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INTERNAL BRANDING IN HIGH TECHNOLOGY ENVIRONMENT

Measuring employee-brand relationship through brand identity concept

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Bachelor's Thesis
October 2009

Degree Programme in International Business

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DESCRIPTION

Author(s)	Type of publication	Date
NURMELA, Heidi	Bachelor's Thesis	30.10.2009
	Pages 77	Language English
	Confidential ( ) Until	Permission for web publication (X)

Title

INTERNAL BRANDING IN HIGH TECHNOLOGY ENVIRONMENT
- Measuring employee-brand relationship through brand identity concept

Degree Programme

Degree Programme in International Business

Tutor(s)

NEUVONEN, Heidi

Assigned by

Abstract

The purpose of the study was to examine internal branding in high technology environment. First of all, brand as a phenomenon was observed according to scientific literature and the special branding implications of high technology environment were discussed. Further, the special characteristics and dimensions of internal branding were defined. Finally, a theoretical framework was constructed to measure the current state of case company's employee-brand relationship.

Based on the literature review, a conclusion was made that the concepts of high technology, internal branding and brand identity are closely connected with each other. Internal branding is especially important for high-tech companies because corporate brand is usually their driver brand and every employee directly or indirectly represents the brand. At the same time, internal branding is their biggest challenge. Brand identity, on the other hand, provides a basis for internal branding strategy, but is also the source of brand equity for high technology companies. Consequently, brand identity is the key concept, providing direction, depth, and texture for the other branding dimensions.

The empirical study was conducted in a form of a quantitative questionnaire. It was found that the level of brand knowledge and commitment in the case company was rather good, even though certain weaknesses were identified. Based on the results, some improvement suggestions were provided. The empirical results combined to the theoretical foundation can, thus, serve as a preliminary groundwork for building up an internal brand management strategy for the case company.

Keywords

brands, branding, brand identity, high technology, internal branding, survey

Miscellaneous

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OPINNÄYTETYÖN
KUVAILULEHTI

Tekijä(t)	Julkaisun laji	Päivämäärä
NURMELA, Heidi	Opinnäytetyö	30.10.2009
	Sivumäärä 77	Julkaisun kieli Englanti
	Luottamuksellisuus ( ) saakka	Verkkojulkaisulupa myönnetty (X)

Työn nimi

INTERNAL BRANDING IN HIGH TECHNOLOGY ENVIRONMENT
- Measuring employee-brand relationship through brand identity concept

Koulutusohjelma

Degree Programme in International Business

Työn ohjaaja(t)

NEUVONEN, Heidi

Toimeksiantaja(t)

Tiivistelmä

Tutkimuksen tarkoitus oli tarkastella sisäistä tuotteistamista huipputeknologian ympäristössä. Ensimmäinen tavoite oli määritellä brändi konseptina tieteelliseen kirjallisuuteen perustuen, ja pohtia huipputeknologian ympäristön vaikutusta tuotteistamisprosessiin. Sen lisäksi käsiteltiin sisäisen tuotteistamisen erikoisominaisuuksia, sekä määriteltiin sen eri ulottuvuudet. Lopuksi rakennettiin tutkimuksen teoriakehys, jonka perusteella voitiin määritellä tämänhetkinen työntekijöiden ja brändin välinen suhde case-yrityksessä.

Kirjallisen teoriapohjan perusteella voitiin päätellä, että huipputeknologia, sisäinen tuotteistaminen ja brändi-identiteetti ovat kaikki yhteydessä toisiinsa. Yritysbrändi on usein huipputeknologiayritysten pääasiallinen brändi, jota jokainen työntekijä edustaa joko suoranaisesti tai välillisesti. Siitä johtuen sisäinen tuotteistaminen on erityisen tärkeää huipputeknologiayrityksille. Samalla se on myös niiden suurin haaste. Brändi-identiteetti puolestaan on sisäisen tuotteistamisen tärkein rakennuselementti, sekä myös huipputeknologiayritysten pääasiallinen brändipääoman lähde. Tästä johtuen brändi-identiteetti on ensiarvoisen tärkeä konsepti, joka tuo suuntaa, syvyyttä ja sisältöä sekä sisäiseen tuotteistamiseen että korkeanteknologian tuotteistamiseen.

Tutkimuksen empiirinen osa toteutettiin kvantitatiivisena kyselytutkimuksena. Sen perusteella selvisi, että brändin tunnettuus ja siihen sitoutuminen case-yrityksessä ovat melko hyvällä tasolla, vaikkakin tiettyjä heikkouksia voitiin löytää. Tulosten perusteella case-yritykselle annettiin joitain kehitysehdotuksia. Empiirinen osuus yhdistettynä tutkimuksen teoriapohjaan voivat siten toimia alustavana pohjana case-yrityksen sisäiselle brändi-strategialle.

Avainsanat (asiasanat)

brändit, tuotteistus, brändi-identiteetti, huipputeknologia, sisäinen tuotteistaminen, kyselytutkimus

Muut tiedot

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1 INTRODUCTION

High technology companies around the world are facing major challenges. Increasing global competition, the accelerating pace of technological development, the consolidation of markets, and the increased speed with which imitations turn up on the market have dramatically shortened product lifecycles. As a result, it is not enough to have efficient logistic capabilities or unique production methods anymore; there must be some completely new ways to make the difference between company and one's competitors. The initial concept of competitive advantage is getting fundamentally new aspects as brands, instead of products, are becoming the real source of competitive advantage. (Sawhney 2005, 201-203.)

Further, as the importance of brands and branding is increasing, internal branding has risen as a number one subject in the field of brand research as well as business management (Davis 2005, 227). So that companies would be able to sell promises, instead of mere products, employees should know *what* they are doing and, more importantly, *why* they are doing. Therefore, before selling the brand's promise to customers, companies need to sell it to their employees.

How is this achieved, then? What is in it for high technology companies? Why should they engage in designing internal branding strategies? These are the question which this thesis tries to seek answers to.

1.1 Research objectives and limitations

The purpose of this study is to examine internal branding in high technology environment. The main assumption is that company personnel should understand the brand meaning and be committed to implementing it in their every-day work. Brand in itself is a vast concept and, therefore, the aim is to concentrate on studying the most important branding concepts in relation to high-tech environment as well as to dig into the process of internal branding. To fully grasp the issue, the following research objectives have been set:

1. To observe brand as a phenomenon according to scientific literature and to discuss the special branding implications of high technology environment.
2. To identify the characteristics of internal branding and to define the dimensions concerning internal branding process.
3. To measure the current state of Company X's employee-brand relationship and to evaluate the result in relation to the theoretical background of the study.

The strategy of the study is, first, using exploratory and explanatory research methods to build up theory related to internal branding in high-tech environment. The first and second objectives are then obtained by presenting the theoretical framework which is based on the theoretical foundation of the study. Theoretical framework is a conceptual model of how one theorizes the relationships among the several factors that have been identified as important to the problem (Sekaran 1992, 63), meaning that the purpose is to present and define the concept of brand reflecting the internal viewpoint of this thesis. Finally, to achieve the third sub-objective, the theoretical framework is tested in the case company environment by means of an empirical survey. In the empirical section, solely quantitative methods will be employed.

As stated, branding is a very large concept in itself. The research perspective of this study is on the sender side of branding and the focus will thus be on organizational implications. Further, because this thesis focuses on internal issues, the uncontrollable factors, such as competitor moves and changes in customer preference, affecting branding will not be dealt with in detail.

1.2 Background to the research subject

Branding literature has traditionally focused on the external communication of the brand (de Chernatony 2001, 3). Because of this, the internal branding research is still lacking in clear and commonly accepted structure, although plenty of different theories about the subject can be found. Further, the external branding research has often concentrated on the branding of consumer products instead of industrial branding and, as a result, the aspects of high-technology branding have just recently been emerging from the branding literature.

As the research of internal branding in high technology environment combines aspects from different disciplines, it is necessary to take this into account as the literature review is formed. Therefore, the literature review of this thesis is roughly divided into three different categories based on previous studies.

The first category creates a foundation for the actual theory by generally investigating the concept of brand and the process of branding. The most important contributors for this category are Aaker, Keller and Kapferer, whose views can be found throughout this thesis. David A. Aaker (1991, 1996) is probably the most famous brand management author, and one of the first researchers who involved the company approach to branding. He has been studying widely the concepts of brand equity and brand identity. Kevin Lane Keller (1999, 2008), on the other hand, has concentrated on studying strategic brand management and especially branding in the industrial markets. He is one of the first authors who have emphasized the importance of branding for high technology markets. Finally, Jean-Nöel Kapferer (2004) highlights the idea that everyone in the organization is an important part of competitive brand identity development and maintenance. His view of brand identity will serve as a common threat of this thesis.

The second category discusses the special characteristics that high technology environment creates for branding by pulling together studies concerning technology branding mainly from Viardot (2004), Sawhney (2005), and Ward, Light and Goldstine (1999a, 1999b).

The third and final category includes studies of and literature about the internal aspects of branding, emphasizing the employees' role in brand implementation. The main contributors here are Drake, Gulman and Roberts (2005) and Davis (2005). In addition to the most important researchers mentioned, the literature review introduces several other authors and sources as well.

As the research problem is clearly connected with a practical business aspect, the research should be conducted by adding a practical viewpoint to the research implementation. This is why the literature review is supported by an empirical study collecting and combining internal branding information in Company X (see chapter 3.1). Saunders, Thornhill and Lewis (2009) and Anderson, Sweeney, Williams, Freeman and Shoesmith (2007) provide the theoretical background for the empirical part of the thesis.

1.3 The structure of the study

The study has been divided into five sections: introduction, literature review, research methods and data analysis, empirical results, and discussion. The structure of the study is presented in Figure 1.

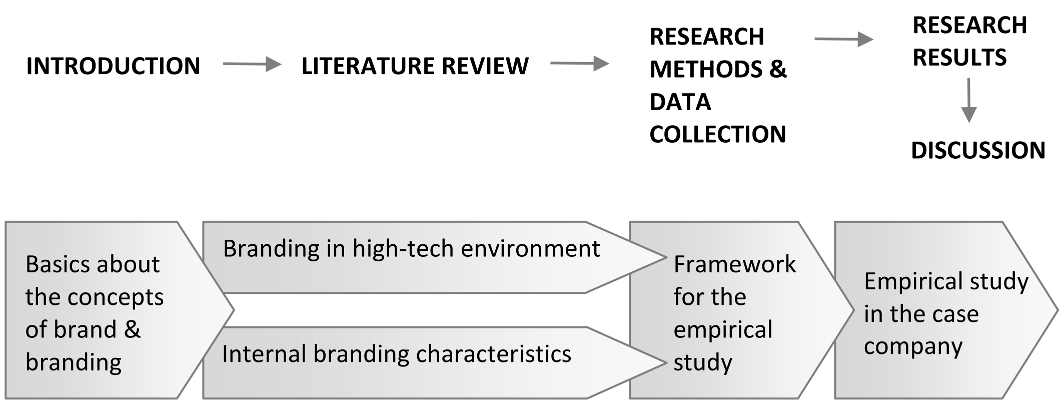

FIGURE 1. The structure of the study.

Introduction presents the research topic by setting the research objectives, discussing the research limitations, and reviewing the background for the study. Further, the main sources of the theoretical part of the thesis are introduced.

Literature review presents the key aspects of the subject by acquiring applicable information from previous studies. The purpose of the chapter is to highlight the growing importance of the internal branding concept, stressing the central role of brand identity. The chapter is divided into three parts: first, the relevant knowledge about the concepts of brand and branding is presented, second, the special characteristics of high technology environment are reviewed, and third, the internal aspects of branding are discussed. In the end of the chapter, a framework for the empirical study is put together, founding on the first tree parts of the chapter.

The chapter of research methods and data collection presents the survey implementation process. The case company, Company X, is introduced and their motives regarding this study are presented. Further, reliability and validity of the study are evaluated. The chapter creates a foundation for the next one, which presents the outcome of the study. There, the results of the empirical study are introduced, analyzed and discussed in detail.

Finally, discussion brings to a close the study results. A summary about the study is executed and general comments and propositions for further studies are provided.

2 INTERNAL BRANDING IN HIGH TECHNOLOGY ENVIRONMENT

Traditionally, brands are understood as names, designs, symbols, or any other features that are used as a means to distinguish the goods of one producer from those of another (American Marketing Association 1995, 27). Today’s business problems are, however, more complex than those of 20 years ago and, thus, the perception of brands and branding is far more multidimensional than the somewhat simplistic view that prevailed a decade ago. Nowadays, the concept of brand is understood as *a holistic, organization wide entity*, with which companies can make clear distinction between them and their rivalries. (de Chernatony 2001, 3–6)

As the definition of brand changes, the process of branding and brand management moves forward as well. Along with external brand building, traditionally the main branding concern, many companies have made internal branding a top priority to counteract short-term perspective and lack of understanding and appreciation of brands within an organization (Keller 2008, 333). Getting employees to sell promises instead of products is especially important in high technology markets where product functionality and features are not enough to provide a source of differentiation anymore (Ward, Light & Goldstine 1999a).

In this chapter, a literature review about the process of internal branding in high technology environment has been conducted, starting from the theoretical foundation of branding, followed by introduction of special characteristics of high technology environment, moving towards internal branding and the importance of internal understanding of brand identity, and ending up presenting the theoretical framework for the survey implementation.

2.1 The theoretical foundation of branding

2.1.1 Brand equity

Before a deeper measurement of the actual research problem, there should be a clear image of what the process of branding and aspects around it really cover. Therefore, the theoretical foundation of this thesis begins with discussing one of the most popular and potentially important marketing concepts, brand equity. The concept, developed in the 1980s (Aaker & Biel 1993, 1), is relatively new in marketing literature and so far no common view about the definition exists. Some measurement approaches are at the firm level, some at the product level, and others at the consumer level, but finally it all comes down to one word – value.

Keller (2008, 37-38) adopts a customer-based view of brand equity. He stresses the importance of branding in marketing strategies, and explains the difference in marketing success of branded products compared to not branded products by brand equity. In other words, according to him, brand equity adds value and, as a result, encourages better results. Aaker (1996, 7) also supports the value-added perspective but takes a broader view by defining brand equity as “a set of assets (and liabilities) linked to a brand’s name and symbol that adds to (or subtracts from) the value provided by product or service to a firm and/or to that firm’s customers”. According to his view, building brand equity should be the ultimate goal of branding (Aaker 1996, 8-17). Brand equity can also be seen from the financial point of view. For example, according to Brand Finance (2009), the world’s leading company of independent brand valuation consultancy, brand equity stands for the net present value of the estimated future cash flows attributable to the brand and can, thus, be defined as an intangible asset. On a corporate level, on the other hand, brand equity could be measured for instance in terms of employee satisfaction.

Brand equity has become increasingly important in the last several years, thanks to various studies that emphasize its significance. Possibly the most important one is Interbrand’s annual ranking of the best global brands by value. In their Best Global Brands 2007 report they state that the brands that saw the biggest rise in their brand value have understood and adopted the value creation concept and associated brand management practices, whereas the declining brands seem to have lost their focus on innovation and their ability to create demand (Interbrand 2007, 40). Another compelling study, introduced by Leiser in his article (2004, 217), is EquiTrend’s analysis of the impact of brand equity on return on investment (ROI) over time. According to the article, the results show that the businesses with the largest gains in brand equity saw their ROI average of 30 percent, while those with the largest losses in brand equity saw their ROI average a negative of 10 percent. Thus, there is no denying that brand value creation should be on every company’s priority list.

How does brand equity generate value, then? Very different views may be found, but given that this study has adopted the value-added definition of brand equity, Aaker's (1991, 9) model seems the most appropriate. This model, presented in Figure 2, is perhaps the one most often used in academic literature, and does not make a strict distinction between added value for the customer and added value for the company.

