) in figure 3 are analysed in more detail. To start with, a supplier and distributor are not always equally dependent on their relationship. When this type of *dependence asymmetry* favours the distributor, there is an exchange relationship in which the supplier's dependence is higher. Vice versa, the distributor is more dependent on the fruitful continuation and development of the relationship when dependence asymmetry is in the favour of the supplier. According to studies, distributors are more likely to share ESI and ISI information when there is dependence asymmetry favouring the distributor (Frazier et al. 2009). Nonetheless, there is no support for the claim that the tendency to share strategic information would be decreased if the dependence asymmetry is flipped around. However, information sharing in dependence asymmetry situations is effected by *environmental uncertainty* as well as the type of strategic information that is in question (see also Cannon et al. 2000).

In environmental uncertainty, distributors are less likely to share internal strategic information (ISI) (Frazier et al. 2009). This could be explained by risk minimisation due to higher unpredictability of the future of the exchange relationship. Additionally, it could also be a way for distributors to maintain their flexibility in supplier relationships by reducing resource commitments to individual suppliers. Davis (1993) identifies three different sources of environmental uncertainty: demand uncertainty, supply uncertainty and technological uncertainty. In alleviating these uncertainties he turns to the quality of relationships in the supply chain. This is supported by Fynes et al. (2004), who claim that in uncertain times firms can turn to their partners to draw necessary resources in order to sustain performance.

In situations where the distributor and supplier both perceive their exchange relationship essential to their goal achievement, the relationship is characterized by a *high interdependence magnitude* (Frazier et al. 2009, see also Sezen & Yilmaz 2007). One could imagine that information exchange would increase in this situation, yet empirical studies show no support for the claim. Nevertheless, this type of a relationship does have a positive effect: when sharing internal strategic information it counterbalances the risks perceived by distributors in an uncertain environment. In other words, if there is a high interdependence magnitude, distributors are likely to be keener in sharing ISI with suppliers in environmental uncertainty than when such interdependence does not exist.



It is noteworthy that negative effects of various factors are more visible on the sharing of ISI. Issues that impact the sharing of ESI are not so clear-cut; It would have been logical that environmental uncertainty would encourage ESI sharing since this could increase the supplier's means of interpreting the changing conditions and hence have a positive effect on the distributor's sales. However, this type of hypotheses is not supported by empirical results –not even in cases of strong interdependence between the two companies. The sharing of external strategic information is however indirectly affected by the amount of ESI possessed by the distributor. When distributors have a high *product-market familiarity* they can access in-depth customer and competitor information with less time and effort. In this type of a situation it is likely that distributors will share more ESI with their suppliers. *Distributor trust* in the supplier has been analysed to a great extent (Moorman et al. 1992, Sezen & Yilmaz 2007, Ghosh & Fedorowitz 2008, Wang et al. 2008). The impact of this trust on ESI has not been identified, yet it is not thought to be relevant (Frazier et al. 2009). In contrary, the effects of trust on sharing internal strategic information have a positive correlation. This means that distributors are significantly more prone to sharing ISI when they feel that the supplier is reliable and not likely to behave opportunistically.

How do financial investments within the relationship then affect information sharing? These investments refer to non-recoverable expenditures made by either the distributor or the supplier to support the sales of the supplier's products by the distributor organisation. Investments made by the distributor are referred to as *Distributor Transaction-Specific Investments (DTSI)* and accordingly investments made by the supplier are *Supplier Transaction-Specific Investments (STSI)* (see also Brown et al. 2009). In exchange relationships with DTSI or STSI distributors are keener to share their internal and external strategic information. In the case of DTSI the distributor makes a commitment to support the supplier and wants to make sure they reap maximum benefits by expanding the information flow. Likewise, STSI shows that the supplier is willing to support the distributor in selling its products and is unlikely to misuse strategic information as this would jeopardize their own STSI. As a logical consequence, distributors are typically more willing to share ESI and ISI when transaction-specific investments occur. Supplier transaction-specific investments have an additional benefit that is evident during environmental uncertainty. Like discussed earlier, distributors are generally more wary to share ISI when uncertainty is high due to concerns of opportunistic behaviour. STSIs signal the supplier's interest to maintain a good and reliable relationship, thus distributors are



significantly less concerned about sharing their internal strategic information as it may also improve coordination between the firms and enhance the potential benefits.

To complement the discussion before, Krogh et al. (2001) take the perspective of the supplier. Even in markets with high retailer power, it cannot be assumed that suppliers will always follow retailers' lead instead of fulfilling their own goals. The authors identify three different information needs that are driven by supplier objectives. The suppliers are generally interested in accumulating information that a) increases their efficiency, b) maximizes innovation or c) aids in risk management. When retailers analyse their information sharing strategy it would be useful for them to keep in mind the suppliers interests as specified above.

Kühn (2001) makes a twofold distinction between a) *future* planned actions and b) *past* or *present* actions. In both cases, firms communicate about their behaviour and conduct. Communication on future intention is non-verifiable and soft information, such as planned production, pricing or product launch information. Communication of past or present conduct is verifiable and hard information. This can be for instance information on customers, contract terms with suppliers and past or present prices. All in all, if *relational behaviours* are present in a channel setting, there are multiple positive consequences that at the end can improve a firm's performance and profitability (Sezen & Yilmaz 2007, Fink et al. 2007). These include improved coordination (Noordewier et al. 1990) and efficiency in logistics (Dahlstrom et al. 1996). Some retailers pursue these goals in their value chain management, which is illustrated in the empirical part of this study.

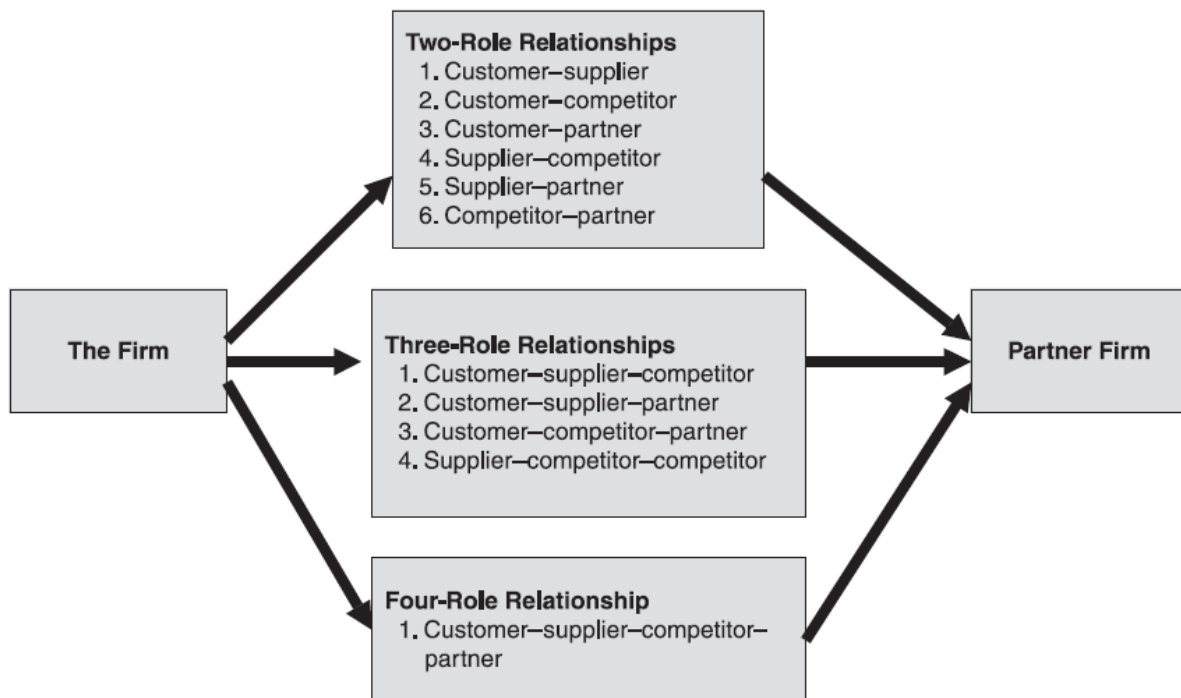
### 2.2.3 Compound Interaction

The relationship that occurs between two firms may actually be comprised of a multitude of relationships. Two firms may be connected for instance by a customer-supplier or competitor-competitor relationship. This is referred to as a *simple relationship* (Ross & Robertson 2007). However, it is not uncommon that two firms are joined together by several simple relationships. In these situations the relationship that a channel dyad member has with an exterior party is in fact a multiplicity of relationships (Bengtsson & Kock 1999). In this case, rather than focusing on the simple relationships that constitute it, Ross and Robertson (2007) argue that a company should look at the *compound relationship*. This is also valid when thinking of information exchange in the interaction: all the simple relationships are interlinked



and information sharing needs to be considered on the broad arena. The compound relationship contains all the simple dyadic relationships which exist between the pair of firms. Figure 4 illustrates the different patterns of compound relationships.

*Figure 4. Patterns of Compound Relationships*



Source: Ross & Robertson 2007, 111

Looking at the ‘big picture’ of the compound relationship enables shifting focus from the mere simple relationships between a set of two companies. As seen in the figure 4, simple relationships between two firms can be categorized into four types: customer to supplier, supplier to customer, competitor to competitor and partner to partner. This leads to 11 different types of compound relationships, out of which one contains all four simple relationships. Ross and Robertson (2007) argue that it is important to distinguish that a compound relationship does not refer to a cluster of simple relationships between more than two companies, but focuses on the multiplicity of facets the interaction between *two* companies can have.

Compound relationships are important due to very straightforward reasons. If a company focuses only on separate simple relationships it has with another firm, it runs the risk of missing the overall situation (Winer 2001). The business relationship may start leaning towards



a specific simple relationship, in turn neglecting or even harming another simple relationship. To give an example, two companies may be in a customer-supplier relationship, yet also competitors of one another. If the simple relationship of being competitors is emphasized, the other simple relationship - customer-supplier - may not reach its full potential and can be negatively affected. Hence it is crucial to keep track of the various simple relationships that constitute the compound relationship that ties two companies to one another (Ross & Robertson 2007).

Ross and Robertson (2007) highlight several important issues on how simple relationships may differ within a compound relationship. First, the behaviour and norms of individual simple relationships may be in conflict with those of other simple relationships. One could imagine this leading to challenging situations especially if the same practitioners get involved in different simple relationships. In addition, firms may have different roles in the different simple relationships. These roles often vary in terms of their power relations and potential for opportunistic behaviour. In one simple relationship a company may be in a position to lay down terms, whereas in another simple relationship between the same two companies, the power relation could be opposite. Additional challenges are catered by the non-sequential and volatile nature of a compound relationship. Since the relationships do not occur sequentially, partnership and competing may occur at the same time. Adding to this complexity is still the changing nature of the compound relationship, which can practically alter any of the earlier configurations such as the power relations. Ergo, managers must constantly monitor the compound relationship as a whole.

The possibility of having both competitive and cooperative simple relationships at the same time has been brought up in theoretical discussion and is referred to as *coopetition* (Bengtsson & Kock 1999). What has previously been seen as the two polar ends of a continuum are argued by Lado et al. (1997) to be two separate – yet interrelated – aspects of a relationship. Gnyawali & Madhavan (2001) also underline that competition and cooperation can coexist. According to them this is surprisingly often the case and as a result the performance of the partner firms is in fact enhanced.

Within a compound relationship it is often possible to define a simple relationship that is likely to be more important than the other ones and that affects the compound relationship more than the other simple relationships. This type of a simple relationship can be labelled as a *dominant*



*relationship* (Ross & Robertson 2007). The authors identify three factors that could be used to determine the dominant relationship. The first one puts weight on the history of the two companies and suggests that the first relationship they originally had, such as supplier to customer, builds *path dependence* (see also Arthur 1989). It may be difficult to introduce new ways of action to other simple relationships. The norms of the original relationship may be portrayed in the entire compound relationship. The last two factors look more at the profitability of the simple relationships.

Winer (2001) logically argues that firms should focus more on those relationships and customers that are most important to them. The term *economic importance* is used when the current profitability is underscored, whereas the future potential is valued through *strategic importance*. This distinction separates the relationships that already create profitability from those that are expected to yield income in the future. If a firm is able to identify a simple relationship that has more economic or strategic importance than the others, this relationship then has increased likelihood of being the dominant relationship within the dyad's compound relationship. Information exchange within the compound relationship is an interesting issue. When companies have several simple relationships between them, such as supplier-partner, the tendency for opportunistic behaviour is reduced (Ross & Robertson 2007).

In analysing compound relationships further it is evident that simple relationships affect one another like mentioned before. After having constantly monitored compound relationships, there are three clear reasons why managers should pay attention to the dyad relationship as a whole. Foremost, making mistakes or performing under expectations in one simple relationship may harm the other relationships (Ross & Robertson 2007). For instance, neglecting accounts-payable obligations as a customer may harm another simple relationship of being a supplier. Controversially, having one successful simple relationship may also have negative effects on the other simple relationships. This is especially true if the success is one-way and the situation is not equally win-win between the two members. The last issue to point out is that good performance in one simple relationship may lead to additional relationships within the same dyad. Through building stronger commitment between the dyad members in a simple relationship, it is logical that the compound relationship deepens. Dwyer et al. (1987) propose that buyer-seller relationships move through stages. Good buyers or sellers may be asked to be partners –or successful competitors may be of interest in joint product development efforts. To summarize, poor or cut-throat performance in a simple relationship can cause negative effects



on the other simple relationships. Then again, *mutual* positive experiences in a simple relationship are likely to be mirrored beyond that one simple relationship to the benefit of the entire compound relationship. An individual simple relationship that may not be significant can however aid the compound relationship. Due to these considerations Brandenburger and Nalebuff (1996) argue that paying attention to the larger relationship can be both protective and proactive.

A construct often spoken of is *social networks*. This terminology should not be misinterpreted as compound relationships, since social networks are conceptually broader and in fact encompass several compound relationships. As Gulati et al. (2000, 23) put it, a firm's social network "encompass[es] a firm's set of relationships, both horizontal and vertical, with other organizations –be they suppliers, customers, competitors or other entities –including relationships across industries and countries". Looking at dyadic relationships, it can be seen that they are actually the links that constitute the social network. Different sets of dyads within the channel can be composed into a multiplex network. Going back to compound relationships, they can now be seen as each link in the company's social network. The amount of connections between two nodes equals the amount of compound relationships in the network.

#### 2.2.4 Market Power and Orientation

At times the power relations of an industry may not be in equilibrium, possibly leading to unbalanced allocation and flow of information between buyers and sellers. This type of a scenario makes it difficult to achieve "fair, open, accessible, efficient and transparent markets" (Carstensen 2008, 271). Disproportionate *market power* can emerge either as *buyer power* or *seller power*. Recently large retailers have been noticed for their strong buyer power and have faced concern and debate regarding it (Carstensen 2008; see also Mitchell et al. 2003). Buyer power can be a problem both from the perspective of competition policy as well as antitrust law. In some cases a supplier exercises seller power over its buyer or merely in relation to other suppliers. An example of such situations are *Category Captain* arrangements (Desrochers et al. 2003; see also Gelderman et al. 2008).

The extent of *market power* consists of a firm's horizontal and vertical influence and the capabilities of its internal departments. These must all be compared to competing firms of the relevant market and to the average of that category (Steiner 2008). Steiner argues that



competition exists also in vertical buyer-seller relationships, which is something new from the perspective of competition regulation. Anyhow, for the purposes of this study we shall focus on horizontal competition and analyse the vertical relationships from the market power (buyer power) perspective. Market power emerges as various reward and coercive powers as well as legitimate authority, such as contracts (Achrol 1997). Perloff et al. (2007) pinpoint that the extent that firms exert market power has an impact on economic policies such as antitrust regulation.

By definition, buyer power arises from the ability of retail firms to obtain from suppliers more favourable terms than those available to other buyers or would otherwise be expected under normal competitive conditions (Clarke et al. 2002). According to the OECD (1998), buyer power is achieved when a retailer is able to threaten to impose a long-term opportunity cost (in other words harm or withheld benefit) with relations to its supplier. This interlinks buyer power with bargaining power (Chen 2008). Seeing the challenges that buyer power brings to information sharing it may be tempting to think that a relationship with a supplier power advantage changes the situation. To some extent this is the case: powerful suppliers can gain distributor compliance (Frazier et al, 2009). Controversially, however, they are rarely able to push buyers to share *strategic* information (Frazier et al., see above). According to some studies the exercising of market power is reduced as a relationship becomes more relational (Macneil 1981).

