Reasons for Marketing Metric Importance in Finnish B2B Markets - Twin-study approach

Marketing

Master's thesis

Juuso Haavisto

2013

Aalto University
School of Business

Reasons for Marketing Metric Importance in Finnish B2B Markets

Twin-study approach

Master´s Thesis
Juuso Haavisto
16.05.2013
Marketing

Approved in the Department of Marketing ___/___/20___ and awarded the grade

_____

FACTORS AFFECTING MARKETING METRIC IMPORTANCE IN FINNISH B2B MARKETS: TWIN-STUDY APPROACH

PURPOSE OF THE STUDY
For long marketing performance has been hard to grasp and thus marketing has been repeatedly described as a soft science that cannot be numerically measured. However, marketing performance measurement has developed to contain a large variety of metrics that can be used to quantify marketing performance. Although metrics provide insight, marketeers still need to decide which marketing metrics are the most meaningful in their own context. In the present study, the importance of individual marketing metrics was explored in Finnish B2B markets to discover factors that affect marketing metric importance.

METHODOLOGY
The present study applied a twin-study approach to discover dependencies in a research area (marketing performance measurement in B2B markets) that had not bee extensively explored. First, meaningful insights were discovered by conducting 10 interviews in an in-depth case study. Second, a broader quantitative study was conducted on the basis of Stratmark research data collected in 2010. Analysis of Variance (ANOVA) method was used to discover how factors discovered in the case study would fit the model in a broad, market wide data set. The factors were tested against the importance of 41 marketing performance metrics.

FINDINGS
Case study interviewees divided markets into attacker and defender markets that required different kinds of marketing competitive methods and thus different performance metrics. Two factors were detected to the quantitative study: relative company position at the market and market-life cycle stage. The factors were discovered to have a significant effect to importance of nine marketing metrics.

KEYWORDS: ANOVA, analysis of variance, marketing metric, case study, marketing performance, relative company position, market life-cycle stage

MARKKINOINNIN SUORITUSKYKYMITTAREIHIN VAIKUTTAVAT FAKTORIT SUOMEN B2B-MARKKINOILLA

TUTKIMUKSEN TAVOITTEET
Markkinoinnin suorituskykyä ja taloudellisuutta on ollut perinteisesti vaikea mitata. Markkinointia onkin pidetty pehmeänä tieteenä jonka suorituskykyä ei voida kvantifioida numeerisiksi mittareiksi. Markknoinnin suorituskyvyn mittaus on kuitenkin kehittynyt sisältämään suuren joukon mittareita joilla suorituskyvyn saa vertailukelpoiseksi eri yritysten ja ajanjaksojen välillä. Vaikka suuri lukumäärä mittareita tuottavat paljon tietoa, markkinoijien tulee pystyä tunnistamaan heidän liiketoiminnan kannalta oleellisimmat markkinoinnin suorituskyvyn mittarit. Tutkielman tavoitteena on tunnistaa yritysten ja markkinoiden ominaispiirteitä Suomen B2B markkinoilla, joilla on vaikutusta yksittäisten mittareiden tärkeänä pitämiseen.

METODOLOGIA
Tutkielmassa käytettiin kahta kokeellista tutkimusmenetelmää B2B markkinoinnin suorituskykymittauksen tutkimiseksi, koska alueella ei ole ollut paljon tutkimuksia. Tutkimusmenetelmillä pyrittiin saamaan tutkimusalue paremmin hahmotettua kuin yhden menetelmän tutkimuksessa. Ensin tutkimusaluetta hahmotettiin tapaustutkimusmenetelmin haastattelemalla yhdestä alan yrityksestä kymmentä avainhenkilöä. Tapaustutkimuksesta saatuja testattiin varianssianalyysissä, jossa aineistona käytettiin vuonna 2010 kerättyä Stratmark -hankkeessa kerättyä aineistoa. Kvantitatiivisessa tutkimuksessa testattiin tapaustutkimuksessa havaittujen tekijöiden vaikutusta 41 markkinoinnin mittarin tärkeyteen suomalaisissa B2B markkinoiden yrityksissä.

TULOKSET
Tapaustutukimuksessa haastateltavat jakoivat markkinat hyökkäävää markkinointia ja puolustavaa markkinointia vaativiin markkinoihin ja yrityksiin, jotka vaativat eri keinoja ja mittareita markkinoinnissa. Kaksi faktoria valittiin kvantitatiiviseen tutkimukseen: yrityksen suhteellinen markkina-asema ja markkinan elinkaaren vaihe. Varianssianalyysissä havaittiin faktoreilla olevan yhdeksän mittarin tärkeyteen tilastollisesti merkittävä vaikutus.

AVAINSANAT: ANOVA, varianssianalyysi, markkinoinnin mittaaminen, tapaustutkimus, markkinoinnin suorituskyky, suhteellinen markkina-asema, Markkinan elinkaari

Table of Contents

1. Introduction

Measuring marketing's effect on company performance has recently emerged as a hot topic in academia as well as in the business world. Although the study of marketing metrics begun already in the 1950s (Shuchman 1959, in Clark 1999; Clark 2001), the accountability of marketing has only latter become salient.

Bruce Clark (2001) argues there are four reasons why marketing accountability has become more important than before. First, he claims that companies have reached the point of diminishing returns after period of bigger margins occurred due to extensive cost reductions in 1990s, and business managers are now looking to marketing for better performance. Second, the change in cost structure in industries resulted marketing taking a bigger proportion of overall expenses, even more increasing the attention from other departments. Third, there has been a general demand for more information concerning marketing activities. Finally, the popularity of balanced scorecard and other multidimensional efficiency measurement systems have raised debate how marketing can be measured and what marketing metrics should be used.

In the business world, managers have been found to make decisions based on numerical estimates and probabilities more often than before (Borison and Hamm 2010; Ambler and Roberts 2008). Indeed, marketing is also under pressure for greater accountability (Rust et al. 2004; Clark 2000; Ambler and Roberts 2008; Ambler 2006; O'Sullivan and Abela 2007). Although marketing

accountability can be expressed in many marketing metrics, metrics often describe intermediate stages of marketing performance, not the financial impact of marketing. Therefore, marketing has faced challenges in expressing its value in financial language, which is the language often used by corporate management (Srivastava and Reibstein 2005).

Due to lack of finance related measures, marketing is in large extent perceived to be intangible for managers, and therefore is often considered as 'soft science' (Clark 1999; Rust et al. 2004), as marketing efforts are often hard to quantify in an exact, meaningful manner. Thus, for marketers it is crucial to find a way to measure marketing effect on company performance in order to justify marketing investments to the management teams, whom might not have further marketing knowledge.

1. Combination of demand for accountability and decision-making based on numerical estimates seems to currently drive the research of marketing performance measurement. Prior research has created models how the initial marketing inputs are converted through measurable intermediate stages into revenue and growth of market-based assets (e.g. Rust et al. 2004). Indeed, O'Sullivan and Abela (2007), introduce 5 general links between marketing performance measurement (MPM) and company performance. First, they claim that the old phrase "what gets measured, gets done" is well argued in the business world. Second, marketing's contribution is undermined in companies that do not measure marketing

performance. Thus the companies might not use the hole potential marketing has to offer, and such companies may suffer. Third, marketing performance measurement should lead to learning, which again should lead to better operations and company performance. Fourth, MPM gives feedback to decision makers. Feedback has been found to influence managerial attitudes and behavior (O'Sullivan and Abela, 2007). Thus, there is a reason to assume that marketing performance measurement in itself could affect company performance.

The prior research of MPM has mainly been on general marketing, without specialization to distinct marketing setting, although the effect of the sector has been suggested to be significant (Morgan, Clark and Gooner 2002). Prior researches of MPM in a specific sector have been focused on consumer marketing. Few studies have focused on B2B marketing, although the importance of B2B marketing is increasing, especially in the service context (Pansear, Markeset and Kumar 2008; de Bretani and Ragot 1996).

Although requests for industry specific (O'Sullivan & Abela 2007), and firm level (Rust et al. 2004) researches have been made in the previous literature, there has been a lack of exploratory in-depth approach in the field of B2B services. The models have listed what issues could affect the selection process, but not how the issues affect. Thus, the researches have not been able to discover the reasons for importance of specific metrics. The present thesis aims to explore this gap in prior research in B2B service sector. Due to the lack of similar

studies in literature, an inductive and exploratory approach was selected for the research.

The present thesis aims to explore the gap in research by focusing on B2B service sector. the previous studies have not gone in depth to discover the underlying reasons for metrics selection and importance. By viewing company contexts, the present thesis seeks to discover contextual parameters that affect marketing metric importance in Finnish B2B service sector. The aim of the thesis is to explore the reasons for marketing metric importance, and discover to what metrics and in how the underlying reasons affect.

1.1 Research objective

Based on previous literature, the research objective of the present thesis is to explore contextual reasons for marketing metric importance in Finnish B2B service sector in more detail than the general models have done. so far The main research question of the thesis is:

what and how underlying factors affect the marketing metric importance in B2B service sector in Finland?

The main research questions can be divided into three sub-problems:

1. What kinds of metrics are perceived to be important in B2B service sector in Finland?

2. What are most significant factors in individual metric importance?

3. How the most significant factors affect the importance of individual marketing metric importance?

The research is conducted as a mixed method study, first discovering significant factors with an in-depth qualitative case study, and then exploring the effect of factors quantitatively by using the Stratmark research project questionnaire data gathered in 2010.

1.2 Contribution

The research contributes to ongoing discussion of Marketing Performance Measurement. Very few sector specific studies have been conducted in the field of MPM, and even less studies focusing of reasons for metric importance. The present thesis will explore B2B service sector, which is rarely examined in MPM research, thus expanding the view of MPM research to new area.

Indeed, the prior researches have not been focusing on discovering the underlying reasons for metrics selection, and thus the prior models have been rather abstract, and the concepts discussed have not been linked to specific reasons for importance of particular metrics. Specially B2B service sector has been understudied. The present thesis will seek to step down from the broad, general level and explore in more detail, what underlying reasons there are for selecting certain metrics in a contextual setting.

1.3. Definitions

Marketing. Marketing definitions come in many colors. It can be said just to be "the business of creating and regenerating cash flow" (Ambler 2001). Although otherwise very broad, this definition completely neglects the notion of customers and other stakeholders than the company in question.

Indeed, American Marketing Association (Keefe 2008) defines marketing as: "Marketing is the activity, set of institutions, and processes for creating, communicating, delivering, and exchanging offerings that have value for customers, clients, partners, and society at large". AMA definition includes in practice all direct and indirect stakeholders through mentioning society at large. However, the broadness of terms creates confusion.

In order to emphasize marketing's different roles, Tim Ambler (2000) divides marketing into three distinct concepts. First, he defines pan-company marketing as a mission to secure customer preference, and thus not optional but a necessity. He notes that every company in the world does it, even if unintentional. Second, functional marketing is defined by the work of marketing professionals and departments. Such as controlling the marketing mix or trade marketing functions. Finally, Ambler introduces marketing expenditure, which is the most visible part such as advertising and promotion. Ambler notes that when return on marketing is discussed, marketing expenditure is usually referred to. In this thesis the all three stages are examined, as metrics try to quantify the actions that are done due to pan-company marketing as well as functional

marketing. The results are then often compared to the third concept, marketing expenditure.

B2B service (B2B service). B2B service refers to service that a corporate entity provides for other corporations. In the research a company was considered to be in B2B service sector if 50% or more of its revenues come from B2B services.

Marketing Performance Measurement (MPM). MPM seeks to measure the link of marketing activities and company performance. The goal of MPM is to show the value of marketing inputs (O'Sullivan and Abela 2007). O'Sullivan points out that when measuring marketing performance, the aim is to measure marketing activities, such as communication, promotion and other activities that goes under marketing budget, not marketing as function. O'Sullivan and Abela (2007) divide MPM into three branches: (1) measurement of marketing productivity, (2) identification of metrics in use, and (3) measurement of brand equity.

Marketing metric. When MPM refers to the system how marketing performance is being assessed, metric is a narrower concept. Metric can be defined as a type of measure that seeks to quantify the performance of marketing as a whole (e.g. marketing's return on investment), or a certain are of marketing function (e.g. brand awareness). Metrics can be used as a part of a bigger MPM system.

2. Literature Review

In this section, the previous literature is examined to build a theoretical framework for the thesis. The section starts with discussion about firm performance in general, and goes further by explaining how marketing affects it. Finally, the review describes the role marketing performance measurement as a tool for quantifying the marketing effect to company performance, and what affects to pool of metrics used in an organization.

2.1. Marketing and firm performance

In recent years, shareholder value has become a major goal of companies (Doyle 2008). Shareholder value consists two main components (Day and Fahey 1988): First component is the present value of cash flows during the foreseeable planning period, and second, long-term goal is residual value of the business at the end of the value growth period, in other words the residual business cash flow after the end of planning horizon. The residual value of business has not yet been realized in monetary terms, but marketing has been argued to affect the residual value in form of intangible assets (e.g. staff, knowledge, brands, customer and supplier relationships) (Doyle 2008). The importance of cash flow is emphasized by the fact that it is one of few measures that are consistent across markets, products, customers and activities (Stewart 2009).

The popularity of shareholder value as a business value yardstick is due to restrictions of conventional accounting (Doyle 2008). Accounting has been criticized to represent short-term view of business (Rappaport 1983) and it is agued to fail to include two important concepts (Doyle 2008). First, conventional accounting neglects the importance of intangible assets, which do not appear on balance sheet. Second, it focuses only on tangible assets although intangible assets form an essential part of company value, which can be seen as higher market-to-book ratios for companies that possess significant intangible assets (Little et al. 2009). Through shareholder value based performance evaluation companies can achieve several advantages (Rappaport 1983):

1. measurement is tied to a strategic plan,

2. measurement is free from "accounting gamesmanship" because it is strictly tied to cash flow, and

3. managers have an incentive to maximize shareholder value, not short term profits.

Prior literature introduces many ways to enhance shareholder value (Rappaport 1983; Srivastava, Shervani and Fahey 1998; Stewart 2009):

1. acceleration of cash flows,

2. increase in the level of cash flows,

3. reduction in risk associated with cash flows

4. enhancing the residual value of the business cash flows

There has been a long debate of how marketing contributes to enhancing shareholder value and financial performance (Bonoma and Clark 1988; Srivastava, Shervani and Fahey 1998; Ambler and Roberts 2008), and consequently shareholder value. The performance impact of marketing has been questioned (Rust et al. 2004) and unclear (Fine 2009). Marketing's linkage to shareholder value and inward cash flow created has not been explicit (Uzelac and Sudarevic 2006; Doyle 2008; Stewart 2009). There are many reasons for the difficulty of connecting marketing and financial results (Bolton 2004; Uzelac and Sudarevic 2006):

1. marketing focuses on up-stream supply chain stages that are at distance from financial results,

2. marketers have negative attitudes towards language of finance,

3. viewpoint differences,

4. lack of common key concepts, and

5. unrealistic requirements of academic models.

Thus marketing's role as a catalyst for shareholder value has not been fully understood (Rust et al. 2004; Webster, Malter and Ganesan 2005), and the marketing profitability has been questioned (Doyle 2008).

Peter Doyle (2008) argues that the debate of marketing's productivity has been derived from misconception: managers have maximized profitability instead of shareholder value. He argues: "maximizing profitability is short-term and invariably erodes a company's long-term market competitiveness" (Doyle 2008,

p.3). Doyle reasons that the easiest way to maximize short-term profitability is to cut costs and thus provide 'quick-fixes' in earnings. However, companies should ensure long-term economic value growth by identifying growth opportunities and building competitive advantage through market-based assets. Studies have revealed that marketing capability indeed has a high effect on company performance (O'Sullivan and Abela 2007; Krasnikov and Jayascandran 2008; Kumar and Shah 2009). Thus, it can be assumed that marketing has an effect on company performance.

In theory, many models exist to link marketing actions to financial outcomes. Stewart (2009) suggests that marketing is linked to financial outcomes through an intermediate marketing outcome (see Fig 2.1).

Fig 2.1: Linking marketing actions to financial outcomes (Adopted from Stewart 2009)

Stewart suggests that every marketing action should have a linkage to cash flows, be it in future or today. The time delay between action and financial outcome would occur due to at least one intermediate marketing outcome step (e.g. increase in brand equity) before the causal cash flow occurs. However, the model is perhaps too simplistic, because the natures of intermediate marketing outcomes vary in nature, and understanding the different stages helps to

conceptualize the marketing effect. The following stages of respective marketing performance have been identified in prior researches:

1. marketing resources and capabilities (Hooley et al. 2005),

2. marketing strategy (Rust et al. 2004)

3. customer reaction (Bolton 2004; Rust et al. 2004; Ittner and Larcker 1998),

4. market performance (Bolton 2004; Rust et al. 2004; Hooley et al. 2005; Jaakkola et al. 2010),

5. financial impact (Hooley et al. 2005),

6. impact on shareholder value (Rust et al. 2004).