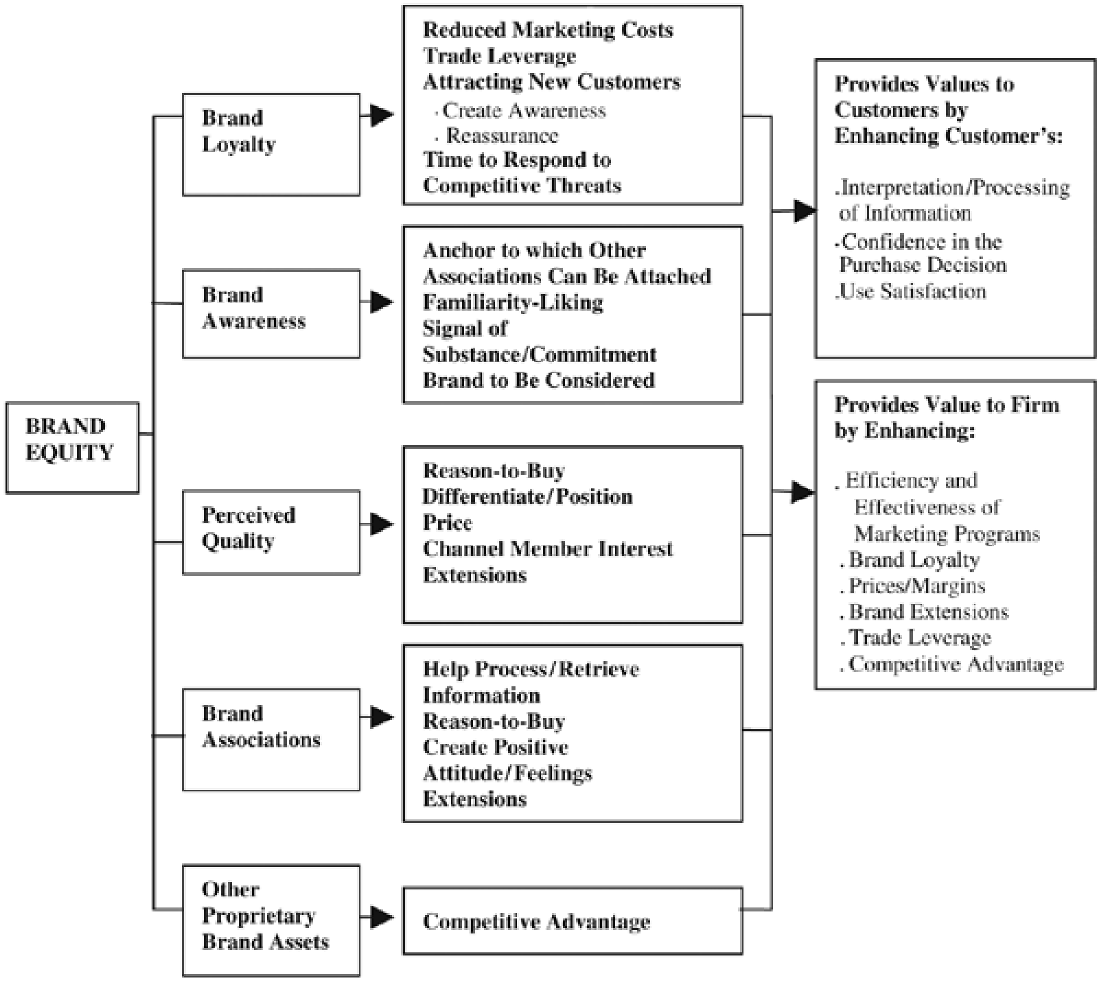

FIGURE 2. How brand equity generates value. (Aaker 1991, 9.)

According to this view, the major drivers of brand equity are customer loyalty towards the brand, customer awareness of the brand, perceived quality, existing brand associations, and other proprietary brand assets. These five components have causal interrelationships (Aaker 1991, 43) meaning that, for instance, no loyalty can exist without awareness of the brand. Brand loyalty measures the extent of the faithfulness of consumers to a particular brand, expressed through their repeat purchases that are irrespective of the marketing pressure generated by the competing brands. It is at the heart of any brand's value, and the size and intensity of each loyalty segment should be carefully evaluated. Brand awareness means the extent to which a brand is recognized by potential customers, and is correctly associated with a particular product. Perceived quality, in turn, reflects consumers' opinion of a brand's ability to fulfill his or her expectations. It drives financial performance and influences the brand associations, which can be anything connecting the customer with the brand and can include, for example, user imagery and brand personality. The fifth element, other proprietary assets, covers assets such as channel relationships and patents that are attached to the brand. (Aaker 1996, 8-25.)

Each dimension of brand equity creates value in a variety of different ways, as listed in Figure 2, but the basic idea is that brand equity will rise as brand loyalty increases, brand awareness increases, perceived quality increases, brand associations become stronger, and the number of brand-related proprietary assets increase (Aaker 1991, 43). These dimensions should therefore guide brand development, management, and measurement.

This thesis is especially concerned with the dimension of brand associations as a source of brand equity. According to Aaker (1996, 68), associations are the true heart and soul of the brand and are driven by *brand identity*, the total proposition that a company makes to its customers. Given the interrelated nature of brand equity drivers, the basic assumption is, thus, that a strong brand identity is the key to strong brand associations which then will have a positive effect on the rest of the brand equity drivers which, in turn, will increase brand equity. Brand identity is, therefore, in the main role of this thesis and is now discussed in detail.

2.1.2 Brand identity

Another important notion of branding is brand identity, which, like brand equity concept, emerged in the late 1980's and is thus relatively new. Aaker (1996) defines brand identity as the total proposition that a company makes to consumers, including features and attributes, benefits, performance, quality, service support, and the values that the brand possesses. In short, it is what a company aspires to be and what they want their brand to stand for. (Aaker 1996, 68.)

Several authors (Aaker 1996, 72; Joachimsthaler & Aaker 1999, 6; Kapferer 2004, 171) claim that companies should have a single, shared, idea of their brand's identity, and it should be closely linked to business' vision and its organizational culture and values. If a company has a clear brand identity with depth and texture, it is easier for those planning and implementing the communications programs to send consistent and clear messages to stakeholders and customers. This, in turn, will help to align brand identity with brand image, the market's perception of company's brand identity. However, while brand image is usually passive and looks to the past, brand identity should look to the future and reflect the associations that are aspired for the brand (Aaker 1996, 70). Further, a clear and consistent brand identity provides a possibility to position the brand better and, thus, achieve competitive advantage (Kapferer 2004, 176). Therefore, brand identity is at the heart of any good brand-building program because it provides direction, purpose and meaning for the brand.

Brand identity should be established before the actual brand is created so that brand-building effectiveness would become more targeted and efficient (Perry & Wisnom 2002, 7). How is this identity established, then? Perry and Wisnom (2002, 5) compare brand identity to a person: a child's identity is made up of a core essence, personal attributes, physical attributes, a name, and eventually a basic vocabulary. With age the identity matures – relationships, physique and interests change, and vocabularies increase, and the changes may range from subtle to radical. This comparison can be generally applied to brand identity, but to be able to understand the structure of brand identity in complex business environments, more specific explanation is needed. Thus, this thesis adopts Kapferer's view of brand identity as a six-sided prism (see Figure 3).

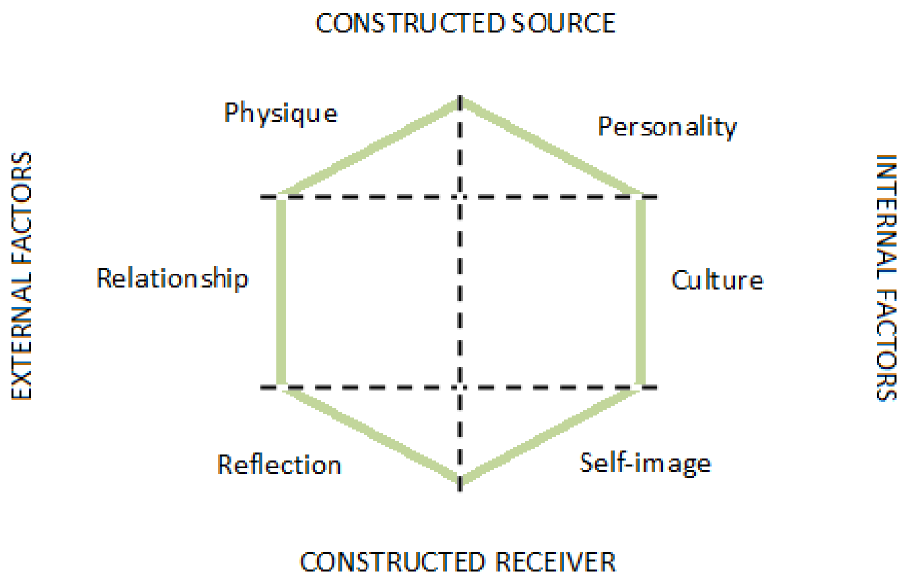

FIGURE 3. Brand identity prism. Modified from Kapferer 2004, 183.

Kapferer (2004, 82) considers brand identity as the core concept of brand management: before knowing how their brand is perceived, a company should know who they are. He sees brand identity as a sum on six interrelated elements which work both in external and internal environment.

The first step in building up a brand identity is the definition of *physical factors* of the brand; identifying what it is, what it does and how it looks like. Physical appearance is the core of the brand and its value added and is closely connected with a brand prototype, revealing the quality of the brand. The second element of identity prism is *brand personality*. With a help of communication brand character is being developed, and the way it speaks about its products and services shows what kind of person it would be if it were a human being. The next dimension is *brand culture*, which is based on the culture, values, and aims of the company. Therefore, it plays an essential role in brand differentiation as it indicates what moral values are embodied in products and services. Fourth, brand identity includes *relationship* as brands frequently take the most important place in the process of human transactions and exchange. This feature is reflected in the way the brand acts, delivers services, and relates to its customers. The fifth element is *consumer reflection*, a reflection or an image of the buyer or user which the brand seems to be addressing to. Consumer reflection is often confused with the target market, but this should be avoided, and a consumer should be reflected in a way which would show how consumers could image themselves consuming a particular product. Finally, brand identity is closely related to the understanding of *consumer self-image*. This refers to the features with which consumers identify themselves and the very same features they would like to be reflected by the chosen product and its brand. The conception of consumer self-image can be determined by examining purchase and consumption patterns. (Kapferer 2004, 182-187.)

Kapferer's basic assumption is that brands can exist only when they communicate. Traditionally, communication is a two-way process whereby information is imparted by a sender to a receiver via a medium, and feedback is then transmitted from the receiver to the sender. In Kapferer's model a brand represents the sender, and is determined by its physical appearance and personality. A customer, representing the receiver, is defined by consumer reflection and self-image. Finally, relationship and culture, the remaining two elements, link the sender and the receiver. In addition, the prism of brand identity maintains a vertical subdivision: the elements on the left are social and visible and provide brand with external expression. The elements on the right, on the other hand, are connected with the essence and soul of the brand. (Kapferer 2004, 187).

According to Kapferer (2004) a good brand identity has some special characteristics. First of all, it should be possible to describe each dimension with only few words. For example, brand's personality can be "innovative" and "easy to approach". Second, the words should not be the same on different dimensions. Therefore, brand's physique cannot be described as innovative and easy to approach, too, but instead it can reflect these attributes and be described with words such as "cutting-edge technology". Similarly, relationship could be associated with words "outstanding customer service". Finally, all words should have strength and, most importantly, they should be connected to the reality. However, reflecting the reality does not mean adopting the customer perceptions, brand image in other words, to describe the identity. A simple listing of the characteristics of a brand image does not give a full picture of the brand because defining the prism of identity requires a thorough qualitative investigation. Brand identity and brand image are two different concepts, and the company should be the one defining the brand and its content, not the customer. (Kapferer 2004, 187-188.)

Therefore, brand identity prism forms a live system of interrelated elements defined by the company, consisting of brand's physical appearance, personality, relationship with customer, internal culture, reflection of customer, and customer's self-image.

Brand identity on corporate level

To put brand identity in a proper perspective, it is useful to review the levels of brand hierarchy. As Keller (2008, 446) puts it, the following levels of brand hierarchy exist:

1. Corporate Brand
2. Family Brand
3. Individual brand
4. Modifier

The highest level of brand hierarchy involves only one brand, the corporate brand. At the next level, a family brand is a brand used in more than one product category, but one that is not necessarily the name of the company. An individual brand, in turn, is defined as a brand that is restricted to a single product category. At the lowest level, a modifier is a means to distinguish a specific item, model or version of the product. (Keller 2008, 446-448.)

Corporate brand is inevitably at the top of all brand hierarchies. Building a successful corporate brand has some important advantages; new products or services launched by the company can leverage the brand equity of the organization, and the costs of introducing the new market offering are often smaller because brand awareness is already built up. In addition, it is easier for the customer to remember and rely on a single corporate brand, compared to processing multiple individual or family brands. (de Chernatony 2001, 31-32.)

So far, we have discussed branding on an individual brand level, but to be able to look into branding on a corporate level, a broader identity scope is needed. This is why the concept of corporate identity is now introduced.

Corporate identity is defined as "an enduring symbol of how a company views itself, how it wishes to be viewed by others, and how others recognize and remember it" (BusinessDictionary.com 2009). Organizational associations, such as organizational values, mission, and culture, are in a significant role of corporate identity (Aaker 1996, 116). Traditionally, there is a clear distinction between corporate identity and brand identity; corporate identity reflects what a company stands for, whereas brand identity is what the company wants their brand to represent. Further, while brand identity is mainly concerned with the relationship with customers, corporate identity is there to provide information for other stakeholders, such as investors and employees, as well (de Chernatony 2001, 46).

Even though corporate identity and brand identity do not necessarily coincide, there is a relationship between them. According to Kapferer (2004, 205-206), corporate identity reflects a common ownership of an organizational philosophy and consists of founder's values and ethics, and company focus and culture. These attributes are reflected in corporate values, which again greatly affect one of the six dimensions of brand identity prism – culture (Kapferer 2004, 205-206). Further, Simões, Dibb and Fisk (2005, 156) state that in the brand literature the concepts of brand identity and corporate identity intersect. Therefore, the concepts are used here in parallel with each other: Kapferer's brand identity prism, the model of brand identity adopted by this thesis, can be used to reflect both individual brand level and corporate brand level (Kapferer 2004, 187). When evaluating the identity on a corporate brand level, the six dimensions of brand identity prism reflect organizational elements: company personality, physique and culture, relationship with stakeholders, reflection of stakeholders and stakeholders' self-image. These dimensions and the relationship between brand identity on corporate level and brand identity on individual brand level are illustrated in Figure 4.

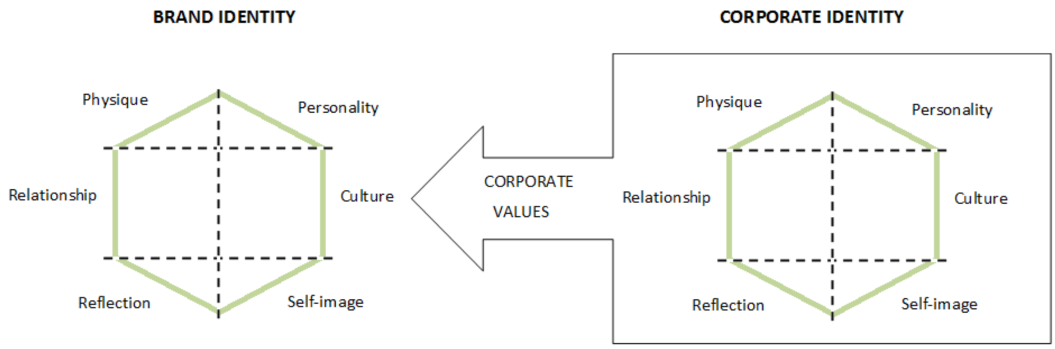

FIGURE 4. Individual brand identity in relation to corporate identity.

So far, the definition of brand discussed in this thesis stresses the importance of establishing a relationship between the brand and the customer, but it pays little attention to the *relationship between the brand and the employees.* After all, employees are the ones who make a vision happen and, therefore, they should understand and buy into what the brand stands for. Further, employee perceptions contribute to the understanding of what socially constructed "we" means and, thus, works as a foundation for the corporate brand (Schultz 2005, 38). Aaker (1996, 69) states that in order to achieve maximum brand strength, the scope of brand identity should be broad and strategic, and along with external focus there should be an internal viewpoint to brand creation. For this thesis the importance of brand identity arises, exactly, because of the internal aspect of it, placing emphasis on organizational dimensions such as personality and culture. These dimensions and the brand-employee relationship will be further discussed in chapter 2.3.

Once the brand identity is formed, a company can start planning and establishing the actual brand strategy. Therefore, the strategic brand management process will be next discussed.