Retailer buyer power can be analysed by looking at the market shares of the retailers as well as by calculating the amount of total sales of a product line bought by the retailer (Carstensen 2008). Depending on the industries and geographical areas a purchase percentage of 20-30 percent has been sufficient to create considerable power over suppliers. This is lower than could be expected, yet studies show the influence can be achieved with even smaller percentages. In the U.K. grocery trade a 10 percent buying amount of the total sales of a product line already gave way to buyer power (Dobson, 2005). In highly concentrated sectors, such as the Finnish retail market where the two largest retailers control 73 percent of the market, it could therefore be expected that the power advantage is to the favour of these buyers. They are very likely to be buying well over a half of the products sold by the producers.

A crucial issue that affects information sharing is the company's internal willingness to distribute the information they have. In some situations, a company such as a buyer, may be at



a power advantage. This often gives them more flexibility to determine whether or not they want to share market information with their suppliers. From a basic standpoint it is understandable that in order for a firm to share market information that it possesses, it should see the added value of this action. Ultimately, both suppliers and retailers exist to serve the needs of end consumers. This focus can be referred to as market orientation. An important motivating or deterring factor to sharing market information is *market orientation* (Sigauw et al 1998).

*Market orientation* refers to the degree to which a firm focuses on the needs and preferences of end consumers as well as competitor initiatives (Sigauw et al 1998). It is possible to focus either on the market orientation of the firm or the market orientation of its dyad company. Market orientation is portrayed in an organisation-wide generation of market intelligence and dissemination of the intelligence across departments followed by organisation-wide responsiveness to it (Kohli & Jaworski 1990). How then does market orientation affect information sharing and vice versa – how does the existence or lack of market information affect market orientation? The linkage of channel communications and market orientation was first brought up by Sigauw et al. (1998; see also Frazier 1999). They found that market orientation of the supplier organization is positively related to the market orientation of the distributor, and distributor commitment to the dyadic exchange relationship. This is very revealing as it highlights how market orientation is in fact transferred downstream the value chain.

Market oriented firms underscore the importance of the end customers and are likely to be interested in attaining detailed market information on them. Higher commitment to a relationship is a key attribute to sharing strategic market information. Blesa and Bigné (2005) conclude that a manufacturer's market orientation has a positive effect on distributor satisfaction and dependence on the dyadic relationship. Furthermore, Sigauw et al. (1998, 106) highlight that a "distributor's market orientation has a direct effect on its trust and perception of cooperative norms". The implementation of these studies is that there is a clear relation between market orientation and commitment to the dyadic information exchange. Coming back to the findings of Frazier et al. (2009), distributor trust in the supplier promotes the sharing of internal strategic information. In conclusion, it could be argued that market orientation is likely to have a positive influence on information sharing from the distributor side to their suppliers.



The transfer of market orientation from distributor to supplier can also be viewed from another perspective. Suppliers are heavily reliant on distributors for market information, which is underlined by Coughlan et al. (2006). Distributors are more likely to be in direct contact with competitors and end customers, and hence possess information of interest to suppliers. Therefore, it could be argued that market orientation is not *passed on* from distributors to suppliers, but it is rather *enabled* by distributors through information sharing.

Distributors are often unwilling to share information with suppliers (Frazier et al. 2009). One reason for this is that information may be sensitive in nature and hence could put the distributor at risk of opportunistic behaviour. However the reason can also be more practical: distributors often face resource constraints, such as time and opportunity costs in addition to having a large number of suppliers. Constraints such as these hamper the sharing of information. Lastly, there are also underlying reasons which lessen the interest of distributors to share information. Like discussed earlier, it is important that the distributor sees benefits in their action. This may be difficult if the benefits of information exchange are not clearly evident or are indirect.

## 2.3 THEORETICAL FRAMEWORK

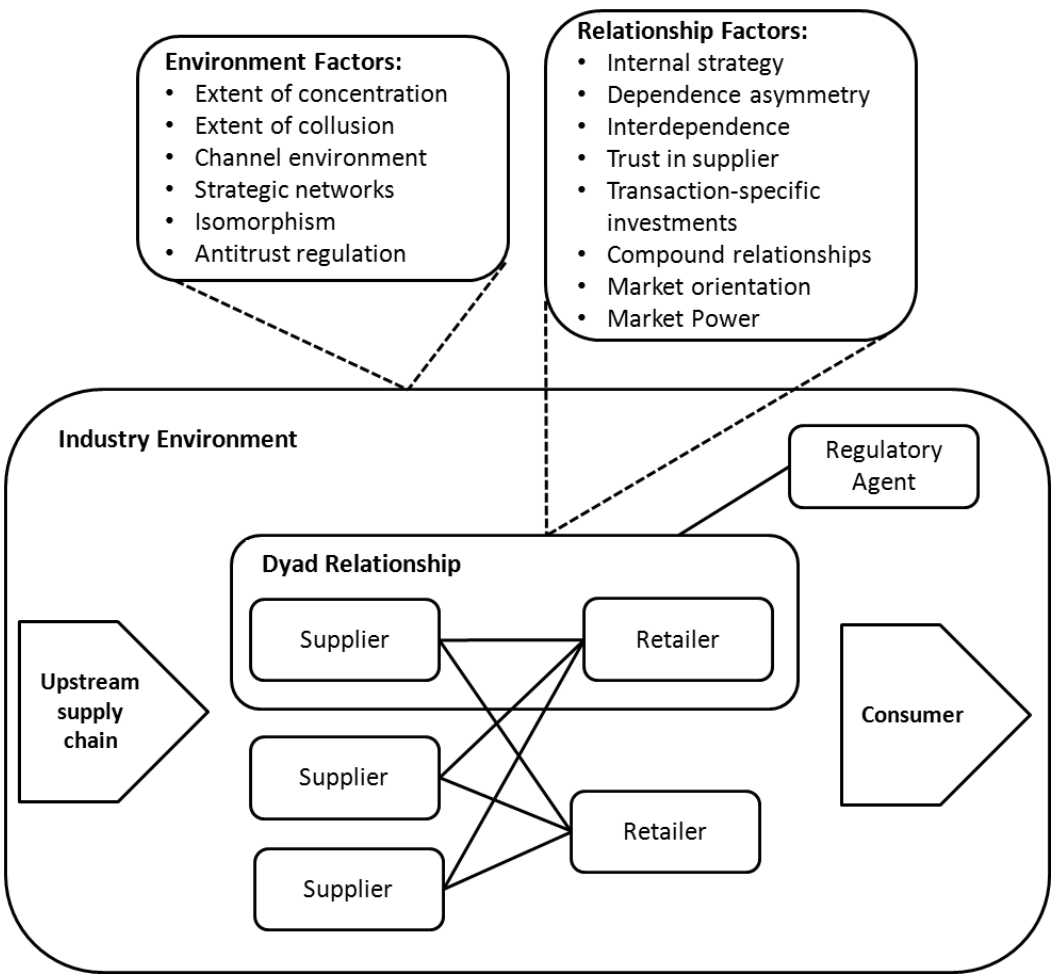
The conceptual model below brings together the theoretical discussion of this chapter. Figure 5 illustrates that a supplier and a retailer are embedded in a dyad relationship. They are also interacting with other organisations both horizontally and vertically. The entire network of companies is impacted by how they are positioned in the channel and what their ties are to one another. Moreover, regulatory agents play an important role in the surrounding environment. The value chain of a market has been illustrated in a very simplified manner by indicating the existence of an upstream and downstream supply chain. On the downstream side the next step is the consumer.

The framework also pinpoints the environment and relationship factors that affect information exchange between the dyad and beyond. A total of six factors mirror the influence of the companies' environment. Similarly, eight elements have been identified from the relationship and intra-company side. As a whole these are the factors that have arisen from the previous theoretical discussion in this chapter. In the empirical section of this research the framework



above is challenged within the Finnish retail context. A refined framework is thereafter constructed at the end of chapter 4.

Figure 5. Conceptual Model of the Factors Affecting Information Exchange





### 3 METHODOLOGY OF THE STUDY

Key factors influencing information exchange were identified in the theoretical framework in section 2.3. In the empirical part of the study the significance of each is analysed and concluding results are presented in a refined framework in section 4.5. To achieve this, the larger network of companies and institutions in the Finnish retail sector are analysed. Therefore, instead of focusing on a specific dyadic relationship between two industry actors we take into consideration a total of 11 organisations and evaluate the effect of the termination of ScanTrack –based information exchange on a larger arena. ScanTrack data is essentially bar code data from cash registers of retail traders (see also O’Brian 1990). It measures *sales to consumers* product-specifically. The scope of this study includes the analysis of how the ScanTrack system and data from it was used within the daily consumer goods industry, what led to the abandoning of the system – including the impact of extra-dyadic factors such as regulatory agents – and how the new situation affects the stakeholders in the industry. Furthermore, some light is shed to the future of information exchange in the sector and what prospects are envisaged by the organisations that are interviewed. This study is hermeneutic and aims to increase understanding of a matter by describing the situations and events.

The thesis is conducted as part of the KAULIN<sup>5</sup> research initiative. KAULIN is an abbreviation of the Finnish term ‘Kaupan Arvoketjun Liiketoimintamallien Innovointi’, which in English stands for ‘Innovation of the business models of the retail trade value chain’. It is a research initiative between four Universities and business schools in Finland, including the Helsinki School of Economics (Aalto University School of Economics since 2010). The focus of the research project is on the entire retail value chain from the manufacturers to the end consumers. Within these parameters the networks, relationships and business models - among other issues - are analyzed. Partner companies of the project include Kesko (retail trader) and Unilever (supplier), which took part in this study. Although these companies represent an important dyad in the research, it became evident in the early stages of the study that including other companies would give important added value, also to the two before mentioned companies. Therefore the scope was broadened to include other firms, unions and the Finnish Competition Authority. The research was conducted through qualitative theme interviews as discussed in the next section. The full list of interviewed companies and persons can be found

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<sup>5</sup> Kaulin is the Finnish word for a *rolling pin* i.e. the cylindrical food preparation utensil that is used to shape and flatten dough.



in Table 1 and a more detailed table including the dates when the discussions took place is in Appendix 1.

This study has altogether eleven stakeholders: one regulator, four trade associations/federations, three producers/suppliers and three representatives of the grocery retailers. The FCA is the major influencer from a regulatory perspective. Trade associations and federations that represent the interests of their member companies can also be referred to as trusteeships. These include PTY, which is interviewed on the retailer side and ETL & TY from the supplier side. ECR is a trusteeship representing the broader value chain. The industry standpoint is represented by Unilever, Mars and Haribo, whereas the trade view is portrayed through Kesko Food and S Group as well as the logistics and sourcing company of the latter, Inex Partners.

### 3.1 STAKEHOLDERS OF THE STUDY

On the retailer side the research is focused on the two major players, SOK and Kesko, which held a total market share of 73,4 percent in 2006, which is the year that FCA uses in their analysis of the ScanTrack case. The suppliers included in the study are Unilever, Mars and Haribo. These are all multinational branded packed consumer goods manufacturers, which represent companies, and products that are market leaders as well as some products that do not have a leading market share in Finland. All three suppliers have purchased ScanTrack data. These stakeholders enable building a good view of the reactions companies had and the impact they felt when information exchange through ScanTrack was abandoned. In addition, interviews are conducted at the Finnish Competition Authority to better understand their activities and the specifics of the ScanTrack study. These discussions ensure that the FCA's stance on the matter is correctly interpreted and their latest views can be included in the analysis.

The association representing the retailers (Finnish Grocery Trade Association) and those of the suppliers (Finnish Food and Drink Industries' Federation & Finnish Cosmetic, Toiletry and Detergent Association) help build a coherent view of the industry and broaden the scope of the study beyond the individual firms and onto a more general level. These associations are chosen based on how central they are in the industry, which is highlighted in numerous references these specific instances are given in the interview discussions with other companies. ECR



Finland (GS1) is also interviewed since they are a forum for communication between retailers and suppliers and view the entire supply chain as well as the end consumer. ECR Finland is also mentioned in several other interviews and is clearly relevant to the market. This research does not entail the perspective of the company providing the service, AC Nielsen.

Most of the interviews are carried out during the year 2009, with the exception of one earlier interview during spring 2008 with Seppo Salo (Unilever, 1<sup>st</sup> interview) and one later interview in January 2010 with Sari Karjomaa (TY). Likewise, the interviews are conducted primarily face-to-face with the exception of three phone conversations: Timo Rajanen (Haribo), Seppo Salo (Unilever, 2<sup>nd</sup> interview) and Sari Karjomaa (TY). The phone interview with Sari Karjomaa was followed by additional information via email. All interviews are conducted and transcribed in Finnish. It is very pleasing to notice that the interviewees had a positive attitude towards the study and the discussions that took place. In some aspects the topic is sensitive, however only a few questions are left unanswered. Now and then there is slight unwillingness to discuss for instance specific b-to-b relations, but the amount of interviews guarantees that the whole picture is portrayed well. Some information is like puzzle pieces from different sources that needs to be put together to build a cohesive and comprehensive portrayal of the reality.

The interviews were recorded almost without exception and the recordings were written out into transcripts to support analysis. Attention was paid to both *what* was being said and also to *how* it was expressed (Holstein & Gubrium 2002). Notes were made of the general atmosphere, flow of the interview and non-verbal communication (such as hesitation or a surprised reaction). Many specialists (see for instance Bryman 2004) underline the importance of noting and analysing all non-verbal communication and observations made during the interview. As an important note, none of the interviewees seemed alarmed by the recorder like may sometimes be the case and likewise no-one refused recording. Therefore it is not probable that the interviews lost any richness due to being taped.

A total of 15 industry representatives from 11 organisations are interviewed for this study. Next, all these stakeholder firms are presented in more detail and their linkage to ScanTrack is introduced.



### The Finnish Competition Authority (FCA) – Regulator

Founded in 1988, the Finnish Competition Authority (FCA) operates under the Finnish ‘Ministry of Employment and the Economy’. According to FCA’s website its objective is to “protect sound and effective economic competition and to increase economic efficiency in both private and public-sector activity”<sup>6</sup>. By doing this the organisation aims to guarantee free and well-functioning competition as well as equal competition conditions for companies.

The FCA has a central if not even a defining role in the abolishment of the ScanTrack system. After the information exchange in the daily consumer goods trade was brought to their notice, the FCA opened investigation in a case that was led by Director Kirsi Laine. The examination sought answers to whether the ScanTrack information that was exchanged between the retail traders was competition-hindering. FCA published their final results in Diary 154/61/2007 in June 2008 and the case was closed without any penalties being issued.

### ECR Finland ry / GS1 Finland Oy – Association

Efficient Consumer Response Finland is a cooperative association between grocery traders and industry suppliers. The association’s goal is to encourage cooperation and optimize operations throughout the entire value chain from raw material producers and suppliers, to retailers and the end consumer. ECR has established numerous process models related to for instance product launches and product identification. Ultimately the goal is to maximize consumer benefit by meeting their needs faster, better and with lower expenses. ECR’s work in Finland is developed and coordinated together with GS1 Finland Oy.

ECR Finland provides a unique arena for the supplier and retailer sides of the consumer goods industry to meet. At the time of the ScanTrack transformation as well as in the months following the events, the various stakeholders met to discuss their interests and to seek forms of information exchange that would be in the frames of competition regulations and satisfy both the retailers and the suppliers.

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<sup>6</sup> The Finnish Competition Authorities, <http://www.kilpailuvirasto.fi/cgi-bin/english.cgi?luku=about-us&sivu=about-us>, accessibility verified 20.2.2010



### Finnish Grocery Trade Association (PTY<sup>7</sup>) – Retailer trade association

Members of the PTY are associations and enterprises working in the grocery trade sector. In representing their interests it develops the shared operating conditions shared by its member companies as well as those of the grocery trade in general. These goals are undertaken through business policy initiatives, such as those to lower indirect taxation and dismantle regulations seen unnecessary by the traders. PTY's members' share of the Finnish retail market for groceries is as high as 95%.

Interaction between direct competitors on the field is restricted to a high extent; however the grocery traders are able to discuss issues regarding information exchange on a general level. This has been the situation also after the ScanTrack based information gathering and exchange was terminated. The grocery retailers have weighed their options and heard out each other's interests in the types of cooperation they are interested to have with other industry actors such as suppliers. Moreover, they have taken a common stance to the forwarding of cash register data. PTY represents the grocery traders also within ECR as they meet the supplier side at a round table.

### Finnish Food and Drink Industries' Federation (ETL<sup>8</sup>) – Supplier trade association

The ETL has around 300 member companies, which represent 90% of grocery production in Finland. The federation's aim is to enhance the operating possibilities and conditions of its member companies through six separate strategic goals, which they strive towards: 1) a flexible & renewable labor market; 2) enhanced appreciation of the food and drink industries; 3) preserving and thriving of competitive and high quality domestic raw ingredient production; 4) a profitably operating consumer driven value chain; 5) a regulatory environment that enables and enhances operations; 6) production of Finnish groceries in a responsible and environmentally sensitive manner.