Rust et al. (2004) describe the process as "the value chain of marketing (Fig. 2.2).
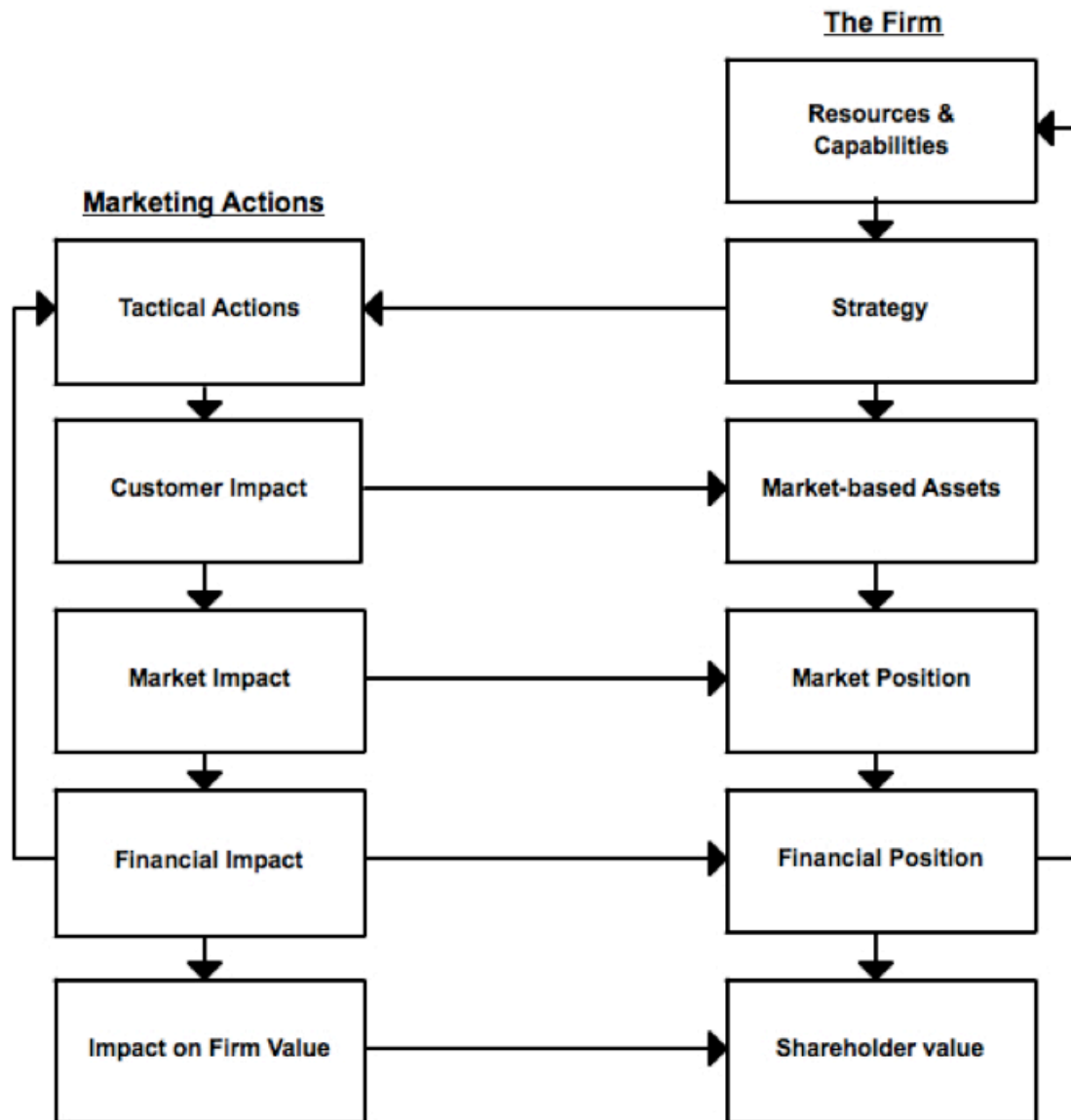
Figure 2.2: The Chain of Marketing Productivity (Adapted from Rust et al. 2004)

In the model by Rust et al. (2004), the marketing strategy is the initiator of the marketing productivity process. However, Hooley et al. (2005) suggest that marketing resources and capabilities have a place even before the marketing strategy, as marketing strategy is derived from corporate capabilities and resources. However, marketing strategy can be identified as source of

competitive methods and advantage, as well as driver for financial performance (Srivastava, Shervani and Fahey 1999).

On a tactical level, managers need to know how to successfully meet the goals set by marketing strategy and act accordingly. Possible tactics used are evaluated on the basis of value creation ability to firm's customer base (Rust et al. 2004): tactics should always aim to fulfill business strategy, and generate shareholder value through increase in value of customer base.

In turn, implemented tactics have a customer impact. Ambler et al. (2002) list five key dimensions of customer effect that marketing can produce:

1. Customer awareness: the extent to and ease with which customers recall and recognize the firm, and the extent to which they can identify the products and services associated with the firm.

2. Customer associations: the strength, favorability, and uniqueness of perceived attributes and benefits for the firm and the brand.

3. Customer attitudes: the customer's overall evaluations of the firm and the brand in terms of its quality and the satisfaction it generates.

4. Customer attachment: how loyal the customer is toward the firm and the brand

5. Customer experience: the extent to which customers use the brand, talk to others about the brand, and seek out brand information, promotions, events and so on.

The aggregated customer impacts form the market performance, which can be quantified with market-based assets of the firm (Srivastava, Shervani and Fahey 1998) (the concept has also been called "marketing asset" by Rust et al. 2004, and "brand equity" by Aaker 1991, in a similar fashion). In the present thesis it will be called market-based asset because the customers and markets are external to the firm, and thus the name should reflect that.

Market performance in shape of market-based assets is an antecedent to financial business performance (Jaakkola et al. 2010) and shareholder value (Rust et al. 2004), and thus market-based assets can be said to be "a reservoir of cash flow that has accumulated from marketing activities but has not yet translated into revenue" (Rust et al. 2004), or an intermediate marketing outcome (Stewart 2009). Traditionally the linkage between market-based assets and financial performance has been hard to prove, and thus marketing's importance for value creation has been questioned (Srivastava, Shervani and Fahey 1998). This limits investments into marketing activities, which further restricts the ability to create and manage shareholder value and market-based assets. Srivastava, Shervani and Fahey (1998) argue "a failure to understand the contribution of marketing activities to shareholder value continues to diminish the role of marketing thought in corporate strategy."

2.2. Market-based assets

Market-based assets can be divided into two categories: relational and intellectual (Srivastava, Shervani and Fahey 1998). Both are intangible, do not

appear on balance sheet, and are external in nature. Externality means that the assets are generated in some extent outside of company control (e.g. in customers' minds). Relational market-based assets are "outcomes of the relationship between a firm and key external stakeholders" (Srivastava, Shervani and Fahey 1998), such as brand equity resulting from marketing communications, and channel equity from long and successful business relationship. Intellectual market-based assets are "the types of knowledge a firm possesses about the environment" (Srivastava, Shervani and Fahey 1998). The knowledge could be for example information that a company can gather of facts, perceptions, beliefs, assumptions and projections of industry, competitors, customers, channels, suppliers or political interest groups.

Srivastava, Shervani and Fahey (1998) suggest that market-based assets are "a principal bridge between marketing and shareholder value". However, market-based assets remain to be off-balance sheet assets and thus not often targets of proper measurement in many companies. However, the financial effect of market-based assets can be observed from stock markets, as market-to-book ratios of Fortune 500 companies are traditionally over 1.0 (Srivastava, Shervani and Fahey 1998), meaning that on-balance sheet assets are not sufficient to explain the market value of companies. Furthermore, Little et al. (2009) found that companies that possess high relative brand value and corporate reputation have significantly higher market-to-book ratios than comparisons with low relative brand value and corporate reputation. In other words, companies with high market-based assets have higher market-to-book

ratios. Thus, market-based assets can be assumed to increase shareholder value trough market- and financial position.

Srivastava, Shervani and Fahey (1998) propose that the whole marketing in general deals with developing and managing market-based assets. The market-based assets in turn contribute to financial performance and shareholder value by "accelerating and enhancing cash flows, lowering the volatility and vulnerability of cash flows, and increasing the residual value of cash flows". Srinivasan and Hassens (2009) found similar links between market based-assets and financial performance. However, market based assets do not contribute to cash flow immediately. Typically, marketing based assets are converted to cash flow over time (Stewart 2009). The time lag between actions and outcomes can be illustrated by the chain of marketing productivity (Fig. 2.2.) (Rust et al. 2004). Due to the time lag between generation of market based assets, and financial performance, it is beneficial for a company to measure market-based assets systematically to gain knowledge of total performance of an organization. Thus measurement of market-based assets could be considered valuable for organizations.

2.3. Measurement of the marketing performance

As a result of emphasizing shareholder value as a business goal, there have been requests of measuring marketing in these terms as well (Srivastava, Shervani and Fahey 1998; Doyle 2008; Stewart 2009). Thus, the purpose of marketing today is changing from creating value to customers to creating and

managing market-based assets to deliver shareholder value (Srivastava, Shervani and Fahey 1998, Doyle 2008). The change has resulted in a need to measure marketing's effect to financial performance of the company in a systematic manner (Srivastava, Shervani and Fahey 1998; Uzelac and Sudarevic 2006; Stewart 2009). In the past, the difficulty of measurement has argued to cause underinvestment in marketing and thus underperformance of companies (Srivastava, Shervani and Fahey 1998; Stewart 2009). Companies should have a cyclical tracking mechanism to evaluate how marketing expenditure influences the market-based assets and shareholder value (Rust et al. 2004; Clark, Abela and Ambler 2005), or in short, what-do-we-do should be inseparable from why-we-do-it (Uzelac and Sudarevic 2006). The usage of marketing metrics has been increasing (Barwise and Farley 2004), which could suggest that companies are beginning to see the value of Marketing Performance Measurement (MPM).

However, Rust et al. (2004) list three challenges to linking marketing to shareholder value:

1. Measuring marketing effect: marketing activities are related to long-term effects instead of immediate cash flow, causing challenges in quantifying the marketing impact

2. Separation of marketing from other actions: marketing never happens in a vacuum and isolating the marketing effect can be hard

3. Finance dominating reporting culture: marketing needs non-financial measures, which are often undervalued in the business world

Ambler et al. (2002) suggest the challenges can be overcome by measuring marketing effect in a broad sense, not specific campaigns or medias and taking into account brand equity and non-financial metrics and affecting to the finance dominated reporting culture.

Although market-based assets are not converted into cash flow immediately, the assets need to still be accountable (Stewart 2009). Thus, intermediate marketing metrics are needed to assess marketing performance today, when the efforts have not yet realized in a monetary manner.

Traditionally marketing performance measures are divided into two groups: input (labor, expenditure, etc.) and output (sales, profit) measures (Ambler, Kokkinaki and Puntoni 2004). However, the division leaves the 'Black Box' of marketing (Bonoma and Clark 1988) without attention. That is, the process of how the marketing inputs become outputs is not monitored. The linkage between inputs and outputs is not always clear, and thus intermediate measures (customer attitudes, intensions, awareness) are needed to clarify the process (Ambler, Kokkinaki and Puntoni 2004).

Marketing metrics can be further divided into financial and non-financial metrics (Ambler, Kokkinaki and Puntoni 2004). As finance remains to be the language of the top management, marketing should be assessed in financial terms as far

as possible. However, pure financial measures are not sufficient, because financial measures:

1. focus solely on outcomes (Chakravarthy 1986),

2. distort reality (Ambler 2003),

3. are not forward looking (Srivastava, Shervani and Fahey 1998), and

4. focus on short term cash flow (Ambler, Kokkinaki and Puntoni 2004).

Thus, without non-financial metrics management will get an insufficient picture of marketing performance. Non-financial metrics are needed to measure the change in market-based assets, which in turn can have an effect to future financial performance.

On a more detailed level, marketing metrics can be divided into six categories (Ambler, Kokkinaki and Puntoni 2004):

1. Financial (inputs and outputs)

2. Direct customer

3. Competitive

4. Consumer intermediate

5. Consumer behavior

6. Innovativeness

The division of metrics illustrates the complexness of the black box. Stewart (2009) points out that measuring of intermediate marketing effects is not sufficient. The intermediate measures need to be linked to changes in cash flow

and in brand equity (Ambler 2003). Thus, measuring the whole chain of marketing productivity is important.

2.4. Perspectives to marketing measurement

Three perspectives have been established in MPM: efficiency, effectiveness, and adaptability (Walker and Ruekert 1987; Bonoma and Clark 1988; Clark 2000). The approaches have a different kind of logic in approaching marketing measurement; the main difference is the types of referents to which outputs are compared.

2.4.1. Efficiency approach

The efficiency branch measures the relationship between marketing inputs and marketing outputs. Clark (2000) defines efficiency as "the comparison of outputs from marketing to inputs of marketing, with the goal of maximizing the former relative to the latter". The aim of the marketing efficiency measurement is to discover the economically optimal allocation of marketing resource inputs to produce the most output. The general idea is that for any set marketing output, less used resources is better (Clark 2000). Thus, the comparison point to marketing outputs is internal, as outputs are compared to inputs of the same company.

However, inputs and outputs are commonly in different units of measurement. Thus, in efficiency measurement, inputs and outputs are converted often into a

uniform monetary scale or presented as proportional figures (Bonoma and Clark 1988). A seminal measure has been profit-to-marketing-expense-ratio, and many following measures have been based on it. Other inputs measures have included marketing expense, level of investment, head count, quality, effort, and overhead allocation. Popular output measures have been profit, sales, market share and cash flow (Ambler and Roberts 2008). As can be noted, input measures are in large extent non-financial, when output measures are often financial.

Efficiency branch has made a great contribution to marketing performance assessment research, although it covers only a one point of view. It has been successful in providing a managerially relevant conceptual model. Moreover, it has contributed to identifying marketing costs and additional revenue (Morgan, Clark and Gooner 2002). However, marketing productivity analysis is problematic because it assumes that inputs and outputs can be economically assessed (Morgan, Clark and Gooner 2002). Especially intangible inputs can be hard to value in monetary terms. Furthermore, stability and comparability of assessments can be problematic because of differences in company policies, for example in overhead allocation. Changes in allocation policies can result in distorted figures. Thus, comparisons should only be made with figures that are calculated using same methods. In addition, marketing input and financial output can have a time lag of several years in between, specially in B2B markets. Thus, the cause-effect relationship can be unclear.

The efficiency approach takes the marketing processes under analysis, and gives less information about marketing performance per se (Bonoma and Clark 1988). In other words, it measures how efficiently marketing inputs are transferred to outputs and the relation between the variables, not the quantity or quality of outputs themselves. Return On Investment (ROI) is a classic example of an efficiency measure. It is very popular among practitioners, but has been hard to calculate in marketing setting (Miller and Cioffi 2004). However, monetary investment is not the only input variable possible. In addition to money, Clark (2000) suggests time, skill, and management attention as input variables. Due to limitations of efficiency measurements, it is not sufficient to have only efficiency measures. Thus, measuring marketing effectiveness and adaptability is needed for getting the proportional picture of marketing performance.

2.4.2. Adaptability approach

In contrast to the internal perspective of efficiency approach, adaptability approach shifts from internal examination to external. It examines how well the company's marketing is adjusted to the external environment. Indeed, Walker and Ruekert (1987) suggested that adaptability to the environment is one factor in business performance. Also previous research in corporate strategy has indicated that adaptability has an effect on performance (e.g. Lambkin and Day 1989).

From the adaptability perspective, marketing function's task is to adjust their marketing actions to the environmental characteristics, so that the actions will encounter a positive response (Clark 2000). However, environmental characteristics can be hard to grasp, due to multidimensionality of environment. Clark et al. (1994) discovered 11 types of environments, implying that marketing performance is highly contextual, and thus no one general solution can be found. Three most important factors of competitive environment have been identified to be the role of competitors, trends in the overall environment, and the role of marketing partners (Boulding et al. 1994; Clark 2000).

2.4.3. Effectiveness approach

While efficiency focuses on internal input, and adaptability to external reference points, effectiveness aims to estimate marketing performance against the objectives of the organization. The effectiveness approach moves away from marketing inputs, and uses business goals as referents (Clark 2000). If explicit goals are not stated, effectiveness can be measured against competitive position (for example relative profit or market share), or historical performance (Ambler 2003). Marketing is considered to be successful if the set goals are met or exceeded (Clark 2000). Thus, it can be said that effectiveness approach is more goal than input orientated approach. Clark (2000) defines effectiveness as "psychological distance what was expected to result from a marketing programme and results as returned".

The original objectives of effectiveness approach are to conduct an audit that is systematical, critical and impartial review of marketing operations (Morgan, Clark and Gooner 2002). To meet the objectives, the marketing audit concept was first developed in the 1950s to assess marketing effectiveness (Shuchman 1959, in Morgan, Clark and Gooner 2002). However, marketing audit concept is a static, periodic assessment and it has lacked an ongoing, continuous perspective. Moreover, it has focused on problems of the situation, and has not offered solutions. Furthermore, audits have a risk of becoming checklists, with little empirical validation (Morgan, Clark and Gooner 2002).

However, effectiveness of marketing operations is vital, and without it efficiency does not matter. Thus, it should be in priorities higher than efficiency Clark (2000). Despite the importance of effectiveness, measuring it alone can prove to be economically unsustainable, as the marketing expense might increase recklessly. Due to restrictions of all three approaches, there have recently been efforts to combine all approaches into one, unified framework (Bonoma and Clark 1988; Morgan, Clark and Gooner 2002).

2.5. Unified marketing performance measurement approach

Due to dynamic (Dickson 1992) and multidimensional (Bonoma and Clark 1988) nature of marketing, the efficiency, adaptability and effectiveness approaches are not sufficient to alone grasp the marketing performance as a whole. Morgan, Clark and Gooner (2002) suggest that all three aspects need to be monitored along the stages of the chain of marketing productivity.

However, on a company level, the general notion fails to take into consideration the attributes of a single company. The MPM system on a company level needs to be contextual, and take into account industry and firm specific contingencies (Morgan, Clark and Gooner 2002). In more detail, marketing strategy (Piercy 1998), corporate context (Day and Wensley 1988), and environment variables (Jaworski 1988) are suggested to have an effect to MPM system characteristics, and the chosen metrics. Figure 2.3 summarizes the model.