2.1.3 Strategic brand management

Finally, to be able to truly understand branding, one has to understand the basic brand management process. This study adopts Keller's (2008, 38) view of the basic strategic brand management process, which consists of four main steps, illustrated in Figure 5. Traditionally, strategic brand management seeks to increase the product's perceived value to the customer by aiming at higher brand awareness, loyalty and perceived quality, and stronger brand associations (see Figure 2).

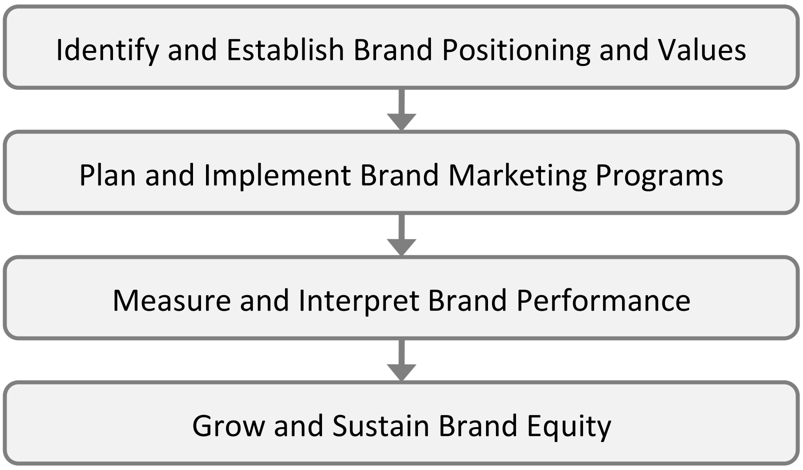

FIGURE 5. Strategic brand management process. Modified from Keller 2008, 39.

The process starts with brand positioning, a dimension closely connected to brand identity, which according to Keller (2008, 38) means "the act of designing the company's offer and image so that it occupies a distinct and valued place in the target customer's mind". Aaker (1996, 176) takes a slightly broader view and defines positioning as "the part of the brand identity and value proposition that is to be actively communicated to the target audience and that demonstrates an advantage over competing brands". These statements summarize the key idea of brand positioning – creating brand awareness and superiority in the minds of customers and, at the same time, maximizing the potential benefit to the company itself.

Keller (2008, 98-115) states that in order to work their way towards good brand positioning, companies need to determine and communicate the competitive frame of reference (target market and the nature of competition) and choose and establish the ideal points of parity (disadvantages that a brand has compared to its competitors), and points of difference (a reason why consumers should prefer a brand over another). These dimensions should then provide the basis for final brand position and value proposition decisions. Finally, positioning strategy needs to be updated over time because of shifts in competitive forces (Aaker 1996, 178).

The second phase of strategic brand management process is all about building brand equity by planning and implementing integrated brand marketing programs. This step goes hand in hand with company's communication strategy and should reflect the different dimensions of brand identity. The goal is to create, strengthen, and maintain a brand with which consumers have favorable, strong, and unique brand associations. This is achieved by identifying and establishing the most effective *marketing mix*, typically involving advertising, marketing, publicity, and research. (Keller 2008, 39-40.)

Keller (2008, 40) describes the brand marketing programs as being a sum of three main factors: choosing brand elements, integrating the brand into marketing activities and the supporting marketing program, and leveraging secondary associations. Brand elements are trademarkable devices that identify and differentiate the brand, such as brand names, logos, symbols, designs, slogans, characters, and packages. The set of brand elements makes up brand physique, one of the six dimensions of brand identity, as discussed in chapter 2.1.2. In order to improve brand identity's cohesiveness each of the brand elements should support the others and be consistent with the desirable brand associations. Different elements provide different advantages, and therefore marketers tend to "mix and match" them to maximize the benefits. (Keller 2008, 140-178.)

Once the optimal brand elements are chosen, a company must decide about product, pricing, channel, and communication strategies, and establish marketing communication programs. According to Keller (2008, 220), the biggest contribution to brand equity comes from marketing activities related to the brand, and therefore possible marketing communication options should be strategically evaluated. The importance is on choosing the most effective and valid methods and combining them into an efficient marketing program. Finally, brand marketing programs can be built through linking the brand to other entities with their own set of brand associations in order to create positive consumer responses. Keller (2008, 280) lists eight different source factors where the brand can be linked to: the company, country or geographic location, channels of distribution, other brands, characters, spokespeople, sporting or cultural events, and third-party sources. Borrowing brand equity from other sources can be risky, because it means giving up some control of the brand image (Keller 2008, 311). Therefore, marketers have to make sure that only the relevant secondary associations are linked to the brand.

Once the brand positioning strategy is determined, and brand marketing programs have been put into action, measuring and interpreting brand performance comes into the picture. Keller (2008) introduces a concept of *brand equity measurement system*, a set of research procedures designed to provide timely, accurate, and actionable information for marketers so that they can make the best possible tactical and strategic decisions both in the short and long run. Implementing this kind of system requires two steps: designing brand tracking studies and establishing a brand equity management system. The purpose of brand tracking studies is to measure whether marketing programs are reaching their targets by collecting information from consumers on a routine basis over time. To take the most of this information companies should put brand equity management system into place. Company's brand equity philosophy, guidelines for brand strategies, the measures and treatment of the brand, the results of the tracking studies, and other relevant brand performance measures should be summarized annually in a documented form. The report should be reviewed and distributed to management on a regular basis to engage them in brand equity building. They should be then responsible of making sure that product and marketing actions across divisions and geographic boundaries reflect the annual brand report. (Keller 2008, 316.)

Successfully implemented brand equity measurement system is the foundation for growing and sustaining brand value, which is the next stage of strategic brand management process. This includes managing a brand within the context of other brands, over multiple categories, over time, and across different markets segments and geographical boundaries. (Keller 2008, 41.)

Changes over time in external marketing environment and internal marketing goals and programs are inevitable and affect the branding strategies. Therefore, to maintain and enhance brand equity, long-term view of marketing decisions is crucial when managing brands (Aaker 1996, 216; Keller 2008, 547). Keller (2008, 547-581) states that marketers must actively manage brand equity over time by reinforcing the brand meaning and by making adjustments to the marketing programs to identify new sources of brand equity. However, there are certain risks involved. Aaker (1996, 217) indicates that changing brand identity, position, or execution can be both expensive and damaging which is why consistency through time is the key word in reinforcing brands. There might be rationale for drastic change, though, in case the current identity or execution is poorly conceived, obsolete, ineffective, not contemporary, or appeals to only a limited market (Aaker 1996, 216-224).

Along with building these external brand management systems, many companies have made *internal branding* a top priority to counteract short-term perspective and lack of understanding and appreciation of the brand identity concept within an organization (Keller 2008, 333). This internal viewpoint will be further discussed in chapter 2.3.

2.2 Branding high technology

Now that the most important branding concepts and the basic brand management process have been introduced, we can look into the special implications that high technology environment creates for branding.

The concept of high technology has become increasingly popular after the boom of information technology branch in the 1990s but still it lacks a commonly accepted definition (Mohr, Sanjit & Slater 2004, 3). The general view is that high technology industries have great dependence on science and technology innovation that leads to new or improved products and services. They often have a substantial economic impact, fueled both by large research and development spending and a higher than industry average sales growth. New product development and capital investment often go hand in hand, making high technology companies an attractive addition to local tax bases. Traditional high-tech industries include, for example, computer and information technology, biotechnology, and telecommunications. During the last five years, however, technological innovation has created radical changes in some industries, such as waste management, agriculture, automotive, and oil and gas, and these industries are increasingly being defined as high-tech industries. (Medcof 1999.)

One could easily think that in highly technological markets functionality and features are what matters, not brands. Why would successful brand management be so important to high-tech companies, then? Ward, Light & Goldstine (1999a) list various reasons. First of all, a strong brand helps attract and keep customers. Further, it can form a solid foundation from which to launch new products, improve relationships with channel partners, foster good communication among employees within and across business functions, and help a company better focus its resources.

Unfortunately, many technology companies, usually managed by technologists, often lack any kind of brand strategy and believe that market success depends primarily on the price-performance ratio (Keller 2008, 13). At the same time, however, their offerings are becoming commodities – products and services are highly similar and competitors are fast to catch up the latest innovations (Ward et al. 1999a). As a result, in many of the high-tech markets, financial success is no longer driven by product innovation alone and marketing skills and branding are playing an increasingly important role (Ward et al. 1999a). Although the lack of managerial interest and understanding of branding is only one example of the special characteristics of high-tech environment, it still sheds light on the matter; branding high technology is much more than just promoting the pure product. As Ward et al. (1999a) put it: “Brands are not just names slapped on products by the marketing department; they embody the value those products have for your customers. That may be more true for high-tech products than it is for soap.”

High-tech products are sold both in consumer and industrial markets and the main feature distinguishing them from traditional consumer or industrial goods are the short product life cycles (Viardot 2004, 10). This means that the products change rapidly over time and better and renewed versions come to the markets quickly. The speed and brevity of these life cycles, caused by continuous technological advances and research and development breakthroughs, is the main source of high-tech branding challenges (Keller 2008, 649). Further, the complexity of the products and the technical sophistication of the target market often cause difficulties in managing the relationship with customers, and companies may find it hard to define what the actual target market is (Keller 1999, 64). Therefore, Figure 6 suggests some specific branding guidelines for companies operating in high-tech markets to tackle these challenges. These advices in relation to the branding characteristics of high-technology environment will be next discussed in detail.

1. Establish brand awareness and a rich brand image.
2. Create corporate credibility associations.
3. Leverage secondary associations of quality.
4. Avoid overbranding products.
5. Selectively introduce new products as new brand and clearly identify the nature of brand extensions.

FIGURE 6. Additional guidelines for high-tech products. (Keller 2008, 649.)

As discussed earlier, brand awareness means the extent to which a brand is recognized by (potential) customers and is correctly associated with a particular product. Brand image, on the other hand, is the market's perception of company's brand identity. For high-tech the importance of these concepts arise, because customers are increasingly buying into brands as much as products, and although price and performance are essential, they do not guarantee a successful high-tech venture (Keller 2008, 14). One common obstacle, however, is that establishing positive brand awareness and brand image requires money and time. High investments in research and development are typical for high technology industries (Viardot 2004, 16), which often means that marketing is running on a low budget. Investments on branding can make a difference, though: Viardot (2004, 167) introduces "the S model of customer response to brand awareness" which clearly illustrates that the sales increase incrementally as branding expenditure and, therefore, the level of customer awareness increase, forming an S-shaped curve.

Aaker (1996, 127) states that the visibility and presence of the organization behind a brand can create an image of size, substance, and competence. This can hold especially true in high-tech markets because of the large number of small and medium size enterprises, global orientation of the companies, and the often complex nature of the products. Further, Keller (2008, 649) argues that due to the continual introduction of new products or modifications of existing ones, the corporate credibility associations are particularly important. The driver brand for most technology companies is thus the corporate brand, not the product brand, meaning that the importance is on building favorable organizational associations such as trustworthiness, innovativeness, expertise, and quality (Sawhney 2005, 203). The whole organization should be committed to empowering these associations, but in high-tech especially the often visible CEO is the key component performing an important brand-building and communication function (Keller 2008, 650).

Customers may find it hard to judge the quality of high-tech products, mainly because of the technical sophistication of the products and the possible lack of user references (Sawhney 2005, 206). Leveraging every possible positive secondary association may help to improve the brand reputation and the perception of product quality and, thus, reduce the doubts that the customers possibly have. According to Keller (2008, 659), methods that are especially suitable in high-tech environment are getting endorsements from top companies, leading industry magazines, or industry experts and gaining visibility by participating in trade shows and seminars. Non-product related associations, such as sponsorship of events or co-operation with educational institutes, may prove to be valuable as well (Keller 2008, 659).

Some high-tech companies try branding without truly understanding the concept and take it too far by mixing and matching too many brand elements or by creating too complex brand systems. This phenomenon, “overbranding” as Keller (2008) calls it, creates confusion and uncertainty in customers. Further, products with new features, products with improved features, brand extensions, and sub-brands are continuously emerging in high-tech markets due to technological advances and research and development breakthroughs. Complex and constantly changing systems of brands can make it difficult for customers to develop product or brand loyalty. (Keller 2008, 650-651.)

Therefore, to reduce consumer confusion and uncertainty, Sawhney (2005, 214) suggest that the brand architecture for a high-tech firm can be thought of as a pyramid with the corporate brand at the top, followed by family brands, and individual, product-specific, brands at the bottom level of the hierarchy. According to him, the corporate brand provides an anchor of stability and consistency by serving as an umbrella with a common set of brand values that all the rest of the brands of the company must embody. Family brands, which target to specific segments or specific price points, and individual brands can then modify, soften, or further describe the corporate brand position and are thus more dynamic to accommodate the changes in technology, customer needs, and price (Sawhney 2005, 214). As Aaker (1996, 241) puts it: “A key to managing brands in an environment of complexity is to consider them as not only individual performers but members of a system of brands that must work to support one another.”

2.2.1 The importance of brand management

Understanding the special challenges of high-tech environment is crucial, but it is no use unless there is proper brand management in place. As this chapter has clearly pointed out, seeing branding as a necessary evil that is costly, difficult to assess, and antithetical to a business model that is built on delivering the highest performance at the lowest price is a major pitfall of high technology companies. To overcome this problem, a leap from a product-centric to a promise-centric business model is needed (Ward et al. 1999a). Further, organizational members have to understand that building brand equity and selling products are two different things (Keller 2008, 16).

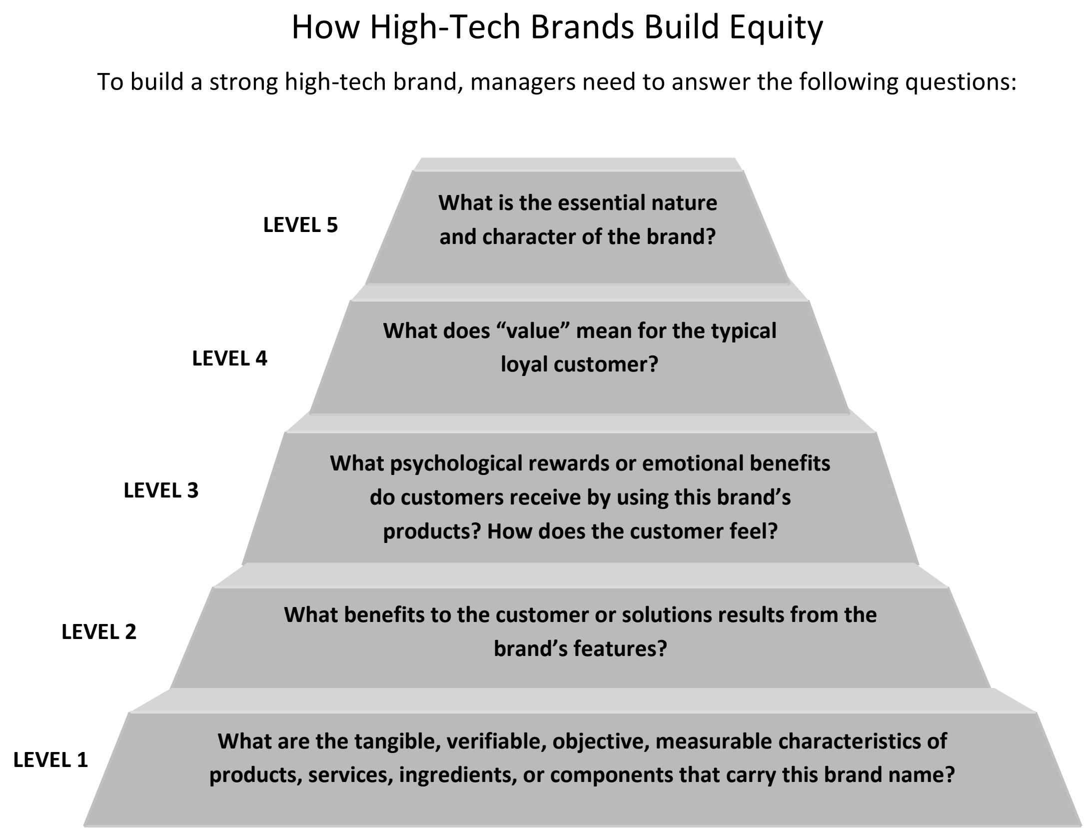

FIGURE 7. Brand pyramid. Modified from Ward, Light & Goldstine 1999b.

