



**Copenhagen  
Business School**  
HANDELSHØJSKOLEN

## **Master Thesis**

# **The impact of leadership on creativity in innovative organizations across cultural analysis.**



**Concentration: Cand.merc., Strategic Market creation**

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**Month Year : March 2012**

**Number of pages and characters: 55 / 98648**

## **Executive Summary**

Innovation through creativity is known as an important factor in the success and competitive advantage of organizations. Today, most of all organizations deal at a dynamic environment characterized by rapid technological change, shortening product life cycles, and globalization. Organizations, mainly those technologically-driven, must be more creative and more innovative than before in order to survive, to compete, to grow, and to lead.

In this research, the factors that affect the tendency to innovations were examined; emphasis was placed on organizational culture, management style, the concept of innovation, cultural characteristics and interaction between these factors.

The empirical study is approached with a quantitative method.

An email-based survey was completed by 67 companies: 30 from Denmark and 37 from Israel. The sample consisted of employees from the high-tech industry in both countries. Those countries were chosen because that they are representative of different cultures and economic systems, but both are considered high-tech developed countries, and most advanced in their field. The results show that between the two countries there are significant differences in relation to the desired leadership characteristics, in a way that Israelis have a more significant view that the transformational leadership characteristics are representing good leadership, compared to Danes by all criteria's examined, except for Management by Exception which is a transactional trait. Management by exception surprisingly was found to have a positive relationship with the organization's tendency to innovation in practice, and the others were found with negative effect or no effect at all. Compared by nationality, based on the cultural characteristics, significant differences were found by the criterion of masculinity – femininity among the countries. In terms of perceptions of innovation, difference between the two countries was found based on the Creativity stimulation perception, but also to the perception of innovation. A regression model revealed that when supervising the various variables, only the Management-by-Exception, Creativity Stimulation perception and education had a significant effect on the style of leadership, whereas no significant effect was found in any country of origin and culture. Key findings from the study indicate that cultural characteristics do not have a direct impact on innovation in practice, and the indirect effect is relatively weak. However, the perceptions of the employee and his education do have significant effect on innovation in practice, regardless of the cultural context.

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## **Introduction**

The High-tech industry is one of the areas which are evolving rapidly in recent decades, and emerge as a key to promoting the economy in many countries, which are relatively poor in natural resources (Hult, Hurley, & Knight, 2004). Innovation is an important trait and central to advance this field, due to the nature of ideas and nature of competition in the industry.

For the organizations to survive, it is critical to be innovative, and is extremely important for the managers in the high tech company to do their best, and learn, how to best shape and influence the work environment, in order to make that environment conducive to creativity and innovation. A must for succeeding is to understand the factors which have an influence on the organization capacity to innovate.

Leadership is viewed as an interactive system of dynamics, unpredictable agents that interact with each other in complex feedback networks, which can then produce adaptive outcomes such as knowledge, dissemination, learning and innovation Avolio (2009). Leaders has the power to create and manage an organizational culture that promotes innovation, the leaders can be product champions or heroic innovators who support innovation throughout the process of its implementation, and can create organizational structure needed to support innovativeness (Thomas & Ravlin, 1995). Furthermore, the leaders can enhance organizational capacity in order to innovate by directing resources and energy toward implementing new programs and by lending power and legitimize to innovative activities (Triandis, 1995).

Although numerous theoretical generalizations, the empirical investigation regarding the relationship between leadership the innovation has received little attention King and Anderson (1995) suggested that academics and managers accept theoretical prescriptions regarding the leadership styles needed to foster innovation despite very limited empirical evidence. Furthermore, in the handful of studies that did look at this relationship, researchers examined only a direct connection between various styles of leadership and organizational innovativeness (Howell and Higgins, 1990). The proponents of alternative views offer that it is too simplistic to argue that

organizational innovativeness is determined mainly by leaders. Leadership is mainly a perceptual phenomenon and also due to other organizational and environmental variables may account for the apparent effects of leaders (Waldman and Yammarino, 1999).