Figure 2.3: MPM System formation (Adopted from Morgan, Clark and Gooner 2002).

2.5.1. Marketing Strategy

Ambler (2003), following the efficiency approach, singles out that marketing strategy, and in general the strategy of the whole company, should be the main driver behind the metrics selection process. Metrics should emerge from the company's strategy, and the metrics should be viewed as milestones toward corporate goals. Thus, metrics should be derived from strategic goals, and the competitive methods used to achieve those goals.

The goal of strategy is to adapt company to its ever-changing environment. Thus, the metrics derived from strategy should assess the state of environmental adaptation (Chakravarthy 1986). By assuming that environmental adaptation has been taken into account in strategy formulation, it can be assumed that in addition to effectiveness approach, adaptability approach is present when deriving metrics from marketing strategy.

Failure to derive MPM system from marketing strategy can result in two problems: using the wrong measures and failing to use the right measure, so that the system will produce 'false alarms', and fails to measure the effectiveness of strategy implementation (Morgan, Clark and Gooner 2002).

2.5.2. Corporate Context

Four corporate context variables have been identified (Morgan, Clark and Gooner 2002): information availability, corporate performance monitoring requirements, SBU autonomy, and stakeholder power (Morgan, Clark and Gooner 2002):

1. Information availability concerns the difficulty of gathering performance information. It can become an issue, as companies tend to collect information that is easy to collect rather than strategically relevant information (Morgan and Piercy 1996). CMO Council (2005) survey revealed that information availability indeed is one of the top concerns in marketing performance measurement.

2. Corporate performance monitoring requirements influence to marketing performance measurement system, as the MPM system needs to be consistent with overall performance measurement systems (Morgan, Clark and Gooner 2002) in order to make planning and control consistent. Furthermore, the fit between MPM system and other functions aids in decision-making and strategy implementation.

3. SBU autonomy concerns the flexibility available to set the performance metrics within strategic business units.

4. Stakeholder power concerns "the relative influence of different groups who have an interest in the goals and operation of the firm" (Morgan, Clark and Gooner 2002). The stakeholders may have an effect on selection of performance standards as well as on importance and referent selection.

Indeed, Gruca and Lopo (2005) discovered firm differences are the most important determinants of future cash flow variance, thus the contingencies of individual companies are important to account for. In addition, Ambler (2006) note that companies should model past performance, and identify the metrics that correlate highly with selected performance figures. Modeling the performance of last years will give more predictive value to performance metrics.

2.5.3. Task Environment

Task environment means the context wherein the marketing unit functions. The environment variables (1) influence the controls that are likely to be emphasized

within a given marketing unit and (2) moderate the relationship between control types and subsequent psychological, behavioral, or performance outcomes (Jaworski 1988). Four aspects of the environment have been identified: environmental uncertainty, industry dynamics, competitor attributes and customer attributes (Morgan, Clark and Gooner 2002).

Environmental uncertainty "concerns the predictability of the environment within which managers operate" (Morgan, Clark and Gooner 2002). The market and technological turbulence of a market has been found to have an effect on the metrics selection (Frösén et al. 2008). Thus, when comparisons are made for contextual marketing measurement system, benchmarks should be carefully selected to match the profile of the company in question. Indeed, Ambler et al. (2002) discover that business sector has a significant effect on metrics selection. It indicates that when benchmarks are chosen, business sector has to be taken into consideration.

Industry dynamics "concerns the time spans involved in the various stages of the marketing performance process" (Morgan, Clark and Gooner 2002). In other words, the time lag between actions and outcomes vary by industry sector. Meaning that the chain of marketing productivity is does not have universally same time span, but it varies by industry. Therefore, the time has to be assessed within the context of the company. Furthermore, according to Gruca and Lopo (2005), 35% of variance in cash flow is attributable to industry characteristics.

Competitor attributes "describe the characteristics and behaviors of the competitors in the firm's environment" (Morgan, Clark and Gooner 2002). In a highly competitive environment, competitor interactions become more important and thus affect the metrics selection (Morgan, Clark and Gooner 2002). For example, Day and Nedungadi (1994) propose that concentrated competition may result in a situation where managers tend to look more on competitive aspects in marketing.

Customer attributes "describe the characteristics and behaviors of customers" (Morgan, Clark and Gooner 2002). The amount and characteristics of customers affect on the buyer and seller power, and formality of produced information. Whether companies serve a small or big group of clients may result in different metrics being important (Day and Nedungadi 1994).

2.6. Marketing strategy as incorporator of aspects

Although Morgan, Clark and Gooner (2002) list various aspects that should affect MPM system, and therefore metrics selection, some scholars argue that marketing strategy itself already takes many of the aspects into account (Chakravarthy 1986; Porter 1980). Indeed, study by Lamberti and Noci (2009) shows that marketing strategy moderates the specifications of selected MPM system. However, the study is a cross-industry research and thus cannot grasp the characteristics of one industrial area.

2.7. Conceptual framework

Although in previous literature there have been efforts to build model for describing underlying factors of MPM system development and characteristics (e.g. Morgan, Clark and Gooner, Gummesson 2004; Clark 1999; Jaworski, Stathakopoulos and Krishnan 1993), only a few studies have focused on the reasons for metrics usage, selection and importance. Metrics selection is only a part of forming an MPM system.

In general, the value of specific intangible asset for a singular company is dependent on strategy and corporate context (Kaplan and Norton 2000). In marketing setting, Ambler (2003) similarly suggests that industry dynamics and marketing strategy are main factors for metric selection. Furthermore, sector has been suggested to have an effect on metrics selection and importance (Ambler et al. 2002, 2004; Morgan, Clark and Gooner 2002; Gruca and Lopo 2005; Jarowski 1988).

The framework of the present thesis is based on notion of factors affecting metrics selection. Figure 2.4. describes the research setting.
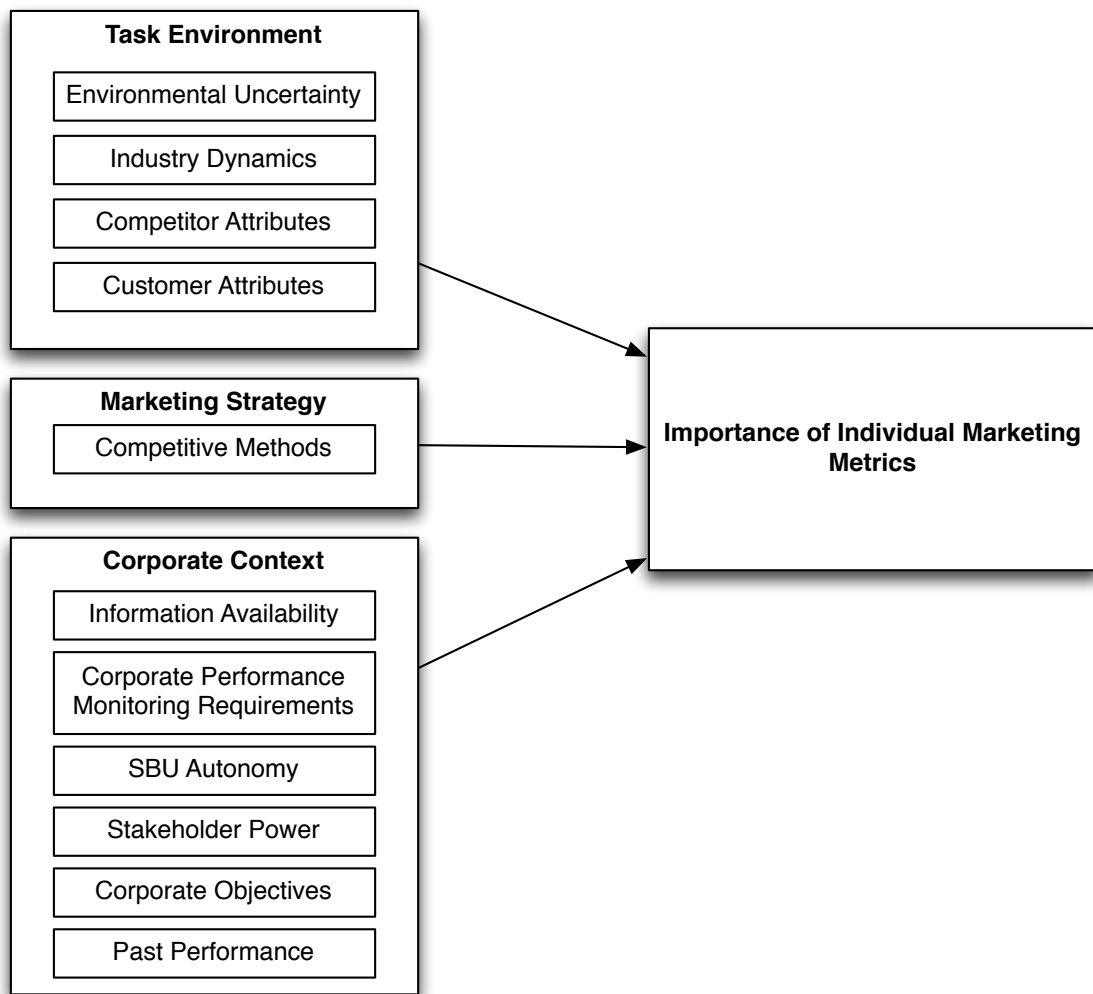
Figure 2.4: Theoretical framework

3 Empirical Research

The aim of the research was to discover underlying reasons for metric importance in Finnish B2B service sector. Because of lack of studies in the area, explorative, mixed method approach is suitable (Tashakkori and Teddlie 2003), and was thus selected. First, a qualitative case study research was conducted to get insights of B2B service sector contingencies and possible reasons for metric importance. Second, a broader, quantitative analysis was conducted to test the findings of qualitative analysis. On basis of the qualitative research, independent variables for the quantitative research were selected. Thus, there are different datasets for both analyses.

3.1 The Context

To address the research questions, B2B service sector in Finland was selected as the research scope. Although perhaps not a traditional field for marketing study, B2B services are becoming increasingly important for industrial growth (Pansear, Markeset and Kumar. 2008). Moreover, Eurostat (2010) study shows, that services had the biggest contribution to gross value added in Europe in 2008. In the light of the mentioned studies, the importance of B2B services is increasing, and thus the selection of case scope is relevant in a wider economic context.

3.2 Qualitative methodology

In this chapter qualitative research analysis methods and data collection details are described. First, the research goals are introduced. Second, the qualitative research methods are presented. Third, detailed information of interviews is described. Fourth, the interview analysis methods are presented.

3.2.1 Research goals

Main purpose of the thesis was to explore the usage of marketing metrics in Finnish business to business industry. Main goals of the qualitative research was to:

1. Discover marketing goals in Finnish business to business industry

2. Discover what underlying reasons there are that affect the importance of individual metrics in Finnish B2B service sector companies

The subject was chosen because of the area's unexplored nature, and important role in marketing measurement. Thesis can provide insights to Finnish business to business industry and metrics selection.

3.2.2 Selection of qualitative research method

A single case study with 10 interviews was selected as the qualitative research method. The method was selected as interviews are suited method to examine multilayered topics (Cassell and Symon 2004), the method enables deep understanding of the issue at hand (Yin, 2009), and it is suitable for studies that

seek to answer questions like how and why (Koskinen et al., 2005), as is the case with the current research. A single case study method fits to subjects that are not well studied, and more information is needed to establish well grounded theories (Tuomi & Sarajärvi, 2006). The purpose has been to study the context of one case company and take the outcome to compare it to results of broad, industry wide quantitative study.

The case company is an industry leader in a central B2B service sector, with over hundred years of experience. Over 90 per cent of the company's revenue comes from B2B services. The company operates in multiple European countries, but the study focuses on Finnish market. The main purpose of the case study was to discover underlying reasons for metric selection and importance.

Following typical pattern for case studies (e.g. Denzin 1978), multiple information sources were used to gather the qualitative data. Majority of the case study data has been gathered by conducting 10 thematic interviews with personnel of the case company. To gather basic knowledge, discussions with company employees, public written material, and confidential documents were used. The purpose of basis knowledge gathering has been to establish a view of the environment the employees operate and how the business functions. The knowledge was needed to better suite questions and interpret answers correctly.

3.2.3 Selection of interviewees

For the interviews, 10 key personnel from the case company were selected.
Following Ruusuvuori & Tiittula (2005), the selection was based on interviewee
knowledge and experience about the matter at hand and role in the company.
All 10 personnel had extensive experience of the Finnish B2B services sector.
The selection of the interviewees was based on the case company proposal of
personnel that should be interviewed. Following previous studies on the topic
(e.g. Lamberti and Noci, 2010), the interviewees were selected from four
organizational areas: strategic planning, marketing, finance, and other
managers. The emphasis of interview templates was altered according to
interviewee's role in the organization. The Table 3.1 enlightens the interview
emphasis's based on the interviewee's organizational area. All interviews were
conducted in April 2011.

Table 3.1: Main topics addressed in the interviews

Functional area of the key informant	Main topics addressed
CEO/Board/Strategic planning	Strategic role of marketing, responsibility and power of the marketing unit, key marketing performances assessed at a strategic level
CMO/Marketing manager	Nature and structure of the marketing metrics adopted, internal control for marketing unit
CFO/Controller	Performance measurement system, characteristics and importance of the metrics adopted, strategic relevance of marketing
Other managers	Marketing's role in B2B service sector, the usage of marketing metrics, cooperation with functions, the importance of metrics

3.2.4 Conducting interviews

Interviews were conducted as semi-structured thematic interviews, because the method fits well with multilayered and complicated subjects (Hirsjärvi & Hurme, 2008). To preserve the multiple aspects of the issue, the questions asked from each interviewee varied to suite interviewee expertise.

Thematic interviews are popular method for harvesting qualitative data (Koskinen et al. 2005). The interviews are based on prepared interview template including themes that will be covered in the interviews. However, the interviews do not need to follow strictly the prepared template. Instead, interviewer has room to guide interviews in directions that seem interesting during interviews. The template is used to make sure that all necessary issues are covered during interviews (Koskinen et al. 2005). The interview templates were conducted on basis of previous studies, and information about the case company.

Before gathering empiric qualitative data, the history of the case company was studied from public and company provided material. By knowing how the company achieved the state which it has today, the interview questions and themes could be better modified to fit to the context under study.

3.2.5 Interview data analysis

Main goal of the research was to discover reasons for importance of individual marketing metrics. The semi-structured thematic interviews provided a large

variety of examples and data about marketing metric importance in Finnish B2B market.

The interview data was analyzed in detail. All interviews were taped and word-to-word transcripts were conducted on basis of taped interviews. The transcription made sure that details are preserved through out the data analysis phase.

From the transcripts, common themes, expressions, words, and patterns were detected. Furthermore, differences in examples and opinions were examined. The discovered commonalities were labeled and analyzed in more detail. Because the case company wishes to remain anonymous, interviewee names have been changed to codes from H1 to H10.

3.2.6 Research validity & reliability

Lincoln and Cuba (1985) suggest that credibility, transferability, dependability and conformability can be used for evaluation of a study. In the following, the validity and reliability qualitative research method of the present thesis is discussed.

Credibility means the rate at which the sample are accurate representations of the population (Lincoln & Guba, 1985). Present thesis seeks to achieve internal validity through process transparency, valid data analysis, and cooperating with case company to ensure data validity. Although data triangulation is not used in

the qualitative part of the study, partial data triangulation can be made against the quantitative analysis part of the thesis.

Transferability means how well the research findings applicable to broader population. As the qualitative research focuses on only one case study, the study findings are not directly transferable.

Dependability means how well the research findings could be repeated in another study examining the same subject. The research was process was documented and transcripted, thus the research could be repeated. The interviews were held in Finnish for interviewees from Finland, one interview was held in English because the interviewee did not speak Finnish language.

Conformability means the amount of researcher bias in the interpretation of the research findings. As the researcher is not a part of the organization under study, the researcher was able to avoid researcher-bias and remain unbiased from corporate politics.

3.3 Qualitative findings

In this chapter the findings of the qualitative part of the study are presented. The chapter answers the following research question: What underlying attributes affect to marketing measurement in Finnish B2B service sector? The analysis is based on interviews with 10 employees of the case company. To ensure required understanding of the context where the interviewees operate in, other

discussions with case company employees were held and confidential and public documents, news reports and financial statements were studied.

In the analysis of qualitative findings, perceived marketing goals and purpose of marketing measurement are first discussed to provide basic understanding of the context of B2B service marketing. Second, the underlying attributes in marketing measurement and metric importance are explored.

3.3.1 Role of marketing and marketing goals in B2B service sector

In this chapter, the meaning of marketing in B2B services sector in Finland is analyzed by examining how interviewees perceived marketing. The marketing goals, benefits, and the role of marketing in B2B services context are examined. The context is important in order to understand the perceived importance of marketing metrics.

Interviewees perceived marketing to have a diverse role within the organization. Following marketing goals were detected during the interviews:

1. Lead generation

2. Lead refinement

3. Brand equity generation

4. Sales Support

In the following, the detected marketing roles are further analyzed.

First, interviewees strongly distinguished marketing from sales function. Marketing and sales were perceived to be connected, but separate funnels.

Marketing was perceived to be upstream function when compared to sales, performing actions to create leads for sales:

"Monetary input we put into marketing leads to brand equity, which leads to an action. Action usually means the customer contacts the company. In other words, the output of a marketing input is a lead" -H2.