To illustrate the process of creating a strong high-tech brand and thus creating brand equity, Ward et al. (1999b) introduce a brand pyramid which is based on material developed by Larry Light. The pyramid consists of five different levels, each containing strategic questions regarding the brand's tangible and intangible characteristics (see Figure 7). By answering these questions, from the bottom to the top, managers of high-tech companies should be able to form a solid basis for their branding strategy.

The bottom level of the pyramid represents the core product — the tangible, verifiable product characteristics. According to Ward et al. (1999b), the problem is that many high-tech managers are most comfortable in this space and, as a result, this is where many high-tech products reside. However, as high-tech products are becoming commodities, purchases involve not just technologists but also business managers and end users who are more interested in what the product can do for them than how it works (Ward et al. 1999b). Therefore, the tendency is moving from selling just "products" to selling "benefits" or "solutions", which is the second level of the pyramid. Even though this change is a step to the right direction, the first two levels of the pyramid still represent a product-centric point of view.

Product features and functional benefits are easy to imitate and, thus, a company needs to find a way to differentiate itself from its competitors (Aaker 1996, 96). When several products in the markets have the same features and benefits, functionality and price are not the only dimensions affecting the buying decision anymore – emotional rewards count as well (Aaker 1996, 97). Sawhney (2005, 219) emphasizes the fact that high-tech companies should climb the ladder from a brand promise that is centered around functional and economic benefits to one that includes emotional benefits as well. Knowing *how the customers feel* when experiencing the tangible characteristics of the offering and benefits of the brand is a key to true differentiation and, further, provides direction and meaning for the brand (Aaker 1996, 96). The third level of the pyramid represents the stage when managers understand the importance of emotional reasons and act accordingly. Therefore, brands that are in this stage are developed and positioned as a way of fulfilling a promise of value to selected customers, not simply as technologies in search of a market (Ward et al. 1999b).

Getting to the third level of the pyramid is already a big achievement for a company operating in high-tech environment, but a promise-centric business model is truly accomplished when a company reaches the fourth and fifth stages of the pyramid. Ward et al. (1999b) state that brand loyalty is essential in the success of high-tech branding, but understanding the emotional motives behind purchase decision alone is not enough to win this loyalty. Therefore, the top two levels illustrate the idea that powerful brands attract and hold customers with their particular promises of value. The fourth level describes the general values that the brand reflects, and the fifth level represents the personality of the brand itself. Brands that reach the last two levels of the pyramid are, first of all, able to generate a feasible promise of value, consisting of functional benefits, emotional benefits, and price. Second, the most importantly, they are able to fulfill this promise, which gives them a huge advantage compared to their competitors. In short, these last two levels of the pyramid define the relevant and differentiating character of the brand. (Ward et al. 1999b.)

Comparing the brand pyramid by Ward et al. to Kapferer's brand identity prism (see chapter 2.1.2) brings us to an important conclusion: each level of the brand pyramid is a step closer to establishing a strong brand identity. Creating brand personality by defining the essential nature and character of the brand, the top level of the pyramid, is one of the most important building blocks of brand identity. Further, it is highly affected by corporate culture and impacts brand physique and the relationship with customer, the other brand identity dimensions. Therefore, the basic assumption is that high-tech brands build equity through a clear and well-defined brand identity.

2.2.2 Organizational considerations

Many high-tech companies are running on limited resources (Keller 2008, 17) and, as a result, investments on brand building and brand management may not be the top priority on corporate budgets. However, focusing a company around brand management (in other words, getting from the bottom two basic levels of the pyramid to levels three, four, and five) does not mean investing considerable amounts of money on restructuring the organizational chart and forming yet another set of teams to manage new processes. General business-planning processes and topics are the same in a promise-centric company as they are in a product-centric organization, but what makes the difference is the way of seeing things (Ward et al. 1999b). “A brand plan is a business plan”, as Ward et al. (1999b) put it, meaning that in promise-centric companies brand strategy works as a foundation of business plan, and their everyday business processes are reflected by brand orientation.

According to Ward et al. (1999b) the fundamental difference between a product-centric and a brand-centric company lies in the attitudes of the people throughout the organization. Every person in a company should recognize the brand strategy, be committed to it, and understand specifically how their behavior contributes to its execution (Keller 2008, 125). This thesis concentrates on internal matters, but it is important to note that the brand experience should be consistent across all the company’s partners, as well. Technology products are often composite systems consisting of several products or ingredients, and the partners of a high-tech company may be responsible for installation, delivery or support of these products (Sawhney 2005, 223). Therefore, companies have to ensure that the experience that customers have with each partner is coordinated and consistent with the official brand strategy.

A strong corporate brand that will endure over time – something that high-tech companies should target to – is highly depending on the internal understanding of corporate identity. As discussed previously, engineering mindset is very common in high-tech companies due to the fact that the CEO and the rest of the management often have their background in engineering (Keller 2008, 16). Further, the general importance of research and development is undeniable. As a result, the biggest challenge of high-tech branding is to get everyone in the organization, not just the marketing department, to understand the importance of branding and what it means to sell promises instead of just products. This aspect of business is called *internal branding* and will be observed next.

2.3 Internal branding characteristics

Companies all over the world are investing huge amounts of money into their brands, which are turning to be as one of the key elements, no matter what business they are into (Davis 2005, 226-227). This is the reason why much of the branding literature has emphasized the external perspective, focusing on different strategies and tactics that companies should adopt when building or managing brand equity (Keller 2008, 125). Without question, selling the brand promise to customers is at the heart of all companies' actions, but it should also be taken into account that in order to sell these promises, the employees and partners have to know what they are doing and, more importantly, *why* they are doing. Therefore, internal branding has risen as a number one subject in the field of brand research as well as business management (Davis 2005, 227).

Keller (2008, 125) defines internal branding as "making sure that the members of the organization are properly aligned with the brand and what it represents". This means that a company has to ensure that employees understand what a brand is, how it is built, what their organization's brand stands for, and what their role is in delivering on the brand promise. Drake, Gulman and Roberts (2005, 3-4) take the concept even further and state that internal branding involves getting employees to love the brand so they, in turn, will convince customers to love it. Therefore, before selling the brand's promise to customers, companies need to sell it to their employees. If this is achieved, internal branding helps in the execution of external brand management, which, as discussed in chapter 2.1.3, consists of creating the proper brand marketing programs that fulfill the brand promise (Keller 2008, 668).

Internal branding has been directly linked to employee satisfaction, which in turn is linked to customer satisfaction, which is, naturally, linked to business performance (Drake et al. 2005, 34). Therefore, successfully implemented internal branding program benefits the company in many ways. First of all, internal branding gives employees a tangible reason to believe in a company (Drake et al. 2005, 34). Seeing how they fit the overall plan to deliver the brand vision and promise to customers keeps them motivated and energized (Davis 2005, 228). Consequently, employee satisfaction and employee retention rates increase. This, in turn, creates financial benefits because it saves the company the cost of hiring and training new talent, boosts employees’ individual contributions, and thus allows a company to realize and exceed the value of employee salaries (Drake et al. 2005, 34). A common focus on the customer and brand heightens a cohesive and productive environment and can improve interdepartmental communication and innovativeness, which again has an effect on output of the company (Davis 2005, 228). Further, a high level of employee pride that is tied to fulfilling the brand’s promise is developed (Drake et al. 2005, 34).

Theoretically, all this should positively influence the way the employees interact with customers and customer satisfaction should increase. This, as stated before, should be reflected in business performance as improved overall results. Therefore, the numerous possible benefits further highlight the importance of internal branding.

2.3.1 Internal brand management

Internal branding calls for well-defined and structured strategy and management. According to Drake et al. (2005, 5), many companies claim that they consider their employees to be their greatest assets but, unfortunately, this does not show in their marketing efforts. Drake et al. (2005, 5) add that too often when asked the employees themselves, underlying unhappiness and distrust are revealed due to lack of honest and forthright communication. Therefore, to successfully implement internal branding, companies have to put the right structures, incentives, and resources into place (Keller 2008, 668). This process is called *internal brand management.*

Internal brand management makes sure that employees and partners appreciate and understand basic branding notions and how these can affect the equity of the brands that they are working with (Keller 2008, 668). The ultimate goal is to make everyone in the organization, from the CEO to the trainees, to become passionate brand advocates. This can be achieved, according to Davis (2005, 235), by following a three-step course: “Hear It, Believe It, Live It”. To get employees to “live the brand”, companies need to first create brand awareness and get the brand into employees' "hands", then into their "heads", and finally into their "hearts".

How does getting a brand into employees' hearts work in practice, then? First of all, a strong organizational brand-building culture, including clearly defined values, norms, vision, and organizational symbols, is needed (Aaker 1996, 342). Culture, which reflects company's leadership, philosophy, history, and shared beliefs and values, drives behavior and inevitably affects whether employees will support or hinder desired change (Drake et al. 2005, 11). Thus, if brand building is recognized as an organizational priority and is visibly supported by top management, it will be easier for the members of the organization to address difficult branding problems. Furthermore, organizational culture can help uniting the different brand interpretations and behavior that staff from different locations and departments may have (de Chernatony 2001, 141).

In addition to a strong brand-building culture, there has to be someone to manage the internal and external branding processes (Aaker 1996, 343). According to Aaker (1996, 343), it is too common that either no one is in charge of the brand or then there are many people in charge, but each with different objectives. Therefore, the main goal is to have someone or some group, whether it is the brand manager, brand committee, the CEO, the communications coordinator, agency, or similar, clearly in charge of designing the brand identity, seeing that it is implemented effectively and efficiently both internally and externally, updating brand strategies, and designing crisis management plans to handle possible disasters (Aaker 1996, 345). Davis (2005, 230) emphasizes the role of senior management in driving internal branding, noting that the CEO ultimately sets the tone and compliance with a brand-based culture and determines whether proper resources and procedures are put into place.

To build and implement a successful internal branding program that is based on organizational culture, Drake et al. (2005, 71-72) suggest an eight-step process, illustrated in Figure 8.

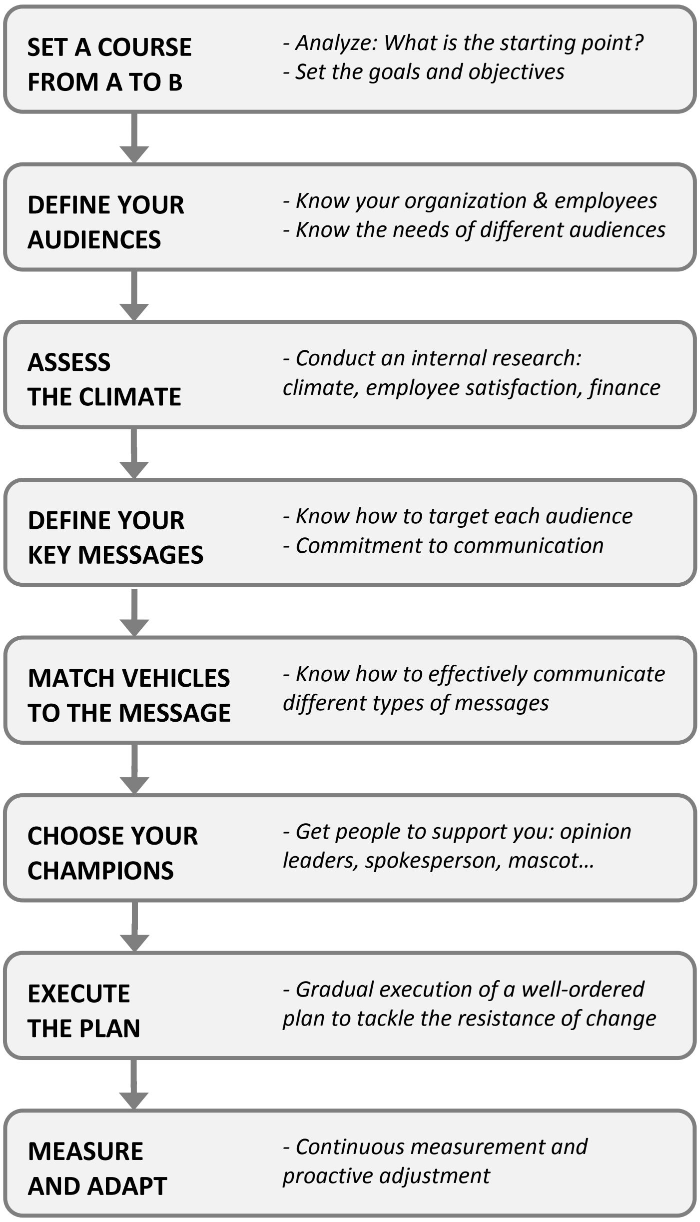

FIGURE 8. Internal branding process. Derived from Drake et al. 2005, 72-139.

The general structure of this internal branding process is highly similar to Keller's model of external strategic management (see Figure 5), the main difference being that in the model of Drake et al. (Figure 8) the target group of marketing efforts are employees instead of customers. The internal situation is first carefully analyzed and the brand positioned accordingly, the internal brand marketing programs are then designed and established, and finally the success of the internal branding strategy measured, and adjustments are made if needed. However, when planning and implementing the branding strategy internally, some special considerations do apply.

First of all, Drake et al. (2005, 95-145) highlight the importance of communication in internal branding strategy. According to them, the biggest mistake in most companies' communication is sending too many messages and telling too many things simultaneously. People can only process a finite number of ideas at one time and, thus, the key to effective communication is simplicity – a clearly defined story and cause have much bigger effect on audience than statements full of unnecessary words and statistics and objectives to reach (Drake et al. 2005, 145). Brand information should also be accessible. According to Davis (2005, 232), employees must be provided with an easy access to information about company branding, marketing, and advertising programs, and companies have to make sure that the employees also know *where* and *how* to find this information.

Further, ongoing education and continuous brand reinforcement are vital in building a brand-driven organization. Inspiring and informative training for both new and old employees increases their skills and ensures that they have the knowledge necessary to do their jobs well but it also works as an internal branding tool. Combining effective communication with training can heighten employee commitment, orient them to common understanding in respect to company vision and goals, and lead them to accept and buy in to new roles and expectations. As a result, it enables the employees to deliver on the brand promise. (Drake et al. 2005, 147-149.)

Finally, Drake et al. (2005, 181) state that engaging employees in implementing promise-based business model requires an incentive system to reward them for exceptional support of the brand strategy. Rewards and recognition serve as a good motivational tool as long as the fundamentals of the program are communicated before the program is launched (Drake et al. 2005, 181). The most effective on-brand rewards and recognition are adequate, sincere, and timely, and coincide with the execution of the internal branding program (Davis 2005, 239).

This thesis is especially interested in corporate brand perspective, given that the driver brand for most technology companies is the corporate brand, and not the product brand (Sawhney 2005, 203).Therefore, it is important to note that internal brand management is especially critical for a corporate brand because every employee directly or indirectly represents the brand and can thus affect brand equity (Keller 2008, 668).

2.3.2 Internal branding and brand identity

As discussed previously, a strong organizational culture reflecting company's leadership, philosophy, history, and shared beliefs and values as a source of internal branding is in high importance because it provides an indicator about the values that characterize the brand. Such culture does not come out from nowhere but has to be based on something and, given that culture is one of the most important dimensions of brand identity, it is not hard to do the math. Therefore, several authors (Aaker 1996, 135; Simões et al. 2005, 156; Schultz 2005, 38) suggest that a clearly defined brand identity is actually the initial source of internal branding.

To explain the relationship between internal branding and brand identity, Aaker (1996) introduces "the external perspective trap" as one of the causes of ineffective and dysfunctional brand strategies. The external brand trap occurs when companies fail to realize brand identity's role in helping an organization understand its core values and purpose. Realizing this role is important, according to Aaker (1996), because an effective brand identity, which is based on a disciplined effort to specify the strengths, values, and vision of the brand, can provide a powerful tool to communicate internally what the brand is about. (Aaker 1996, 72.)

Schultz (2005, 38-39) argues that the identity concept has relevance for internal branding both at individual and corporate levels. In other words, brand identity links the internal organization as a whole to its external stakeholders, but also supports and expands individual employees' perceptions about themselves as a part of an organization.

Every organization should thus have an identity that employees and other stakeholders know and care about. To measure whether this is the case, Aaker (1996) introduces two sets of questions that can be used as a part of brand strategy analysis. The first set of questions measures the level of internal understanding and knowledge of brand identity dimensions, such as organizational vision and values, and the second set of questions concentrates on measuring the emotional brand commitment and loyalty of the employees. According to Aaker (1996), the results are usually very revealing; the companies with strong, clear identities nearly always get quick responses as their employees know what the brand is about, and they care as well. Then again, when the employees do not even know the identity, there is a need to do better. (Aaker 1996, 200.)