Abolishment of the ScanTrack based information exchange was largely done by retailers in interaction with the competition authorities. Nonetheless, there was also an impact for producers, out of which many had heavily relied on the data. This was visible also amongst

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<sup>7</sup> For the purposes of this paper, the Finnish abbreviation PTY for Päivittäistavarakauppa ry shall be used. The association's official logo also features PTY. Please note that there is also an English abbreviation FGTA.

<sup>8</sup> ETL is the abbreviation for the Finnish name of the federation: Elintarviketeollisuusliitto. This is also used in their English references and so it has been chosen to be used in scope of this study.



ETL's members. The federation is fairly active in generating statistics of the market and the removal of POS data has brought various challenges for them and their member companies.

#### Finnish Cosmetic, Toiletry and Detergent Association (TY<sup>9</sup>) – Supplier trade association

The third trusteeship involved in this study, TY, represents the interests of companies manufacturing and/or distributing perfumery, cosmetic and toiletry products, detergents, cleaning products and similar chemical products. Its 55 member firms represent approximately 90% of sales on the corresponding market in Finland. The trade association aims to build a favorable operational environment for its member companies through several courses of action. First, TY follows legislative issues and contributes to their preparation; second, they follow the developments of the industry both on national level and European scale; third, they gather sales statistics.

The statistics that TY provides have not altered radically since the ending of ScanTrack; however their importance is more significant. TY's statistics are based on the net sales to retailers, which is data collected from TY's member firms. Their statistics were hence not interlinked with ScanTrack information that is based on consumer sales data.

#### Haribo Lakrids Oy – Supplier

Originating from Germany in the 1920's, Haribo is to this date a family-run confectionary company. Haribo is operating internationally with a strong focus on the European region. Since 1992 it has had a subsidiary in Finland with 13 employees. The three main product sectors are Fruit gums, Liquorice and foam based sweets and they are marketed under the two core brands Haribo and Maoam.

Being the fourth largest confectionary producer in Finland, Haribo Lakrids (later referred to as Haribo) faces several challenges associated to being the runner up. Despite their relatively small size on the Finnish market, they purchased ScanTrack information. Now left without it they are finding new ways to operate both internally and with regards to their customers –the retail trade and wholesale companies.

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<sup>9</sup> TY stands for Teknokemian yhdistys ry and the abbreviation is used also in English context. Thus TY will be used as the abbreviation for the association within this paper.



### Mars Finland Oy – Supplier

Mars is one of the world's largest family-owned companies founded in the early 20th century in the USA. It is operational in six business segments including Chocolate, Petcare, Wrigley Gum and Confections, Food, Drinks and Symbioscience, generating annual revenues of \$30 billion. It is in leading position globally for confectionary and pet care. Mars Finland operates in Finland and the Baltics employing over 80 people and offering 11 brands ranging from food and snack food to pet care. Mars Finland (including the Baltics) had an annual turnover target of approximately €100 million in 2008.

The termination of POS data distribution through ScanTrack affected Mars Finland (later referred to as Mars). They had previously used the information quite extensively and now seek to find new solutions for collecting and analyzing data. The company is in close interaction with the retailers and their wholesalers to retrieve data. Furthermore, they are currently placing more emphasis on in-house data analysis.

### Unilever Finland Oy – Supplier

Unilever is a global provider of home, personal care and food products with over 400 brands and a turnover of €40,5 billion in 2008. They are market leaders in all the *Food* categories in which they operate (Savoury and Dressings, Spreads, Weight Management, Tea, and Ice Cream) as well as Skin and Deodorants from the *Home and Personal care* categories. Unilever operates in around 100 countries and employs 174 000 people worldwide. Unilever is dual-listed company of Dutch-British origin. In Finland the firm has 140 employees and a turnover of €218 million in 2008.

Like most of the suppliers, Unilever learned about the ending of ScanTrack on very short notice. A lot of speculation arose on the supplier field as to how this transformation may in fact affect the entire industry and even internal processes and resource allocation in companies. Unilever was the first company interviewed for this study in spring 2008 – one year before the main round of interviews. They gave valuable input on the initial reactions just days after data receiving from ScanTrack ended in practice. A follow-up interview with the company 1,5 years later gave answers to whether the suppliers' initial concerns had been met.



#### Kesko Food Ltd – Retail trader

Kesko Food Ltd (later referred to as Kesko) is a Finnish-based grocery trader with a network of over 1000 K-food stores in Finland. The Kesko conglomerate's total turnover in 2009 amounted to almost €8,5 billion from various operations including grocery trade, interior design, DIY, agricultural supplies and machinery, consumer durables, and car sales. The company had a 33,5% market share in the food trade business in 2006, which was the crucial year in the ScanTrack case. This places Kesko Food as the second largest grocery trade company in Finland.

Kesko had a central role in the events linked to ScanTrack. Firstly, it was barcode information from their stores that contributed to the data. Moreover, with S Group they contacted the Finnish Competition Authority to make an inquiry on whether the ScanTrack information exchange raised concerns for competition regulation.

#### S Group (part of SOK) – Retail trader

Finland's leading retailing cooperative S Group is active in a range of businesses including grocery trade, consumer durables, hotels, restaurants, service stations, agricultural supplies, service stations and car sales. The total revenue of SOK amounted to 10,5 billion in 2007. In 2006 their market share in the Finnish food trade business was 39,9%, which places them as the largest company in the sector.

S Group provided point-of-sales data for ScanTrack purposes and was also in a central role in the ending of the system. Like mentioned earlier, they contacted the Finnish Competition Authority together with Kesko and were in constant interaction during the analysis of the situation.

#### Inex Partners Oy (part of SOK) – Logistics & sourcing company

Operating as the sourcing and logistics company, Inex Partners caters to the needs of the S-Group's grocery and consumer goods trade, as well as their customer-oriented development. For key figures please refer to above (S Group).



To sum it up, the table below summarizes the stakeholders that were as well as the persons from each company or association. A broader listing including the dates of the interviews is located in appendix 1.

*Table 1. Interview listing*

	COMPANY	INTERVIEWEE	POSITION
<b>REGULATORS</b>	Finnish Competition Authority	Kirsi Laine	Director, Cartels
		Tom Björkroth	Senior Research Officer
<b>TRADE ASSOCIATIONS &amp; FEDERATIONS</b>	ECR Finland /GS1 Finland Oy	Jukka Jokiranta	Development Manager
	Finnish Grocery Trade Association (PTY)	Osmo Laine	Managing Director
	Finnish Food and Drink Industries' Federation (ETL)	Maija Peltola	Director, Business Policy
		Heli Tammivuori	Branch Manager, Business Policy
	Finnish Cosmetic, Toiletry and Detergent Association (TY)	Sari Karjomaa	CEO
<b>SUPPLIERS</b>	Unilever Oy	Seppo Salo	Customer Marketing Manager
	Mars Finland Oy	Jukka Nokelainen	Business Manager
		Henri Mäkinen	Management Trainee
	Haribo Lakrids Oy	Timo Rajanen	Sales Director
<b>RETAIL TRADER</b>	Kesko Food Ltd	Minna Kurunsaari	Vice President, Commerce
		Maija Mustonen	Development Manager
	S Group (SOK)	Ilkka Alarotu	Director, Assortments & Pricing
	Inex Partners Oy	Hannu Pellinen	Sourcing Director

### 3.2 QUALITATIVE INTERVIEW METHOD

A qualitative interview approach is crucial for in-depth analysis of the topic. It gives managers and industry experts the opportunity to elaborate on the issue, take various perspectives and even discuss future paths of action. Qualitative methodology is also natural since the issue has not been earlier clearly defined or mapped, in which case quantitative methodology may have been an option. In order to build a comprehensive understanding of the marketing channel and the communication between the actors it is necessary to enable open descriptions. The typically



quantitative way of setting predefined frames for answers and limited answer alternatives does not permit depicting the situation in accuracy. Hence, the research material is gathered through qualitative theme interviews with several managers and industry experts.

Bryman (2004) identifies different types of interviews, including structured, semi-structured and unstructured interviews. *Structured interviews* – sometimes also called standardized interviews – have the exact same content of questioning for each interview. It is important that the results can be standardized and aggregated for comparison. In these types of interviews rich and detailed answers are seen more as a nuisance since they are harder to process and ‘code’ (Bryman 2004). *Semi-structured interviews* follow a more lenient structure and the interviewer often uses an ‘interview guide’ that has a list of questions or topics for discussion. Yet there is a lot of leeway as to the order in which these questions are asked. Typically the questions should be phrased similarly to give the interviewees the same cues; however the interview does not need to be restricted to the pre-prepared questions. The interviewer can and even should pick up topics that pop up and ask more about these. An even more extreme example of flexible interviewing is *unstructured interviews*. Here the researcher brings along a brief set of prompts for him- or herself to remember the key points for discussion. It can also be that only one single question is asked and then the rest relies on the follow-up of what the interviewee brings up. Noteworthy is that only the semi-structured and unstructured interview methods are categorized as *qualitative interviewing* (Bryman 2004).

The research at hand relies on semi-structured interviews and the usage of predefined questions. However, questions are not restricted to these and also ad-hoc questions that emerge during the interviews are asked. A challenge and extra workload for the study is that the same questions are not possible to be used in multiple interviews. First of all, the interviewed companies represent different levels of the value chain and hence their relationship to the information exchange of sales data takes on vastly different roles (information source / purchaser of information / third party etc.). The interview needs to start from their standpoint, which is fundamentally different than that of another stakeholder. Moreover, trade associations and the Finnish Competition Authority naturally all have their distinctive role. Due to these reasons the questions cannot have a unified form. However, all interviews follow a common frame and agenda flow that is *chronological*. After introductory comments and initial questions on the role of the interviewee, the discussion turns to the past. All interviews included discussion of what kind of a system ScanTrack was perceived to be and what type of a role it



had for the company. After discussing the earlier situation, focus is drawn to the current state after ScanTrack and lastly to the future prospects that the interviewees envisage or hope for. The chronological setting is a baseline in the interviews and is also reflected into this report. The empirical part of this study is structured in a chronological manner.

Kvale (1996) discusses the phrasing of questions and identifies nine different types of interview questions. Most interviews are likely to contain all of them. The following shows Kvale's categorisation and gives examples of each type of question from the actual interviews that are conducted in frames of this research.

1. Introducing questions: "How was your job related to ScanTrack information exchange?"
2. Follow-up questions: encourage the interviewee to elaborate on his/her answer, "What do you mean when you say that the information was very detailed?"
3. Probing questions: Follow up on what has been said through direct questioning, "Could you elaborate on this aspect?"
4. Specifying questions: ask for more details on a specific point, "When did this change take place?"
5. Direct questions: "Are you and your company content with the current situation?"
6. Indirect questions: "Many suppliers used ScanTrack information; do you think they have been affected by this change?"
7. Structuring questions: "Let us now move on to discuss the current situation."
8. Silence: Interestingly Kvale (1996) defines 'silence' as a type of question. By pausing the interviewer signals that he or she is interested in hearing more and wants to give the interviewee a chance to reflect.
9. Interpreting questions: clarify and extend the meanings of interviewees' statements without posing meaning on them, "If I understand correctly, you feel that the lack of this type of information is a major challenge?"

The findings of Kvale (1996) are also supported by Patton (1990). He discusses *probes* in more detail. According to Patton (1990, 238; see also Maykut & Morehouse 1994) a probe is "an interview tool used to go deeper into the interview responses". An interviewee's response is probed to gain a better understanding of phenomenon with either detail-oriented, elaboration or clarification probes. The three types of probes play an important part in the interviews as elaborated below. According to Patton *detail-oriented probes* are designed to fill out the



picture with questions such as “how did this change affect your work?” or “when did this take place?”. *Elaboration probes* on the other hand aim to encourage the interviewee to talk further about the topic. These types of probes can be mere voicing such as ‘uh-huh’ or non-verbal showing of attentive listening. Elaboration probes also involve verbal encouragement, such as “could you please talk more about that”. The third type of probes, *clarification probes*, is often made of necessity. Something is unclear to the interviewer or he or she would like something to be repeated. It could for instance be that a specific issue has been briefly mentioned and the interviewer wants to make sure he or she has understood the meaning behind the words in order to avoid any potential misunderstandings. Probing for clarification is often in the form of questions, such as “I want to make sure I understand what you mean. Could you please describe it for me again?”.

The importance of the probes –especially detail-oriented and elaboration probes – is clear due to several reasons. Firstly, none of the interviewees are given the interview questions beforehand. On one occasion this was requested and the interviewee was sent several of the broader questions to give an idea of the themes for the interview. Hence, the interviewees are not aware of the entire palette of questions and the detail-oriented probes of which some are included in the interview manuscript. Secondly, probes are used since the interviews are semi-structured and the questions laid down before-hand were not followed in a rigorous manner. Topics brought up by the interviewee are discussed flexibly. As can be expected, the answers to opening questions show the way for those to follow. Also, the reluctance or special willingness to discuss sensitive issues has an effect on the flow of the interview. Moreover, the interviewees are first asked a question as broadly as possible to give them space for thought. Then as the topic is discussed, probes are used to give more direction to the conversation. Special attention is given to the formulation of the questions: questions are phrased so that they do not push the answerer towards a specific type of answer. This is supported by Bryman (2004), who highlights that questions should not be leading or imply a specific reply. Such a question would be for instance “Would you not agree that ScanTrack data had a strong influence on your pricing decisions?”.

This brings us to *open-ended questions* that are a basis for the discussions (Maykut & Morehouse 1994). An initial question might be for instance: “What do you think this issue is influenced by?” rather than “Do you think x or y influences this issue?”. If the interviewee is struggling to find answers, the first question might be followed by a probe, such as “Do you



feel that this was influenced by something inside or outside the company?”, which still leaves lots of room for thought as to the influencers. However, if the interviewee has until then focused on influencers *inside* the company, a follow-up question might be used to direct them to a new perspective: “Do you think issues *outside* the company influence this?”. As a whole, open-ended questions and probing enabled a reliable outcome since many of the issues initially pin-pointed in the discussion are done by the interviewee, not the interviewer. In the study it is taken into consideration whether something was mentioned up-front or only after probing. The focus of an interviewee on a specific area, such as issues *inside* the company, is of course a relevant part of the analysis – regardless of whether they are specifically asked to also talk about influencers *outside* the company. Charmaz (2002) supports the idea of starting with open-ended questions before moving into what she defines as ‘intermediate questions’. According to her distinction open-ended questions seem to be broader, whereas intermediate questions often follow-up on previously discussed issues and are perhaps more focused on the specific matters that the interviewer is interested in.

To conclude, a lot of attention is placed on formulating the questions during the interviews. Each question is formulated so that it makes as few assumptions as possible and allows lots of possibilities for thought. More targeted questions are only made after initial thoughts have been given space. The semi-structured nature of the interviews also allows for reactive questions based on the interviewees output and interests.

### 3.3 RELIABILITY OF THE STUDY

*Reliability* as a concept may be identified as “dependability, stability, consistency, predictability, accuracy” (Kerlinger 1973, 422). These are all important factors and apply to the analysis of reliability in diverse situations. However, the reliability of *qualitative* research is best analysed by measures especially developed for it. Well applicable parameters have been established by Lincoln and Guba (1985), who point out the following four key issues in analysing the trustworthiness of research.

- (1) Truth value
- (2) Applicability
- (3) Consistency
- (4) Neutrality



The first aspect, *truth value*, hits on the note of credibility. A study should be carried out so that the findings can be expected to be credible and that they are so at the end. The basic constructions of a research are often influencers to the truth value. Concerning this study one key issue that can be analysed is the time frame. The interviews were spread out over a time frame of about half a year from May 2009 to December 2009. At this point a few years had passed since alterations on the ScanTrack system in Finland and AC Nielsen's services had started taking place. It was around one year after the final decision by the Finnish Competition Authorities in June 2008 to determine the anti-competitive. Therefore enough time has passed for the reactions of stakeholders to have taken place and it was worth evaluating for instance changes in the power relations of the different actors. On the other hand it is an optimal time to analyse the situation, since not too long has past.

Noteworthy is that a few interviews were also conducted outside this before mentioned time frame. One interview with a supplier (Unilever) was carried out during spring 2008 in the immediate weeks that followed the news that ScanTrack might come to an end in Finland. This interview gave an important window to the sudden impact that this decision had and the questions and dilemmas that emerged. It also served as a basis for building the study and the remaining interviews. The broad interview period enables a longer-term glance at the situation and the analysis of the evolvement of the situation from the first weeks and months after the system was put down to the situation a few years later. The last interview was carried out in January 2010 with the trade association TY.