This is in line with the chain of marketing productivity (Figure 2.2, adapted from Rust et al. 2004). However, in the chain of marketing productivity, lead is not the output of marketing, but a intermediary stage. In the theoretical model, marketing output is perceived to be financial gain, where the interviewees distinguished marketing from sales and thus from financial results. Interviewees perceived marketing inputs to affect to brand equity, which triggers customer to become interested of company offerings, in other word the customer becomes a lead.

Although interviewees felt lead is the ultimate marketing result, the interviewees saw marketing and sales acting together to gain revenue, creating two connected funnels:

"*sales and marketing should not be separated from business point of view. Marketing's goal is to refine leads. It is very close to sales activities.*" -H1.

Interviewees felt that the marketing funnel ends in leads. At this point sales funnel starts, and sales takes the responsibility of the potential customers.

However, some interviewees felt that marketing stays as a supporting function when sales processes require a long time to complete:

"*The sales process should be supported with marketing communications. Sales process can last many months. It certainly affects the customer decision making if the customer hears clever things about us instead of complete radio silence*" - H7.

Therefore it can be assumed that brand equity generation as a marketing goal does not end in lead generation, but is considered as continuous process that should be done regardless of customer life cycle stage.

The marketing process described by an interviewee is demonstrated in figure 3.2 below.
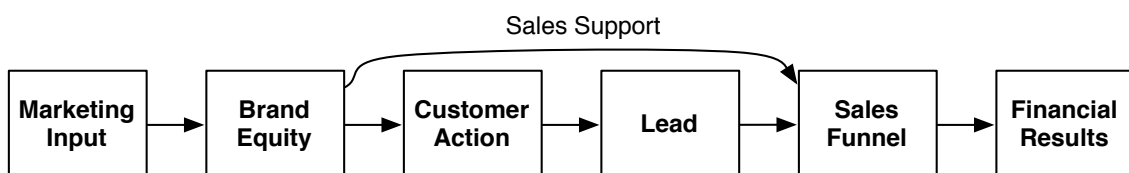
Figure 3.2: Marketing process described by interviewees

In the figure, marketing input gradually evolves into a marketing output, a lead, through intermediary stages, as suggested by Stewart (2009). However, the

final outcome of marketing input is not financial results, but lead generation. In addition to lead generation, brand equity generation acts as a supporting function to sales funnel. The sales funnel then further leads to financial results.

In addition, marketing as a pre-sales business process was seen as a low cost lead refinement tool:

"*If we think about the Finnish market, we have 250 000 micro companies. If we take everything out of our sales force, we can get 70 000 contacts a year. Which means we can reach about a third of the whole group. Simultaneously every year 20 000 - 30 000 new companies are established. We don't have resources to approach all the potential customers. I seek cost efficiency and large audiences through marketing. Marketing should be able to refine the group of potential customers to the point where we can afford to start the sales process*" -H4.

In other words, marketing was perceived to be a cost-efficient pre-sales process that should target refining leads to initiate sales activities. The image of marketing as a low cost process perhaps is one of the reasons why there has been requirements for marketing's financial transparency.

To safe guard the cost efficiency, interviewees required marketing to be focused. Therefore market segmentation was perceived to be key factor in marketing process: "*Selection of target segments is a beneficial tool. ... It is*

challenging when there are lots of small customers, that how you can cost-efficiently handle marketing communications so that you get the contacts and it works" -H7.

Cost-efficiency of marketing was perceived important especially when customers are small in size: "*Marketing is a cost-efficient channel to contact small businesses, because direct sales is often not possible in case of small companies*" -H5.

Again however, as interviewees perceived B2B services market to be a market that requires large sales efforts and thus marketing is perceived more of a supporting function:

"*Role of sales is highlighted in B2B markets. But marketing helps sales by creating company awareness, desirability and brand*" -H5.

Because of high importance of sales in business to business markets, the role of marketing could be said to be in a less dominant position than perhaps marketing function in a company that serves consumers as direct customers.

As marketing is perceived to be an upstream process to generate sales contacts, interviewees felt that marketing measurements should focus on measuring the flow from marketing input to a lead:

"*How marketing inputs are transformed to optimal contacts and leads and to real business results. That funnel must be measurable*" -H3.

Although marketing goal was perceived to generate leads, responsibility and accountability to generate revenue and profits was requested by the interviewees. However, they felt that marketing's accountability can be hard to measure:

"*Marketing's problem is perhaps that many of the things are not measurable in euros. Thats why marketing issues are often over looked when other departments have currency based metrics*" -H7

Therefore, one goal of marketing measurement would be to make marketing process transparent, and measurable in monetary terms:

"*To earn respect and value in executive boards, marketing must generate metrics that are tied to revenue*" -H7.

Although marketing's main goal was perceived to be lead generation, financial efficiency was demanded from marketing function. However, financial results were not perceived to be directly linked to marketing. Instead, the marketing was linked to sales funnel, which was perceived to generate financial income.

The financial accountability of marketing is one of the reasons why the efficiency branch of marketing has been historically evident. In addition, financial accountability seems to be one of the reasons why metrics comparing marketing output and input ratios have emerged to marketing measurement.

3.3.2 Reasons for marketing metric selection

Although the B2B service sector has a general effect to marketing role and goals, it alone does not explain the reasons within the industry. Therefore other variables within the B2B service sector were explored in interviews to gain knowledge of importance of individual marketing metrics in varying company settings.

It was clear that interviewees made a distinction between two market types: attacker markets and defender markets. Interviewees repeatedly made a separation between attacker and defender markets in two variables:

1. Relative company position within the market

2. Market life cycle stage

'Attacker markets were described to be new, or the company position in the market was described to be weak. Defender markets were described to be mature, or company position was described to be strong. Interviewees distinguished market life cycle stage and relative market position as factors that affect competitive methods chosen in different market situations. Therefore the metrics needed to differ. The interviewees felt that if the market is mature, and

the company has a big market share, in other words the company has established its ground, the marketing differs from new market and a low market share. According to an interviewee:

"attacking marketing and defending marketing need different approaches … In attacker market you have to be very focused and market segmented. It is a challenging environment that needs well planned and segmented actions" –H8

Interviewee suggests that marketing in attacker markets needs to be more organized and thus measurement could be more important than in defender markets.

In an attacker market, companies were perceived to need to prove the value of their service offering actively because customers are not familiar with the benefits of the service, or the company as a service provider. Therefore attacking companies should not try to grasp the whole possible market. In stead, the company needs to seek the customers with the largest benefit.

In the following, both issues are discussed to provide insight how the issues affect the importance of marketing metrics, and thus selection of metrics in different contexts.

3.3.2.1 Effect of relative company position

During the interviews, relative company position was distinguished as one factor that differentiates attacker and defender markets. Interviewees felt that relative company position affects not just marketing measurement, but marketing goals and strategies as a whole:

"In my opinion different markets require different marketing strategies. Some functions are heavily international. In international markets we don't have same position as in domestic market. We don't have the awareness that we have in Finland. In Finland all business leaders know who we are. Therefore goals and strategies must differ. In Finland we have exceptionally strong position compared to other markets. Elsewhere customers are indifferent, don't know us beforehand, no experiences, nothing. Thus marketing should be different too." - H5

In weak market position, awareness was pinpointed as a target worth reaching for. However, awareness was perceived to be important only to the point when company is well known. At that point, marketing targets were perceived to change:

"We need brand awareness just as much as our main competitors, not more." - H10.

The goal of rising awareness was seen to be to reach customers' pool of potential business partners:

"Awareness is really important. You should be so well known that you get to the short list when companies are searching for solutions" -H7.

Furthermore, service awareness in addition to company awareness was perceived to be important. It was not sufficient for potential customers to know the company, customers should also know the service offering and brand promises:

"When we speak of companies that are start-up's ... the service awareness could be considered to be weak. This is the challenge, also in sales wise. For example how we can get the customer to know that we can help in these service areas. And it is a marketing challenge to provide the methods to raise the service awareness" -H9

In addition to raising awareness, it was suggested that companies in weaker market position should seek to focus their marketing efforts to market segments that have greatest potential:

"In Finland we are a big fish in a small pond but in Europe we are a small fish in a big pond. If you use the same weapons it just doesn't work. You have to be very focused and market segmented." -H8.

As a whole, the role of marketing was perceived to differ when comparing companies in different market positions. for companies with stronger market position, marketing was perceived by interviewees to be at the background, as a supportive function:

"(when in strong relative position) marketing is not needed directly. The role is more supporting, it's laying the carpet." -H8.

When for companies in weak position, marketing was perceived to take more active role:

"(when in weak relative position) it is directly linked to business. We are generating leads and it is measurable." -H8.

Due to change in marketing characteristics in different relative company positions, it was assumed that the importance of individual marketing metrics would change in return. Thus, relative company position was selected as an independent variable to the quantitative study.

3.3.2.2 Effect of market life cycle stage

Another characteristics differentiating attacker and defender markets was discovered to be market life cycle stage:

"One significant factor is the market maturity. That how big is the need for change in the market. It affects to the customer needs." -H6

Interviewees felt that market maturity affected the customer knowledge of the service offering. In new service areas marketing was perceived to be beneficial in promoting the service category and service awareness. Therefore marketing needed to adapt according to market life cycle stage.

In a new market, interviewees felt that companies need to focus more on the whole service category awareness, and educate the potential customers:

"If we think of market penetration between different service areas, some areas have been around for ages. But if we speak of areas that are quite new, it brings its own kind of challenge. if the service is on the verge of becoming everyday life for most of the companies. Then marketing has to make potential customer understand the value of the service, which they are not used to notice. It is marketing's challenge to concretize the holistic benefit that the service brings" -H9

Thus it can be assumed that marketing between new and mature markets is different in B2B service sector. According to Ambler (2003), this kind of company contingencies should reflect to selection of metrics and thus to metric importance. Thus, it is assumed that the market life cycle stage has an effect on

metric importance, supporting the suggestion by Morgan, Clark and Gooner (2002) that industry dynamics have an effect to metric importance.

Furthermore, interviewees felt that relative market position has two effects to marketing. First, the company needs to be accepted to the reference group:

"The company and brand awareness has to be so high that you get to the short list of possible business partners" –H7

Second, The image of 'top player' or the market forerunner was kept in high importance. To be able to achieve this kind of status, an adequate relative market position is needed. Thus, it can be assumed that relative market position affects to marketing goals. If a company has low relative market position, it needs to focus its efforts to making the company known instead of more specified product or service focused marketing.

In attacker markets, company is relatively unknown for potential customers, and does not possess substantial brand equity or market share. Thus they need to attack against the bigger competitors in order to survive. In defender markets, company is well known in the market, and has a market position to defend. Therefore it is reasonable to assume that market life cycle stage has an effect to importance of marketing metrics.

3.4 Quantitative methodology

In this chapter quantitative analysis methods and data collection details are described. First, the research goals are introduced. Second, the qualitative research methods are presented. Third, study reliability and validity is discussed.

3.4.1 Research Goals

There were the following research goals in the quantitative part of the study:

1. To test the significance of the factors detected in qualitative part of the study

2. To understand the effect of the underlying factors to importance of individual marketing metrics

3.4.2 Data Analysis

One-way ANOVA was selected as a quantitative methodology due to its fit with the data characteristics. The current research focuses on discovering differences between groups, and ANOVA is recognized as a good method for this purpose (Karjaluoto, 2007).

In ANOVA, relationship between independent and dependent variables is examined by seeking to find differences in group means. The null hypothesis states that there is no differences in group means. In 95% confidence interval used in the study, If the probability of the null hypothesis being true (p-value) is less than 0.05, null hypothesis should be rejected as invalid. In stead, it can be

stated that there is statistically significant differences between examined group means.

For significant results, post-hoc tests were conducted to further examine the discovered difference between group means.

3.4.3 Data collection

The data for quantitative analysis was collected as a part of the StratMark research project as a field survey during the year 2010. The survey explores the state of marketing in Finnish companies, and aims at producing a broad picture of the state of Finnish marketing and its development. The survey received 1134 responses, out of which 445 could be identified as companies from B2B service sector. A company was considered B2B service company if 50% or more of its revenue was reported to come from B2B services. Companies that reported to employ less than five personnel were ruled out, because the aim of the survey was to explore the organizational marketing competence, not individual, as often is the case in small enterprises (Tikkanen and Frösén 2011).

Respondents ranked metrics as important or not important, from a list of 41 metrics. Following Ambler et al. (2002), metrics were divided into following 6 groups to ease responding:

1. Metrics assessing consumer / end user thoughts and feelings
2. Metrics assessing consumer / end user behavior
3. Metrics assessing the relationship with trade customer / retailer

4. Metrics relative to competitor

5. Metrics addressing the level of innovation

6. Financial metrics

The following table illustrates the metrics under study:

Metrics assessing consumer / end user thoughts and feelings
Awareness
Salience
Perceived quality / esteem
Consumer satisfaction
Relevance to consumer
Image / personality / identity
(Perceived) differentiation
Commitment / purchase intent
Other attitudes, e.g. Liking
Knowledge
Metrics assessing consumer / end user behavior
Total number of consumers
Number of new consumers
Loyalty / retention
Price sensitivity / elasticity
Purchasing on promotion
Number of products per consumer
Number of leads generated
Conversions
Number of consumer complaints

Metrics assessing the quality of the relationship with trade customer / retailer
Distribution / availability
Customer satisfaction
Number of customer complaints
Metrics assessing market performance relative to competitors
Market share
Relative price
Loyalty of the market share
Penetration
Relative consumer satisfaction
Relative perceived quality
Share of voice
Metrics assessing innovation productivity
Number of new products in a period
Revenue of new products
Margin of new products
Metrics assessing financial performance
Sales
% discount
Gross margins
Marketing spend
Profit / profitability
Shareholder value
Economic Value Added (EVA)
Return On Investment (ROI)

Customer Lifetime Value (CLV)

Table 3.1: Metrics under study

All metrics included in the study were kept important by at least 9% of the respondents, indicating that all included metrics are in some extent relevant in B2B service sector.

Table 3.2 summarizes the importance of each metric within B2B service sector.

Table 3.2: Importance of metrics	
Metric	Percentage of respondents who indicated metric to be important for their business
Sales	64.0%
Profit / profitability	62.9%
Perceived quality / esteem	52.1%
Gross margins	49.4%
Consumer satisfaction	47.9%
Loyalty / retention	40.9%
Customer satisfaction	40.7%
Total number of consumers	38.0%
Awareness	37.5%
Commitment / purchase intent	33.7%
Knowledge	33.3%
Number of leads generated	33.0%
Number of consumer complaints	32.6%
Number of new consumers	31.0%
(Perceived) differentiation	29.9%
Relative perceived quality	28.8%
Relative consumer satisfaction	28.1%
Market share	27.6%
Conversions	27.4%
Revenue of new products	26.7%
Image / personality / identity	26.3%
Margin of new products	25.6%
Salience	24.3%
Return on investment (ROI)	23.4%
Relevance to consumer	22.7%

Shareholder value	21.6%
Number of customer complaints	20.2%
Loyalty of the market share	18.9%
Other attitudes, e.g. Liking	18.2%
Number of products per consumer	17.3%
Price sensitivity / elasticity	17.1%
Relative price	17.1%
Customer lifetime value (CLV)	16.6%
Penetration	15.5%
Purchasing on promotion	14.4%
Number of new products in a period	14.4%
Marketing spend	13.9%
Economic value added (EVA)	12.1%
% Discount	10.1%
Distribution / availability	9.9%
Share of voice	9.0%

As can be noted, only traditional financial metrics are important in more than 60 per cent of the case companies. Metrics that are important in over 40 per cent of studied companies, include a mixture of financial metrics, and metrics seeking to quantify the customer relationship quality.

Interestingly metrics that describe the marketing's benefit to the organization as a whole, such as Economic Value Added (EVA) and shareholder value, are not among the most important metrics. This could indicate that marketing is not linked to company overall performance in other ways than sheer profit.

In the present study, the independent variables quantifying marketing strategy and industry dynamics were restricted to two: the market life cycle and relative market position. Table 3.3. summarizes the scales of independent variables.

Table 3.3: Independent variables

Variable name	Answering scale
Market maturity	New, developing markets
	Growing markets: market has been established, but are steadily growing
	Mature markets: Market has been established, and no major changes occur
	Regressive markets: Market growth has ended, and turned regressive
Relative position in market	Monopoly
	Market leader: biggest market share
	Challenger: 2nd or 3rd biggest market share
	Follower: lesser market share

3.4.4 Validity and reliability

Reliability means that future researches could replicate the study, and gain consistent results (Malhotra and Birks, 2006). Validity refers to the extent at which the research reflects the area under study in a realistic manner (Malhotra and Birks, 2006). In the following, both takes are discussed.

The quantitative research reliability is assured by using respondents native language in crafting the questions. Thus the correct understanding of questions was assured. In addition, questionnaire included additional information of the variables.

The research validity is assured by using data from a large national questionnaire, that follows patterns that are accepted in international academic community. It uses scales that have been tested and are common in other similar researches.

After determining significant differences between group means, post-hoc tests were used to discover which means differed. Fisher's Least Significant Difference (LSD) tests were used to examine differences between group means.

3.5 Quantitative Findings

In this section, the findings of the quantitative part of the study are presented. On the basis of qualitative results, two factors were chosen to be examined in quantitative party of the study: market life cycle stage and relative market position.

3.5.1 Effect of market life cycle stage

The effect of market life cycle stage to importance of each individual metric was examined separately. There was a significant effect of market life cycle stage on metric importance at the 95% confidence level in the case of six metrics:

1. Number of consumer complaints

2. Revenue of new products

3. Margin of new products

4. Gross margins

5. Profit / profitability

6. Customer Lifetime Value (CLV)

In the following table, the p-values of the market life cycle tests are presented. P-value represents the statistical significance of the discovered relationship. Results with p-value of less than 0.05 are highlighted, because in those cases

the null hypothesis can be rejected with 95% certainty. Full results can be found from appendices.