Thus, in order to understand the effect that leadership has on innovation, it is important to identify other related factors.

One of the variable to which leadership has often been connected is organizational culture. Numerous scholars have offered that these two constructs are tightly intertwined. According to Schein (2004), organizational culture has a significant impact on the formation of leaders. Their values, beliefs, and assumptions rise from the core of the organization's culture. Leaders can transmit and embed organizational culture through deliberate teaching, coaching, role modeling, reward allocation, recruitment, selection, promotion, and other mechanisms.

They can generate employee commitment to innovation by stressing core values and promoting group loyalty. They can set the tone and atmosphere for innovation through the use of organizational symbols, logos, slogans, and other cultural expressions.

They can motivate employees to pursue goals that may not have otherwise been attempted, alter employees' values through changes in the psychological contracts (unwritten commitments made between employees and employers), and encourage the need for change (Schein, 2004). These propositions demonstrate the importance of considering organizational culture in assessing the relationship between leadership and innovation. The empirical investigation of the relationship between leadership and innovation has received little attention. The purpose of exploratory study examined in this thesis was to investigate transformational leadership, organizational culture, and innovation in a sample of two groups of workers in small-medium sized high-tech firms from two countries- Denmark and Israel, two countries that are characterized in their success in promoting the high-tech industry and developing new industries.

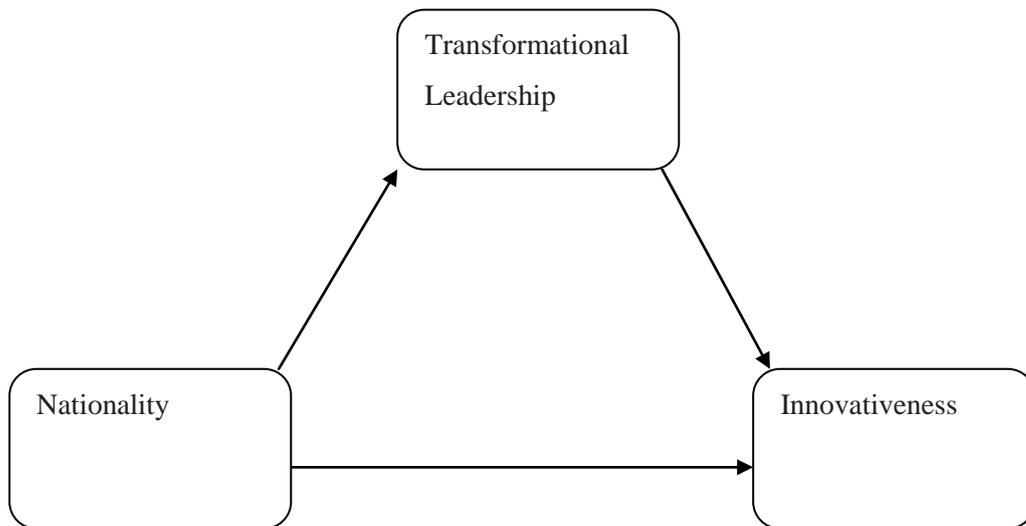
## **Hypotheses**

More specifically, this study will try to answer the following hypotheses:

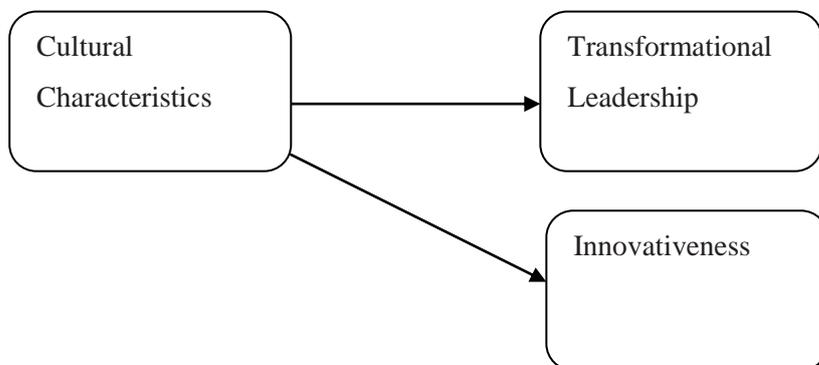
- What is the relationship between the country of origin and organizational innovativeness?
- What is the relationship between the country of origin and transformational leadership?
- What is the relationship between transformational leadership and organizational innovativeness?
- What is the relation between cultural characteristics and Innovativeness?
- What is the relationship between cultural characteristics and transformational leadership?

The research questions are exemplified visually by model 1 and 2.

**Model 1**



**Model 2**



## **1.0 The Importance of Firm Innovation: The Effect on performance**

Innovativeness is a phenomenon that involves technological progress and advance (Porter, 1998). Companies that are innovative, i.e. that develop the newest technologies and modern production techniques for a product or services, acquire favorable advantages in the ever-so-competitive business world. From a manager's point of view, it can be said that innovation presupposes a number of essential decisions and processes of new or improved products or services. There's a wide range of factors that could trigger innovativeness. Many times, innovative ideas and advances are born in response to and as a result of new consumer needs or a new solution for existing needs. Other times innovation is facilitated by the incentive of cost reduction. Several studies suggest that companies often overcome problems related to competitiveness through the means of innovations (Evangelista, Sandven, Sirilli & Smith, 1998).

Based on the study of Lucas (1988), Vast agreement exists among economists and social scientists about the importance of human capital in influencing productivity levels and growth. The formation of new ideas and creation of technological innovations strongly rely on the human force that is at hand. A higher endowment of human capital, skills and creativity represents an advantage for the localization of high-performing enterprises. Such localization is self-reinforcing and thus companies and local productivity are then further enhanced as said in the study of Morrocu (2010).

Meanwhile, innovation can be researched at various levels: the sectorial, regional, firm, and project level. During the past decades, research identifying how companies can be successfully innovative has boomed. At the company level, the research focused on differences in the structure of the company, the culture and management for explaining the differences in innovative success rates (see, for example, Sarros, Cooper, & Santora, 2008). Christensen (1997) distinguishes between sustaining and

disruptive technological change. He explains why in companies that are successful, the innovators establishing upon sustaining technologies ignore crucial innovations based on disruptive technologies. Sustaining technologies improve the performance of established products, along the dimensions of performance that mainstream customers in major markets have historically valued. Disruptive technologies have a new value proposition that a few and commonly new customers value. Meeus and Oerlemans (2000) conclude that in turbulent markets a focus on continuous innovation (adaptation) is a better innovation policy than inertia and gradual innovation (selection) and vice versa.

The innovation at the firm level is mainly focused on how to improve the performance of the organization, rather efficiency of their services or products (Damanpour, 1991). Most of the articles were published before agreeing on the fact that innovation in the organizational environment has a positive influence on the performance. For example, Hurley and Hult (2004) showed a positive correlation in regards to innovation at the organization, a market orientation, and organizational learning are stated together, all of these elements have an effect on the potential for achieving better innovative performance.

## **2.0 Transformational Leadership**

The idea of "Transformational Leadership" was initially presented by Bass and Avolio (1993), and it refers to the ability of the manager to excite the workers, nurture their abilities and support of the organization. The Transformational Leadership gives the manager an ability to become a 'role model', to gain trust from the workers and let his followers feel secure. Managers with transformational leadership choose goals for the future and develop their plan in order to reach them. They are skeptic about the current status even if it is good and push towards innovation. Through sponsorship and 'power' the transformational leadership encourages the workers to grow and develop their full personal potential, while contributing to the organization.