This type of *prolonged engagement* (Freeman 1983) is valuable since it gives insight on a broader time frame and also helps spot potential misinformation that may be overlooked with a more hurried approach. At the time of the interviews, the stakeholders were in the midst of strong alterations in the industry. The accustomed ways of sharing information had come to an end and there seemed to be a strong sense of anticipation. Various parties were involved in discussions on substitutive ways to share market information. Due to the evolving and sensitive situation some parties were reluctant to discuss their negotiations and future plans in exact detail. However, interviews with the stakeholders did enable deeper analysis of the information exchange in the consumer goods retail sector in Finland. Separate interviews were in line with each other, which supported the reliability of the received information.



The second issue suggested for evaluation by Lincoln and Guba (1985) is *applicability*: whether the findings of the study would be applicable to other contexts or other respondents. The research was carried out specific to the circumstances and companies present. The Finnish retail market situation is very unique –like markets mostly are – and therefore caution should be used to generalize the results to other industries or geographical markets. Not all markets are for instance so highly concentrated, which has a fairly broad impact. Yet, as Kaplan (1964) points out, generalization should to some extent be applicable free of time and context. The idea of replicating a framework is supported also by other scholars (see for instance Ford 1975). With this study the identified factors influencing information exchange, which are presented in the framework of 2.4 are likely to be transferable. Like indicated later in this paper, the value and emphasis of each one (framework 4.5) needs further research regarding its transferability.

A third aspect for analysing a study's trustworthiness is *consistency*. This evaluates whether the research findings would be repeated if the study was replicated with the same or similar context and respondents. The study aimed to build an industry-wide perspective by including different stakeholders and hence the scope goes beyond a dual relationship between two companies. However, only a limited amount of companies operating in the industry could be involved. Noteworthy is that on the retailer side the percentage share of companies involved rises quite high due to having only a hand-full of grocery traders on the market. To sum up, it is most probable that the finding would be repeated if the *same* respondents were included in a future study. If different companies (*similar* respondents) were involved from the same context (the Finnish retail industry), some nuances could be expected to emerge. However, to a large extent the views are likely to be similar. This consistency is increased by the involvement of trade associations. They represent a broad arena of companies and hence bring some additional generalizability.

Lastly, the final issue to lift up is *neutrality*. It is critical that the findings are determined by the respondents and conditions. It should not be influenced by the biases, motivations, interests or perspectives of the inquirer. A key issue is the objectivity of the researcher (see also Scriven 1971). This study is conducted as part of the KAULIN research initiative, which is a neutral university-based initiative. Although some companies interviewed are partners of KAULIN, they had no direct impact on how the research was carried out. Moreover, they were in fact chosen for this research primarily for other reasons than affiliation to KAULIN. Last of all,



neutrality is also strengthened since the researcher has no direct association to any of the organisations involved.



## **4 EMPIRICAL ANALYSIS**

This section makes the shift from theoretical discussion to the empirical situation within the Finnish consumer goods retail sector. The aim is to analyse the sector in relation to the theories and regulation presented earlier. This chapter also gives insight to the evolving nature of information exchange that is currently visible on the Finnish retail market and discusses the stance of the various stakeholders. The stakeholders that are involved in the empirical part of this study represent both the retailer and the supplier sides of the sector as well as institutional influencers.

This chapter is begun with a brief description of the situation the industry is facing when conducting the research. Radical changes are taking place since the ScanTrack system of AC Nielsen was abolished in early 2008. The empirical section then goes forth to analysing information exchange on the sector through the lens of academic theory. Section 4.2 elaborates on the environment factors and the impact these have on the Finnish retail trade. Part 4.3 concentrates on the relationship and company internal factors that affect information exchange between the stakeholders. It also dwells more deeply into the situation each stakeholder is now in and analyses issues such as power relations and market orientation. Moreover, the relationship-based and non-relationship based information sources are distinguished. In part 4.4 a revised framework is introduced to sum up the empirical findings and to illustrate their implications on the original theoretical framework in section 2.3. Further analysis and discussion follows in chapter 5 of this study.

### **4.1 INITIAL ANALYSIS**

ScanTrack is a service provided by a company called ACNielsen, who collects Point-of-Sales (POS) data from grocery traders. The data is based on bar code (EAN) information that is collected at cash registers at the time of purchase. Store-specific data is transferred electronically to AC Nielsen where the sales information is weighed to correspond to the sales of the base group. The weighing is based on AC Nielsen's grocery trade store register. ScanTrack measures mainly the markets of a) packed groceries, b) cosmetic, toiletry and detergent products and c) household products. The data is very specific and distributed with a high frequency. Technically purchases can be tracked down to specific products or purchase times. Companies buying the data are able to access weekly updates although many firms opt for less frequent packages. POS data portrays the actualised sales of products and gives out



historical data that serves primarily to monitor past events. On the short term firms may be able to spot the results of campaigns whereas on the long term consumer trends are often visible. ScanTrack is useful in monitoring overall market development, conducting competitor analysis, managing category selections, making investment decisions and forming pricing strategies.<sup>10</sup>

In Finland, the POS data came from the grocery traders, including the two largest companies Food Kesko and S-Group. The third largest company (Suomen Lähikauppa Oy) and several discount chains were also part of it. An exception that is well known on the market is Lidl with an approximately 4 percent market share – they did not provide or receive POS information. Retailers and producers both benefited from the information provided by the ScanTrack system. The data was very comprehensive and therefore provided a detailed picture of the overall market. The retailers had the opportunity to see how they were doing in comparison to their competitors. The same applied to suppliers who could examine their market shares and growth in comparison to other suppliers. ScanTrack information was also geographically categorised and could be analysed area by area.

The Finnish Competition Authority (FCA) started analyzing the ScanTrack information exchange in the Finnish retail sector after being contacted by the two major retailers, SOK and Kesko, in early 2007. The information exchange that was maintained by AC Nielsen was acknowledged as potentially competition-hindering. As a result of their investigation, the FCA concluded that the practice had been against competition regulation since the two major retailers were able to use the information to monitor each other's prices. Since Kesko and SOK enjoyed a combined market share of over 73 percent, they were able to draw solid conclusions on the main competitor's pricing by comparing their own prices to the sector's average price. (Finnish Competition Authority 2008, 154/61/2007, 2 & 11)

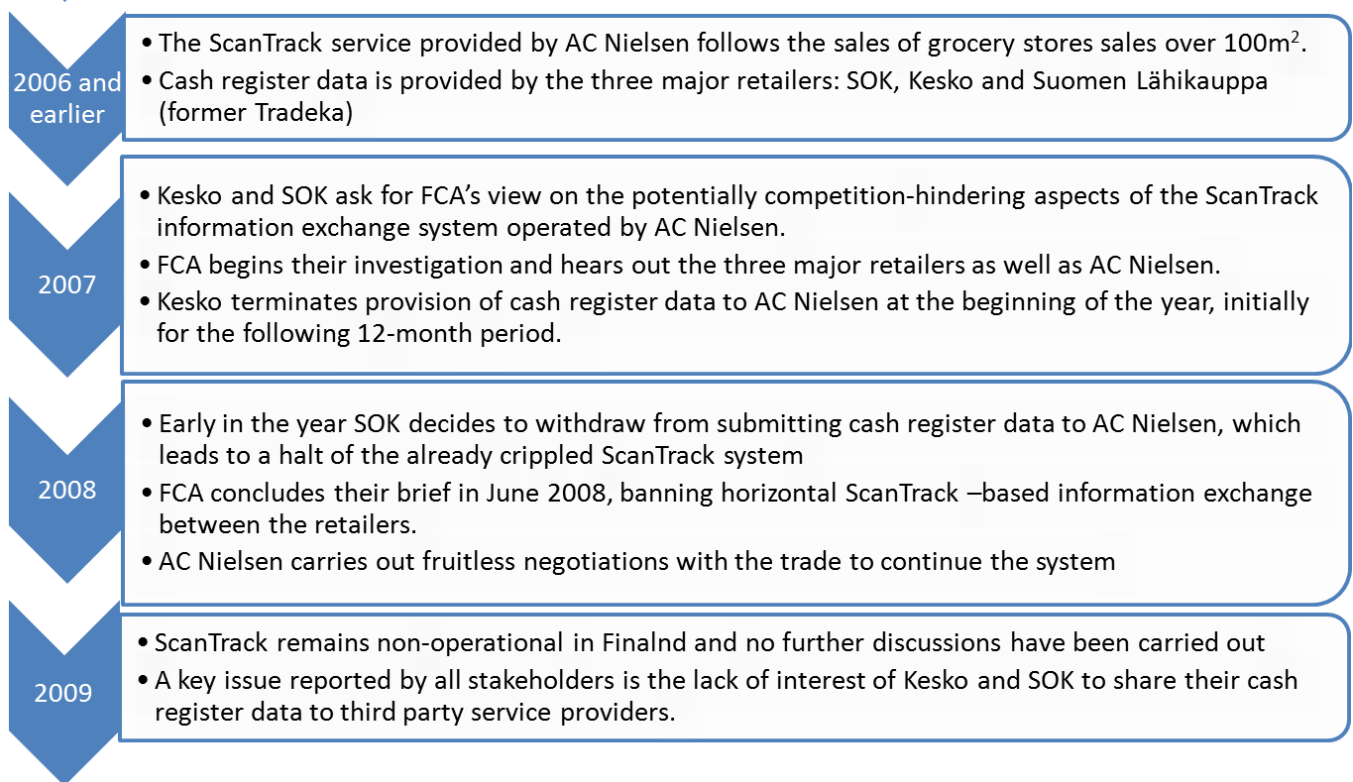
The key events in the process leading to the termination of the ScanTrack system are shown in the timeline in figure 6. Also, the timeline is continued for 2008-2009, when this research took place.

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<sup>10</sup> Source AC Nielsen homepage: [http://fi.nielsen.com/products/rms\\_scantrack.shtml](http://fi.nielsen.com/products/rms_scantrack.shtml), accessibility verified 30.4.2010.



Figure 6. ScanTrack Timeline



## 4.2 INFORMATION EXCHANGE IN THE FINNISH RETAIL ENVIRONMENT

The Finnish retail environment is affected by several major issues that have implications on the information exchange on the sector. Prominently, the structure of the industry is very concentrated, which leads to special firm dynamics. It has also drawn attention from external regulators. By analysing the channel structure it is possible to better understand the framing on which the interactions are built. This section will elaborate of the aforementioned topics.

### 4.2.1 Market Concentration and Dynamics

For the market, the final FCA decision came as no surprise as the firms had by then accustomed to the past events and embraced themselves for the anticipated future events. However, in the beginning reactions were very different. ScanTrack service provider AC Nielsen had a strong belief that the system brought no adverse effects<sup>11</sup>. According to the firm the system was to the benefit of the consumer and was not competition-hindering. On the

<sup>11</sup>News article in Markkinointi ja Mainonta magazine 18.10.2007 <http://www.marmai.fi/uutiset/article66584.ece>, Accessibility verified as of 30.4.2010.



contrary, it increased information and transparency to promote competition. This is an interesting claim, however in light of previous research too much transparency may be of harm in certain market conditions (Georgantzís & Sabater-Grande 2002, Bloomfield & O'Hara 1999, Overgaard & Møllgaard 2005). Negative implications arise especially in highly concentrated markets, which apply very well to the Finnish situation. AC Nielsen builds a reference to the over one hundred countries where they are operating the service with no problems. According the competition authorities there may well exist infringement of regulation also in other countries, but the authorities have just not yet dealt with it.

It is interesting to analyse whether there were attempts by the stakeholders to shape the Finnish Competition Authority's decision (Hillman et al. 2004, Shaffer 1995). For instance for suppliers not much could be done as the cash register information was withheld by the retailers and the FCA's decision was anticipated. From FCA's perspective the lobbying initiatives from the stakeholders were probably quite restricted and limited in their influence. During the process, the FCA actively interacted with the retailers and AC Nielsen. For the latter, a 'negative' decision could understandably be seen as very detrimental. A major part of their business in Finland was based on the ScanTrack service. The retailers, on the other hand, were the ones that had initiated the investigation and especially Kesko was very proactive in withdrawing themselves from ScanTrack. It is unlikely that this kind of behaviour was accompanied by persuasion towards the FCA. Shaffer (1995) analyses firm-level responses to government regulation and concludes that these include strategic adaptation and attempts to influence public policy. One could argue – like some of the stakeholders have – that the retailer initiative to contact the FCA was in fact driven by a change in strategy. Whether or not this claim can stand light, it is clear that the retailers, especially Kesko, were actively implementing a new strategy in their information gathering, processing and sharing already before the final decision from the FCA came in June 2008.

The implications of the isomorphism concept (DiMaggio & Powell 1983, Scott 1995a, Srikantia 1997) find support from this study. Following the termination of ScanTrack, firms are no longer able to base their processes on the data they had taken for granted. Some firms had embraced the common norm of purchasing ScanTrack data although it was not optimal for them (Morgan 1986). Retailers on the other hand had carried out information sharing that is typical in most other markets. Less consideration had been given to special market situation Finnish retail was in. These types of actions bring homogeneity and are classic ways for firms



according to isomorphic theory. Next, focus is shifted to the regulatory environment surrounding affecting information exchange.

It is evident that the Finnish retail sector is surrounded by an increasingly strong and influencing institutional environment. Due to the high market concentration of S Group and Kesko the normative or uncertainty-based pressures may have been fairly meek in the past. However during the past few years the focus has turned to information exchange and pressure to act according to a common norm has grown stronger. This kind of isomorphism has been enforced especially through new control mechanisms. The Finnish Competition Authority has taken its stance towards the processing and forwarding of up-to-date cash register data. Hence the ‘legislative’ isomorphic pressure discussed by DiMaggio and Powell (1983) has intensified. According to Galaskiewicz and Zaheer (1999), *tie modality* presents the institutionalized rules and norms of behaviour –either as formal contracts or mutual understandings within the dyad or network. If these ties are strong the likelihood for oligopolistic coordination is higher. In other words, strong ties in a network allow for greater collusion. Naturally the nature of the relationship plays an important role, whether it is collaborative or rivalrous. In the Finnish retail context the relationship between Kesko and SOK as well as other retailers is highly rivalrous. Therefore it is unlikely that planned collusion would take place as the companies are very careful not to have any convivial conversations with each other.

#### 4.2.2 Channel Environment

In section 2.1.2 the concept of environmental pluralism of channel dyads was introduced. It can be stated that members of a commercial channel, such as a manufacturer and a retailer, have a dyadic link if there is goal-oriented social interaction (Achrol et al. 1983) between them. What is then interesting is to look at whether the links are direct or indirect dependencies to identify the *primary and secondary task environments and the macro environment of the dyad*. Furthermore, as explained earlier, it is in most cases possible to structure the *relationship between the actors* by describing the economic structure and processes as well as the political structure and processes. (Stern & Reve 1980; Achrol et al. 1983)

Achrol et al. (1983, 59) highlight that it is crucial to distinguish the *level in the chain of distribution* that is taken as a focus for the study. In other words it is necessary to identify a channel dyad to be used as a focal dyad when applying the ‘Environment of Marketing



Channel Dyads' framework. The authors list manufacturer-retailer as one of the archetype focal dyad. Therefore, to dimensionalize the Finnish consumer goods retail sector it is necessary to identify a dyad relationship that has transactions involving information exchange. The relationship between a manufacturer/supplier and a retailer fulfils this prerequisite (Iacobucci & Hopkins 1992). Examples of companies that have the role of a manufacturer/supplier in this study are Unilever, Haribo and Mars. Accordingly Kesko and SOK can be identified as retailers and are indeed the two major ones with a combined market share of over 73 percent (Finnish Competition Authorities 2008, 154/61/2007). Having identified the focal dyad as a supplier and a retailer, it is now possible to analyse the environment of the dyad as well as the relationships between the actors.

The internal political economy framework of Achrol et al. (1983) goes forth by discussing interactions in the *primary task environment*. By definition, actors in this environment have transactions and direct contact with the focal dyad or one of the focal dyads. As originally illustrated in the figure 2, regulatory agents and competitors are located on the border line of the primary task environment. This raises the question, whether these actors in the Finnish consumer goods retail sector can be included in the primary task environment. It is worth first analysing the position of regulatory agents. In the given situation the main agent acting with regulatory power on information exchange in the sector is the Finnish Competition Authority (FCA). They have been in direct contact and interaction with retailers, such as Kesko and SOK. These transactions mainly include information exchange, both in oral and written form. This is brought up by the FCA representatives and is evident also from their Diary 154/61/2007. If FCA is merely a regulator with no direct interaction with the focal dyad it would be in their secondary task environment. However, in this specific situation the FCA is clearly in their primary task environment.