Therefore, the basic assumption is that a successful internal branding strategy is based on a strong and clearly defined brand identity and, thus, getting the employees to know and care about the brand identity is one of the most important objectives of internal brand management.

2.4 Theoretical framework for the study

Literature review has clearly provided answers for the first two research objectives. Brand phenomenon has been observed according to scientific literature and the special branding implications of high technology environment have been discussed. Further, the characteristics of internal branding have been identified and the dimensions concerning internal branding process have been defined. Finally, to meet the third research objective, an empirical study is needed.

Now that the literature review of internal branding in high technology environment has been presented, it is time to construct an advanced framework for this empirical study. For this thesis, the most significant conclusions of the theoretical foundation are the following:

1. High-tech brands build equity through a clear and well-defined brand identity.
2. The biggest challenge of high-tech branding is to get everyone in the organization to understand the importance of branding and what it means to sell promises instead of products.

3. A clearly defined brand identity is the initial source of internal branding.

4. Getting the employees to know and care about the brand identity is one of the most important objectives of internal brand management.

These conclusions clearly show that the concepts of high technology, internal branding and brand identity are connected with each other; Figure 9 present the most relevant linkages and relationships between these three concepts. Internal branding is especially important for high-tech companies because corporate brand is usually their driver brand and every employee directly or indirectly represents the brand. At the same time, internal branding is their biggest challenge. Brand identity, on the other hand, provides a basis for internal branding strategy, but is also the source of brand equity for high technology companies. Consequently, brand identity is the key concept of this thesis, providing direction, depth, and texture for the other branding dimensions.

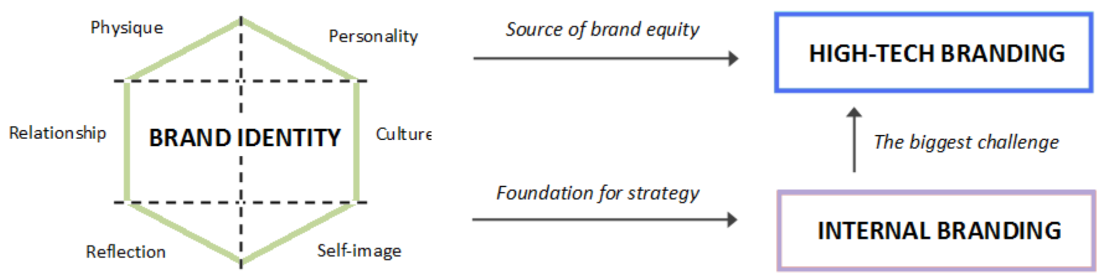

FIGURE 9. Brand identity, high-tech branding and internal branding relationships.

Aaker's (1996, 200) example of measuring employees' brand identity knowledge, presented in chapter 2.3.2, works as a foundation for the construction of the framework for the empirical study. The basic assumption of Aaker is that by studying whether the organizational members know and care about the brand identity, a company can assess the level of internal understanding and commitment for brands and branding: the better the employees know and more they care, the greater brand understanding and commitment there is. This thesis has adopted Kapferer's view of brand identity as a six-sided prism (see chapter 2.1.2). Therefore, the conclusion is that *by studying employee perceptions of brand identity (Do they know? Do they care?), in this case by using the model of Kapferer, it should be possible to assess the strengths and weaknesses of the current state of employee-brand relationship and whether there is a need for better brand identity management.* Therefore, Kapferer's brand identity prism is now reviewed, dimension by dimension, reflecting the attributes that are valid in the context of this study.

Culture

Brand is a representative of its culture, which includes the set of values, vision, and mission feeding the brand's inspiration (Kapferer 2004, 184). This dimension is at the heart of brand identity design as it sets the rules governing the brand in its outward signs like product and communication. Therefore, it is also the main source of differentiation. Culture also acts as a link connecting the individual brand identity to corporate brand, as discussed in chapter 2.1.2, which is why the brand values, vision, and mission are often highly reflecting the organizational values, vision, and mission. Culture, which reflects company's leadership, philosophy, history, and shared beliefs and values, drives behavior and inevitably affects whether employees will support or hinder the promise-centric business model (Drake et al. 2005, 11).

Personality

Brand personality defines what kind of person a brand would be, if it were a human being. It can be described and measured by those human personality traits that are relevant for brands (Kapferer 2004, 184). Product-related characteristics are often the primary drivers of brand personality, but non-product related characteristics, such as sponsorship, CEO identification, or spokesperson, can also affect it. Brand personality can help organizational members gain an in-depth understanding of consumer perceptions of and attitudes towards the brand, is a source of differentiation, and communicates the brand identity with richness and texture to employees (Aaker 1996, 250).

Physique

Physical appearance reflects what a brand is, what it does and how it looks like (Kapferer 2004, 183). It is the core of brand and its value added – to be able to sell the brand, employees have to know what benefits they are selling. Brand physique is arguably the most tangible facet of brand identity and one could easily think that it is the dimension that is the most familiar to employees. This could especially hold true in high-tech environment, where functionality and features are traditionally in high importance. On a corporate brand level, according to Simões et al. (2005, 158), the physical aspect of brand identity often strongly indicates company culture and values, which is why employee awareness of it is extremely important.

Relationship

Brand includes relationship as brands frequently take the most important place in the process of human transactions and exchange. This feature emphasizes the way of behavior which is identified with brand most of all and has a number of implications for the way the brand acts, delivers services, and relates to its customers (Kapferer 2004, 185). Employees play a major role in measuring relationship because the way they interact with customers has a significant effect on this dimension.

Reflection

Because brand communication and its most striking products build up over time, a brand will always tend to build a reflection or an image of the customer which it seems to be addressing (Kapferer 2004, 186). Consumers use brands to build their own identity, and therefore, a consumer has to be reflected in a way which would show how he or she could image himself consuming a particular product/brand, not how he or she actually is. Brands should control their customer reflection and try to improve it with the help of the other dimensions of brand identity (Kapferer 2004, 186). That is why it is important that the members of the organization know how their customers want to be pictured.

Self-image

Brand is closely related to the understanding of consumer self-image, which stands for the features with which consumers identify themselves and the very same features they would like to be reflected by the chosen product and its brand. According to Kapferer (2004, 186), consumers purchase brands corresponding to their self-image. Therefore, knowledge of customer self-image can be highly valuable when designing the brand communications.

FIGURE 10. The framework for the empirical research.

The scale presented in Figure 10 is formed to measure the level of internal understanding and commitment for brands and branding through employee perceptions about brand identity. It is divided into six different dimensions reflecting the six facets of brand identity, according to the literature review. These dimensions form the theoretical framework for empirical survey implementation.

The theoretical framework is used as a foundation for questionnaire structuring which is then executed in case company environment. The next chapter will explain the research methods used and the process of data collection.

3 RESEARCH PROCESS AND DATA COLLECTION

The purpose of this chapter is to introduce the case company and explain the different research methods and techniques used to obtain the information presented in this thesis. In addition to reporting the research process, the reliability and validity of the study are discussed.

3.1 The case company background

The case company is a Madrid-based linguistic software enterprise providing business solutions to meet the language management needs of information technology, life sciences, and manufacturing companies launching their products globally[1]. The core company currently employs a total of 73 employees working in seven different departments: general management, finance and administration, marketing and communications, sales, information technology, operations, and

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[1] Due to issues of confidentiality the name of the company is not mentioned in this text.

research and development. In addition, 6 outsourced employees are working part-time in research and development, creating a link between Company X and their most important business partner. The working environment of Company X is highly multicultural and the company employs people from 14 different nationalities, Spanish and English making up the majority. The official corporate language is English. Due to highly diversified but unite organizational environment and high-tech nature, in this situation the national differences can be seen less important than the differences in organizational level.

The vision of the case company is to provide their customers a competitive advantage through process optimization, customized solutions, and innovative technologies. Further, commitment to quality is one of Company X's business cornerstones and according to their quality statement (2008): "a quality-driven corporate culture adds business value". Quality is reinforced by employee orientation and continuing education programs.

The brand name of the preliminary product of Company X is composed of the name of the company and the actual product name indicating functionality, ease-of-use, and global nature of the product.

Apart from the visual and functional dimensions, Company X has been lacking a clearly defined, structured, and implemented brand strategy until now. However, due to organizational growth and increasing competitive pressures the company is planning to launch an excessive brand program in the beginning of year 2010. The goal of this program is to increase brand commitment and dedication, to make the employees to act according to their brand in daily business, and this way increase satisfaction among the customers as well.

Before the program is established, both external and internal analyses about the current situation are needed. The management of Company X would like to measure whether the employees know what their brand stands for and whether they care. Therefore, the purpose of this study is to measure the case company personnel's perceptions reflecting the brand identity and this way constitute an idea about brand competence and capability inside the company. The theoretical foundation of this thesis combined to the empirical results is meant to serve as a preliminary groundwork for building up an internal brand management strategy in Company X. The results were thus analyzed and reported, apart from the thesis, for the case company purposes too.

3.2 Research methods

This thesis bases on deductive research approach, which involves the development of a theory that is subjected to a rigorous test. The study is executed according to a holistic case-study strategy, which also employs characteristics of survey strategy in the form of a questionnaire. Saunders, Thornhill and Lewis (2009) define case study as a research strategy which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple source of evidence. Further, when a case study is concerned only with an organization as a whole, which is the case here, it is treated as a holistic case study. (Saunders et al. 2009, 125-147.)

The starting point of the thesis was conducting preliminary research to gain in-depth understanding of the research problem. Exploratory methods, which, according to Saunders et al. (2009, 139), are particularly useful to clarify one's understanding of a problem, were used in this stage to get additional firsthand information about the subject. The review was conducted by gathering information about Company X's current situation by exploring company brochures and other written material and by having discussions about the subject with Company X's Corporate Communications Manager during the summer 2009.

The literature review was conducted by reviewing different pieces of brand literature so that a clear image of the subject could be created. At this state, the first and second research objectives were met. As a result of the literature review, the following hypothesis was deducted: *by studying employee perceptions of brand identity, it is possible to assess the strengths and weaknesses of the current state of employee-brand relationship and whether there is a need for better brand identity* *management.* Aaker's (1996) internal brand measurement example and the brand identity model of Kapferer (2004) were used as the main foundation for the theoretical framework and the empirical survey structuring, which was designed to meet the third research objective.

During the next stage, a questionnaire for the empirical study was developed according to the theoretical framework, following the questionnaire guidelines obtained from relevant academic literature (Saunders et al. 2009, 360-376; Kemp & Kemp 2004, 139-142). The purpose of this questionnaire was to evaluate the employee-brand relationship in Company X. The contact person from the case company made sure that the terminology and language used in the questionnaire were understandable for the personnel and that the questions were serving the actual intent of revealing the employees' brand perceptions. The final version of the questionnaire was proofread by a native English-speaking academic person.

All this resulted in a list of 22 items in two main categories (Appendix 1). Due to issues of anonymity, the only demographic question distinguishing employees was chosen to be the department they work for. The first section of the questionnaire, questions from 1 to 12, measures whether the employees know what their brand stands for, and the second section, questions from 13 to 22, measures whether they care. The questions within these two sections are based on the six dimensions of brand identity, as previously illustrated in Figure 10. Therefore, questions from 1 to 4 and 13 and 14 reflect culture, questions 5, 6, 15 and 16 reflect personality, questions 7, 8, 17 and 18 reflect physique, questions 9, 10, 19 and 20 reflect relationship, questions 11 and 21 reflect reflection, and, finally, questions 12 and 22 reflect self-image. Further, based on the brand identity prism (Figure 3), questions from 5 to 8 and from 15 to 18 represent issues related to the company itself, whereas questions 11, 12, 21 and 22 reflect issues related to customers.

The questionnaire was executed in the Corporate Communications Meeting on 15th of October in 2009. The function of this meeting is to communicate the employees the latest relevant information that the employees should know, such as the latest industry news and changes inside the company. It is normally held every three months, twice a year so that every employee is expected to participate. The questionnaire was carried out as a delivery and collection questionnaire supervised by the Corporate Communications Manager of Company X (Saunders et al. 2009, 363). In the beginning of the meeting, the purpose of the research and the questionnaire instructions were explained and the questionnaires were handed out to the participants. The participants were given approximately 20 minutes time to answer the questions and the questionnaires were then collected back.

A total amount of 51 responses was received from the employees who were present in the meeting, which makes up a response rate of 69.9%. The questions were then coded and statistical analysis conducted by using “SPSS Statistics 17.0” and “Excel 2007 for Windows” software and literature material provided by Anderson, Sweeney, Williams, Freeman, and Shoesmith (2007). Comments of the employees, the final item of the questionnaire, were left out from this thesis and included in internal survey report delivered to the case company because they do not serve the initial research purpose.

3.3 Reliability and validity of the study

In order to reduce the possibility of getting biased, misleading or wrong research results, it is necessary to pay attention to two particular emphases on research design – reliability and validity (Saunders et al. 2009, 157). Both terms signify trustworthiness; reliability tests how consistently a measuring instrument measures whatever concept it is measuring, whereas validity tests how well an instrument that is developed measures the particular concept it is supposed to measure (Sekaran 1992, 171). This thesis is now evaluated in terms of these dimensions.

Reliability refers to the extent to which the data collection techniques or analysis procedures will yield consistent findings. According to the view of Robson (2002), presented by Saunders et al. (2009, 157), four threats to reliability can be found. First of them is participant error which occurs when the research timing, location, or structure affect the results. To reduce the possibility of this error, the questionnaire was executed in the beginning of the meeting, when employees are likely to feel more responsive, rather than at the end, and the meeting took place in a familiar conference room. Further, the length of the questionnaire was limited to 22 questions and its form was designed to be simple to decrease interpretation problems. The second threat, participant bias, happens when the participants answer the way they think their supervisors would like them to answer. Ensuring anonymity of the respondents is thus important and in this case, due to the relatively small size of the company, this was paid special attention to. Therefore, the initially intended questions of working statuses and working time in the company were left out and the only distinguishing demographic feature was chosen to be department. However, there is still an increased danger of this threat, but it is not likely to have a significant effect on the final results. The final two threats are observer error and observer bias. They occur when the personal opinions or situation of the researcher affect the research outcome. In this case, the researcher has been previously working for the case company which can increase the likelihood of occurrence of these threats. To reduce the risk of observer error or observer bias, high research ethics were consciously adopted and followed and the questionnaire was designed so that there is not much room for biased results due to researcher's personal opinions. As a result, it can be argued that the reliability of the research is good.

Validity is concerned with whether the findings are really about what they appear to be about. It measures if the theoretical and operational definitions are consistent, are the assumptions real and logical, is the research population logically chosen, and are the data collected and interpreted coherently. (Saunders et al 2009, 157-159.)

The purpose is, of course, to ensure that the theoretical and operational definitions used in this thesis are consistent and valid. Due to the fact that the concept of internal branding is relatively new and unexplored, especially when applied in high-tech perspective, it was not possible to use any theory which would have fitted straight to the context. Therefore, the theory that was used as a foundation for the research was initially created to measure the success of internal branding and the dimensions of brand identity. Validity during the theory creation phase was increased by conducting an extensive literature review and finding evidence from various sources to support the conclusions. Further, the final assumptions were extensively justified. When executing the empirical part, there was no possibility to arrange an actual pilot study inside the case company, but the validity of the questionnaire was increased by following the instructions derived from academic literature and arranging pre-reviews with the contact person of Company X.

The choice of population, all the employees, is extremely valid in this case because the study is concerned with the organization as a whole. Despite the fact that it was not possible to get answers from everyone because of absence of some employees, the size of the sample (51 responses) is clearly enough to form a reliable basis for empirical analysis.

The empirical study was executed during a corporate meeting and, therefore, every employee participating received a same kind of message and instructions of the questionnaire. The questionnaire was conducted only in English as it is the official corporate language which was supposed to decrease the possibility of misinterpretation of the questions. However, naturally the threat about the misinterpretations remained as the level of language skills among the respondents from different nationalities varies. Further, brand as a concept is very abstract by nature which increases the risk that, along with language differences, respondents use different evaluation criteria for the statements. Branding has not traditionally been much of a topic in the case company and, thus, to reduce the possibility of confusion and misinterpretation, using the word “brand” was intentionally avoided in the questionnaire.