Specifically, there are four characteristics (and criteria) that are attributed to transformational leadership. These are: (1) taking an interest in a new attitude and

from a new point of view, among colleagues and partners of the same organization; (2) creating new awareness to tasks that the individual and the groups are linked to; (3) developing a higher level of skills and abilities in the workers, thereby improving their potential; and (4) pushing them to look beyond their personal interest in favor of the organization (DeRue, et al.2011)

As can be readily observed from these four characteristics, a major element that distinguishes between a regular manager and transformational leadership is the vision behind the standard concern about the work being done (Bass 1998). In case of a more passive style of leadership, there were mediator relations, which were in accord with the size of the organization, between the passive style of the leadership and the restraining power of the vision.

Indeed, the belief behind this type of leadership is that a supportive organizational atmosphere would allow the workers to look for new opportunities and could help identify them. The variation of the people plays a big part of the transformational leadership, as does the awareness and acceptance of the differences between the people: a good leader should know to support the needs of his/her worker, and to understand, and furthermore, to give him/her more encouragement, freedom or a more specific definition of his frame of work, some say.

At the same time, the attitude that is associated with transformational leadership is very personal. Hence, there is a close communication between the manager and the other workers: the manager remembers all the conversations, she/he is aware of what happens to each worker, reveals their difficulties and sees him/her as a person, as a whole person, not just as an employee. This type of managers knows how to listen in an effective way and gives out tasks that will also develop and improve the work process during work. The transformational leader will follow through the process of handing out tasks and their performance, just to know if a need exists to point out and further explain to the worker so he/she can execute the task. Nonetheless, employing a transformational leadership should not make the individual worker feel like he/she is being monitored.

Indeed, the moral issue is a primary element in transformational leadership. Being a true transformational leader means that moral and ethical considerations are part of the decision process employed by the manager (or leader). Therefore, transformational leaders are characterized as incorporating three main moral considerations as part of their job. First, they must be responsible for taking care of themselves and others. Second, they must have the ability to discuss the ethic values which are a part of the leader's vision and its characteristics. Finally, they should include moral issues in the process of accepting ethics and social decisions, and actions which make the leader and his followers work together (Bass & Avolio, 1993). Therefore, it is not surprising that Conger & Kanungo (1994) found that negative moral qualities and attitudes such as: narcissism, authoritativeness, distorted vision, striving for power, denial of activities promoting the environment, did not characterize authentic transformational leader.

However, incorporating the ethical aspects as an integral part of the transformational leadership style raises a question regarding the universality of this management style.

## **2.1 Transformational Leadership and Innovation**

Interest is developing concerning the effect of transformational leadership on creativity and innovation. Leading transformational figures raise the appearance anticipations of their devotees and “seek to transform followers' personal values and self-concepts, and move them to a higher level of needs and aspirations” (Bass, 1998). Scientists have learned about the impacts of transformational leadership on the appearance of devotees and organizations in past decade (Dvir et al., 2002).

It has been suggested that Transformational leaders have an impact on innovation. The leaders enhance the tendency of organizations to innovate. The leaders motivate and stimulate intellectually which is highly needed for organizational innovation. They often push up creative ideas inside the organization, and they act in a way that enhance creativity, consider the individual, intellectually stimulate the followers and motivate them to generate ideas. It is stated that this behavior reflects a championing role of the transformational leaders. This leader develops his or her followers' self confidence, self-efficacy, and self-esteem (Gumusluog̃ & Ilsev, 2009).

This motivate done by the leader makes his/her followers follow his vision, it increase the willingness of the followers to participate more than requested by the leader, and he challenges them to adopt new approaches regarding their work. Due to it the leader heightens the levels of motivation and self-esteem in the followers which enhance organizational innovation (Gumusluog̃ & Ilsev, 2009).