Moving on, the second interesting situation in identifying the task environments arises regarding competitors. Has there been organisational exchange such as information exchange, influence, goodwill or social legitimacy between competitors (Scott 1995a; DiMaggio & Powell 1983)? The ScanTrack exchange between the retailers did not require direct interaction between the companies; rather it was carried out through a third party. Thereafter even this shared data has been eliminated. On the highly concentrated retailer market direct interaction is probably very scarce. Acting otherwise could raise suspicions of cartels and hence the company members are very careful of whether they even say they know someone from the



competing company. The comment below portrays the carefulness very explicitly; retailers do not want to be associated to one another not to give any false impressions:

“Yes, I know the person. I mean I know of them. We’re not really supposed to know each other”  
– Retailer representative –

In the Finnish retail sector there are several prominent trade associations which enable contact between the retailers and the suppliers. Achrol et al. (1983) do not include trade associations in their initial framework. In fact the four-faced split between input environment, output environment, regulatory environment and competitive environment does not clearly allow for trade associations. Moreover, all other partner firms or third party service providers have been excluded from the model. It is likely that Achrol et al. (1983) have aimed to construct a simplified model, however trade associations seem to play an important role. One option would be to elaborate the “regulatory environment” to include also other influencers, such as trade associations. Naturally this does not fully portray the multitude of interaction between the dyad members and the trade associations, yet it would ensure the recognition of their existence.

The Finnish Grocery Trade Association (PTY) has all the largest retailers on its member list. Likewise, the Finnish Food and Drink Industries’ Federation (ETL) has a broad member list, including for instance all the industrial companies that took part in this study. The Finnish Cosmetic, Toiletry and Detergent Association (TY) is also an important actor on the market although its relevance on information gathering and exchange is slightly lower than that of ETL. The trade associations allow for horizontal interaction. As an example, industry representatives within the ETL have discussed their reactions to the changes in the information exchange situation. It is probable that the interaction between the actors is limited to meetings under these associations and does not include direct company-to-company interaction outside the spectrum of ETL, TY or PTY. On the retailer side, all discussions carried out at PTY focus on common industry issues, such as the regulation of opening hours. Topics related to the performance of the companies are not brought up. In conclusion, competitors are not in transactional relationships with each other and hence they are part of the secondary task environment as suggested by Achrol (1983).



In addition to horizontal transactions within the sector there is also strong *vertical interaction* between retailers and suppliers. This is enabled by a third instance, ECR (Efficient Consumer Response) Finland. ECR Finland forms an important arena for communication between the member companies of both PTY and ETL, in other words the retailers and suppliers. ECR interacts mainly with the above mentioned trade associations and is hence in many situations not in direct contact with the suppliers and retailers. It is interesting to analyse how ECR Finland is located in the task environments. It is clear that they have direct contact with members of the focal dyad, such as communication and influence. Therefore ECR Finland can be examined as part of the primary task environment.

A closer look can now be taken at the structure of the network of internal and external actors of the dyad. Like presented in section 2.1.2, there are four dimensions to analysing the relationships between channel members (Achrol et al. 1983; Granovetter 1985). These are the following:

- (a) Economic structure
- (b) Economic processes
- (c) Political structure
- (d) Political processes

An *information exchange perspective* shall be taken to the analysis of these elements. The *economic structure* refers to market and hierarchical transactions between the channel members. In the Finnish retail context, ScanTrack information exchange was taking place both on a horizontal and on a vertical level between the actors. In the current situation no horizontal exchange occurs between the retailers. The *economic processes* are the decision-making mechanisms of the industry. These are largely driven by the retailers due to their strong position in the economic structure. In general common level decisions are also taken within the trade associations. Earlier ECR Finland has had a stronger role in the economic processes; however now their influence is diminishing as fewer companies see value in open communication of their best practices. Third, the *political structure*, in other words the power relations, is an influencer to the channel relationships. The issue is whether power is minimal, balanced, imbalanced or centralized. In the Finnish retail context power is highly imbalanced towards the retailers and also centralized, since an oligopoly exists on the retailer market. Lastly, the *political processes* of the sector are both cooperative and conflictive. The termination of ScanTrack most likely brought some tension the events and interaction

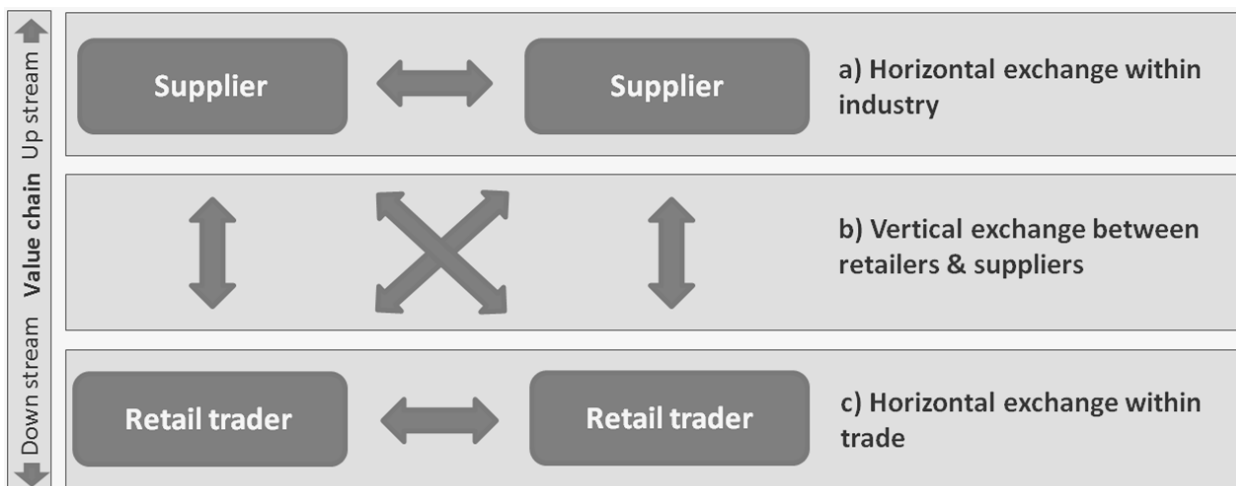


immediately. However, suppliers are so heavily reliant on data provided by retailers that they have little choice but to stay in close cooperative contact.

#### 4.2.3 External Regulation

To underline the variance of the occurring information exchange events it is critical to distinguish between vertical and horizontal information exchange. Figure 7 is a simplified visualisation of supplier and retailer interaction and information exchange. It shows that there is exchange between the different levels of the value chain as well as within a single level. Exchange between stakeholders at different levels is referred to as *vertical information exchange* (type ‘b’ in the figure below) and interaction between competitive companies, such as suppliers, is termed *horizontal information exchange* (types ‘a’ and ‘c’ below).

Figure 7. Vertical and Horizontal Information Exchange



One form of information exchange previously on the market was the ScanTrack system. Noteworthy is that in most other countries the service is still operational. ScanTrack as a service is very all-inclusive: it encompasses retailers as well as suppliers. An interesting aspect of it is that it is not based on a B-to-B relationship between two companies, but is instead open to practically all parties on the market that have the interest and resources to purchase the data. From this perspective all information that is exchanged between companies can be divided into two different categories: *private* and *public* information. In the figure below the arrows represent both private and public information exchange.



ScanTrack –based exchange occurs on the *public* level in both vertical and horizontal relationships. Since the data originates from retailers, the potential horizontal public exchange takes place among them and not on the supplier side. If we restrict public information to ScanTrack, it is fair to say that the suppliers receive this information only from their downstream value chain, in other words the retailers and not each other. In order for the exchange to be public it often requires a third party to collect and process the data. Due to competition regulation this may even be essential to avoid competitors from getting direct data from one another. In the case of ScanTrack the service was provided by AC Nielsen, who collected and analysed the data originating from the retailers. In horizontal information exchange it has been regulated that companies should not be able to link data to specific competitors. This means that the data needs to be aggregated and coming from a sufficient amount of companies so that one of them cannot be spotted from the figures. A third party often combines the data so that the individual companies are not confronted with one another's information. This is something that is emphasised for instance by ETL, the trade association representing the suppliers. Maija Peltola and Heli Tammivuori underline that when gathering horizontal information within a sector it is best that a third party is involved.

In addition to public information exchange including ScanTrack, the arrows in the figure 7 also portray *private* communication. Private information is exchanged between two companies in a B-to-B relationship. By definition, other companies do not have access to it. The two-way arrows symbolize the interaction and reciprocal information exchange that takes place in dyadic relationships. As a system ScanTrack was more one-sided: retailers provided input and suppliers were only on the output end. In contrast, all personal corporate relationships are more mutual and also the suppliers have valuable input for the retailers. This is an important aspect especially now as the information exchange focus is shifting more towards private information sharing.

The Finnish Competition Authority's investigation of the ScanTrack information exchange was clearly focused on the horizontal exchange between retailers (type 'c' in figure 7). As mentioned by Director Kirsi Laine, their investigation did not cover the usage of the information by the suppliers (a result of exchange 'b'). Whether or not the information was potentially competition-hindering also on this level remains unstudied. Laine concludes that if the studies had continued further, more emphasis might have been put on this issue. However,



since the system was brought down it was no longer necessary to continue further analysis and the case was closed.

The ScanTrack system enabled a very critical regulation infringing practice: The two largest firms have a dominating market share; they were able to deduct their own prices from the aggregated industry price average and thereafter identify each other's prices. This meant that both knew how their main competitor was pricing the same products. The theoretical possibility for this practice was sufficient for the FCA to require a close down of the system. This type of an approach is in fact in slight contradiction with recent scholar suggestions (Kühn 2001). During the interviews the feedback from the retail traders was inconsistent – also within a company. Some were very explicit in indicating that the prices were not a point of interest for them, whilst others pointed out that the system was used as a tool in making pricing decisions. Interestingly, at least one interviewee ended up claiming both stances during the course of the interview. It was clearly a subject that the retailers were very cautious of. Yet, some were more frank about it and clearly indicated the usage of the data for price analysis in a similar way to the following quote:

“Our category and product managers surely knew how to place prices based on the data we received through ScanTrack.”

– Retailer representative –

The comment above indicates the benefit the system brought to price decision-making; whether then the competitor prices were drawn from the aggregated data is a different question. It has caused a lot of speculation whether or not the retail traders actually did this. There is always the option that they merely compared their prices to the average like the data was meant to be used. However, it is worth remembering that it was these two companies, Kesko and SOK, which initially informed the FCA of the possibility for this practice. During an interview a Kesko representative discussed that highly detailed information was possible to be drawn from ScanTrack. Although the data was collected by an objective third party, AC Nielsen, it was “too easy to get to a too detailed level” to analyse data, especially the prices of each item. According to the interviewee this was no longer for the benefit of all actors. After the closure of the system, Kesko has also taken the same stance in public, where they have expressed their view that competitor actions and plans were too easy to monitor through ScanTrack.<sup>12</sup>

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<sup>12</sup> Markkinointi ja Mainonta (a Finnish marketing and advertising magazine)  
<http://www.marmai.fi/uutiset/article67018.ece>, accessibility verified as of 30.3.2010.



Next, the focus shall be shifted to the aspects that made the system competition hindering. Tom Björkroth – who was part of the FCA investigation – highlights that competition policy theory cannot be used as the sole basis of formulation of local policy (Björkroth 2008). Competition policy formulation should take into account the surrounding market conditions. In the Finnish environment an essential aspect making the practice regulation-infringing was in fact the availability of a *weekly announced average price for each product*. According to the Competition Regulation Law 4§ and the European Community's Founding Treaty Article 81, this type of up-to-date and week specific information is forbidden. In addition, the information was product specific which enabled precise analysis. According to the regulation, information on both sales volumes and the total value of sales cannot be available simultaneously since it enables calculation of average prices for the goods sold. In its report the FCA concludes that having available just one of these two sets of data would not seem to enable price monitoring between the two major retailers like having both volume and value information does. (Finnish Competition Authority 2008, 154/61/2007, 11-12)

In ScanTrack, sales information had also been *categorized based on the size of the retail stores*. Out of the four different categories, SOK and Kesko had the strongest presence in the largest two: 1000-2499m<sup>2</sup> and over 2500m<sup>2</sup> stores. Hence, the competition-adverse impact may have been greater in these segments. It is noteworthy that the smallest outlet category (100-399 m<sup>2</sup>) did not have a duopolistic structure and therefore it was not possible for the retailers to make estimations on competitor's prices based on a given average price. The information provided by AC Nielsen was also *geographically categorized*. What has been said earlier regarding nationwide data and its potential harmful use also applies to regional data since the regional market shares of the companies correlate with the total national market shares. In addition, the FCA noticed that the changes in average prices in the regions and those in the entire national market also correlated. (Finnish Competition Authority 2008, 154/61/2007, 2 & 12-13)

It is worth examining the details of the Competition Regulation Law 4§ and the European Community's Founding Treaty Article 81 that have been mentioned above. Both contain identical phrasing (see section 2.1.4) of what type of interaction is allowed between the different stakeholders in an industry. According to these articles the competition authorities do not need to prove that a practice is illegal, instead it is enough to justify that it has been *potentially harmful* in order to ban the practice based on the regulation (Finnish Competition Authority 2008, 154/61/2007). Like discussed in the theoretical part of this paper,



communication can be either about future plans or past and present actions. Authorities should analyse whether this communication has the *potential* to facilitate coordination or collusion. This is in fact the approach the Finnish Competition Authority (FCA) uses in their analysis of antitrust cases. FCA's Cartel unit's Director Kirsi Laine points out that it is sufficient if they can state that a specific type of information exchange is *prone* to restrict competition or increase price levels. Nonetheless, FCA does state in its report (Diary 154/61/2007, p. 14) that their investigations have shown that "information exchanged in the ScanTrack system has been used for instance in pricing decisions and competitor analysis in the daily goods retail trade". The various parties have stated that the information exchange is useful for pricing [and should not be terminated], whoever this is exactly why the FCA has had to deal with the matter.

As a second step in evaluating competition-hindering effects of a specific type of information exchange, authorities should analyse whether the communication has positive *efficiency-enhancing effects*, which are only achievable thanks to the communication (Kühn 2001; see also Overgaard & Møllgaard 2005). This is also an issue the FCA takes into consideration in their evaluations. The information provided by the ScanTrack system has been used in the daily consumer goods trade for pricing and competitor analyses – amongst others. The parties involved have claimed that the information brought efficiency benefits in procurement negotiations, pricing, product portfolio decisions and logistics. The FCA acknowledges the possibility of efficiency benefits, yet it states that the information needed for these types of benefits does not require so company specific and detailed information as provided by the ScanTrack system. Due to this possibility, the efficiency benefits could not be taken into consideration as the efficiency benefits that have been mentioned in the Competition Regulation Law 5§ and the European Community's Founding Treaty Article 81 (3). (Finnish Competition Authority 2008, 154/61/2007)

Table 2 below visualizes the market and information characteristics that impacted FCA's decision on ScanTrack. Columns one and two are a summary of the different market and information factors that could be identified in general. The third column points out what the circumstances for each of these characteristics were in the Finnish consumer goods industry and in the ScanTrack case. Finally, the last column states the relevance each factor and existing situation had on the decision of the FCA when they ruled the ScanTrack information exchange is competition-hindering on the Finnish consumer goods industry.



Table 2. Relevance of market and information characteristics in FCA's Decision

Case ScanTrack	Factor	Situation	Significance
MARKET CHARACTERISTICS	Retailer market concentration	Oligopoly (duopoly)	High
	Supplier market concentration	In a few product categories	Not considered
	Coordinated behavior	Potentially; tacit	High
INFORMATION CHARACTERISTICS	Aggregated/ Disaggregated	Officially Aggregated, in practice disaggregated	High
	Private/ Public	Public	Low
	Past / Future actions	Both	Low
	Efficiency-enhancing effects	Not a crucial source	High

Source: Author's elaboration based on theoretical discussion and FCA Diary no 154/61/2007.

Table 2 above identifies three market characteristics: retailer market concentration, supplier market concentration and coordinated behavior. In general, on the *retailer* side the market is very concentrated in Finland. Three companies amount to 85 percent of the total pie and the largest two companies hold a market share of 73 percent. The ScanTrack system potentially allowed for tacit coordinated behavior between these companies. These two factors are central from the industry structure perspective. The fact that the *supplier* market was concentrated in some product categories was not considered in FCA's study and similar coordinated behavior may have been possible also on their side.