Statistical significance of market life cycle's effect to marketing metric importance	
Metric	**p-value**
Metrics assessing consumer / end user thoughts and feelings	
Awareness	0.60015
Salience	0.99894
Perceived quality / esteem	0.13289
Consumer satisfaction	0.98111
Relevance to consumer	0.73956
Image / personality / identity	0.29331
(Perceived) differentiation	0.32963
Commitment / purchase intent	0.12022
Other attitudes, e.g. Liking	0.18516
Knowledge	0.16794
Metrics assessing consumer / end user behavior	
Total number of consumers	0.84862
Number of new consumers	0.20688
Loyalty / retention	0.06576
Price sensitivity / elasticity	0.27905
Purchasing on promotion	0.50893
Number of products per consumer	0.57539
Number of leads generated	0.41552
Conversions	0.10671

Statistical significance of market life cycle's effect to marketing metric importance	
Metric	**p-value**
Number of consumer complaints	**0.03504**
Metrics assessing the quality of the relationship with trade customer / retailer	
Distribution / availability	0.05566
Customer satisfaction	0.23985
Number of customer complaints	0.50129
Metrics assessing market performance relative to competitors	
Market share	0.28332
Relative price	0.05187
Loyalty of the market share	0.11260
Penetration	0.85839
Relative consumer satisfaction	0.68520
Relative perceived quality	0.60464
Share of voice	0.06029
Metrics assessing innovation productivity	
Number of new products in a period	0.54670
Revenue of new products	**0.00763**
Margin of new products	**0.00185**
Metrics assessing financial performance	
Sales	0.06537
% discount	0.92299
Gross margins	**0.02501**
Marketing spend	0.47132
Profit / profitability	**0.04829**

Statistical significance of market life cycle's effect to marketing metric importance	
Metric	**p-value**
Shareholder value	0.41620
Economic Value Added (EVA)	0.59274
Return On Investment (ROI)	0.26058
Customer Lifetime Value (CLV)	**0.04497**

Table 3.4: ANOVA results

Other than the mentioned six tests were not statistically significant, and thus the null hypothesis is accepted in those tests. In below, the six significant results are presented in detail.

3.5.1.1 Post-Hoc Tests
For those metrics, which study showed statistically significant results, i.e. had p-value of less than 0.05, post-hoc tests were conducted to further analyze the differences between groups. In following tables, the results are presented metric by metric.

Number of consumer complaints

Groups in comparison	Diff.	Test Statistics	p-level	Result
Growing markets vs Mature markets	**0.14659**	**2.72284**	**0.00673**	**accepted**

Groups in comparison	Diff.	Test Statistics	p-level	Result
Growing markets vs Declining markets	0.12668	1.5127	0.13107	rejected
Growing markets vs new markets	0.02052	0.32634	0.74432	rejected
Mature markets vs declining markets	-0.0199	0.22315	0.82353	rejected
Mature markets vs new markets	-0.1261	1.80079	0.07242	rejected
Declining markets vs new markets	-0.1062	1.11806	0.26415	rejected

Table 3.4

Revenue of new products

Groups in comparison	Diff.	Test Statistics	p-level	Result
Growing markets vs Mature markets	**0.17255**	**3.40653**	**0.00072**	**accepted**
Growing markets vs Declining markets	0.10962	1.39128	0.16484	rejected
Growing markets vs new markets	0.07156	1.2099	0.22696	rejected
Mature markets vs declining markets	-0.06293	0.74962	0.45388	rejected
Mature markets vs new markets	-0.10098	1.5331	0.12596	rejected
Declining markets vs new markets	-0.03805	0.42595	0.67035	rejected

Table 3.5

Margin of new products

Groups in comparison	Diff.	Test Statistics	p-level	Result
Growing markets vs Mature markets	**0.18552**	**3.72658**	**0.00022**	**accepted**
Growing markets vs Declining markets	-0.02392	0.30884	0.75759	rejected
Growing markets vs new markets	0.04914	0.84532	0.39839	rejected
Mature markets vs declining markets	**-0.20944**	**2.53832**	**0.01148**	**accepted**
Mature markets vs new markets	**-0.13638**	**2.10662**	**0.03571**	**accepted**
Declining markets vs new markets	0.07306	0.83208	0.40581	rejected

Table 3.6

Gross margins

Groups in comparison	Diff.	Test Statistics	p-level	Result
Growing markets vs Mature markets	**0.17552**	**3.05879**	**0.00236**	**accepted**
Growing markets vs Declining markets	0.05605	0.62799	0.53033	rejected
Growing markets vs new markets	0.0766	1.14314	0.2536	rejected
Mature markets vs declining markets	-0.11947	1.25617	0.20972	rejected
Mature markets vs new markets	-0.0989	1.32564	0.18564	rejected

Groups in comparison	Diff.	Test Statistics	p-level	Result
Declining markets vs new markets	0.02055	0.20303	0.8392	rejected

Table 3.7

Profit / profitability

Groups in comparison	Diff.	Test Statistics	p-level	Result
Growing markets vs Mature markets	**0.11536**	**2.07751**	**0.03833**	**accepted**
Growing markets vs Declining markets	0.07947	0.92008	0.35803	rejected
Growing markets vs new markets	**0.15634**	**2.41095**	**0.01632**	**accepted**
Mature markets vs declining markets	-0.03589	0.38997	0.69675	rejected
Mature markets vs new markets	0.04097	0.56744	0.5707	rejected
Declining markets vs new markets	0.07686	0.78485	0.43296	rejected

Table 3.8

Customer Lifetime Value (CLV)

Groups in comparison	Diff.	Test Statistics	p-level	Result
Growing markets vs Mature markets	**0.10905**	**2.54807**	**0.01117**	**accepted**

Groups in comparison	Diff.	Test Statistics	p-level	Result
Growing markets vs Declining markets	0.10414	1.56426	0.11847	rejected
Growing markets vs new markets	0.07826	1.56591	0.11808	rejected
Mature markets vs declining markets	-0.00492	0.06931	0.94477	rejected
Mature markets vs new markets	-0.03079	0.55326	0.58036	rejected
Declining markets vs new markets	-0.02588	0.3428	0.73191	rejected

Table 3.9

Summary of ANOVA tests on effect of market life cycle stage

On the basis of one-way ANOVA and post hoc tests conducted, the following differences between groups were discovered with 95% confidence:

Metric	More important in	Less important in
Number of customer complaints	Growing markets	Mature markets
Revenue of new products	Growing markets	Mature markets
Margin of new products	Growing markets	Mature markets
	Declining markets	Mature markets
	New markets	Mature markets
Gross margins	Growing markets	Mature markets
Profit / Profitability	Growing markets	Mature markets
	Growing markets	New markets

Metric	More important in	Less important in
Customer Lifetime Value (CLV)	Growing markets	Mature markets

Table 3.10

On the basis of the listed results, it could be stated that market life cycle stage has an effect on metric importance in some occasions. However, the significance of the effect varies and cannot be generalized to all metrics or life cycle stages.

3.5.2 Effect of Relative Company Position

The effect of relative company position to importance of each individual metric was examined separately. There was a significant effect of market life cycle stage on metric importance at the 95% confidence level in the case of three metrics:

1.Customer satisfaction

2. Number of customer complaints

3. Market share

In the following table, the p-values of the market life cycle tests are presented. P-value represents the statistical significance of the discovered relationship. Results with p-value of less than 0.05 are highlighted, because in those cases the null hypothesis can be rejected with 95% certainty. Full results can be found from appendices.

Statistical significance of relative company position's effect to marketing metric importance	
Metric	**p-value**
Metrics assessing consumer / end user thoughts and feelings	
Awareness	0.94324
Salience	0.45493
Perceived quality / esteem	0.21961
Consumer satisfaction	0.38169
Relevance to consumer	0.09240
Image / personality / identity	0.77133
(Perceived) differentiation	0.87055
Commitment / purchase intent	0.48138
Other attitudes, e.g. Liking	0.67601
Knowledge	0.55446
Metrics assessing consumer / end user behavior	
Total number of consumers	0.05391
Number of new consumers	0.20338
Loyalty / retention	0.24241
Price sensitivity / elasticity	0.36021
Purchasing on promotion	0.56408
Number of products per consumer	0.78675
Number of leads generated	0.99275
Conversions	0.74755
Number of consumer complaints	0.09117

Statistical significance of relative company position's effect to marketing metric importance	
Metric	**p-value**
Metrics assessing the quality of the relationship with trade customer / retailer	
Distribution / availability	0.91004
Customer satisfaction	**0.02783**
Number of customer complaints	**0.00645**
Metrics assessing market performance relative to competitors	
Market share	**0.00006**
Relative price	0.76634
Loyalty of the market share	0.91124
Penetration	0.07377
Relative consumer satisfaction	0.43309
Relative perceived quality	0.48009
Share of voice	0.43687
Metrics assessing innovation productivity	
Number of new products in a period	0.11449
Revenue of new products	0.07163
Margin of new products	0.37799
Metrics assessing financial performance	
Sales	0.06750
% discount	0.89961
Gross margins	0.86090

Statistical significance of relative company position's effect to marketing metric importance	
Metric	**p-value**
Marketing spend	0.11856
Profit / profitability	0.87201
Shareholder value	0.83724
Economic Value Added (EVA)	0.61460
Return On Investment (ROI)	0.94750
Customer Lifetime Value (CLV)	0.64232

Table 3.11

Other than the mentioned three tests did not yield statistically significant results, and thus the null hypothesis is accepted. In below, the three significant results are presented in detail.

3.5.2.1 Post-Hoc Tests

For those metrics, which study showed statistically significant results, i.e. had p-value of less than 0.05, post-hoc tests were conducted to further analyze the differences between groups. In following tables, the results are presented metric by metric.

Customer Satisfaction

Groups in comparison	Diff.	Test Statistics	p-level	Result
Monopoly vs Contender	**0.32319**	**2.02071**	**0.04391**	**accepted**
Monopoly vs Market Leader	0.2124	1.32174	0.18694	rejected
Monopoly vs Follower	**0.34205**	**2.15439**	**0.03175**	**accepted**
Contender vs Market Leader	-0.11079	1.8215	0.0692	rejected
Contender vs Follower	0.01886	0.33958	0.73433	rejected
Market Leader vs Follower	**0.12965**	**2.24791**	**0.02507**	**accepted**

Table 3.12

Number of customer complaints

Groups in comparison	Diff.	Test Statistics	p-level	Result
Monopoly vs Contender	**0.38986**	**2.99172**	**0.00293**	**accepted**
Monopoly vs Market Leader	**0.37686**	**2.87836**	**0.00419**	**accepted**
Monopoly vs Follower	**0.44091**	**3.40846**	**0.00071**	**accepted**
Contender vs Market Leader	-0.013	0.26223	0.79326	rejected
Contender vs Follower	0.05105	1.12842	0.25975	rejected
Market Leader vs Follower	0.06405	1.363	0.17357	rejected

Table 3.13

Market Share

Groups in comparison	Diff.	Test Statistics	p-level	Result
Monopoly vs Contender	-0.0029	0.02021	0.98389	rejected
Monopoly vs Market Leader	-0.23802	1.65145	0.09936	rejected

Groups in comparison	Diff.	Test Statistics	p-level	Result
Monopoly vs Follower	-0.02727	0.19153	0.8482	rejected
Contender vs Market Leader	**-0.23512**	**4.30992**	**0.00002**	**accepted**
Contender vs Follower	-0.02437	0.4894	0.6248	rejected
Market Leader vs Follower	**0.21074**	**4.07405**	**0.00005**	**accepted**

Table 3.14

On the basis of one-way ANOVA and post hoc tests conducted, the following differences between groups were discovered with 95% confidence:

Metric	More important in	Less important in
Customer satisfaction	Monopoly	Contender
	Monopoly	Follower
	Market leader	Follower
Number of customer complaints	Monopoly	Contender
	Monopoly	Market Leader
	Monopoly	Follower
Market share	Market leader	Contender
	Market leader	Follower

Table 3.15

On the basis of the listed results, it could be stated that relative company position has an effect on metric importance in some occasions. However, the significance of the effect varies and cannot be generalized to all metrics or company positions.

4 Conclusions and discussion

The aim of the present study was to discover variables that have an effect to marketing metric importance in Finnish B2B service sector, and how importance of individual metrics would be affected by the detected underlying factors. Although in prior literature there have been suggestions for possible factors, there has not been studies that would explore how the factors would affect the metric importance. Because of the lack of similar researches in the area, the study was exploratory in nature. Thus, a mixed method approach was selected.

First, the possible underlying assumptions were analyzed with qualitative interviews. The qualitative analysis suggested that market maturity and relative market position would have an effect to metric selection. The result is in line with prior researches (e.g. Morgan, Clark and Gooner 2002 and Ambler 2003).

However, the marketing goals and role in the organization was not similar as described in prior research. Studies have described marketing to boost company performance by providing financial income (Rust et al. 2004). However, the current research suggests that although financial accountability is required, marketing itself does not provide monetary outcome directly. Instead, financial outcome is moderated by sales function, distinguishing marketing as a supportive function to sales in B2B services. Marketing's goals were discovered to provide leads and support to sales during sales negotiations. Furthermore, B2B service sector was perceived to more sales efforts compared to consumer markets, and thus sales was emphasized over marketing. In light of the current

research it seems that although general models seem to combine marketing and sales to one function, the B2B service sector in Finland separates marketing and sales to independent, but connected functions. Indeed, the interviewees perceived the goals of marketing to be generating leads to sales, refining those leads, and other supportive functions that would benefit sales within the organization. To achieve those goals, marketing was required to be cost efficient, supporting the prior studies emphasizing the efficiency branch of marketing performance measurement.

In the qualitative research, relative company position at the market and market life cycle stage were discovered to have an effect to competitive methods in marketing and thus importance of individual marketing metrics. Interviewees distinguished between attacker and defender markets, that required their own type of competitive methods and thus different marketing metrics. Attacker marketing was suggested to be required when company had a weak relative position, and the market had not yet established itself among customers. Defending marketing was seen important when company had a strong relative market position and the industry was mature. The result is in line with previous research (e.g. Ambler 2003; Morgan, Clark and Gooner 2002) which suggests that industry dynamics would affect metric importance. The present study thus deepens the prior literature, as the results of the present study suggests the selected independent variables have an effect to metric importance in Finnish B2B service sector.

4.1 Discussion of individual factors

In the quantitative analysis, the effect of market maturity and relative market position to 41 marketing metrics was tested to discover if the independent variables indeed had a statistically significant effect on importance of marketing metrics. In the quantitative study, some significant results were discovered to support the assumption that the underlying factors would have an effect to metric importance.

Market maturity had a statistically significant impact to importance of 6 metrics: number of customer complaints, revenue of new products, margin of new products, gross margins, profit / profitability and customer lifetime value. In all metrics, growing markets was discovered to keep the metric more important than other groups. Thus it could be suggested that growing markets tend to benefit more from marketing performance measurement than other markets. It could be because growing markets have not been saturated, and thus marketing could be perceived an important tool in customer base expansion. In comparison, mature markets were discovered to keep marketing measurement less important as they estimated all six metrics less important than some of their peer groups. The effect of marketing maturity to metric importance was supported in the previous research (e.g. Morgan, Clark, Gooner 2002).

Relative company position affected importance of three metrics: customer satisfaction, number of customer complaints and market share. Companies in monopoly position indicated to hold metrics that assess the customer

relationship (i.e. customer satisfaction and number of customer complaints) more important than other groups. This could indicate that since monopolies do not have competitors that unsatisfied customers could turn to, companies have fewer ways of measuring customer satisfaction and thus they could focus on examining the customer relationship directly with customers instead of establishing opinions indirectly.

Furthermore, market share was discovered to be more important for market leaders than for other companies. However, the study does not tell if the market leadership is the result of focused drive to be market leader, or does the companies hold high market share in importance due to their comfortability in current situation.

Although both underlying factors were discovered to have significant effect to importance of some marketing metrics, the study shows that there are unexplored factors that were not included in the research. However, the current thesis provides some insight to marketing performance measurement.

4.2 Managerial implications

Reasons for marketing metric selection have been under debate among scholars for many years. Previous literature has built sophisticated models how marketing metrics should be selected, but the models have stayed on rather abstract level. The previous studies have staid on the level of indicating what could effect marketing performance measurement system characteristics, but

have not gone in-depth to a certain industry to discover further knowledge. The present study gives managers more insights for reasons of metric importance due to the pragmatic approach of the study.

Using dimensions of the present study, managers can assess their own businesses, and their position within the parameters given. The research findings can give managers guidelines how other companies in similar situations have chosen their metrics. Thus, the present study conceptualizes the reasons for metrics selection.

With tailored metrics selection, managers could be able to reduce the amount of metrics to those that grasp the essential information for company in their context. Thus, managers should be able to learn from the metrics more efficiently, and improve their business performance.

4.3 Limitations and suggestions for future research

The aim of the study was to discover reasons for metrics selection in Finnish B2B service sector. However, the research does not analyze the company performance of sample companies. Although there were valid results, those are not connected to overall company performance, and research does not reveal which companies have abnormal performance. Thus, any conclusions of best practices cannot be made. Future research could focus on connecting the contextual metrics selection process with overall performance to discover which combinations are the most profitable.