The following sections illuminate the current knowledge regarding the connection between transformational leadership and innovation within organizations, in general. Specifically, I focus here on three levels of innovations that are supposedly affected in a positive manner from adopting a transformational leadership style. There are: individual creativity, perception of support for innovation and organizational innovation. It should be noted here that the purpose of this section is merely to demonstrate that there is more than ample theoretical basis for the current research's theme. As such, this portion of the study should not be understood as concerning the particular definitions and measurements that will be used in the current study. Those

will be elaborately discussed and explained in the chapter that refers to my empirical study.

## **2.2 Transformational leadership and individual creativity**

According to Bass (1998), using charisma as a leadership tool, the boss causes esteem, respect, and devotion, and emphasizes the importance of having an aggregate instinct regarding mission. By individualized thought, the leader assembles a coordinated connection with his or her supporters, and understands and considers their contrasting needs, abilities, and goals. By inspirational motivation, the leader explains an electrifying vision of the future, demonstrates to the devotees' best practices to actualize the goals, and expresses his or her acceptance that they can do it. By intellectual stimulation, the leader grows and hoists the interest of his or her employees, and animates devotees to contemplate old situations in revamped ways (Bass, 1998).

These Transformational leadership behaviors were found to nearly match the determinants of innovation and creativity at the workplace, some of which are vision, support of innovation, self-governance, encouragement, recognition, and challenge (Elkins & Keller, 2003). These leadership behavioral patterns may function as "creativity enhancing forces": individualized attention "serves as a reward" for the supporters by granting recognition and consolation; intellectual stimulation "enhances exploratory thinking" by creating a supportive platform for innovation, autonomy, and challenge; and inspirational motivation "provides encouragement in regards to the idea generation process" by fortifying supporters to work towards the group vision (Bass 1998). The coming intrinsic motivation sensed by the supporters is a paramount root of creativity, based on the study of Tierney et al., (1999).

Additionally, following forth emotions of self-solidity lead to greater appearances of creativity, transformational leaders who advance the self-efficacy of their supporters can definitely positively alter the creativity of their devotees. Workers with developed self-viability are more likely to spur the creation of clever brainstorm and solutions (Bass, 1998).

Important to consider is that: Within every individual, creativity is a function of three components: Expertise, creative thinking skills and motivation. T. Amabile (1998). It is possible for managers to influence these components by having conducts for workplace practices and conditions. T. Amabile (1998).

Transformational leaders have been advised to have a good effect on innovation. Transformational leadership improves innovation inside organizational context; quite simply, the particular tendency associated with agencies to innovate. Life changing leadership use inspirational inspiration and also intellectual stimulation which can be crucial for organizational innovation (Elkins and Keller, 2003). Transformational leadership boosts creative tips within their organizations as well as having their particular behaviors usually suggested to act as “creativity-enhancing forces”; distinguished consideration “serves as a reward” for the followers, intellectual rousing “enhances exploratory thinking”, and also inspirational motivation “provides encouragement into the idea generation process” (Bass 1998). Howell and Higgins (1990) state that this kind of behavior points to the actual “championing role” of the transformational leaders. This leader develops the self-confidence of his/her followers, as well as their self-efficacy, and pride (Bass, 1998). Furthermore, this leader motivate his/her followers through their imagination and vision, raises their particular need to perform over and above expectations, and challenges all of them to adopt revolutionary approaches within the framework of their work. The resulting heightened levels of motivation and self-esteem within the followers are likely to enhance organizational innovation, based on the study of Mumford et al. (2002). This kind of positive leadership effect on innovation had been supported by a few empiric researches Keller, (1992).