All in all, as a result of their analysis, the FCA concluded that information exchange between the retailers had been *potentially* competition-hindering and was therefore against antitrust regulation. However, since the ScanTrack exchange had already been terminated, no further actions were taken. Their analysis and decision focused solely on the information exchange *between the retailers*, not on the information flow from the retailers to the supplier, or on the information the suppliers received of one another. How is it then that the entire ScanTrack system was brought to a halt? This is an interesting question since it was not a direct consequence of FCA's actions. In the following sections discuss is focused on the other factors that could have caused the termination of the ScanTrack system.



### 4.3 INFORMATION EXCHANGE RELATIONSHIPS IN FINNISH RETAIL

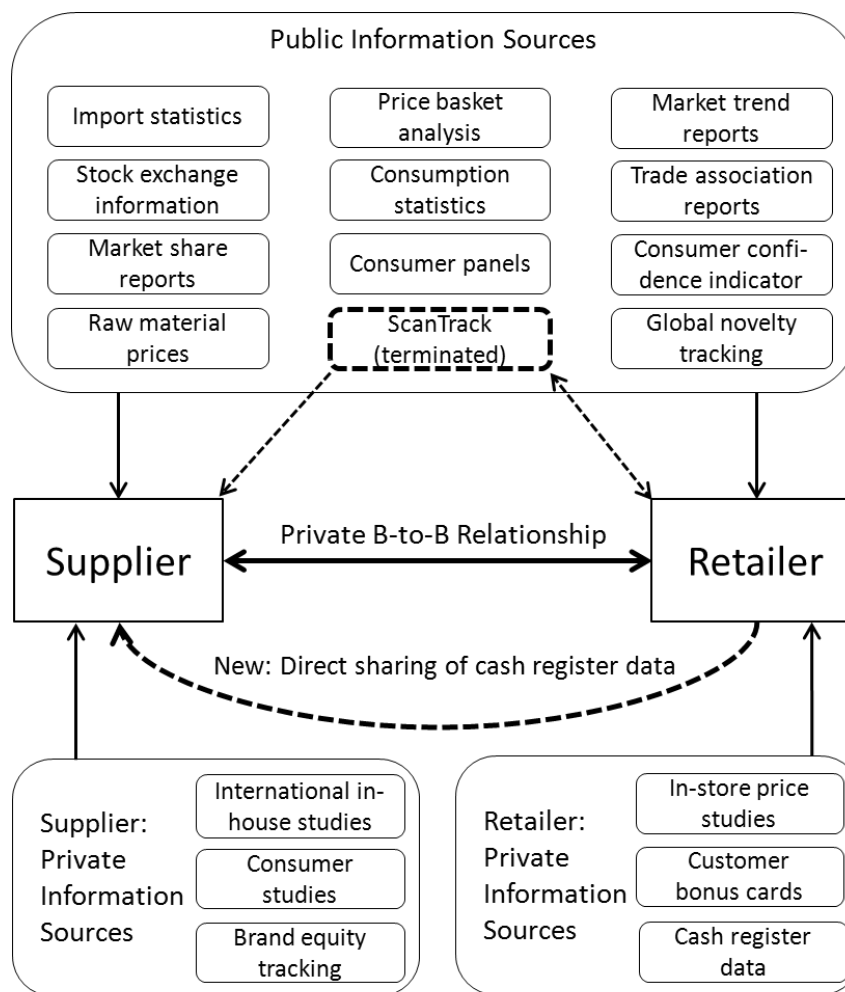
Thus far we have analysed the environment factors affecting information exchange of the Finnish retail sector. This section places focus on the relationship-specific factors as well as the companies' internal factors, namely the company strategy and goals. We begin this part by analysing the public and private market information sources as well as the concept of relationship-based information exchange.

#### 4.3.1 Public and Private Information Sources

Figure 8 below indicates private and public information sources revealed in the interviews. The linkage between these information sources and ScanTrack information is also portrayed. As the arrows indicate, ScanTrack information was a two-way flow for the retailers, whereas the suppliers were only on the receiving end. The lower part of the figure visualises the type of information flow from retailer to supplier: the direct sharing of cash register data. In some cases this is done through strong IT systems and there may even be a third party service provider in between the channel dyad. This type of a service provider is only in interaction with one retailer and does not accumulate the data from several as was the case with ScanTrack.



Figure 8. Dynamics of Attaining and Sharing Market Information



As stated before, information can be categorized into two different types: Public market information and company-owned private information. Public information focuses essentially on the structure and tools already present on the market for information gathering. It includes for instance yearly reports on market shares. Company-owned private information is for instance studies that are carried out for specific firms for their internal usage. Despite the ending of the ScanTrack system there are numerous options for gathering market information in the Finnish retail environment. Interestingly enough, some new forms of market analysis and information gathering have been created since the change took place. It has been a motivator for third party service providers as well as for individual companies to find new solutions. ScanTrack was in many ways a backbone, but businesses did not rely solely on it. Parallel to the ScanTrack system, companies used also other information sources, such as import statistics or annual sales figures. Once the system ceased to operate, companies have been pushed to find



new solutions or to enforce the usage of supplementary methods that were previously used side-by-side with ScanTrack.

It is likely that each company has its unique way of searching, receiving and analyzing market information and sales data. ScanTrack measured sales to the end consumer on a nationwide level throughout the different retail chains and as this type of data is no longer available, some suppliers have cooperation or partnerships with retailers thus being able to receive information based on the same cash register data. Nevertheless, this information is often only shown for the supplier's own products and it is clearly specific to only the given retailer –not to the entire retail market. This leaves both suppliers and retailers with a less elaborate set of information than before.

It is very interesting to analyze the courses of action that companies have taken following the ending of ScanTrack. The following introduces some of the *information sources* that have been brought up by the stakeholders in the interviews. They are also visualized in figure 8 in the previous section. A majority of the information sources were operational also during ScanTrack times, however in some cases their nature and significance has changed. The following briefly introduces some of these sources of market information that were mentioned during the interviews.

#### Import statistics

Import statistics are very useful for some industries and companies. They measure the amount of products within a specific product category that have been imported into the country. For this data to be useful, the firm naturally needs to be in the import business, not using local production or sourcing. In addition, it is vital that all competitors also import their goods. Goods also need to be of the same unit of measure to allow for aggregation of data. Once all of these prerequisites are fulfilled, the import statistics are a useful source to build understanding of the total market. A functioning example is the confectionary business where most of the sugared sweets are imported from abroad. Therefore Haribo is a good example of a company who benefits from this information.

#### Market share information

This source of information was mentioned numerous times during the interviews. AC Nielsen provides annual market share information that is based on their store register. When this



information comes out in February each year the retailers are able to see whether they have strengthened their position on market. Already during the ScanTrack era this was an important statistic, however afterwards its significance has increased. ScanTrack provided indication of the entire market situation, which now remains a question during the course of the year since retailers are only aware of their own situation and progress. This annual indicator is also used by organizations other than the retailers. For instance the FCA is interested to follow the development of the grocery trade industry. Also the media and public are well aware of the developments on this highly concentrated industry as the market share information hits the headlines each year.

### In-store price studies

Price study analysis provides product-specific price information, which was a non-acceptable element of ScanTrack. However price studies commissioned by individual companies are not as extensive as the system that was based on cash register data. Price studies were often carried out also during the time of ScanTrack, as was brought up by a retailer representative. They discussed the price studies, which have been outsourced to a separate service provider. Price analysts observe pricing at competitors' stores and provide reports for internal usage. These types of in store price studies are conducted manually and not operated through a centralized system. Hence they are considered as 'normal business intelligence', as phrased by Tom Björkroth from the FCA. In addition some employees at Kesko, such as product managers, conduct price analysis as part of their job. This ensures that the company's prices stay in line with the market and are competitive.

### Consumer panels

Consumer panels have received a lot of attention since ScanTrack was terminated. Perhaps the most known ones are those of ACNielsen and Suomen Lähikauppa Oy. ACNielsen had the *Homescan* as part of their service portfolio also during ScanTrack (however under a different name), and now they have shifted more attention to developing it further by significantly increasing the sample size and developing the technology. The basic idea is that consumers mark down details of all their grocery purchases, whether it is in a large retail outlet or an outdoor market.



### Bonus card customer information

This source of information is a privilege of the retailers who have issued elaborate bonus systems for regular customers. Finnish consumers are accustomed to using bonus cards and collecting bonus points when making their grocery shopping. In fact most Finnish households have bonus cards of Kesko, SOK and their competitors. With each purchase the bonus card is swiped and the content of the consumer's shopping basket is registered. In addition to building customer commitment, the retailers also receive valuable data on consumers' purchase behavior and preferences. Based on these they can for instance carry out consumer segmentation.

In today's global markets, information is more readily available than before. Maltz & Kohli (1996) argue that competitive advantage is increasingly dependent on a firm's ability to *use* the market intelligence (see also Menon & Varadrajana 1992; Moorman, Zaltman & Deshpande 1992). Although the Finnish market is very particular in its information dissemination, many actors support this finding. Both retailers and suppliers have mentioned during the interviews that the information is 'out there', yet it is now more difficult to bring it together. For instance, Mars seems to highlight the compilation and analysis of data as one of their key challenges at the moment. Likewise, SOK indicated interest for a third party service that would compile data from diverse sources, not only cash registers. The sources of data could be for instance statistical reports, European-wide information, consumption figures, advertising information and consumer panel results. To sum up, the market is packed with information but this is challenging to manage.

#### 4.3.2 Internal Company Strategy

A key source of information that has not yet been evaluated in relation to the ScanTrack case is the direct communication between the suppliers and retailers. Here retrieving information is crucially anchored in the relationship and the motivation of both sides. The previously operational ScanTrack system involved information sharing through a third party. This meant that the suppliers and retailers did not necessarily need to interact with one another. On one hand, the retailers gave cash register data to AC Nielsen and received overall market data in return. On the other hand, the suppliers bought the same aggregated market information straight from AC Nielsen. After the termination of the system the point-of-sales information has been in the sole hands of the retailers and they have been in charge of the selective sharing



of it. Selectivity has been visible in the activities of both Kesko and SOK. However, it has materialized in different ways. SOK is *more* selective of the level of data that it gives out, but *less* selective to whom it gives this data. Controversially, Kesko gives out more detailed data, but is more selective to whom they share it with. This is where the firm strategies are a key influencer to their actions.

The strategies of the retailers seem to have clear implications on their information sharing. The interaction with their suppliers is governed by what their *key focus for development* is (Achrol & Etzel 2003). This is mirrored to what information they share and with whom as well as what information they are interested in receiving. Achrol and Etzel (2003) identify three different goal priorities for retailers as introduced in section 2.2.1: *Productivity goals*, *market adaptation goals* and *channel integration goals*. Interestingly, the policies of Kesko and SOK follow specific goal priorities as discussed below. The following issues have been stated from the views of both the retailers and the suppliers.

Kesko has a strong strategic focus on category development and analysis of consumer preferences. Based on bonus card customer information, they segment consumers and analyse their shopping behaviour. This is what is portrayed also to suppliers. Kesko teams up with companies that have the resources and interest to go through with this type of analysis. For instance, large international companies often have the willingness to engage in such relationships. In addition, these types of companies also possess the sufficient resources to analyse market data, such as cash register information provided to them by the retailer. International companies also carry out a fairly large amount of in-house studies of consumer preferences, market trends and consumption patterns. This type of information is of interest to retailers such as Kesko, who often rely on suppliers for additional feedback on the market. It is evident that Kesko's strategic priorities are in the quest for *market adaptation* (Achrol & Etzel 2003).

Kesko representative Minna Kurunsaari discusses the *depth of partnership*, with which she more or less refers to strategic partnership. A determining factor for her is whether the two firms have common goals and actions. She estimates that they have around ten companies with which they have a very deep level of partnership. The impression is that the choice for such a partner is dependent mainly on the company's size and volumes as well as the foundations for the cooperation. From a starting point, Kesko does not share the same information with all their



suppliers. This is evident from the discussions with the suppliers but also from the input given by Kesko representatives. The company engages in different levels of information exchange.

Taking a look at the other major retailer on the market, the differences in focus are evident. Based on the discussions carried out with SOK as well as their suppliers, the company's main effort seems to be value chain optimization. The implication this has on information exchange is that SOK focuses on distributing and receiving information that aids production planning, logistics and transportation (Dahlstrom et al. 1996, Noordewier et al. 1990). The ultimate effect is to minimise costs and to optimise the supply chain. The eye is kept on the flow of goods as well as on low-cost procurement. In information exchange this translates into information that is especially focused on the specific company instead of comparing it to the overall market situation. Suppliers receive very limited information on their competitors and their development in comparison to the total category development. For SOK the relevant information to share appears to be the volume information since this is critical in managing the flow of goods. For them there is a clearly lower interest than for Kesko to share detailed information on for instance competitor development. Some suppliers feel that the level of data submitted to them by SOK is not sufficient to develop their business. The other side to this is that SOK is clearly less interested in receiving information from suppliers regarding issues other than the flow of goods. According to the interviewed suppliers, the company also expresses less interest in common category development. In conclusion, the goal that SOK prioritizes is *channel integration* (Achrol & Etzel 2003).

The interesting aspect in information shared by SOK is their uniform manner to conducting the activity. All of their suppliers have access to the same type of data and this is clearly communicated to them. Their goal is to be transparent in the nature and the content of the data that is shared. From a supplier perspective this has some positive and some negative aspects. As a positive side, the suppliers are very grateful to know exactly what data their competitors are getting. According to suppliers, the key issue from a competition perspective is that all suppliers have the same data, ergo the same readiness to act. At the time of ScanTrack this was largely the case (excluding private information exchange between retailers and suppliers). Once ScanTrack ceased to provide information, the same balance and equality remained, however this time no one had any data. Now SOK is going down the same path with transparent and uniform data sharing that is available for all interested suppliers. On the down side, the preciseness of the data does not meet all the needs of the suppliers and a deeper



engagement with the retailers will most likely yield only little additional value for supporting their overall business strategy.

What is more, the interviews with suppliers indicate that retailers are looking for companies that have a leading position in the categories in which they are present. From a supplier perspective, this is crucial in order to be relevant for the trade and to receive more information. In the case of Kesko, a *category captain* (Desrochers et al. 2003) may be in a position to receive a substantial amount of more quantitative data, such as cash register information. In addition, the spent time and the level of interaction between the two firms is likely to be higher.

In conclusion, the information sharing patterns of Kesko and SOK both have their benefits. Table 3 below illustrates the different focuses of the two companies and the impact these have on the information sharing parameters. Kesko is interested in developing their product offering and studying consumer needs, whereas SOK concentrates more on optimising the value chain and implementing low-cost procurement. These are manifested in their information exchange as shown through the three parameters of preciseness, transparency and accessibility. The information from Kesko is precise, yet not available to all. With SOK the information is available to all; however it is not very detailed to anyone.

*Table 3. Impact of Retailer Strategy on Information Sharing*

RETAILER INFORMATION SHARING		KESKO	SOK
<b>Strategic focus</b>	Category development	High	Low
	Value-chain optimization	Low	High
	Low-cost procurement	Low	High
<b>Parameters</b>	Preciseness	High	Low
	Transparency	Low	High
	Accessibility	Low	High

#### 4.3.3 Relationship Dynamics

When looking at relationships between retailers and suppliers, different factors that affect the information exchange have been identified. Frazier (2009) recognised the following issues within the dual relationship: dependence asymmetry, interdependence magnitude, trust in



supplier and transaction-specific investments (see section 2.2.1). In addition he discussed distributor product-market familiarity and environmental uncertainty. In the following these elements and their significance on the Finnish retail market are analysed.

*Dependence asymmetry* is a major issue on the Finnish retail sector. The market is highly concentrated and buyer power is evident. This translates into dependence asymmetry to the favour of the retailer, which is evident also in information exchange. Previously ScanTrack data was available through a third party to all companies that had the interest and resources to purchase it. At the moment suppliers are heavily dependent on the retailers in their access to market information. They do have other public and private sources; however cash register data measuring historical sales is very important. In comparison to other countries this is clearly a lack on the market. It is acknowledged by both suppliers and retailers that the dependence favours the downstream firms. In practice, this means that the suppliers are or would be very crippled without the information from the retailers (Coughlan et al. 2006) as without the information they would have very little leverage in negotiations with the trade. Sales information brings them a foundation on which to base their propositions and argumentation on issues such as new product launches. In general, this type of reliability could be argued to have a negative impact on the market dynamics.