One dimension of validity is generalizability of the results of a causal study to other people, events, and research settings, sometimes referred to as external validity (Sekaran 1992, 126). The conclusions of the theoretical part of this thesis can be clearly applied to other similar settings of high-tech companies, but as the empirical part is executed as a case study in one organization, the purpose of the thesis is not to produce results that are generalizable to all populations. According to Saunders et al. (2009, 158), in a case like this, as long as the researcher does not claim that the results or conclusions can be generalized, there is no problem.

As a conclusion, the reliability and validity of this study are clearly acceptable, even though the increased possibility of participant bias due to the small size of the case company and possible misinterpretations can still create challenges to the research trustworthiness.

4 EMPIRICAL STUDY

The objective of this study was, first, to observe brand as a phenomenon according to scientific literature and to discuss the special branding implications of high technology environment and, second, to identify the characteristics of internal branding and to define the dimensions concerning internal branding process. Finally, the current state of Company X's employee-brand relationship was to be measured and the result then evaluated in relation to the theoretical background of the study. The first two objectives were met in the literature review of this thesis. To accomplish the third objective, a questionnaire was designed based on the theoretical framework and an empirical study was then executed in the case company.

In this chapter, the empirical results of the study are presented. First, the research sample is discussed by presenting the sample background. Then, statistical results of the two sections of the questionnaire are presented and analyzed and a closer look is taken on the differences in attitudes between the departments of Company X. Finally, a summary of the study results is provided.

4.1 Research material

The only distinguishing demographic feature of the study was chosen to be the department that employees work for. As stated before, a total amount of 51 responses was received from the employees who were present in the meeting. The largest groups of respondents were obviously from research and development and operations, and the rest of the responses were divided between general management, finance and administration, marketing and communications, and sales. The smallest group of respondents was IT.

DEPARTMENT	Frequency	Valid Percent	Cumulative Percent
General Management	3	5,9	5,9
Finance and Administration	4	7,8	13,7
Marketing and Communications	5	9,8	23,5
Sales	5	9,8	33,3
Operations	15	29,4	62,7
IT	2	3,9	66,7
Research and Development	17	33,3	100,0
Total	51	100,0	

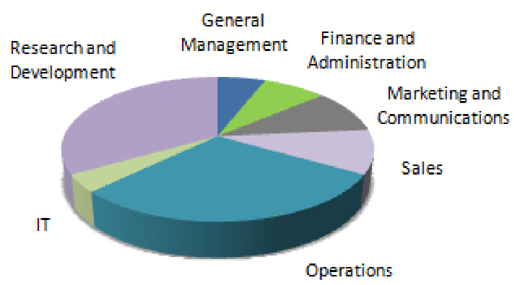

FIGURE 11. Respondents according to departments.

The sample is a fairly compelling illustration of the whole population. The response rates between different departments were the following: general management 75%, finance and administration 80%, marketing and communications 100%, sales 71.4%, operations 71.4%, IT 66.7%, and finally research and development 60.7%.

4.2 Section 1: Do they know?

The purpose of the first section of the questionnaire (questions 1 - 12) was to evaluate whether the employees know what their company's brand stands for. The measurement scale used in this section was a five-point Likert scale reflecting agreement; the higher the level of agreement is, the better the employees know. Further, to enable an efficient statistical analysis, the scale was afterwards coded in SPSS giving number 1 to the outcome of "strongly disagree", 2 to "disagree", 3 to "neither agree nor disagree", 4 to "agree" and, finally, 5 to "strongly agree".

The aim of the questions from 1 to 4 was to measure the internal understanding of corporate culture by revealing whether the employees know what the mission, vision, and values of the company are, and whether these elements are reflected in their everyday work. As Figure 12 illustrates, these concepts seem to be generally familiar to the employees as no item was left blank and, further, the majority of the respondent agreed to them. However, some significant differences between the statements can be found.

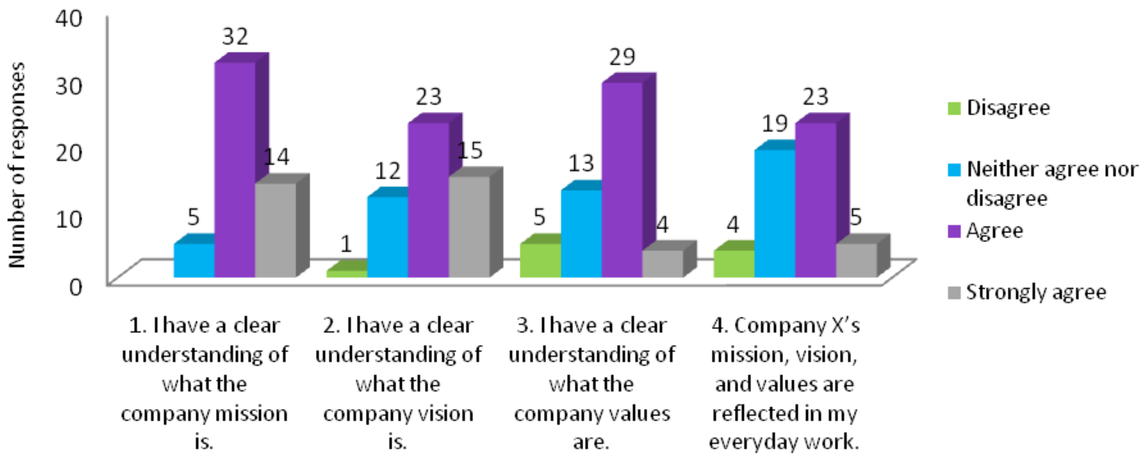

FIGURE 12. Research results on questions 1–4.

The highest level of agreement can be seen in the first statement; the mission of the company seems to be familiar to the employees. The company vision is also understood fairly well, even though the second statement got slightly more negative results than the first one. Surprisingly, the third statement, which is concerned with the company values, got the highest amount of “disagree” –answers and the lowest amount of “strongly agree” –answers in the whole questionnaire. Obviously, the level of agreement is still fairly high, but if one third of the respondents answered either “disagree” or “neither agree nor disagree”, there is plenty of room for improvement. These results indicate the possibility that clearly defined corporate values do not exist and/or the communication of the values is inefficient. Finally, the level of disagreement and, especially, neutrality is relatively high in the fourth statement as well; almost 40% of the respondents neither agreed nor disagreed that the company mission, vision, and values are reflected in their work. This is an interesting discovery because it seems that the employees generally understand the mission, vision and, to some extent, the values. Why are not they reflected in employees' everyday work activities, then? Several answers can exist; perhaps the employees do not have clearly defined personal goals or the goals are not in line with the mission, vision, and values or perhaps the employees simply do not care about implementing the mission, vision, and values in their work. As the amount of "neither agree nor disagree" responses is so high, there is also a possibility that the respondents did not understand the statement the way that it was initially meant to.

Questions from 5 to 8 measured employees' knowledge of the core company and their brand; statements 5 and 6 were concerned with the brand personality and statements 7 and 8 were designed to reflect whether the employees know what their company's brand is, what is does, and how it looks like.

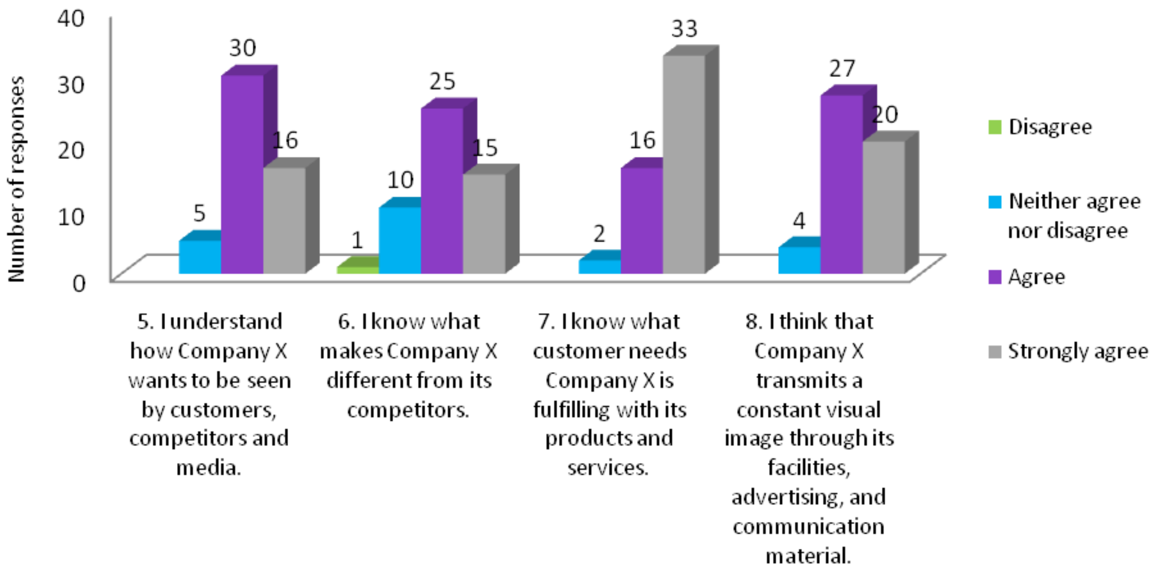

FIGURE 13. Research results on questions 5–8.

As it can be seen from Figure 13, the overall level of agreement in this part of the questionnaire was high; no item was left blank and there is only one “disagree” answer. The way the company wants to be seen by other people, the desired brand image, seems to be quite clear for the respondents, while statement 6, which also reflects brand personality, was clearly more unfamiliar. As stated before, brand personality communicates the brand identity with richness and texture to employees which is why it would be important that all the employees knew what makes the company they work for different from its competitors.

Brand physique, reflected by statements 7 and 8, is arguably the most tangible facet of brand identity and one could easily think that it is the dimension that is the most familiar to the employees. This seems to hold true here as the level of agreement in this section was the highest in the whole questionnaire. Almost 65% of the respondents strongly agreed that they know what customers needs the case company is fulfilling, while there were only two respondents who expressed neutrality. The level of agreement is almost as high on statement number 8, too, and the visual aspect of the company seems to be constant and well-known among the employees.

Relationship, the way the employees interact with customers, was reflected in questions 9 and 10. Statement 9 measured the organizational side of the relationship by asking whether the employees know what they have to do to deliver on Company X’s product promise, while statement 10 was concerned with the knowledge of customer needs and expectations. The statements were generally accepted, as Figure 14 points out, and there were no “disagree” answers. However, a minor amount of respondents felt that they were unsure how to respond to these statements which may indicate that either they did not understand the statement or felt that the particular statements were not applicable in their case. Further, the level of agreement on statement 9 was somewhat higher than on statement 10 and, thus, the company’s expectations are slightly better understood than the expectations and needs of its customers.

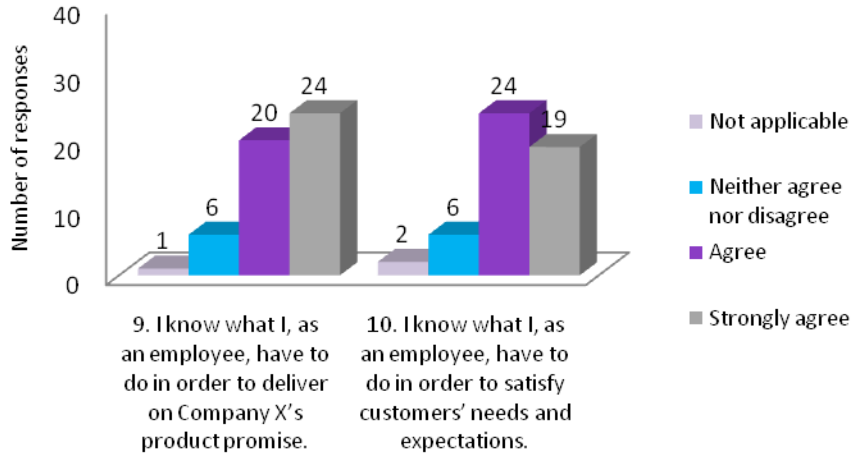

FIGURE 14. Research results on questions 9–10.

Finally, questions 11 and 12 determined employees' knowledge on Company X's customers. Once again, the level of agreement was generally good, but the amount of respondents who disagreed or neither agreed nor disagreed was relatively high (see Figure 15).

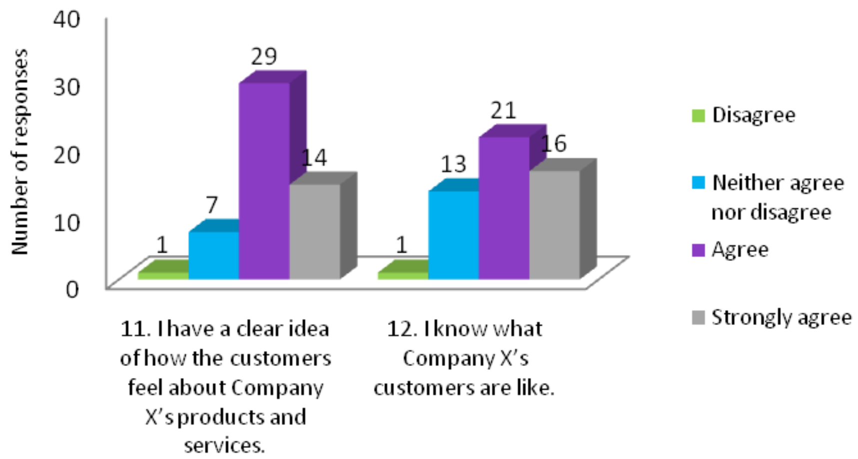

FIGURE 15. Research results on questions 11–12.

Question 11 was concerned with customer reflection and question 12 reflected customer self-image. Surprisingly, over 25% of the respondents neither agreed nor disagreed to the last statement of the section which indicates that a relatively big amount of employees do not know what the customers are like. One possible reason for this may be that these respondents do not directly interact with customers and, therefore, do not feel like they should know what they are like. This is an important discovery, as it is particularly important that every employee knows who they are selling the products and services to – eventually, customers are the ones that define the success of the company.

4.3 Section 2: Do they care?

The second section of the questionnaire was formed to evaluate whether the employees care about the brand of their company. The section consisted of ten items based on the theoretical framework; items 13 and 14 represented culture, items 15 and 16 personality,17 and 18 physique, 19 and 20 relationship, 21 customer reflection and, finally, 22 customer self-image. The measurement scale used was a five-point Likert scale reflecting importance; the higher the level of importance is, the more the employees care. The scale was afterwards coded in SPSS according to the initial scale of the questionnaire.

Figure 16 illustrates the results of this section. As it can be seen, the general pattern is that the respondents felt that the items were either very important or important to them as employees. Only a few of the respondents felt that certain items were unimportant. Further, there were altogether five blank answers on five different items (Appendix 2): one on statement 15, one on 18, one on 20, one on 21 and one on 22. This indicates that some respondents either did not understand the particular item or felt that the item was not applicable in their case. All the same, these blank answers did not have a significant effect on the results of the study as they only accounted for 2% each of the results of a particular item.