The qualitative research was conducted as one in-depth case analysis. Thus it can be assumed that there are more variables that affect metric importance than discovered in current study. An interesting topic for future research would be to do a broader qualitative analysis on metrics selection and importance to discover more underlying reasons, perhaps based on similar framework than in the present study.

The present research focused on B2B services in Finland. However, the nature of B2B services vary considerably, and due to the broad sample the study could not focus on contingencies of each sub-industry. Thus a research that would have a more specific scope could reveal interesting industry insights.

References

Aaker, David A. (1991), *Managing Brand Equity*, New York: Free Press

Ambler, Tim (2006). "Use a dashboard when driving your marketing", *Market Leader*, Vol. 33, pp. 53-56

Ambler, Tim (2003). *Marketing and the Bottom Line – The Marketing Metrics to Pump up Cash Flow*, 2nd edition. Financial Times / Prentice Hall, London, UK

Ambler, Tim (2001). "What Does Marketing Success Look Like?", *Marketing Management*, Vol. 10, Iss. 1, pp. 12-18

Ambler, Tim (2000). "Marketing Metrics", *Business Strategy Review*, Vol. 11, Iss. 2, pp. 59-66

Ambler, Tim; Bhattacharya, C. B.; Edell, Julie; Keller, Kevin Laine; Lemon, Katherine N. and Mittal, Vikas (2002). "Relating Brand and Customer Perspectives on Marketing Management", *Journal of Service Research*, Vol. 5, Iss. 1, pp. 13-25

Ambler, Tim; Kokkinaki, Flora and Puntoni, Stefano (2004). "Assessing Marketing Performance: Reasons for Metrics Selection", *Journal of Marketing Management*, Vol. 20, Iss. 3, pp. 475-498

Ambler, Tim; Kokkinaki, Flora; Puntoni, Stefano and Riley, Debra (2002). "Assessing Marketing Performance: The Current State of Metrics", Centre for Marketing Working Paper, No. 01-903

Ambler, Tim and Roberts, John H. (2008). "Assessing marketing performance: don't settle for a silver metric" *Journal of Marketing Management*, Vol. 24, Iss. 7, pp. 733-750

Barwise, Patrick and Farley, John U. (2004). "Marketing Metrics: Status of Six Metrics in Five Countries", *European Management Journal*, Vol. 22, Iss. 3, pp. 257-262

Bolton, Ruth N. (2004). "Linking Marketing to Financial Performance and Firm Value", *Journal of Marketing*, Vol.68, Iss. 4, pp. 73-75

Bonoma, Thomas V. and Clark, Bruce H. (1988). *Marketing Performance Assessment*, Harvard Business School Press, Boston, USA

Borison, Adam and Hamm, Gregory (2010). "Prediction Markets: A New Tool for Strategic Decision Making", *California Management review*, Vol. 52, Iss. 4 125-141

Boulding, William; Moore, Marian Chapman; Staelin, Richard; Corfman, Kim P.; Dickson, Peter Reid; Fitzsimons, Gavan; Gupta, Sunil; Lehmann, Donald R.; Mitchell, Deborah J., Urbany, Joel E. and Weitz, Barton A. (1994). "Understanding Managers' Strategic Decision-Making Process", *Marketing Letters*, Vol. 5, Iss. 4, pp. 413-426

Cassell, C., and Symon, G. (2004). *Essential Guide to Qualitative Methods in Organizational Research*, Sage, London & California

Chakravarthy, Balaji S. (1986) "Measuring Strategic Performance", *Strategic Management Journal*, Vol. 7, Iss. 5, pp. 437-458

Clark, Bruce H. (2001). "A Summary of thinking on measuring the value of marketing", *Journal of Targeting, Measurement and Analysis for Marketing*, Vol. 9, Iss. 4, pp. 357-369

Clark, Bruce H. (2000). "Managerial perceptions of marketing performance: efficiency, adaptability, effectiveness and satisfaction", *Journal of Strategic Marketing*, Iss. 8, Vol. 1., pp. 3-25

Clark, Bruce H. (1999). "Marketing Performance Measures: History and Interrelationships", *Journal of Marketing Management*, Vol. 15, Iss. 8, pp. 711-732

Clark, Bruce H.; Abela, Andrew V. and Ambler, Tim (2005). "Organizational motivation, opportunity and ability to measure marketing performance", *Journal of Strategic Marketing*, Vol. 13, Iss. 4, pp. 241-259

Clark, Terry; Varadarajan, P. Rajan and Pride, William M. (1994.) "Environmental Management: The Construct and Research Propositions", *Journal of Business Research*, Vol. 29, Iss.1, pp. 23-38

CMO Council. (2005). "Measures and Metrics: The European Marketing Performance Measurement Audit", report, COM Council

Day, George and Fahey, Liam (1988). "Valuing Market Strategies", *Journal of Marketing*, Vol. 52, Iss. 3, pp. 45-57

Day, George and Nedungadi, Prakash (1994). "Managerial representations of competitive advantage", *Journal of Marketing*, Vol. 58, Iss. 2, pp. 31-44

Day, George and Wensley, Robin. (1988). "Assessing Advantage: A Framework for Diagnosing Competitive Superiority" , *Journal of Marketing*, Vol. 52, Iss. 2, pp. 1-20

De Bretani, Ulrike and Ragot, Emmanuel (1996). "Developing new business-to-business professional services: What factors impact performance?", *Industrial Marketing Management, Vol. 25, Iss. 6, pp. 517-530*

Denzin, N.K. (1978). "*The Research Act: A Theoretical Introduction to Sociological Methods*", New York: McGraw Hill.

Dickson, Peter Reid. (1992). "Toward a General Theory of Competitive Rationality", *Journal of Marketing*, Vol. 56, Iss. 1, pp. 69-83

Doyle, Peter (2008). *Value-Based Marketing – Marketing Strategies for Corporate Growth and Shareholder Value*, 2nd edition, John Wiley and Sons Ltd., West Sussex, England

Eurostat (2010) *Key figures on European business*, Publications Office of the European Union, Luxemburg

Fine, Leslie M. (2009). "The bottom line: Marketing and firm performance", *Business Horizons*, Vol. 52, Iss. 3, pp. 209-214

Frösén, Johanna; Jaakkola, Matti; Vassinen, Antti; Parvinen, Petri and Aspara, Jaakko (2008). "*Use and Perceived Importance of Marketing Metrics in Different Business Settings*", Conference paper, Helsinki School of Economics

Gruca Thomas S. and Rego, Lopo L. (2005). "Customer Satisfaction, Cash Flow, and Shareholder Value", *Journal of Marketing*, Vol. 69, Iss. 3, pp. 115-130

Gummesson, Evert. (2004). "Return on relationships (ROR): The value of relationship marketing and CRM in business-to-business contexts", *Journal of Business and Industrial Marketing*, Vol. 19, Iss. 2, pp- 136-148

Hirsjärvi, S. & Hurme, H. (2008). "*Tutkimushaastattelu, Teemahaastattelun teoria ja käytäntö*". Helsinki: *Gaudeamus*.

Hooley, Graham J.; Greenley, Gordon E.; Cadogan, John W. and Fahy, John (2005). "The performance impact of marketing resources", *Journal of Business Research*, Vol. 58, Iss. 1, pp. 18-27

Ittner, Christopher D. and Larcker, David F. (1998). "Are Nonfinancial Measures Leading Indicators of Financial Performance? An Analysis of Customer Satisfaction" *Journal of Accounting Research*, Vol. 36, Iss. 3, pp. 1-35

Jaakkola, Matti; Möller, Kristian; Parvinen, Petri; Evanschitzky, Heiner and Mühlbacher, Hans (2010). "Strategic marketing and business performance: A study in three European 'engineering countries'", *Industrial Marketing Management*, Vol. 39, Iss. 8, pp. 1300-1310

Jaworski, Bernard J. (1988). "Toward a Theory of Marketing Control: Environmental Context, Control Types, and Consequences", *Journal of Marketing*, Vol. 52, Iss. 3, pp. 23-39

Jaworski, Bernard J.; Stathakopoulos, Vlasis; Krishnan, H. Shanker. (1993). "Control Combinations in Marketing: Conceptual Framework and Empirical Evidence". *Journal of Marketing*, Vol. 57, Iss. 1, pp. 57-69

Kaplan, Robert S. and Norton, David P. (2000). "Having Trouble with Your Strategy? Then Map It", *Harvard Business Review*, Vol. 78, Iss. 5, pp. 167-176

Karjaluoto, Heikki (2007). "*SPSS opas markkinatutkijoille*". University of Jyväskylä School of Business and Economics. Working paper no. 344.

Keefe, L.M. (2008). "Marketing defined". Marketing News, AMA.

Koskinen, I., Alasuutari, P. and Peltonen, T. (2005). "*Laadulliset menetelmät kauppatieteissä*". Jyväskylä: Gummerrus Kirjapaino Oy.

Krasnikov, Alexander and Jayachandran, Satish (2008). "The Relative Impact of Marketing, Research-and-Development, and Operations Capabilities on Firm Performance" *Journal of Marketing*, Vol. 72, Iss. 4, pp. 1-11

Kumar, V. and Shah, Denish (2009). "Expanding the Role of Marketing: From Customer Equity to Market Capitalization", *Journal of Marketing*, Vol. 73, Iss. 6, pp. 119-136

Lamberti, Lucio and Noci, Giuliano (2010). "Marketing strategy and marketing performance measurement system: Exploring the relationship", *European Management Journal*, Vol. 28, pp. 139-152

Lambkin, Mary and Day, George S. (1989). "Evolutionary Processes in Competitive Markets: Beyond the Product Life Cycle" *Journal of Marketing*, Vol. 53, Iss. 3, pp. 4-20

Lincoln, Y. and Guba, E. (1985). "*Naturalistic inquiry*". Beverly Hills: Sage.

Little, Philip; Coffee, David; Lirely, Roger and Little, Beverly. (2009). "Explaining variation in market to book ratios: do corporate reputation ratings add explanatory power over and above brand value?" *Journal of Finance & Accountancy*, Vol. 2, pp. 1-10

Malhotra, Naresh & Birks, David (2006). "*Marketing Research: An Applied Approach*". 2nd Edition.

Miller, Amy and Cioffi, Jennifer (2004). "Measuring Marketing Effectiveness and Value: The Unisys Marketing Dashboard", *Journal of Advertising Research*, Vol. 44, Iss. 3, pp. 237-243

Morgan, Neil A.; Clark, Bruce H.; Gooner, Rich. (2002). "Marketing Productivity, marketing audits, and systems for marketing performance assessment Integrating multiple perspectives", *Journal of Business Research,* Vol. 55, Iss. 5, pp. 363-375

Morgan, Neil A. and Piercy, Nigel F. (1996). "Competitive Advantage, quality Strategy and the Role of Marketing", *British Journal of Management*, Vol. 7, Iss. 3, pp. 231-245

O'Sullivan, Don and Abela, Andrew V. (2007). "Marketing Performance Measurement Ability and Firm Performance", *Journal of Marketing*, Vol. 71, Iss. 2, pp. 79-93

Pansear, Sukhvir Singh; Markeset, Tore and Kumar, Rajesh (2008). "Industrial service innovation growth and barriers", *International Journal of Services Technology & Management*, Vol. 9, iss. 2, pp. 174-193

Porter, Michael E. (1980). *Competitive strategy: techniques for analyzing industries and competitors*, The Free Press, New York

Rappaport, Alfred (1983). "Corporate Performance Standards and Shareholder Value" *Journal of Business Strategy,* Vol. 3, Iss. 4, pp. 28-38

Rust, Roland T.; Ambler, Tim; Carpenter, Gregory S.; Kumar, V.; Srivastava, Rajendra K. (2004). "Measuring Marketing Productivity: Current Knowledge and Future directions", *Journal of Marketing*, Vol. 68, Iss. 4, pp. 76-89

Ruusuvuori, J. & Tiittula, L. (2005). "*Haastattelu: tutkimus, tilanteet ja vuorovaikutus*". Tampere: Vastapaino.

Srinivasan, Shuba; Hanssens, Dominique M. (2009). "Marketing and Firm Value: Metrics, Methods, Findings and Future Directions", *Journal of Marketing Research*, Vol. 46, Iss. 3, pp. 293-312

Srivastava, Rajendra K. and Reibstein, David J. (2005). "Metrics for Linking Marketing to Financial Performance", Report, No. 05-200, Marketing Science Institute, Cambridge, MA

Srivastava, Rajendra K.; Shervani, Tasadduq A. and Fahey, Liam (1999). "Marketing, Business Processes and Shareholder Value: An Organizationally Embedded View of Marketing Activities and the Discipline of Marketing", *Journal of Marketing*, Vol. 63, Iss. 4, pp. 168-179

Srivastava, Rajendra K., Shervani, Tasadduq A. and Fahey, Liam (1998). "Market-Based Assets and Shareholder Value: A Framework for Analysis", *Journal of Marketing*, Vol. 62, Iss. 1, pp. 2-18

Stewart, David W. (2009). "Marketing accountability: Linking marketing actions to financial results" *Journal of Business Research*, Vol. 62, Iss. 6, pp. 636-643

Tashakkori, Abbas and Teddlie, Charles B. (2003). *Handbook of Mixed Methods in Social & Behavioral Research*, Sage Publications, Inc, California, USA

Tikkanen, Henrikki and Frösén, Johanna (2011). "StartMark II: Strategisen markkinoinnin teho ja tulokset", Talentum Media, Helsinki.

Tuomi, J. & Sarajärvi, A. (2006). "*Laadullinen tutkimus ja sisällönanalyysi*". Jyväskylä: Gummerus Kirjapaino Oy.

Uzelac, Nikola and Sudarevic, Tomislav (2006). "Strengthening the link between marketing strategy and financial performance", *Journal of Financial Services Marketing*, Vol. 11, Iss. 2, pp. 142-156

Yin,R. (2009). "*Case study research: Design and Methods*". (4th edition) USA: Sage Publications.

Walker Jr., Orville C. and Ruekert, Robert W. (1987). "Marketing's Role in the Implementation of Business Strategies: A Critical Review and Conceptual Framework", *Journal of Marketing*, Vol. 51, Iss. 3, pp. 15-33

Webster, Frederick E. Jr.; Malter, Alan J. and Ganesan, Shankar (2005). "The Decline and Dispersion of Marketing Comptenece" *MIT Sloan Management Review*, Vol. 45, Iss. 4, pp. 35-43

Appendix 1: Results of Quantitative Research

In the following, printouts of quantitative ANOVA tests are presented with post-hoc tests for significant results.

Awareness
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	4.00000	0.40000	0.26667
Market leader	121	48.00000	0.39669	0.24132
Challenger	138	50.00000	0.36232	0.23273
Follower	176	65.00000	0.36932	0.23425

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.09104	3	0.03035	0.12838	0.94324	2.62513
Within Groups	104.23705	441	0.23637			
Total	104.32809	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	10.00000	0.13699	0.11986
Mature Markets	223	48.00000	0.21525	0.16968
Declining Markets	113	12.00000	0.10619	0.09576
New Markets	36	4.00000	0.11111	0.10159

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.11486	3	0.37162	2.70529	0.04497	2.62513
Within Groups	60.57952	441	0.13737			
Total	61.69438	444				

Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	3.00000	0.30000	0.23333
Market leader	121	34.00000	0.28099	0.20372
Challenger	138	35.00000	0.25362	0.19068
Follower	176	36.00000	0.20455	0.16364

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.48293	3	0.16098	0.87313	0.45493	2.62513
Within Groups	81.30583	441	0.18437			
Total	81.78876	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	18.00000	0.24658	0.18836
Mature Markets	223	54.00000	0.24215	0.18434
Declining Markets	113	27.00000	0.23894	0.18347
New Markets	36	9.00000	0.25000	0.19286

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.00468	3	0.00156	0.00841	0.99894	2.62513
Within Groups	81.78408	441	0.18545			
Total	81.78876	444				

Perceived Quality / Esteem
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	7.00000	0.70000	0.23333
Market leader	121	67.00000	0.55372	0.24917
Challenger	138	76.00000	0.55072	0.24923
Follower	176	82.00000	0.46591	0.25026

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.10598	3	0.36866	1.47879	0.21961	2.62513
Within Groups	109.94121	441	0.24930			
Total	111.04719	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	34.00000	0.46575	0.25228
Mature Markets	223	########	0.57399	0.24563
Declining Markets	113	51.00000	0.45133	0.24984
New Markets	36	19.00000	0.52778	0.25635

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.39914	3	0.46638	1.87576	0.13289	2.62513
Within Groups	109.64805	441	0.24864			
Total	111.04719	444				

Consumer Satisfaction
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	5.00000	0.50000	0.27778
Market leader	121	66.00000	0.54545	0.25000
Challenger	138	63.00000	0.45652	0.24992
Follower	176	79.00000	0.44886	0.24880

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.76829	3	0.25610	1.02412	0.38169	2.62513
Within Groups	110.27890	441	0.25007			
Total	111.04719	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	36.00000	0.49315	0.25342
Mature Markets	223	########	0.47534	0.25052
Declining Markets	113	53.00000	0.46903	0.25126
New Markets	36	18.00000	0.50000	0.25714

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.04467	3	0.01489	0.05916	0.98111	2.62513
Within Groups	111.00252	441	0.25171			
Total	111.04719	444				

Relevance to Consumer
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	5.00000	0.50000	0.27778
Market leader	121	32.00000	0.26446	0.19614
Challenger	138	30.00000	0.21739	0.17137
Follower	176	34.00000	0.19318	0.15675