The valuing and perception of importance of the relationship is measured in the *interdependence magnitude*. As discussed earlier in this paper, earlier research does not support the claim that information exchange would be higher when both companies perceive the relationship essential to their goal achievement (Frazier et al. 2009, see also Sezen & Yilmaz 2007). In light of this research, these earlier findings are surprising. In the Finnish environment, the retailer goals and their linkage to the suppliers seems to have an impact on the information sharing and receiving. For SOK it is critical that the suppliers manage their production and logistics and hence they share information that promotes this. Kesko, on the other hand, views the relationship important in developing their product portfolio and category management. Their information sharing and partnerships are thus developed to support these goals.

Distributor *trust in supplier* was initially thought to have little impact in the case of sharing external strategic information, such as cash register data. This study shows no contradiction to this claim. Likewise, our results are in slight favour of the assertion that trust increases the



sharing of internal strategic information. Kesko engages in deeper relationships with companies that are valuable to their goal achievement. A common history seems to be one aspect in selecting these partner companies as often the benefit from a long relationship is mutual trust. Nevertheless, SOK annually discusses their vision for the future and product segment budgets with their entire supplier field. This does not seem to be influenced by the depth of the relationships or trust between the actors.

This study does not go in depth into the impact of *transaction-specific investments* that refer to the investments made by the supplier or the retailer to support the sales of the supplier's products by the distributor organisation. It is however interesting to go down a slight side path regarding investments: When retailers share information with suppliers, they assume that the suppliers have the resources and capacity to analyse the data. Both companies showed interest in developing relationships where the supplier data analysis plays a stronger role. The retailers, especially Kesko as it seems, are willing to repatriate information that has been analysed by suppliers. What is the impact on the investment side? Since ScanTrack has ended, the suppliers have had to increase their resources in data processing and analysis. According to supplier feedback, this type of resource and system availability is often crucial for deeper partnership or cooperation with the retailer. This type of a prerequisite or assumption is also subtly supported by retailer comments. As a criterion for partnership, investments may be understandable; however as a necessity for receiving information they might strike as demanding.

What is then the role of *external* and *internal* strategic information in the exchange between the retailers and supplier? It is interesting to analyse their role in the exchange and what may be the influencers for possible variations. It is natural that companies do not share internal strategic information as lightly as they do external strategic information. This applies to both retailers and suppliers. Internal strategic information is largely the future plans of the company and their other internal decisions or actions. The research of Frazier (2009) focuses largely on *distributor* sharing of internal strategic information. However, also supplier information is of relevance to the retailers. Some retailer comments indicate that supplier internal and external strategic information may be hard to attain. SOK indicates that they would be interested in getting more in-depth feedback on suppliers' future plans and transparency regarding the flow of goods and its optimisation. The focus is moving more and more from historical data to future forecasting as this also benefits production planning. This will require an increasing amount of internal strategic information from retailers and suppliers.



#### 4.3.4 Market Power and Orientation

It has been pointed out that regulatory intervention was not a direct cause for the entire ScanTrack exchange to be terminated. FCA's Diary 154/61/2007 does not ban the exchange of ScanTrack -based market information from the retailers to the suppliers. Theoretically the system could have stayed operational upstream although the exchange between the grocery traders would have ended. This would have meant that the traders would not have received compiled market information. They would have needed to continue to submit cash register data to ACNielsen or another third party and then not be further involved with the system. Information exchange that the FCA analyzed occurred when the retail traders received back aggregated information from ACNielsen.

Yet Kesko and SOK both withdrew themselves from the system and stopped submitting data to AC Nielsen already before FCA's decision took place. This naturally meant that AC Nielsen was not able to keep the system running and offer its services to the field of suppliers either and the service collapsed as a whole. It could be argued that in markets of equal power settings, such action could not be carried out so easily (Carstensen 2008). The analysis carried out by the Finnish Competition Authorities lasted about 1,5 years. Towards the end of it the outcome started to crystallize. Especially Kesko was very proactive in stopping their provision of data to AC Nielsen already in early 2007. According to a Kesko representative, there were signs of the final FCA decision already before it came out and therefore they did not want to carry on with the system. All in all, this type of conduct shows that the retailers have a strong power advantage as they are able to withdraw from the system without extensive evaluation of how it could be developed (Scherer & Ross 1990).

The allocation of market power in the Finnish retail environment has been illustrated by several aspects already so far. These include the possibility for retailers to pursue their own strategy regardless of supplier interests and strategies. Retailers own the cash register information on the market, which gives them tremendous leverage – especially due to the concentrated nature of the retail sector. Furthermore, the market share statistics clearly indicate to supplier power (Carstensen 2008, Dobson, 2005).

A shocking proposition is that the current courses of action are prone to increase the buyer power from where it already is. However, Macneil (1981) points out that the more relational interaction becomes, the less buyer power is exercised. Due to the information exchange



focusing on the dyad relationships, this is in fact the direction the market is going. Moreover, strong buyer power has typically caught interest of antitrust regulators (Perloff et al. 2007), which may reduce its impact.

The interests and motivations of retailers play a key role in what eventually happens in the dyad relationships. Suppliers may be interest in meeting consumer needs, however retailers might act as a bottle neck in between if they do not allow this type of *market orientation* of suppliers (Sigauw et al 1998). In the current situation supplier are fairly heavily reliant on the information provided to them by the retailer. They do, however, also have other sources for information on the market such as consumer studies or trend reports. Previously ECR Finland has been an active party in building the link of the entire value chain to the consumer. A vast majority of retailers belong to the association and participation has historically been very active, as elaborated by Jukka Jokiranta from ECR. Nonetheless, recently interest has fallen. This is not in direct relation to the termination of ScanTrack but instead an overall market direction.

#### 4.4 FRAMEWORK REFINED

This section sums up the empirical findings and mirrors them to the theoretical analysis presented earlier in the study. First, the discussion carried out in the empirical part of the study is brought together in table 4, which sums up the key challenges of the stakeholders. Thereafter the industry environment and relations are presented in the refined framework in figure 9. Finally, the significance of each environment and relationship factor on information exchange in the Finnish retail market is analysed in table 5.

To begin with, table 4 below identifies the main challenges that the stakeholders of the study are currently facing in their information exchange – both in terms of the environment and the relationships. In general, most organizations are struggling to build a total market view that is detailed enough for their purposes. However, the challenges of the suppliers are stronger when compared to the retailers. This notion has been supported by both retailers and suppliers. The trade associations have not been affected in their core businesses in such a drastic manner as the members of the channel dyad. The main concern for trade associations is to provide their member companies with relevant statistics on the market's development as well as on the sales to the consumers or the retail traders.



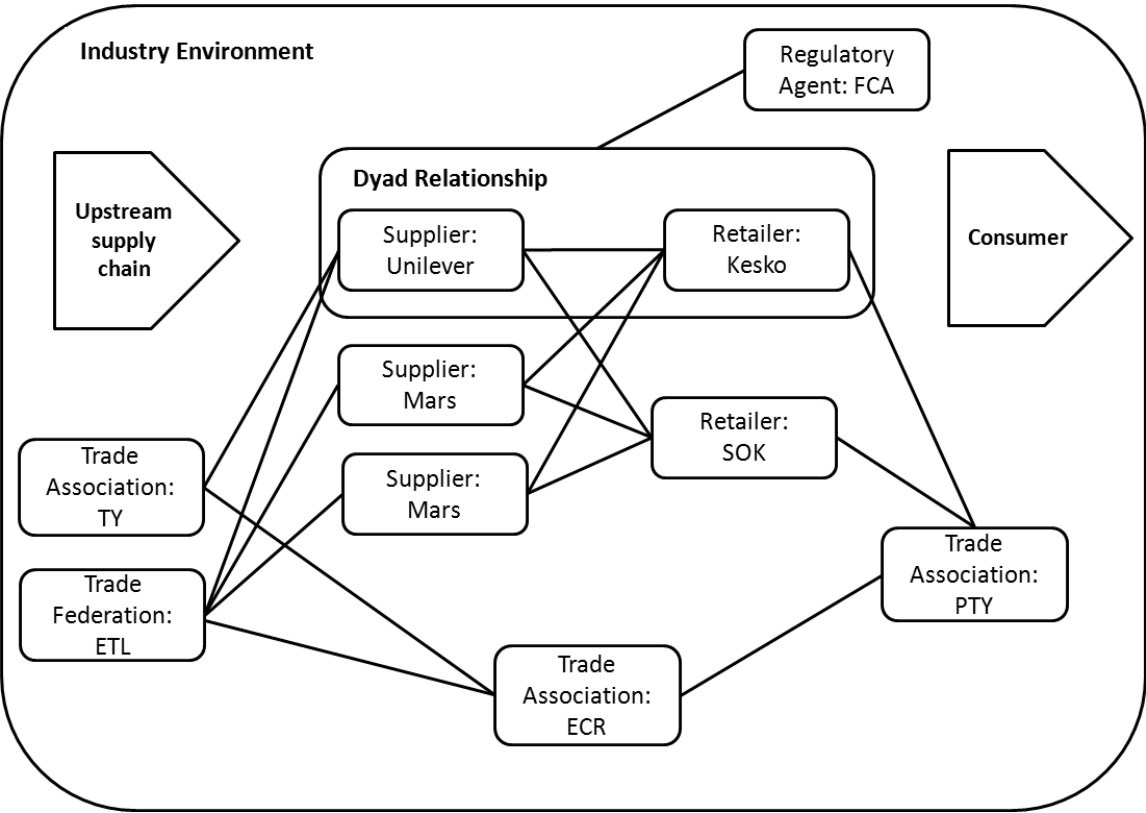
*Table 4. Information Exchange Challenges of Stakeholders*

Stakeholder	Channel position	Main challenges regarding information exchange
FCA	Competition regulator	Identifying tacitly disaggregated data; consultation for the market
ETL	Supplier trade association	Building sales statistics of the total market; regulation of horizontal exchange
TY	Supplier trade association	Practical issues; showing total market data due to partial high concentration
PTY	Retailer trade association	Nothing critical; SME suppliers have a challenge in accessing data from retailers
ECR	Trade association	Lack of retailer interest to develop common system with suppliers
Unilever	Supplier	Accessing and combining data; total market view
Mars	Supplier	Unifying the data from different sources, comparability; total market view
Haribo	Supplier	Internal sales management with less data; total market view
Kesko	Retailer	Nothing critical; new ways to combine data; total market view
SOK & Inex	Retailer & Logistics company	Nothing critical; total market development & category level sales

Moving on, the framework in figure 9 has been refined from the initial framework in section 2.3. In principal, the findings were in support of the earlier model. However, one notable difference regarding the industry actors is the trade associations, which were missing from the earlier model. These have been added to the framework below and the interactions they have with the channel dyad and other network members are visualised.



Figure 9. Refined Conceptual Model of Information Exchange in Finnish Context



The environment and relationship factors influencing information exchange were presented in the initial framework. In this section they have been placed in a separate table (table 5) and the empirical findings regarding each one are discussed. The table identifies the impact of the factors from two different perspectives: first, their bearing on the termination of the ScanTrack system, and second, their influence on the information exchange in the current market situation.



*Table 5. Significance of the Factors Influencing Information Exchange in Finnish Context*

	Factor influencing information exchange	Impact on the termination of ScanTrack	Significance on current information exchange
<b>ENVIRONMENT FACTORS</b>	Extent of concentration	Yes, critical	Yes, indirect
	Extent of collusion	Yes, tacit collusion	No, strictly avoided
	Channel environment	No, decision of retailers	Yes, increasing interaction
	Strategic networks	No	Yes, move to private B-to-B
	Antitrust regulation	Yes, indirect	Yes, horizontal exchange
	Isomorphism	No, on the contrary	Yes, legislative
<b>RELATIONSHIP FACTORS</b>	Internal strategy	Yes, critical	Yes, critical
	Dependence asymmetry	Yes, favouring retailer	Yes, favouring retailer
	Interdependence	Yes, indirect	Yes, different implications
	Trust in supplier	Yes, indirect	Yes, in private B-to-B
	Transaction-specific investments	No	Not directly
	Compound relationships	No evidence	No evidence
	Market orientation	Not directly	Yes, for some firms
	Market power	Yes, favouring retailer	Yes, favouring retailer

One of the most notable issues is that the termination of ScanTrack was not based on broader market interaction. Ultimately it was in the hands of the owners of the data being shared. A few issues arise when comparing the significance of various factors during the termination of ScanTrack in comparison to their impact on the current market situation. Firstly, the extent of collusion has been significantly reduced as companies in horizontal market positions have less information on each other. Most organisations seem to be increasingly cautious regarding the information that they are willing to share. Second, the importance of strategic networks has increased to some extent. Also earlier companies were in dyad interaction with each other, however now there is no neutral third-party service provider from whom to purchase detailed sales information and companies are forced to accumulate this solely from their network members. In the next chapter the research findings and implications are discussed in more detail.



## **5 DISCUSSION AND CONCLUSION**

This chapter goes through the key outcomes of this study. First, the main findings are highlighted as a response to the initial research questions. Second, the theoretical and managerial relevance of this study is examined and suggestions for further research are laid down. Last, the limitations of the paper are discussed and these are followed by the final concluding remarks.

### **5.1 MAIN FINDINGS**

Looking back at the two initial research questions placed for this study, the aim was to analyse what the factors are that influence information exchange in retail environments. The first question addressed the environmental influencers and the second focused on intra-company and relationship-specific factors. In the following, the research results for these two questions are discussed.

First, six different environment factors were identified based on academic literature:

- (1) Extent of concentration
- (2) Extent of collusion
- (3) Channel environment
- (4) Strategic networks
- (5) Isomorphism
- (6) Antitrust regulation

The significance of each one was then analyzed based on the interviews conducted within the Finnish retail sector. An interpretation of the finding is presented in the refined framework in section 4.4. The findings indicate that market concentration is a critical influencer to information exchange. High concentration is potentially followed by issues such as tacit collusion, which was most likely also present before the termination of ScanTrack system in Finland. Again due to the high market concentration, antitrust regulation had an impact on information exchange in the Finnish retail market. Although the Finnish Competition Authorities did not prohibit all the information exchange that ScanTrack presented, the indirect consequence was that the system was terminated. The logic behind such an indirect implication is better responded to by the relationship and company internal factors.



In general, the environment indirectly influences the information exchange as the environmental parameters affect a firm's internal factors and the relationship elements. Related to the latter mentioned issues, the following eight factors were recognized:

- (1) Internal Strategy
- (2) Dependence asymmetry
- (3) Interdependence
- (4) Trust in supplier
- (5) Transaction-specific investments
- (6) Compound relationships
- (7) Market orientation
- (8) Market power

Out of these factors it is the internal strategy and goals of a company that emerge with the greatest significance. Information exchange is drastically influenced by the priorities of a retailer whether they are focused on the category development or aiming to optimize the supply chain and create cost-efficient sourcing. The priorities of the retailers could be argued to be the key influencer to the termination of ScanTrack exchange. Nevertheless, it was the other relationship factors, such as dependence asymmetry favouring the retailer that enabled such an outcome.

## 5.2 RESEARCH IMPLICATIONS

This study contributes to the research of information exchange in several respects. A total of six environment and eight relationship-based factors that influence the information exchange between channel members were identified. Focus of the study was on the rapport between retailer and supplier. First, the study provides new findings to fulfil earlier research gaps. Second, some shortages were identified in the original framework by Achrol et al. (1983). The following elaborates on these research implications.

For its own part this study has contributed to providing insight for the closure of certain research gaps. Frazier (2009) has previously noted that there is a lack of research on distributors sharing strategic information to suppliers. As a response, this study has identified a total of fourteen environment and relationship factors that affect this exchange. Empirical evaluation is based on a highly concentrated market and hence this research gives insight on



the influencer of information exchange in such a market. Nevertheless, the identified factors are also applicable to other types of market environments. One aspect that found support during this research is the importance of *retailer strategy*. It can be argued that the significance of this is enough to drive retailers to terminate public information exchange in order to better control the information that they own. Retailers are then able to execute their internal strategies more efficiently in private dyad relationships with the suppliers.

Another research gap that was earlier established by Frazier (2009) is the effect of market concentration on the sharing of strategic information. Based on this study, the high market concentration has clear consequences on information exchange. First of all, it lays power to the hands of the retailers that are owners of cash register-based market information. In most countries, the cooperation on the sharing of this data is seamless. However, in a situation when retailers are in a strong power position, they are able to withdraw from the system at their own accord. All in all, power seems to be tilted to the benefit of retailer in the relations with the suppliers, which is visible for instance in what information and to whom the retailers are ready to share market information. Second, high market concentration has the potential to distort information like was the case in horizontal retailer information sharing on the Finnish market. The aggregated nature of the data suffered from market concentration. A similar situation is likely to occur also on the supplier side if high concentration exists in a specific product category. In such situations, tacit collusion may occur between companies, even if explicit coordinated behaviour does not arise.