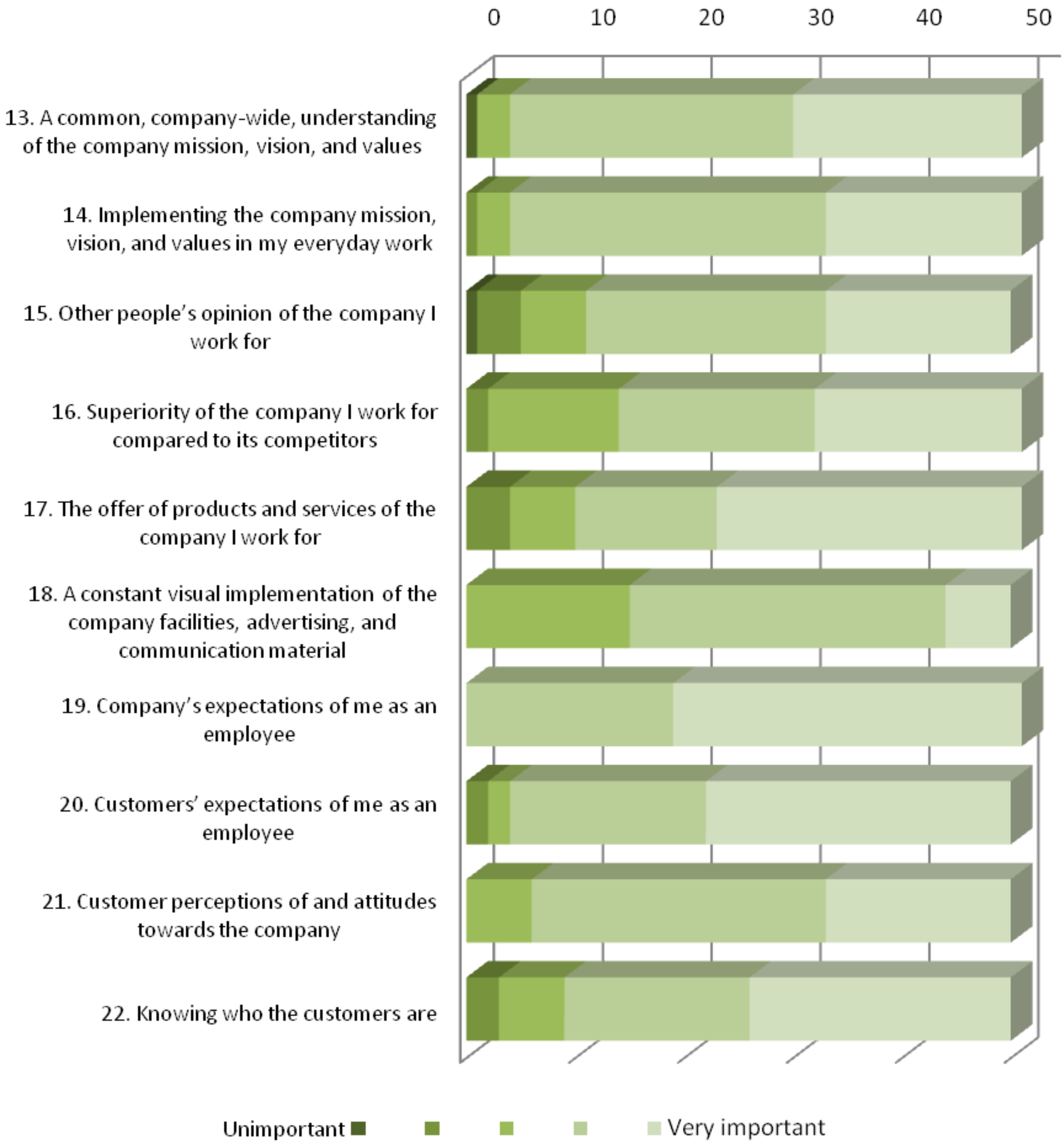

FIGURE 16. Research results on questions 13–22.

Company mission, vision, and values, reflected by items 13 and 14, were generally held in high importance, even though a minor amount of respondents gave them a score of 1, 2 or 3. This is an interesting discovery because even though the employees seems to care about implementing company mission, vision, and values in their everyday work, based on question number 4, it does not happen in practice.

This may indicate that the way the mission, vision, and values should be implemented is not effectively communicated to the employees, or the actual goals, not the ones that they theoretically are, of the employees are not in line with the mission, vision, and values.

Brand personality scored notably worse than the items 13 and 14 reflecting culture. Item 16, determining whether superiority of the company compared to its competitors is important to the employees has a relatively high share of neutral answers, and item 15, which measured employees' perceptions on other people's opinions of the company they work for, had the highest amount of answers indicating unimportance; almost 10% of the respondents gave it either 1 or 2. As such the percentage is not high, but as the target is to get the highest possible amount of "very important" –answers, it does matter. Further, item 17, as well, received a rather large amount of answers indicating neutrality or of little importance which is surprising because one could easily think that in a high-tech company the products and services would be held in great importance.

The highest amount of neutral answers could be found on item number 18, which is the other item reflecting brand physique. At the same time, this item scored generally lowest on the importance, and only 12% of the respondent rated this item as "very important". Therefore, it seems that the employees of Company X do not consider a constant visual implementation as crucially important, even though the earlier question number 8 revealed that there is a general agreement that a constant visual image exists. This may indicate that the visual aspect has become somewhat self-evident to the employees.

Item number 19 scored the highest on this section: there were no score given under 4 and over 60% of the respondents felt that company's expectations of them as an employee is very important. This indicates a high level of employee loyalty and commitment. Even though the other item reflecting relationship (item number 20), which was concerned with the customers' expectations of employees, scored high as well, there were some responses rating it as either neutral or of little importance. Similar pattern could be found on the final two items, with the difference than the share of threes and twos given was increasingly bigger. These items referred to the customer, item 21 measuring whether the employees find customer perceptions and attitudes important and item 22 determining whether the employees think that they should know who the customers are. As stated before, customers are eventually the ones that define the success of the company which is why the target is that every employee would hold knowing customer needs and expectations in great importance. Items 20, 21 and 22 revealed that this is not the case in Company X.

Appendix 2 presents a descriptive summary of the research results. As it can be seen, the mean of the answers is generally over 4. There are only three items with a mean under that – statements 3, 4 and 18 – but still over 3.5. This indicates that the overall level of internal understanding and commitment of the employees is acceptable. However, these illustrations and tables of the survey results give only a general view about the matter. Significant underlying differences between different groups inside the demographic variable may be found and, therefore, this issue is now evaluated.

4.4 Demographical differences

To reveal the differences between different groups of employees, a statistical procedure called analysis of variance is used. According to Anderson et al. (2007, 440) three assumptions are required so that analysis of variance can be run:

1. For each population, the response variable has to be normally distributed.
2. The variance of the response variable should be the same for all the populations.
3. The observations must be independent.

First of all, the response variables are normally distributed from the smallest to the highest score (scale of agreement from 1 to 5 and scale of importance from 1 to 5). Second, each demographic group of employees has received a similar questionnaire with similar response variables and, therefore, the variance of response variables is the same for each respondent. Finally, the last assumption is certified because the questionnaire result for each employee is independent of the questionnaire result for any other employee. Therefore, analysis of variance is applicable.

SPSS's One-Way ANOVA -test was used to find out the statistical means of different groups. Based on the results, presented in Appendix 3, several interesting departmental differences could be found.

Generally, the first section of the questionnaire produced answers with greater common agreement than the second one. Therefore, there were smaller differences on the level of knowledge of employees from different departments than in their level of commitment. The smallest differences between departments were on questions 1, 5, 7, 8 and, from the second section, on question 19. There was generally good understanding of the company mission over all the departments as well as of the way that Company X wants to be seen by its customers, competitors, and media. Items reflecting brand physique, the most tangible dimension of a brand, were also commonly known in every department and, thus, it seems that there is a company-wide understanding of what the brand of the company does and how it looks like. Finally, item number 19, which was concerned with the company's expectations of employees, was most commonly understood between different departments. As stated before, it also got the highest score on importance, which indicates that the employees of the company generally care a lot about what the company expects from them.

The greatest departmental differences, on the other hand, could be found on questions 12, 15, 16, 17 and 22. Questions 12 and 22 were both concerned with customer self-image; whether the employees know what the customers are like and whether they find knowing it important. The departments of IT and research and development had clearly the lowest mean on these questions, and the results were significantly lower compared to the results of the other departments. This can be partly explained by the fact that IT and R&D are the departments which less interact with customers directly and, therefore, their customer knowledge is naturally lower compared to other departments. However, it does not excuse the fact that these departments also find it less important to know who the customers are. Another surprising discovery was that even though General Management finds it highly important to know the customers, their level of customer knowledge in practice seems to be relatively low.

Great departmental differences occurred within the items of the second section which measured brand personality. The opinions of other people of the company they work for and superiority of the company compared to its competitors were held in relatively low importance by finance and administration. Operations also valued them generally lower than the other departments. This may indicate that, for some reason, the employees of these departments do not have their role in enabling competitive advantage very clear.

The importance of the offer of products and services of the company was measured in item number 17. As expected, sales and research and development, the departments that most relate to them, valued this item higher than departments, such as IT and finance and administration, that do not directly interact with company products and services. Surprisingly, general management also valued this item relatively low.

TABLE 1. Departmental summary.

	DO THEY KNOW?	**DO THEY CARE?**
General Management	4,11	4,30
Finance & Administration	3,99	3,80
Marketing & Communications	4,38	4,42
Sales	4,45	4,56
Operations	4,21	4,31
IT	3,67	3,50
Research & Development	3,92	4,14
Total	4,11	4,22

Finally, the table above illustrates a summary of the results according to different departments. The second column summarizes the means of the questions from 1 to 12, and the third column demonstrates the means of the questions from 13 to 22. As it can be seen, according to this study the departments which directly interact with customers have generally the highest knowledge of and commitment to Company X's brand, whereas the departments which do not interact with customers score the lowest. Further, the mean of the second section of the questionnaire, defining whether the employees care, is slightly higher than the mean of the first section, measuring whether the employees know.

4.5 Summary of the empirical results

The following table presents the empirical results and provides some suggestions on where especially to focus on when planning the brand program of Company X.

TABLE 2. Summary of the results.

STRENGTHS:	**WEAKNESSES:**
- Employee-brand relationship generally good - Company mission especially well understood - Good knowledge on what the brand of the company is, what it does, and how it looks like - Consistent visual implementation of the company's brand - Employees know and care about what the company expects from them as employees	- Company values unclear to some employees → *clear definition* → *effective communication* - Company mission, vision and values not reflected in everybody's work → *Are the goals of the employees aligned with the mission, vision and values?* → *internal promotion of the importance of implementing the mission, vision and values* - What makes the company different from its competitors somewhat unclear to employees (Table continues)

(Table continues from the previous page)	
	→ *reinforcing tangible and intangible brand associations* → *emphasizing the role of the employees in company differentiation* - Difference in results between the departments, which directly interact with customers, and departments, which do not, especially in employees' customer perceptions → *equivalent training* → *reinforcing the importance of customer focus* ***at every level of the organization***

Comparing the empirical results to the theoretical framework bring us to an important conclusion: Company X is somewhat lacking in a clearly defined brand identity. This is reflected especially in the dimensions of culture, personality and customer self-image. To improve the situation, Company X has already taken some measures and they are planning to launch an excessive brand program in the beginning of year 2010. The theoretical foundation of this thesis combined to the empirical results can serve as a preliminary groundwork for building up this internal brand management strategy for Company X.

5 DISCUSSION

The purpose of this final chapter is, first of all, to summarize the theoretical findings. A summary is then conducted of the empirical section and, finally, conclusions of the entire study made by mirroring the empirical findings to the theoretical section. Possibilities for future research are also evaluated.

In the beginning of the thesis, three research objectives were set. This was particularly challenging, because the research of internal branding in high technology environment still lacks a standardized theoretical foundation. Therefore, literature review of this thesis combines aspects from different disciplines.

The first objective was to observe brand as a phenomenon according to scientific literature and to discuss the special branding implications of high technology environment. By reviewing the recent brand literature, it was learned that in today's complex business world brands, traditionally used as a means to distinguish the goods of one producer from those of another, are becoming more and more important as companies around the world are continuously searching for more effective ways to gain competitive advantage and differentiate themselves from their competitors. This holds especially true in high-tech markets where increasing global competition, the consolidation of markets, the accelerating pace of technological development, and the increased speed with which imitations turn up on the market have radically shortened product lifecycles.

However, some special branding implications caused by high-tech environment were identified. The driver brand for most high-tech brands is the corporate brand which is why creating corporate credibility associations is especially important. Further, high-tech products are often technologically sophisticated and lack user reference which may cause consumer fear, uncertainty and distrust. To reduce these, high-tech companies should pay extra attention to creating brand awareness and rich brand image and leveraging secondary associations of quality. Avoiding too complex brand systems is also important to reduce customer confusion.

It was also discovered that too many high-tech managers still see branding as a necessary evil that is expensive, difficult to assess, and hostile to a business model that is built on delivering the highest performance at the lowest price. To overcome this problem, negative managerial attitudes have to change and a leap from a product-centric to a brand-centric business model is needed. In order to be able to sell promises instead of products, every person in a company should understand what a brand is, how it is built, what their organization's brand stands for, and what their role is in delivering on the brand. This can be achieved by successfully designing and implementing an internal branding strategy which brings us to the second objective of the thesis; identifying the characteristics of internal branding and defining the dimensions concerning internal branding process.

The literature review indicated that in today's business world there is a growing interest on internal branding, which basically means aligning the employees with the brand. It calls for structured managerial efforts, because to successfully implement internal branding, companies have to put the right structures, incentives, and resources into place. Communication plays a major role in internal branding; it is particularly important that companies avoid sending too many messages at the same time and, instead, concentrate on a clearly defined story and cause. Further, employees should be provided with an easy access to company's brand information. Other essential elements in building a brand-driven organization are ongoing education and continuous brand reinforcement and an effective on-brand reward and recognition system. It was also found out that a successful internal branding strategy is based on a strong and clearly defined brand identity and, thus, getting the employees to know and care about the brand identity is one of the most important objectives of internal brand management.

The most important discovery of this thesis was that the concepts of high technology, internal branding and brand identity are actually closely connected with each other. Internal branding is especially important for high-tech companies because corporate brand is usually their driver brand and every employee directly or indirectly represents the brand. At the same time, internal branding is their biggest challenge. Brand identity, on the other hand, provides a basis for internal branding strategy, but is also the source of brand equity for high technology companies. Consequently, brand identity is the key concept, providing direction, depth, and texture for the other branding dimensions.

The third objective of the study was to measure the current state of Company X's employee-brand relationship and to evaluate the result in relation to the theoretical background of the study. To do this, a theoretical framework based on the literature review was put together. This framework was based on the assumption that by studying employee perceptions of brand identity it should be possible to assess the strengths and weaknesses of the current state of employee-brand relationship and whether there is a need for better brand identity management. Therefore, the purpose was not to define and evaluate the success level of the different dimensions of brand identity, but to use them to measure the current brand situation in the case company.

The case company of this thesis was a Madrid-based high technology enterprise. A survey was conducted in a form of a questionnaire and the results were then statistically coded and analyzed. As a result, it was found that the general level of brand knowledge and commitment was rather good, but there was still plenty of room for improvement at some dimensions. The most important discovery was that a difference in results between the departments, which directly interact with customers, and departments, which do not, could be found, especially in employees' customer perceptions.

Based on the empirical results, it can be said that Company X is somewhat lacking in a clearly defined brand identity. Evidently the case company has already recognized this issue, because they are planning to launch an excessive brand program in the beginning of year 2010 and their initial motive to be part of this study was measuring whether the employees know what their brand stands for and whether they care. That is why the theoretical foundation of this thesis combined to the empirical results, apart from finding answers to the academic research objectives, is also applicable as a preliminary groundwork for building up an internal brand management strategy for Company X. It should serve the purpose, because branding is discussed practically stage-by-stage, starting from the basic concepts and brand management process, presenting the challenges of high-tech environment, and, finally, discussing the importance of internal branding and internal branding management.

The theoretical foundation of this thesis could possibly be used in a larger scale providing internal branding guidelines and motives for other high-tech companies as well. Further, the survey design could, with subtle changes, be applicable to measure the employee-brand relationship in other similar research settings, too.

Even though the study results indicate that the theoretical framework forms a solid base for this type of case study, more research would be recommendable to really confirm the hypothesis, which is that *by studying employee perceptions about brand identity, it is possible to assess the strengths and weaknesses of the current state of employee-brand relationship and whether there is a need for better brand identity management*. The launch of a branding program by the case company would offer a great opportunity to further test the hypothesis: after a sufficient time that the program is executed, a similar survey could be carried out, and the results then compared to the results of this survey. The basis assumption is, of course, that after an excessive branding program has been launched, brand knowledge and commitment inside the company should improve. Therefore, if the results of the second survey would be better than the results of the first one, there would be more evidence of the reliability and validity of the theoretical framework.

The biggest weakness of this thesis is that the research of internal branding in high technology environment still lacks a standardized theoretical foundation and, in other words, no solid background for the study existed. The literature review has thus been built up by combining aspects from different disciplines and, as a result, if another researcher would conduct a similar study on the same subject, the theoretical framework might be totally different. Regardless, this study has been able to construct a firm and well structured entity and show the relationships between the concepts of internal branding, high technology, and brand identity, contributing something new to the particular field of research.

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APPENDICES

Appendix 1. Questionnaire

INTERNAL QUESTIONNAIRE

Which department do you work in?

☐ General Management
☐ Finance and Administration
☐ Marketing and Communications
☐ Sales
☐ Operations
☐ IT
☐ Research and Development

Please indicate your level of agreement with each of the following statements. If you are unsure about how to respond to a particular statement, please leave that item blank.