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.12914	3	0.37638	2.15710	0.09240	2.62513
Within Groups	76.94727	441	0.17448			
Total	78.07640	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	17.00000	0.23288	0.18113
Mature Markets	223	52.00000	0.23318	0.17961
Declining Markets	113	22.00000	0.19469	0.15819
New Markets	36	10.00000	0.27778	0.20635

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.22183	3	0.07394	0.41885	0.73956	2.62513
Within Groups	77.85457	441	0.17654			
Total	78.07640	444				

Image / Personality / Identity
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	4.00000	0.40000	0.26667
Market leader	121	30.00000	0.24793	0.18802
Challenger	138	37.00000	0.26812	0.19766
Follower	176	46.00000	0.26136	0.19416

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.21924	3	0.07308	0.37466	0.77133	2.62513
Within Groups	86.01897	441	0.19505			
Total	86.23820	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	16.00000	0.21918	0.17352
Mature Markets	223	57.00000	0.25561	0.19113
Declining Markets	113	30.00000	0.26549	0.19674
New Markets	36	14.00000	0.38889	0.24444

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.72360	3	0.24120	1.24388	0.29331	2.62513
Within Groups	85.51460	441	0.19391			
Total	86.23820	444				

(Perceived) Differentation
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	4.00000	0.40000	0.26667
Market leader	121	36.00000	0.29752	0.21074
Challenger	138	39.00000	0.28261	0.20422
Follower	176	54.00000	0.30682	0.21390

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.15010	3	0.05003	0.23701	0.87055	2.62513
Within Groups	93.09934	441	0.21111			
Total	93.24944	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	24.00000	0.32877	0.22374
Mature Markets	223	64.00000	0.28700	0.20555
Declining Markets	113	30.00000	0.26549	0.19674
New Markets	36	15.00000	0.41667	0.25000

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.72216	3	0.24072	1.14732	0.32963	2.62513
Within Groups	92.52727	441	0.20981			
Total	93.24944	444				

Commitment / Purchase Intent
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	3.00000	0.30000	0.23333
Market leader	121	47.00000	0.38843	0.23953
Challenger	138	41.00000	0.29710	0.21036
Follower	176	59.00000	0.33523	0.22412

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.55397	3	0.18466	0.82352	0.48138	2.62513
Within Groups	98.88423	441	0.22423			
Total	99.43820	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	21.00000	0.28767	0.20776
Mature Markets	223	86.00000	0.38565	0.23799
Declining Markets	113	30.00000	0.26549	0.19674
New Markets	36	13.00000	0.36111	0.23730

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.30426	3	0.43475	1.95373	0.12022	2.62513
Within Groups	98.13394	441	0.22253			
Total	99.43820	444				

Other Attitudes, e.g. Liking
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	1.00000	0.10000	0.10000
Market leader	121	22.00000	0.18182	0.15000
Challenger	138	29.00000	0.21014	0.16720
Follower	176	29.00000	0.16477	0.13841

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.22879	3	0.07626	0.50937	0.67601	2.62513
Within Groups	66.02739	441	0.14972			
Total	66.25618	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	19.00000	0.26027	0.19521
Mature Markets	223	38.00000	0.17040	0.14200
Declining Markets	113	16.00000	0.14159	0.12263
New Markets	36	8.00000	0.22222	0.17778

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.71999	3	0.24000	1.61495	0.18516	2.62513
Within Groups	65.53619	441	0.14861			
Total	66.25618	444				

Knowledge
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	4.00000	0.40000	0.26667
Market leader	121	46.00000	0.38017	0.23760
Challenger	138	42.00000	0.30435	0.21327
Follower	176	56.00000	0.31818	0.21818

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.46592	3	0.15531	0.69667	0.55446	2.62513
Within Groups	98.31161	441	0.22293			
Total	98.77753	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	25.00000	0.34247	0.22831
Mature Markets	223	82.00000	0.36771	0.23355
Declining Markets	113	28.00000	0.24779	0.18805
New Markets	36	13.00000	0.36111	0.23730

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.12414	3	0.37471	1.69219	0.16794	2.62513
Within Groups	97.65339	441	0.22144			
Total	98.77753	444				

Total Number of Consumers
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	4.00000	0.40000	0.26667
Market leader	121	58.00000	0.47934	0.25165
Challenger	138	44.00000	0.31884	0.21877
Follower	176	63.00000	0.35795	0.23114

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.79975	3	0.59992	2.56812	0.05391	2.62513
Within Groups	103.01823	441	0.23360			
Total	104.81798	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	27.00000	0.36986	0.23630
Mature Markets	223	85.00000	0.38117	0.23694
Declining Markets	113	41.00000	0.36283	0.23325
New Markets	36	16.00000	0.44444	0.25397

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.19060	3	0.06353	0.26779	0.84862	2.62513
Within Groups	104.62738	441	0.23725			
Total	104.81798	444				

Number of New Consumers
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	6.00000	0.60000	0.26667
Market leader	121	40.00000	0.33058	0.22314
Challenger	138	41.00000	0.29710	0.21036
Follower	176	51.00000	0.28977	0.20698

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.98720	3	0.32907	1.54026	0.20338	2.62513
Within Groups	94.21729	441	0.21364			
Total	95.20449	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	24.00000	0.32877	0.22374
Mature Markets	223	76.00000	0.34081	0.22567
Declining Markets	113	26.00000	0.23009	0.17873
New Markets	36	12.00000	0.33333	0.22857

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.97855	3	0.32618	1.52662	0.20688	2.62513
Within Groups	94.22594	441	0.21366			
Total	95.20449	444				

Loyalty / Retention
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	1.00000	0.10000	0.10000
Market leader	121	52.00000	0.42975	0.24711
Challenger	138	56.00000	0.40580	0.24289
Follower	176	73.00000	0.41477	0.24412

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.01420	3	0.33807	1.39923	0.24241	2.62513
Within Groups	106.54985	441	0.24161			
Total	107.56404	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	21.00000	0.28767	0.20776
Mature Markets	223	########	0.45291	0.24890
Declining Markets	113	43.00000	0.38053	0.23783
New Markets	36	17.00000	0.47222	0.25635

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.74015	3	0.58005	2.41724	0.06576	2.62513
Within Groups	105.82390	441	0.23996			
Total	107.56404	444				

Price Sensitivity / Elasticity
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	3.00000	0.30000	0.23333
Market leader	121	18.00000	0.14876	0.12769
Challenger	138	20.00000	0.14493	0.12483
Follower	176	35.00000	0.19886	0.16023

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.45669	3	0.15223	1.07304	0.36021	2.62513
Within Groups	62.56354	441	0.14187			
Total	63.02022	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	10.00000	0.13699	0.11986
Mature Markets	223	39.00000	0.17489	0.14495
Declining Markets	113	17.00000	0.15044	0.12895
New Markets	36	10.00000	0.27778	0.20635

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.54602	3	0.18201	1.28476	0.27905	2.62513
Within Groups	62.47421	441	0.14166			
Total	63.02022	444				

Purchasing on Promotion
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	1.00000	0.10000	0.10000
Market leader	121	17.00000	0.14050	0.12176
Challenger	138	16.00000	0.11594	0.10325
Follower	176	30.00000	0.17045	0.14221

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.25264	3	0.08421	0.68091	0.56408	2.62513
Within Groups	54.54286	441	0.12368			
Total	54.79551	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	7.00000	0.09589	0.08790
Mature Markets	223	32.00000	0.14350	0.12346
Declining Markets	113	18.00000	0.15929	0.13511
New Markets	36	7.00000	0.19444	0.16111

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.28703	3	0.09568	0.77408	0.50893	2.62513
Within Groups	54.50847	441	0.12360			
Total	54.79551	444				

Number of Products per Consumer
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	2.00000	0.20000	0.17778
Market leader	121	24.00000	0.19835	0.16033
Challenger	138	24.00000	0.17391	0.14472
Follower	176	27.00000	0.15341	0.13062

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.15269	3	0.05090	0.35335	0.78675	2.62513
Within Groups	63.52371	441	0.14404			
Total	63.67640	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	15.00000	0.20548	0.16553
Mature Markets	223	40.00000	0.17937	0.14786
Declining Markets	113	15.00000	0.13274	0.11615
New Markets	36	7.00000	0.19444	0.16111

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.28575	3	0.09525	0.66263	0.57539	2.62513
Within Groups	63.39066	441	0.14374			
Total	63.67640	444				

Number of Leads Generated
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	3.00000	0.30000	0.23333
Market leader	121	41.00000	0.33884	0.22590
Challenger	138	45.00000	0.32609	0.22136
Follower	176	58.00000	0.32955	0.22221

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.02056	3	0.00685	0.03071	0.99275	2.62513
Within Groups	98.41989	441	0.22317			
Total	98.44045	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	28.00000	0.38356	0.23973
Mature Markets	223	77.00000	0.34529	0.22708
Declining Markets	113	31.00000	0.27434	0.20085
New Markets	36	11.00000	0.30556	0.21825

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.63316	3	0.21105	0.95160	0.41552	2.62513
Within Groups	97.80729	441	0.22179			
Total	98.44045	444				

Conversions
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	2.00000	0.20000	0.17778
Market leader	121	36.00000	0.29752	0.21074
Challenger	138	34.00000	0.24638	0.18703
Follower	176	50.00000	0.28409	0.20455

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.24491	3	0.08164	0.40768	0.74755	2.62513
Within Groups	88.30790	441	0.20024			
Total	88.55281	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	22.00000	0.30137	0.21347
Mature Markets	223	67.00000	0.30045	0.21113
Declining Markets	113	21.00000	0.18584	0.15265
New Markets	36	12.00000	0.33333	0.22857

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.21565	3	0.40522	2.04609	0.10671	2.62513
Within Groups	87.33716	441	0.19804			
Total	88.55281	444				

Number of Consumer Complaints
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	6.00000	0.60000	0.26667
Market leader	121	43.00000	0.35537	0.23099
Challenger	138	48.00000	0.34783	0.22850
Follower	176	48.00000	0.27273	0.19948

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.42036	3	0.47345	2.16742	0.09117	2.62513
Within Groups	96.33245	441	0.21844			
Total	97.75281	444				

Effect of Market Life Cycle Stage

Descriptive Statistics

Groups	Sample size	Sum	Mean	Variance
Growing Markets	223	84.	0.37668	84.
Mature Markets	113	26.	0.23009	26.
Declining Markets	36	9.	0.25	9.
New Markets	73	26.	0.35616	26.
Total	445		0.32584	0.22016

ANOVA

Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	3	1.88664	0.62888	2.89295	0.03504	2.62513	0.0126
Within Groups	441	95.86617	0.21738				
Total	444	97.75281					

Hartley Fmax	1.31959	Degrees C		4	222	
Cochran C	0.2808	Degrees C		4	222	
Bartlett Chi-square	3.1607	Degrees C		3 *p-level*	0.36751	

Comparisons among groups (Factor 1 - Factor #1)

Fisher LSD

Group vs Group (Contrast)	Difference	Test Statistic	p-level	Accepted?
Growing markets vs matu	0.14659	2.72284	0.00673	accepted
Growing markets vs decli	0.12668	1.5127	0.13107	rejected
Growing markets vs new	0.02052	0.32634	0.74432	rejected
Mature markets vs declini	-0.01991	0.22315	0.82353	rejected
Mature markets vs new m	-0.12608	1.80079	0.07242	rejected
Declining markets vs new	-0.10616	1.11806	0.26415	rejected

Distribution / Availability
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	1.00000	0.10000	0.10000
Market leader	121	14.00000	0.11570	0.10317
Challenger	138	13.00000	0.09420	0.08595
Follower	176	16.00000	0.09091	0.08312

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.04846	3	0.01615	0.17987	0.91004	2.62513
Within Groups	39.60098	441	0.08980			
Total	39.64944	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	12.00000	0.16438	0.13927
Mature Markets	223	19.00000	0.08520	0.07829
Declining Markets	113	7.00000	0.06195	0.05863
New Markets	36	6.00000	0.16667	0.14286

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.67450	3	0.22483	2.54399	0.05566	2.62513
Within Groups	38.97493	441	0.08838			
Total	39.64944	444				

Effect of Relative Market Position

Descriptive Statistics

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	7.	0.7	7.
Market leader	138	52.	0.37681	52.
Challenger	121	59.	0.4876	59.
Follower	176	63.	0.35795	63.
Total	445		0.40674	0.24185

ANOVA

Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	3	2.19371	0.73124	3.06576	0.02783	2.62513	0.01374
Within Groups	441	########	0.23852				
Total	444	########					

		Degrees Of		
Hartley Fmax	1.08996	Freedom	4	175
Cochran C	0.26437	Degrees Of Freedom	4	175
Bartlett Chi-square	0.27144	Degrees Of Freedom	3 p-level	0.96531

Comparisons among groups (Factor 1 - Factor #1)

Fisher LSD

Group vs Group (Contrast)	Difference	Test Statistics	p-level	Accepted ?
Monopoly vs Challenger	0.32319	2.02071	0.04391	*rejected*
Monopoly vs Market Leader	0.2124	1.32174	0.18694	*rejected*
Monopoly vs Follower	0.34205	2.15439	0.03175	*rejected*
Challenger vs Market Leader	-0.11079	1.8215	0.0692	*rejected*
Challenger vs follower	0.01886	0.33958	0.73433	*rejected*
Market Leader vs Follower	0.12965	2.24791	0.02507	*rejected*

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	30.00000	0.41096	0.24543
Mature Markets	223	90.00000	0.40359	0.24179
Declining Markets	113	41.00000	0.36283	0.23325
New Markets	36	20.00000	0.55556	0.25397

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.01863	3	0.33954	1.40783	0.23985	2.62513
Within Groups	106.36115	441	0.24118			
Total	107.37978	444				

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.01863	3	0.33954	1.40783	0.23985	2.62513

Number of Customer Complaints
Effect of Relative Market Position

Descriptive Statistics

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	6.	0.6	6.
Market leader	138	29.	0.21014	29.
Challenger	121	27.	0.22314	27.
Follower	176	28.	0.15909	28.
Total	445		0.20225	0.16171

ANOVA

Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	3	1.97129	0.6571	4.15001	0.00645	2.62513	0.02079
Within Groups	441	69.82646	0.15834				
Total	444	71.79775					

		Degrees Of		
Hartley Fmax	1.98198	Freedom	4	175
Cochran C	0.35881	Degrees Of Freedom	4	175
Bartlett Chi-square	4.41502	Degrees Of Freedom	3 p-level	0.22

Comparisons among groups (Factor 1 - Factor #1)

Fisher LSD

Group vs Group (Contrast)	Difference	Test Statistics	p-level	Accepted ?
Monopoly vs Challenger	0.38986	2.99172	0.00293	accepted
Monopoly vs Market Leader	0.37686	2.87836	0.00419	accepted
Monopoly vs Follower	0.44091	3.40846	0.00071	accepted
Challenger vs Market Leader	-0.013	0.26223	0.79326	rejected
Challenger vs follower	0.05105	1.12842	0.25975	rejected
Market Leader vs Follower	0.06405	1.363	0.17357	rejected

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	16.00000	0.21918	0.17352
Mature Markets	223	50.00000	0.22422	0.17473
Declining Markets	113	18.00000	0.15929	0.13511
New Markets	36	6.00000	0.16667	0.14286

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.38262	3	0.12754	0.78758	0.50129	2.62513
Within Groups	71.41513	441	0.16194			
Total	71.79775	444				

Market Share
Effect of Relative Market Position

Descriptive Statistics

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	2.	0.2	2.
Market leader	138	28.	0.2029	28.
Challenger	121	53.	0.43802	53.
Follower	176	40.	0.22727	40.
Total	445		0.2764	0.20046

ANOVA

Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	3	4.38919	1.46306	7.62543	0.00006	2.62513	0.04276
Within Groups	441	84.61306	0.19187				
Total	444	89.00225					

Hartley Fmax	1.52359	Degrees Of Freedom	4	175
Cochran C	0.32424	Degrees Of Freedom	4	175
Bartlett Chi-square	6.59405	Degrees Of Freedom	3 p-level	0.08603

Comparisons among groups (Factor 1 - Factor #1)

Fisher LSD

Group vs Group (Contrast)	Difference	Test Statistics	p-level	Accepted ?
Monopoly vs Challenger	-0.0029	0.02021	0.98389	rejected
Monopoly vs Market Leader	-0.23802	1.65145	0.09936	rejected
Monopoly vs Follower	-0.02727	0.19153	0.8482	rejected
Challenger vs Market Leader	-0.23512	4.30992	0.00002	accepted
Challenger vs follower	-0.02437	0.4894	0.6248	rejected
Market Leader vs Follower	0.21074	4.07405	0.00005	accepted

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	16.00000	0.21918	0.17352
Mature Markets	223	64.00000	0.28700	0.20555
Declining Markets	113	29.00000	0.25664	0.19248
New Markets	36	14.00000	0.38889	0.24444

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.76373	3	0.25458	1.27233	0.28332	2.62513
Within Groups	88.23852	441	0.20009			
Total	89.00225	444				

Relative Price
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	1.00000	0.10000	0.10000
Market leader	121	23.00000	0.19008	0.15523
Challenger	138	25.00000	0.18116	0.14942
Follower	176	27.00000	0.15341	0.13062

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.16316	3	0.05439	0.38156	0.76634	2.62513
Within Groups	62.85707	441	0.14253			
Total	63.02022	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	13.00000	0.17808	0.14840
Mature Markets	223	42.00000	0.18834	0.15356
Declining Markets	113	11.00000	0.09735	0.08865
New Markets	36	10.00000	0.27778	0.20635

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.09418	3	0.36473	2.59737	0.05187	2.62513
Within Groups	61.92604	441	0.14042			
Total	63.02022	444				