The study has also elaborated on the findings of earlier marketing channel research. A few shortages were identified in a key framework of earlier literature (Achrol et al. 1983; figure 2: “Environment of marketing channel dyads”). The authors identify four different environments surrounding the dyad: the input, output, regulatory and competitive environments. In direct interaction with the dyad are suppliers, customers, regulatory agents and competitors. The model fails to encompass several actors that retailers and suppliers also interact with. Arising from this study are also the trade associations as well as all other partner companies and third party service providers. The model of Achrol et al. (1983) is likely aimed to be a simplification and hence it cannot be assumed to include the entire network of a company. Nevertheless, the Finnish retail environment shows that especially the trade associations are relevant to the dyad. One solution would be to elaborate the initial model so that the “regulatory environment” would in fact include all “external influencers”, namely also as trade associations.



### 5.3 MANAGERIAL IMPLICATIONS

This study shows that the Finnish retail sector is in strong transformation with what comes to the sharing of market information amongst the stakeholders, especially between the distributors and suppliers. This research gives managers an in-depth analysis of the situation and a possibility to see reactions outside their imminent sphere of interaction. The relevance of this study does not fade although it is a snapshot in time. In fact, since it focuses on the specific years of 2007-2009, it is able to give valuable insight on initial reactions as well as on the process that it took to proceed to the solutions that followed or that may potentially emerge in the future. The findings voice out the factors that influence information exchange on any market between a retailer and a supplier. Moreover, the importance of each of these actors on the Finnish retail market is discussed. For retailers and suppliers this study is an opportunity to increase comprehension of each other's views. They can also benefit from the structured framework to analyse the influencers of information exchange.

The regulatory situation in Finland differs quite drastically from what it is in other countries, even those close by. This study gives managers a clear analysis of the situation from several perspectives. First, it can be useful when managers need more information of the Finnish retail sector in particular, such as when they are interested in entering the market or strengthening their position within. Second, the analysis of the situation can prove to be a useful benchmark if a similar situation in information exchange and stakeholder relations occur in another country –or another industry. In this sense, practical benefits can also be drawn by competition regulators, who require high-level understanding of all industry sectors. Regulators constantly monitor the market situation and compare the dynamics of different industries. This paper provides them the opportunity to see the discussion of the stakeholders and their reactions to the situation. For the Finnish Competition Authority this study provides viewpoints from firms that were outside their imminent research scope on the matter. Moreover, the study sheds light on the effects of the regulation on the market as several unintended consequences have emerged for which the regulation has not been the direct inflictor.

### 5.4 SUGGESTIONS FOR FURTHER RESEARCH

This study has many interesting directions to which research could be carried forward. Firstly, one suggestion for further research would be to analyse the link between information exchange and retailer strategy in more detail and to identify the different aspects of firm strategy that



may be of relevance. Many of the issues that have been recognized, such as transaction-specific investments, are in fact consequences of the retailers' or suppliers' strategies. This study has given some insight on how strategy may influence information exchange. For instance, retailer interest in developing their category management seems to have a positive effect on the exchange. Despite this effort, the scope is very broad and it would benefit from further analysis focused specifically on the impact of strategy. Moreover, there may be other factors besides those identified in this study that have important influences. The ones mentioned represent prospective paths for extending research in the area. If a supplier perspective is taken an interesting issue for further analysis would be category captain arrangements and more broadly speaking, the possibly unequal position that smaller suppliers have to gaining information from retailers. These research suggestions are applicable to any market, however especially interesting would be to analyse the dynamics in an industry, where information exchange is highly reliant on the dyad relationship, such as the Finnish retail environment.

Moving on, it would be beneficial to conduct quantitative analysis regarding the key influencing factors and the weight each one has. This study has given indication on the impact of the different factors, however a lot of work remains to be done in order to define their significance. A qualitative approach was necessary for this study; conversely future research can benefit from the findings and be able to formulate a quantitative research proposition and baseline hypothesis.

Last, it would be interesting to specify whether the impact of each is the same in different market conditions or if there are noteworthy differences. This raises the point of conducting a comparative research on another market area or a different industry. The Finnish environment is very peculiar in its concentration in the retail sector and therefore a similar study in another market would give additional insight. The retail industry and especially the fast-moving consumer goods are a rapid-paced environment where information is needed on a high frequency. The market dynamics and needs of some other industry may slightly differ. Therefore broadening the scope of the research to another consumer goods or B-to-B industry is tempting.



## 5.5 LIMITATIONS OF THE STUDY

The scope of this research is an industry-wide qualitative study of the Finnish retail sector. It was however necessary to limit the organizations and industry representatives involved. In the end, the pallet included the Finnish Competition Authorities (two interviews), retailer side trade organisation (one interview), supplier side trade organisations (two organisations, totalling three interviews), ECR Finland (one interview), suppliers (three organisations, totalling five interviews), retailers (two organisations, totalling four interviews). This scope is fairly large for the purposes of such a study, yet it may bring some restrictions in generalising the results on a broader scale (see also section 3.4 regarding the reliability of the study). The five firms (Mars, Unilever, Haribo, Kesko and SOK) had all previously used ScanTrack.

Companies that have not used ScanTrack data at any point were left out of the scope of the study. However, these companies are scarce in existence since all major players used the data. Some rare examples do exist: The fourth largest retailer Lidl with an approximately 4 percent market share is commonly known to have been outside the system –both in terms of providing data and purchasing it. According to information received from both retailers and suppliers, virtually all suppliers in the branded packed goods industries – especially multinational companies – used the system. The companies outside of the usage were mainly agricultural entrepreneurs and local regional companies, typically being producers of fresh goods such as vegetables or pastries. Due to the scope and purpose of the research these companies were not relevant for the study.

Geographically the study focused on the Finnish market and especially those companies that had been users of the ScanTrack system. There was no motive to expand the study at the same time to other geographical regions since the key drivers of the analysis were market-specific. These drivers included local market dynamics and competition regulation. It is likely to take an entirely new study to analyse the key influencers of information exchange on a different market. Having now established the factors it is however possible to study their different impacts in other markets in comparison to the market at hand.

This study was slightly limited in its time scope. The study was carried out during approximately a two-year time frame. As all industries are constantly evolving and new ways of sharing information emerge, individual companies continuously develop and take on new strategic directions that affect the type of information exchange that they are interested in.



These transformations are in a two-way impact with the relationships between the companies: changes within a company affect their relationships and, in reverse, the relationships of a company may urge it into new strategies and tactics. All in all, the evolution is constant and thus this study was only able to catch the information exchange patterns at one given moment.

## 5.6 CONCLUSION

The decision of the Finnish Competition Authorities to terminate horizontal information exchange between the retailers was not meant to have implications beyond these firms. Nevertheless, the indirect consequences spurred further into the market. It can be argued that the ending of ScanTrack on the Finnish market has affected suppliers the strongest. Although initial worst case scenarios and impact speculations have not taken place, the challenges are still significant. The retailers are also missing information on the overall market, yet they do not acknowledge so drastic shortcomings as the suppliers. The trade associations have not been impacted in their daily business in such an extent as the suppliers and retailers; yet their possibilities to collect market information and compile statistics have been reduced in a few cases. To some extent, their data analysis is also based on other sources and hence the effects have been minimal. Nonetheless, the trade associations of especially the suppliers have voiced concern on behalf of their member companies.

It is interesting to analyse whether there has potentially been implications for the consumers. Initially concerns were raised that limited information may affect for instance product developed and meeting consumer needs on the long run. To a large extent major suppliers are engaged in deep B-to-B relationships with the retailers and this type of an information flow has not fully ceased. Consumer information is also derived from other sources that have not been affected by the termination of ScanTrack. Interestingly, the interviewed company representatives were fairly unanimous on their view that little negative consequences have reached the consumer. This opinion was voiced both from the retailer as well as the supplier side. However, having less competitor information in price-setting is likely to increase aggressive pricing, which draws down the prices, thus positively affecting the consumers.

Due to the full termination of the system, the FCA is to this date occupied by the consultation of organisations. Companies and trade associations are very careful in the new types of information exchange that they embark on. Since carrying out the empirical analysis for this



study, an information exchange system was brought to the public in February 2010. Having been built up by the Finnish Food and Drink Industries' Federation (ETL), the cooperative called Selma aims to give an overall market view to suppliers by measuring their deliveries to the trade. Also when creating this system, the ETL was in close interaction with the competition regulators. Selma is a clear response to the findings of this study, which have indicated that the current organizational needs are towards building a more comprehensive picture of the market. It also portrays the development of the industry that has constantly evolved since the beginning of this research. Nevertheless, it is not a one-off answer to all the dilemmas that have surfaced during this study.

When looking back at the transformation that has occurred on the information exchange in the retail sector, the time span of the events is something what grabs attention. In 2006, information exchange was carried out through the ScanTrack system and a few years later in spring 2008 it was fully terminated. This study has taken place between March 2008 and January 2010. During the months and years after the ScanTrack service ended, the changes that have occurred have mainly put focus on individual company relationships. Private B-to-B interaction between given company dyads has increased its importance as more and more of the information exchange is carried out through face-to-face meetings or at least agreed to in this type of direct interaction. Less development can be seen on the industry level and very few companies or coalitions have emerged as third party service providers. Initial strong speculation of new information exchange service providers soon dried off. A crucial draw-back for this has been the retail traders' disinterest to share their cash register consumer sales data.

In conclusion, the Finnish retail market is slowly moving towards new solutions to replace the information shortage that followed the termination of ScanTrack. However, many challenges still remain unsolved and the future will show what type of interaction or information sharing systems will be created to meet the broad and constant need for market information.



## 6 SUMMARY

The objective of this study was to analyze the exchange of market information in an organizational setting and the factors that influence it. The topic was approached from two different angles:

- (1) How does industry structure and environment affect information exchange?
- (2) How do company internal factors and relationship traits affect the nature and content of information exchange?

The theoretical part of the study analyses industry and channel environments as well as market concentration and external regulation to identify influencing factors to information exchange. Similarly, the relationship and company internal factors are elaborated through the analysis of the dimensions of commitment, compound interaction, market orientation and the internal company strategy. As a result, a theoretical framework is presented in section 2.3 to illustrate the environment and relationship factors affecting information exchange.

Empirically the study is positioned in the Finnish retail sector. This specific market has faced drastic changes in the past years due to the termination of the ScanTrack –based information exchange system. ScanTrack was a service operated by the international company AC Nielsen, who collected bar code data from retailers and processed it for further distribution. The company runs a similar system on numerous other countries. However in Finland, the high market concentration of the retailers brought challenges in the usage from the perspective of antitrust regulation. As an indirect result of actions of the Finnish Competition Authority, the entire system was terminated.

The findings of this study indicate that the internal strategy of a company drastically affects the motivation of the company to engage in different kinds of information exchange. In a highly concentrated market, where the relationship dynamics are polarized for the favor of the retailer, it is very likely that the retailers are able to make significant decisions on information exchange solutions and processes.



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## INTERNET SOURCES

Accessibility to all internet links has been verified as of 30.4.2010

ECR Finland: <http://www.ecr-finland.com/>

European Union, EUR-lex:

[http://eur-lex.europa.eu/en/treaties/dat/12002E/htm/C\\_2002325EN.003301.html](http://eur-lex.europa.eu/en/treaties/dat/12002E/htm/C_2002325EN.003301.html)



Finnish Competition Authority (FCA): <http://www.kilpailuvirasto.fi/cgi-bin/english.cgi?sivu=dyn/uutiset>

Finnish Cosmetic, Toiletry and Detergent Association (TY): <http://www.teknokem.fi/home>

Finnish Grocery Trade Association (PTY): <http://www.pty.fi/?id=309>

Finnish Food and Drink Industries' Federation (ETL): <http://www.etl.fi/www/fi/>

GS1 Finland: <http://www.gs1.fi/>

Haribo international: <http://www.haribo.com/planet/sprachauswahl.php>

Haribo Lakrids: <http://www.haribo.com/planet/fi/info/frameset.php?start=1>

Inex Partners: <http://www.inex.fi/english/>

KAULIN research initiative: <http://www.kaulinhanke.fi/cms/FC?cmsPage=true&link=807>

Kesko: <http://www.kesko.fi/en/>

Mars: <http://www.mars.fi/Finland/en/Who+we+are.htm> and <http://www.mars.com/global/Who-we-are.aspx>

Markkinointi ja Mainonta (a Finnish marketing and advertising magazine):

18.10.2007: <http://www.marmai.fi/uutiset/article66584.ece>

21.2.2008: <http://www.marmai.fi/uutiset/article67018.ece>

23.6.2008: <http://www.marmai.fi/uutiset/article113989.ece>

2.2.2010: <http://www.marmai.fi/uutiset/article370150.ece>

31.3.2010: <http://www.marmai.fi/uutiset/article390981.ece>

The Nielsen Company: [http://fi.nielsen.com/products/rms\\_scantrack.shtml](http://fi.nielsen.com/products/rms_scantrack.shtml)

OECD (organization for Economic Co-operation and Development (1998) Buyer Power of Large Scale Multiproduct Retailers 6. *Policy Round Table*, direct link:

<http://www.oecd.org/dataoecd/1/18/2379299.pdf>.

S Group: [http://www.s-kanava.fi/valtakunnallinen\\_en/etusivu/](http://www.s-kanava.fi/valtakunnallinen_en/etusivu/)

Statistics Finland, [http://www.stat.fi/index\\_en.html](http://www.stat.fi/index_en.html)

Suomen Lähikauppa Oy: <http://www.lahikauppa.fi/en/company/>

Taloussanomat (a Finnish financial newspaper) 4.12.2008:

<http://www.taloussanomat.fi/kauppa/2008/12/04/paivittaistavaroiden-scantrack-tutkimus-loppuu-suomessa/200831338/12>

Unilever: <http://www.unilever.fi/> and <http://www.unilever.com/>



## APPENDICES

### Appendix 1. Detailed Interview Listing

	COMPANY	INTERVIEWEE	POSITION	TIME OF INTERVIEW
<b>REGULATORS</b>	Finnish Competition Authority	Kirsi Laine	Director, Cartels	May 2009
		Tom Björkroth	Senior Research Officer	May 2009
<b>TRADE ASSOCIATIONS &amp; FEDERATIONS</b>	ECR Finland /GS1 Finland Oy	Jukka Jokiranta	Development Manager	May 2009
	Finnish Grocery Trade Association (PTY)	Osmo Laine	Managing Director	May 2009
	Finnish Food and Drink Industries' Federation (ETL)	Maija Peltola	Director, Business Policy	May 2009
		Heli Tammivuori	Branch Manager, Business Policy	May 2009
	Finnish Cosmetic, Toiletry and Detergent Association (TY)	Sari Karjomaa	CEO	January 2010
<b>SUPPLIERS</b>	Unilever Oy	Seppo Salo	Customer Marketing Manager	May 2008 & December 2009
	Mars Finland Oy	Jukka Nokelainen	Business Manager	November 2009
		Henri Mäkinen	Management Trainee	November 2009
	Haribo Lakrids Oy	Timo Rajanen	Sales Director	December 2009
<b>RETAIL TRADERS</b>	Kesko Food Ltd	Minna Kurunsaari	Vice President, Commerce	June 2009
		Maija Mustonen	Development Manager	May 2009
	S Group (SOK)	Ilkka Alarotu	Director, Assortments & Pricing	December 2009
	Inex Partners Oy	Hannu Pellinen	Sourcing Director	December 2009

### Appendix 2. Framework of Interviews

The interviews all had a chronological structure moving from past occurrences to the present situation and thereafter future prospects. Non-leading questions were used and probing when necessary. Examples of interview questions and overall formulation of the questions has been discussed in section 3.2.

All the interviews started with the following elements (see for comparison the guidelines of Maykut & Morehouse, 1994, 94):

1. Personal introduction with focus on interviewer's study and work background



2. Statement of purpose (incl. contribution to the KAULIN research initiative)
3. Background and scope of the research and participating companies
4. Description of the interview structure and agenda; double-checking of the time available from the interviewer's side
5. Request of permission to record the interview (granted by all interviewees)

Likewise, all interviews ended with the following elements (if they had not been brought up earlier by the interviewee):

1. Request for permission to mention the company and person by name (this was granted by all organizations and interviewees)
2. Additional information on the study: Schedule, language of writing (English), structure of the paper as it focuses on themes rather than individual organizations
3. Mentioning the possibility to receive a copy of the thesis once it is finalized (all parties were interested in this)
4. Permission to contact the interviewees if further questions or issues arise