1. I have a clear understanding of what the company mission is.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

2. I have a clear understanding of what the company vision is.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

3. I have a clear understanding of what the company values are.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

4. Company X's mission, vision, and values are reflected in my everyday work.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

5. I understand how Company X wants to be seen by customers, competitors and media.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

6. I know what makes Company X different from its competitors.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

7. I know what customer needs Company X is fulfilling with its products and services.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

8. I think that Company X transmits a constant visual image through its facilities, advertising, and communication material.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

9. I know what I, as an employee, have to do in order to deliver on Company X's product promise.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

10. I know what I, as an employee, have to do in order to satisfy customers' needs and expectations.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

11. I have a clear idea of how the customers feel about Company X's products and services.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

12. I know what Company X's customers are like.

☐ Strongly Disagree
☐ Disagree
☐ Neither agree nor disagree
☐ Agree
☐ Strongly Agree

How important the following items are to you as an employee? Please circle the number that best describes your opinion. If you are unsure about how to respond to a particular statement, please leave that item blank.

	Unimportant				Very important
13. A common, company-wide, understanding of the company mission, vision, and values	1	2	3	4	5
14. Implementing the company mission, vision, and values in my everyday work	1	2	3	4	5
15. Other people's opinion of the company I work for	1	2	3	4	5
16. Superiority of the company I work for compared to its competitors	1	2	3	4	5
17. The offer of products and services of the company I work for	1	2	3	4	5
18. A constant visual implementation of the company facilities, advertising, and communication material	1	2	3	4	5
19. Company's expectations of me as an employee	1	2	3	4	5
20. Customers' expectations of me as an employee	1	2	3	4	5
21. Customer perceptions of and attitudes towards the company	1	2	3	4	5
22. Knowing who the customers are	1	2	3	4	5

If there are any comments that you would like to share or issues that you would like to raise, please do so here:

Thank you for your responses!

Appendix 2. Descriptive analysis

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q1 Culture	51	3	5	4,18	,590
Q2 Culture	51	2	5	4,02	,787
Q3 Culture	51	2	5	3,63	,774
Q4 Culture	51	2	5	3,57	,781
Q5 Personality	51	3	5	4,22	,610
Q6 Personality	51	2	5	4,06	,759
Q7 Physique	51	3	5	4,61	,568
Q8 Physique	51	3	5	4,31	,616
Q9 Relationship	50	3	5	4,36	,693
Q10 Relationship	49	3	5	4,27	,670
Q11 Reflection	51	2	5	4,10	,700
Q12 Self-image	51	2	5	4,02	,812
Valid N (listwise)	48				

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Q13 Culture	51	1	5	4,29	,756
Q14 Culture	51	2	5	4,25	,659
Q15 Personality	50	1	5	4,00	,990
Q16 Personality	51	2	5	4,06	,881
Q17 Physique	51	2	5	4,27	,961
Q18 Physique	50	3	5	3,82	,629
Q19 Relationship	51	4	5	4,63	,488
Q20 Relationship	50	2	5	4,44	,760
Q21 Reflection	50	3	5	4,22	,648
Q22 Reflection	50	2	5	4,24	,894
Valid N (listwise)	47				

Appendix 3. One-Way ANOVA analysis

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean Lower Bound	95% Confidence Interval for Mean Upper Bound	Minimum	Maximum
Q1	General Management	3	4,67	,577	,333	3,23	6,10	4	5
	Finance and Administration	4	3,75	,500	,250	2,95	4,55	3	4
	Marketing and Communications	5	4,60	,548	,245	3,92	5,28	4	5
	Sales	5	4,00	,000	,000	4,00	4,00	4	4
	Operations	15	4,20	,676	,175	3,83	4,57	3	5
	IT	2	4,00	,000	,000	4,00	4,00	4	4
	Research and Development	17	4,12	,600	,146	3,81	4,43	3	5
	Total	51	4,18	,590	,083	4,01	4,34	3	5
Q2	General Management	3	4,33	1,155	,667	1,46	7,20	3	5
	Finance and Administration	4	4,00	1,155	,577	2,16	5,84	3	5
	Marketing and Communications	5	4,40	,548	,245	3,72	5,08	4	5
	Sales	5	4,20	,447	,200	3,64	4,76	4	5
	Operations	15	4,00	,845	,218	3,53	4,47	2	5
	IT	2	3,50	,707	,500	-2,85	9,85	3	4
	Research and Development	17	3,88	,781	,189	3,48	4,28	3	5
	Total	51	4,02	,787	,110	3,80	4,24	2	5
Q3	General Management	3	4,00	1,000	,577	1,52	6,48	3	5
	Finance and Administration	4	3,50	1,000	,500	1,91	5,09	2	4
	Marketing and Communications	5	4,00	,707	,316	3,12	4,88	3	5
	Sales	5	3,80	,447	,200	3,24	4,36	3	4
	Operations	15	3,60	,828	,214	3,14	4,06	2	5
	IT	2	3,50	,707	,500	-2,85	9,85	3	4
	Research and Development	17	3,47	,800	,194	3,06	3,88	2	5
	Total	51	3,63	,774	,108	3,41	3,85	2	5
Q4	General Management	3	4,33	1,155	,667	1,46	7,20	3	5
	Finance and Administration	4	3,75	,500	,250	2,95	4,55	3	4
	Marketing and Communications	5	4,00	,707	,316	3,12	4,88	3	5
	Sales	5	3,80	,837	,374	2,76	4,84	3	5
	Operations	15	3,60	,737	,190	3,19	4,01	2	5
	IT	2	3,00	,000	,000	3,00	3,00	3	3
	Research and Development	17	3,24	,752	,182	2,85	3,62	2	4
	Total	51	3,57	,781	,109	3,35	3,79	2	5
Q5	General Management	3	4,33	,577	,333	2,90	5,77	4	5
	Finance and Administration	4	4,25	,500	,250	3,45	5,05	4	5
	Marketing and Communications	5	4,60	,548	,245	3,92	5,28	4	5
	Sales	5	4,40	,548	,245	3,72	5,08	4	5
	Operations	15	4,20	,775	,200	3,77	4,63	3	5
	IT	2	4,50	,707	,500	-1,85	10,85	4	5
	Research and Development	17	4,00	,500	,121	3,74	4,26	3	5
	Total	51	4,22	,610	,085	4,04	4,39	3	5
Q6	General Management	3	3,67	,577	,333	2,23	5,10	3	4
	Finance and Administration	4	3,50	1,000	,500	1,91	5,09	2	4
	Marketing and Communications	5	4,20	,447	,200	3,64	4,76	4	5

	Sales	5	4,40	,548	,245	3,72	5,08	4	5
	Operations	15	3,87	,743	,192	3,46	4,28	3	5
	IT	2	4,00	1,414	1,000	-8,71	16,71	3	5
	Research and Development	17	4,29	,772	,187	3,90	4,69	3	5
	Total	51	4,06	,759	,106	3,85	4,27	2	5
Q7	General Management	3	4,00	,000	,000	4,00	4,00	4	4
	Finance and Administration	4	4,50	,577	,289	3,58	5,42	4	5
	Marketing and Communications	5	4,40	,548	,245	3,72	5,08	4	5
	Sales	5	5,00	,000	,000	5,00	5,00	5	5
	Operations	15	4,73	,594	,153	4,40	5,06	3	5
	IT	2	3,50	,707	,500	-2,85	9,85	3	4
	Research and Development	17	4,71	,470	,114	4,46	4,95	4	5
	Total	51	4,61	,568	,080	4,45	4,77	3	5
Q8	General Management	3	4,33	,577	,333	2,90	5,77	4	5
	Finance and Administration	4	4,50	,577	,289	3,58	5,42	4	5
	Marketing and Communications	5	4,80	,447	,200	4,24	5,36	4	5
	Sales	5	4,60	,548	,245	3,92	5,28	4	5
	Operations	15	4,40	,507	,131	4,12	4,68	4	5
	IT	2	4,00	,000	,000	4,00	4,00	4	4
	Research and Development	17	4,00	,707	,171	3,64	4,36	3	5
	Total	51	4,31	,616	,086	4,14	4,49	3	5
Q9	General Management	3	3,67	,577	,333	2,23	5,10	3	4
	Finance and Administration	3	3,67	,577	,333	2,23	5,10	3	4
	Marketing and Communications	5	4,20	,447	,200	3,64	4,76	4	5
	Sales	5	4,80	,447	,200	4,24	5,36	4	5
	Operations	15	4,47	,743	,192	4,06	4,88	3	5
	IT	2	4,00	1,414	1,000	-8,71	16,71	3	5
	Research and Development	17	4,47	,624	,151	4,15	4,79	3	5
	Total	50	4,36	,693	,098	4,16	4,56	3	5
Q10	General Management	3	4,33	,577	,333	2,90	5,77	4	5
	Finance and Administration	4	4,50	,577	,289	3,58	5,42	4	5
	Marketing and Communications	4	4,50	,577	,289	3,58	5,42	4	5
	Sales	5	4,60	,548	,245	3,92	5,28	4	5
	Operations	15	4,60	,507	,131	4,32	4,88	4	5
	IT	1	3,00	.	.	.	.	3	3
	Research and Development	17	3,82	,636	,154	3,50	4,15	3	5
	Total	49	4,27	,670	,096	4,07	4,46	3	5
Q11	General Management	3	4,00	,000	,000	4,00	4,00	4	4
	Finance and Administration	4	3,75	,500	,250	2,95	4,55	3	4
	Marketing and Communications	5	4,40	,548	,245	3,72	5,08	4	5
	Sales	5	4,80	,447	,200	4,24	5,36	4	5
	Operations	15	4,33	,617	,159	3,99	4,68	3	5
	IT	2	4,00	,000	,000	4,00	4,00	4	4
	Research and Development	17	3,71	,772	,187	3,31	4,10	2	5
	Total	51	4,10	,700	,098	3,90	4,29	2	5
Q12	General Management	3	3,67	,577	,333	2,23	5,10	3	4
	Finance and Administration	4	4,25	,500	,250	3,45	5,05	4	5
	Marketing and Communications	5	4,40	,548	,245	3,72	5,08	4	5
	Sales	5	5,00	,000	,000	5,00	5,00	5	5
	Operations	15	4,53	,516	,133	4,25	4,82	4	5
	IT	2	3,00	,000	,000	3,00	3,00	3	3
	Research and Development	17	3,29	,588	,143	2,99	3,60	2	4
	Total	51	4,02	,812	,114	3,79	4,25	2	5

Q13	General Management	3	4,67	,577	,333	3,23	6,10	4	5
	Finance and Administration	4	4,50	,577	,289	3,58	5,42	4	5
	Marketing and Communications	5	4,60	,548	,245	3,92	5,28	4	5
	Sales	5	4,40	,548	,245	3,72	5,08	4	5
	Operations	15	4,60	,507	,131	4,32	4,88	4	5
	IT	2	4,00	,000	,000	4,00	4,00	4	4
	Research and Development	17	3,82	,951	,231	3,33	4,31	1	5
	Total	51	4,29	,756	,106	4,08	4,51	1	5
Q14	General Management	3	4,33	,577	,333	2,90	5,77	4	5
	Finance and Administration	4	4,25	,500	,250	3,45	5,05	4	5
	Marketing and Communications	5	4,60	,548	,245	3,92	5,28	4	5
	Sales	5	4,40	,548	,245	3,72	5,08	4	5
	Operations	15	4,53	,640	,165	4,18	4,89	3	5
	IT	2	4,00	,000	,000	4,00	4,00	4	4
	Research and Development	17	3,88	,697	,169	3,52	4,24	2	5
	Total	51	4,25	,659	,092	4,07	4,44	2	5
Q15	General Management	3	4,00	1,000	,577	1,52	6,48	3	5
	Finance and Administration	4	2,50	,577	,289	1,58	3,42	2	3
	Marketing and Communications	5	4,20	,837	,374	3,16	5,24	3	5
	Sales	5	4,60	,548	,245	3,92	5,28	4	5
	Operations	14	3,86	,770	,206	3,41	4,30	2	5
	IT	2	3,00	1,414	1,000	-9,71	15,71	2	4
	Research and Development	17	4,35	,996	,242	3,84	4,87	1	5
	Total	50	4,00	,990	,140	3,72	4,28	1	5
Q16	General Management	3	4,00	,000	,000	4,00	4,00	4	4
	Finance and Administration	4	2,75	,957	,479	1,23	4,27	2	4
	Marketing and Communications	5	4,00	,707	,316	3,12	4,88	3	5
	Sales	5	4,40	,894	,400	3,29	5,51	3	5
	Operations	15	3,80	,862	,223	3,32	4,28	3	5
	IT	2	4,00	,000	,000	4,00	4,00	4	4
	Research and Development	17	4,53	,717	,174	4,16	4,90	3	5
	Total	51	4,06	,881	,123	3,81	4,31	2	5
Q17	General Management	3	3,67	,577	,333	2,23	5,10	3	4
	Finance and Administration	4	2,50	,577	,289	1,58	3,42	2	3
	Marketing and Communications	5	4,00	,707	,316	3,12	4,88	3	5
	Sales	5	4,80	,447	,200	4,24	5,36	4	5
	Operations	15	4,40	,910	,235	3,90	4,90	2	5
	IT	2	2,50	,707	,500	-3,85	8,85	2	3
	Research and Development	17	4,82	,393	,095	4,62	5,03	4	5
	Total	51	4,27	,961	,135	4,00	4,54	2	5
Q18	General Management	3	4,00	1,000	,577	1,52	6,48	3	5
	Finance and Administration	4	4,00	,000	,000	4,00	4,00	4	4
	Marketing and Communications	5	4,60	,548	,245	3,92	5,28	4	5
	Sales	5	4,20	,447	,200	3,64	4,76	4	5
	Operations	14	3,64	,633	,169	3,28	4,01	3	5
	IT	2	4,00	,000	,000	4,00	4,00	4	4
	Research and Development	17	3,53	,514	,125	3,26	3,79	3	4
	Total	50	3,82	,629	,089	3,64	4,00	3	5
Q19	General Management	3	5,00	,000	,000	5,00	5,00	5	5
	Finance and Administration	4	4,25	,500	,250	3,45	5,05	4	5
	Marketing and Communications	5	4,60	,548	,245	3,92	5,28	4	5
	Sales	5	4,20	,447	,200	3,64	4,76	4	5
	Operations	15	4,73	,458	,118	4,48	4,99	4	5

	IT	2	5,00	,000	,000	5,00	5,00	5	5
	Research and Development	17	4,65	,493	,119	4,39	4,90	4	5
	Total	51	4,63	,488	,068	4,49	4,76	4	5
Q20	General Management	3	5,00	,000	,000	5,00	5,00	5	5
	Finance and Administration	4	4,75	,500	,250	3,95	5,55	4	5
	Marketing and Communications	5	4,40	,894	,400	3,29	5,51	3	5
	Sales	5	5,00	,000	,000	5,00	5,00	5	5
	Operations	15	4,53	,834	,215	4,07	5,00	2	5
	IT	1	2,00	.	.	.	.	2	2
	Research and Development	17	4,18	,529	,128	3,90	4,45	3	5
	Total	50	4,44	,760	,108	4,22	4,66	2	5
Q21	General Management	3	4,00	,000	,000	4,00	4,00	4	4
	Finance and Administration	4	3,75	,500	,250	2,95	4,55	3	4
	Marketing and Communications	5	4,40	,548	,245	3,72	5,08	4	5
	Sales	5	5,00	,000	,000	5,00	5,00	5	5
	Operations	15	4,40	,632	,163	4,05	4,75	3	5
	IT	2	3,50	,707	,500	-2,85	9,85	3	4
	Research and Development	16	4,00	,632	,158	3,66	4,34	3	5
	Total	50	4,22	,648	,092	4,04	4,40	3	5
Q22	General Management	3	4,33	,577	,333	2,90	5,77	4	5
	Finance and Administration	4	4,75	,500	,250	3,95	5,55	4	5
	Marketing and Communications	5	4,80	,447	,200	4,24	5,36	4	5
	Sales	5	4,60	,548	,245	3,92	5,28	4	5
	Operations	15	4,60	,507	,131	4,32	4,88	4	5
	IT	2	3,00	,000	,000	3,00	3,00	3	3
	Research and Development	16	3,63	1,088	,272	3,05	4,20	2	5
	Total	50	4,24	,894	,126	3,99	4,49	2	5