Loyalty of the Market Share
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	1.00000	0.10000	0.10000
Market leader	121	23.00000	0.19008	0.15523
Challenger	138	26.00000	0.18841	0.15403
Follower	176	34.00000	0.19318	0.15675

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.08245	3	0.02748	0.17808	0.91124	2.62513
Within Groups	68.06137	441	0.15433			
Total	68.14382	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	11.00000	0.15068	0.12976
Mature Markets	223	46.00000	0.20628	0.16446
Declining Markets	113	16.00000	0.14159	0.12263
New Markets	36	11.00000	0.30556	0.21825

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.91674	3	0.30558	2.00456	0.11260	2.62513
Within Groups	67.22708	441	0.15244			
Total	68.14382	444				

Penetration
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	3.00000	0.30000	0.23333
Market leader	121	26.00000	0.21488	0.17011
Challenger	138	19.00000	0.13768	0.11959
Follower	176	21.00000	0.11932	0.10568

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.90952	3	0.30317	2.32961	0.07377	2.62513
Within Groups	57.39160	441	0.13014			
Total	58.30112	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	13.00000	0.17808	0.14840
Mature Markets	223	35.00000	0.15695	0.13291
Declining Markets	113	15.00000	0.13274	0.11615
New Markets	36	6.00000	0.16667	0.14286

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.10062	3	0.03354	0.25413	0.85839	2.62513
Within Groups	58.20051	441	0.13197			
Total	58.30112	444				

Relative Consumer Satisfaction
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	3.00000	0.30000	0.23333
Market leader	121	39.00000	0.32231	0.22025
Challenger	138	32.00000	0.23188	0.17941
Follower	176	51.00000	0.28977	0.20698

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.55659	3	0.18553	0.91590	0.43309	2.62513
Within Groups	89.33105	441	0.20256			
Total	89.88764	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	17.00000	0.23288	0.18113
Mature Markets	223	67.00000	0.30045	0.21113
Declining Markets	113	30.00000	0.26549	0.19674
New Markets	36	11.00000	0.30556	0.21825

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.30230	3	0.10077	0.49605	0.68520	2.62513
Within Groups	89.58534	441	0.20314			
Total	89.88764	444				

Relative Perceived Quality
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	5.00000	0.50000	0.27778
Market leader	121	33.00000	0.27273	0.20000
Challenger	138	38.00000	0.27536	0.20099
Follower	176	52.00000	0.29545	0.20935

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.50943	3	0.16981	0.82589	0.48009	2.62513
Within Groups	90.67260	441	0.20561			
Total	91.18202	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	17.00000	0.23288	0.18113
Mature Markets	223	68.00000	0.30493	0.21290
Declining Markets	113	31.00000	0.27434	0.20085
New Markets	36	12.00000	0.33333	0.22857

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.38078	3	0.12693	0.61645	0.60464	2.62513
Within Groups	90.80125	441	0.20590			
Total	91.18202	444				

Share of Voice
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	2.00000	0.20000	0.17778
Market leader	121	12.00000	0.09917	0.09008
Challenger	138	9.00000	0.06522	0.06141
Follower	176	17.00000	0.09659	0.08776

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.22358	3	0.07453	0.90838	0.43687	2.62513
Within Groups	36.18092	441	0.08204			
Total	36.40449	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	9.00000	0.12329	0.10959
Mature Markets	223	17.00000	0.07623	0.07074
Declining Markets	113	7.00000	0.06195	0.05863
New Markets	36	7.00000	0.19444	0.16111

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.60479	3	0.20160	2.48336	0.06029	2.62513
Within Groups	35.79971	441	0.08118			
Total	36.40449	444				

Number of New Products in a period
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	4.00000	0.40000	0.26667
Market leader	121	19.00000	0.15702	0.13347
Challenger	138	18.00000	0.13043	0.11425
Follower	176	23.00000	0.13068	0.11425

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.73248	3	0.24416	1.99166	0.11449	2.62513
Within Groups	54.06302	441	0.12259			
Total	54.79551	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	13.00000	0.17808	0.14840
Mature Markets	223	34.00000	0.15247	0.12980
Declining Markets	113	12.00000	0.10619	0.09576
New Markets	36	5.00000	0.13889	0.12302

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.26321	3	0.08774	0.70953	0.54670	2.62513
Within Groups	54.53229	441	0.12366			
Total	54.79551	444				

Revenue of New Products
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	6.00000	0.60000	0.26667
Market leader	121	35.00000	0.28926	0.20730
Challenger	138	37.00000	0.26812	0.19766
Follower	176	41.00000	0.23295	0.17971

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.37292	3	0.45764	2.35208	0.07163	2.62513
Within Groups	85.80461	441	0.19457			
Total	87.17753	444				

Effect of Market Life Cycle Stage

Descriptive Statistics

Groups	Sample size	Sum	Mean	Variance
Growing Markets	223	74.	0.33184	74.
Mature Markets	113	18.	0.15929	18.
Declining Markets	36	8.	0.22222	8.
New Markets	73	19.	0.26027	19.
Total	445		0.26742	0.19635

ANOVA

Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	3	2.32382	0.77461	4.02577	0.00763	2.62513	0.01999
Within Groups	441	84.85371	0.19241				
Total	444	87.17753					

		Degrees Of		
Hartley Fmax	1.64839	Freedom	4	222
Cochran C	0.30476	Degrees Of Freedom	4	222
Bartlett Chi-square	8.80067	Degrees Of Freedom	3 p-level	0.03206

Comparisons among groups (Factor 1 - Factor #1)

Fisher LSD

Group vs Group (Contrast)	Difference	Test Statistics	p-level	Accepted ?
Growing markets vs mature markets	0.17255	3.40653	0.00072	accepted
Growing markets vs declining markets	0.10962	1.39128	0.16484	rejected

Growing markets vs new markets	0.07156	1.2099	0.22696	*rejected*
Mature markets vs declining markets	-0.06293	0.74962	0.45388	*rejected*
Mature markets vs new markets	-0.10098	1.5331	0.12596	*rejected*
Declining markets vs new markets	-0.03805	0.42595	0.67035	*rejected*

Margin of New Products
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	3.00000	0.30000	0.23333
Market leader	121	30.00000	0.24793	0.18802
Challenger	138	29.00000	0.21014	0.16720
Follower	176	52.00000	0.29545	0.20935

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.59136	3	0.19712	1.03237	0.37799	2.62513
Within Groups	84.20414	441	0.19094			
Total	84.79551	444				

Effect of Market Life Cycle Stage

Descriptive Statistics

Groups	Sample size	Sum	Mean	Variance
Growing Markets	223	69.	0.30942	69.
Mature Markets	113	14.	0.12389	14.
Declining Markets	36	12.	0.33333	12.
New Markets	73	19.	0.26027	19.
Total	445		0.25618	0.19098

ANOVA

Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	3	2.825	0.94167	5.06615	0.00185	2.62513	0.02668
Within Groups	441	81.97051	0.18587				
Total	444	84.79551					

		Degrees Of		
Hartley Fmax	2.08716	Freedom	4	222
Cochran C	0.30561	Degrees Of Freedom	4	222
Bartlett Chi-square	16.4469	Degrees Of Freedom	3 p-level	0.00092

Comparisons among groups (Factor 1 - Factor #1)

Fisher LSD

Group vs Group (Contrast)	Difference	Test Statistics	p-level	Accepted ?
Growing markets vs mature markets	0.18552	3.72658	0.00022	accepted
Growing markets vs declining markets	-0.02392	0.30884	0.75759	rejected

Growing markets vs new markets	0.04914	0.84532	0.39839	*rejected*
Mature markets vs declining markets	-0.20944	2.53832	0.01148	*accepted*
Mature markets vs new markets	-0.13638	2.10662	0.03571	*rejected*
Declining markets vs new markets	0.07306	0.83208	0.40581	*rejected*

Sales
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	8.00000	0.80000	0.17778
Market leader	121	88.00000	0.72727	0.20000
Challenger	138	84.00000	0.60870	0.23992
Follower	176	105.00000	0.59659	0.24205

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.64439	3	0.54813	2.39741	0.06750	2.62513
Within Groups	100.82752	441	0.22863			
Total	102.47191	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	41.00000	0.56164	0.24962
Mature Markets	223	156.00000	0.69955	0.21113
Declining Markets	113	68.00000	0.60177	0.24178
New Markets	36	20.00000	0.55556	0.25397

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	1.66082	3	0.55361	2.42176	0.06537	2.62513
Within Groups	100.81109	441	0.22860			
Total	102.47191	444				

% Discount
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	1.00000	0.10000	0.10000
Market leader	121	14.00000	0.11570	0.10317
Challenger	138	12.00000	0.08696	0.07997
Follower	176	18.00000	0.10227	0.09234

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.05366	3	0.01789	0.19527	0.89961	2.62513
Within Groups	40.39578	441	0.09160			
Total	40.44944	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	8.00000	0.10959	0.09893
Mature Markets	223	24.00000	0.10762	0.09647
Declining Markets	113	10.00000	0.08850	0.08138
New Markets	36	3.00000	0.08333	0.07857

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.04407	3	0.01469	0.16032	0.92299	2.62513
Within Groups	40.40537	441	0.09162			
Total	40.44944	444				

Gross Margins
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	4.00000	0.40000	0.26667
Market leader	121	63.00000	0.52066	0.25165
Challenger	138	67.00000	0.48551	0.25161
Follower	176	86.00000	0.48864	0.25130

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.18932	3	0.06311	0.25062	0.86090	2.62513
Within Groups	111.04663	441	0.25181			
Total	111.23596	444				

Effect of Market Life Cycle Stage

Descriptive Statistics

Groups	Sample size	Sum	Mean	Variance
Growing Markets	223	124.	0.55605	124.
Mature Markets	113	43.	0.38053	43.
Declining Markets	36	18.	0.5	18.
New Markets	73	35.	0.47945	35.
Total	445		0.49438	0.25053

ANOVA

Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	3	2.33028	0.77676	3.1454	0.02501	2.62513	0.01426
Within Groups	441	########	0.24695				
Total	444	########					

Hartley Fmax	1.0812	Degrees Of Freedom	4	222	
Cochran C	0.25818	Degrees Of Freedom	4	222	
Bartlett Chi-square	0.13	Degrees Of Freedom	3	p-level	0.98801

Comparisons among groups (Factor 1 - Factor #1)

Fisher LSD

Group vs Group (Contrast)	Difference	Test Statistics	p-level	Accepted ?
Growing markets vs mature markets	0.17552	3.05879	0.00236	accepted
Growing markets vs declining markets	0.05605	0.62799	0.53033	rejected

Growing markets vs new markets	0.0766	1.14314	0.2536	*rejected*
Mature markets vs declining markets	-0.11947	1.25617	0.20972	*rejected*
Mature markets vs new markets	-0.09892	1.32564	0.18564	*rejected*
Declining markets vs new markets	0.02055	0.20303	0.8392	*rejected*

Marketing Spend
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	4.00000	0.40000	0.26667
Market leader	121	17.00000	0.14050	0.12176
Challenger	138	18.00000	0.13043	0.11425
Follower	176	23.00000	0.13068	0.11425

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.70374	3	0.23458	1.96454	0.11856	2.62513
Within Groups	52.65806	441	0.11941			
Total	53.36180	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	11.00000	0.15068	0.12976
Mature Markets	223	28.00000	0.12556	0.11029
Declining Markets	113	15.00000	0.13274	0.11615
New Markets	36	8.00000	0.22222	0.17778

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.30396	3	0.10132	0.84213	0.47132	2.62513
Within Groups	53.05784	441	0.12031			
Total	53.36180	444				

Profit / Profitability
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	7.00000	0.70000	0.23333
Market leader	121	79.00000	0.65289	0.22851
Challenger	138	86.00000	0.62319	0.23654
Follower	176	108.00000	0.61364	0.23844

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.16567	3	0.05522	0.23494	0.87201	2.62513
Within Groups	103.65456	441	0.23504			
Total	103.82022	444				

Effect of Market Life Cycle Stage

Descriptive Statistics

Groups	Sample size	Sum	Mean	Variance
Growing Markets	223	154.	0.69058	154.
Mature Markets	113	65.	0.57522	65.
Declining Markets	36	22.	0.61111	22.
New Markets	73	39.	0.53425	39.
Total	445		0.62921	0.23383

ANOVA

Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	3	1.83944	0.61315	2.65146	0.04829	2.62513	0.01101
Within Groups	441	101.98078	0.23125				
Total	444	103.82022					

		Degrees Of			
Hartley Fmax	1.17537	Freedom	4	222	
		Degrees Of			
Cochran C	0.26337	Freedom	4	222	
		Degrees Of			
Bartlett Chi-square	1.16471	Freedom	3 p-level		0.76148

Comparisons among groups (Factor 1 - Factor #1)

Fisher LSD

Group vs Group (Contrast)	Difference	Test Statistics	p-level	Accepted ?
Growing markets vs mature markets	0.11536	2.07751	0.03833	*rejected*
Growing markets vs declining markets	0.07947	0.92008	0.35803	*rejected*

Growing markets vs new markets	0.15634	2.41095	0.01632	*accepted*
Mature markets vs declining markets	-0.03589	0.38997	0.69675	*rejected*
Mature markets vs new markets	0.04097	0.56744	0.5707	*rejected*
Declining markets vs new markets	0.07686	0.78485	0.43296	*rejected*

Shareholder Value
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	1.00000	0.10000	0.10000
Market leader	121	26.00000	0.21488	0.17011
Challenger	138	31.00000	0.22464	0.17545
Follower	176	38.00000	0.21591	0.17026

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.14498	3	0.04833	0.28361	0.83724	2.62513
Within Groups	75.14491	441	0.17040			
Total	75.28989	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	20.00000	0.27397	0.20167
Mature Markets	223	46.00000	0.20628	0.16446
Declining Markets	113	25.00000	0.22124	0.17383
New Markets	36	5.00000	0.13889	0.12302

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.48355	3	0.16118	0.95021	0.41620	2.62513
Within Groups	74.80634	441	0.16963			
Total	75.28989	444				

Economic Value Added (EVA)
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	2.00000	0.20000	0.17778
Market leader	121	16.00000	0.13223	0.11570
Challenger	138	13.00000	0.09420	0.08595
Follower	176	23.00000	0.13068	0.11425

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.19321	3	0.06440	0.60106	0.61460	2.62513
Within Groups	47.25398	441	0.10715			
Total	47.44719	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	12.00000	0.16438	0.13927
Mature Markets	223	27.00000	0.12108	0.10690
Declining Markets	113	11.00000	0.09735	0.08865
New Markets	36	4.00000	0.11111	0.10159

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.20409	3	0.06803	0.63505	0.59274	2.62513
Within Groups	47.24310	441	0.10713			
Total	47.44719	444				

Return On Investment (ROI)
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	2.00000	0.20000	0.17778
Market leader	121	30.00000	0.24793	0.18802
Challenger	138	33.00000	0.23913	0.18328
Follower	176	39.00000	0.22159	0.17347

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.06575	3	0.02192	0.12138	0.94750	2.62513
Within Groups	79.62863	441	0.18056			
Total	79.69438	444				

Effect of Market Life Cycle Stage

Summary

Groups	Sample size	Sum	Mean	Variance
Growing Markets	73	18.00000	0.24658	0.18836
Mature Markets	223	59.00000	0.26457	0.19545
Declining Markets	113	22.00000	0.19469	0.15819
New Markets	36	5.00000	0.13889	0.12302

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.72023	3	0.24008	1.34062	0.26058	2.62513
Within Groups	78.97415	441	0.17908			
Total	79.69438	444				

Customer Lifetime Value (CLV)
Effect of Relative Market Position

Summary

Groups	Sample size	Sum	Mean	Variance
Monopoly	10	3.00000	0.30000	0.23333
Market leader	121	19.00000	0.15702	0.13347
Challenger	138	21.00000	0.15217	0.12996
Follower	176	31.00000	0.17614	0.14594

ANOVA

Source of Variation	SS	df	MS	F	p-level	F crit
Between Groups	0.23373	3	0.07791	0.55904	0.64232	2.62513
Within Groups	61.46065	441	0.13937			
Total	61.69438	444				

Effect of Market Life Cycle Stage

Descriptive Statistics

Groups	Sample size	Sum	Mean	Variance
Growing Markets	223	48.	0.21525	48.
Mature Markets	113	12.	0.10619	12.
Declining Markets	36	4.	0.11111	4.
New Markets	73	10.	0.13699	10.
Total	445		0.16629	0.13895

ANOVA

Source of Variation	d.f.	SS	MS	F	p-level	F crit	Omega Sqr.
Between Groups	3	1.11486	0.37162	2.70529	0.04497	2.62513	0.01137
Within Groups	441	60.57952	0.13737				
Total	444	61.69438					

		Degrees Of		
Hartley Fmax	1.7718	Freedom	4	222
Cochran C	0.34849	Degrees Of Freedom	4	222
Bartlett Chi-square	13.81056	Degrees Of Freedom	3 p-level	0.00317

Comparisons among groups (Factor 1 - Factor #1)

Fisher LSD

Group vs Group (Contrast)	Difference	Test Statistics	p-level	Accepted?
Growing markets vs mature markets	0.10905	2.54807	0.01117	accepted
Growing markets vs declining markets	0.10414	1.56426	0.11847	rejected

Growing markets vs new markets	0.07826	1.56591	0.11808	*rejected*
Mature markets vs declining markets	-0.00492	0.06931	0.94477	*rejected*
Mature markets vs new markets	-0.03079	0.55326	0.58036	*rejected*
Declining markets vs new markets	-0.02588	0.3428	0.73191	*rejected*