These types of studies focused on innovation mostly within R&D units and at the project stage. The particular advised effect of transformational leadership on innovation at the organizational level has become a subject of empirical research not too long ago. For example, Jung et al. (2003) found that transformational leadership activity had been considerably and also positively related to organizational

innovation as measured through R&D expenditures and the quantity of patents acquired within the previous three years

### **2.3 Transformational leadership and perception of support for innovation**

Based on Scott and Bruce (1994), organizational atmosphere is a paramount component for creativity; the perspective of the employees as to the degree to which creativity is empowered at the workplace, and the degree to which organizational assets are distributed to support creativity influence creative abilities. The acknowledgement of an employee concerning an innovative atmosphere supports risk taking, as well as the challenge of using creative methods at work. The study of Scott and Bruce present research incorporates empirically validating this suggestion in a R&D center, where supporters' acknowledgement of an innovative atmosphere improves their creativity. Leadership can change the creative behavior through its control over the way the devotees are aware of an atmosphere supportive of innovation. The leader can secure a working area that energizes creativity, and thus create an organizational atmosphere that serves as a controlling rule for additional creative work methodologies (Amabile et al., 1998).

Transformational leaders, by intellectually stimulating their supporters, championing innovation, and articulating a compelling vision throughout their organizations, help secure an organizational atmosphere where workers feel challenged and energized to look for innovative ways at their workplace. Also, Jung et al. (2003) report a huge positive correlation amidst transformational leadership and innovative organizational atmosphere. Building from the aforementioned acknowledgements, the study recommends the emulating theory.

### **2.4 Transformational leadership and organizational innovation**

Organizational innovation is the production of valuable and convenient methods of using unique products/services within an organizational context.. Seeing that most organizations participate in innovative action as a tool against their competitor, the

present research embraces a market-oriented path and develops this definition to contain the returns due to innovation. Consequently, organizational innovation is the tendency of the organization to make new or upgraded products/services and its accomplishment in carrying those products/services to the business sector. This path is constant with Damanpour's (1991: 561) definition of product innovations as, "*new products/services introduced to meet an external user or market need,*" and the description given by the OECD (2004: 64) as, "*the successful bringing of the new product or service to the market.*"

Transformational leaders expand innovation within the organization; the tendency of organizations to innovate. The manner by which the leaders utilize inspirational motivation and intellectual stimulation is extremely important for organizational innovation (Elkins and Keller, 2003). Transformational leaders advocate creative plans within their organizations; this conduct reflects the "championing role" of transformational leaders (Howell and Higgins, 1990). The leaders have a vision that helps their supporters and motivates them, expands their willingness to perform more than is anticipated of them, and push them to embrace an innovative path in their work. The resulting heightened level of motivation is likely to enhance organizational innovation (Mumford et al., 2002).

A number of empirical researches support such positive impacts of leaders on innovation (e.g., Keller, 1992; Waldman and Atwater, 1994). These studies test the connection among transformational leadership and innovation is generally found in R&D units and on the project level. The recommendation of an impact of transformational leadership on innovation at the organizational level has come to be a subject of empirical examination only recently. Jung et al. (2003), have investigated in their study 32 Taiwanese organizations, identifying that transformational leadership has had a significant and positive correlation to organizational innovation as measured by R&D expenditures and by the number of patents obtained over the preceding three years.

Transformational leaders might be likely to have a positive impact on the market success of the innovations. Leaders who articulate a strong vision of innovation and show a sense of power and confidence will strive to guarantee the market success of

innovation. These leaders mobilize their supporters to guarantee the success of the innovation (Jung et al., 2003). Keller (1992) infers that leading professional workers could need something greater than regular leader behaviors, particularly in R&D settings, where quality as opposed to quantity is the essential performance criteria.

Furthermore, in addition to the internal roles, the transformational leader would be useful in playing outer roles, for example, boundary spanning and entrepreneuring/championing (Howell and Higgins, 1990); these could be significant both for understanding the necessities of the market and for the successful marketing of the innovation. Along these lines, this research suggests a positive connection amidst transformational leadership and organizational innovation which is conceptualized in this paper as incorporating both the tendency of the organization to innovate and the success of innovations.

The organizational innovation was characterized by Woodman et al. (1993) as the creation of precious and useful new products/services, from within an organizational context. Because most organizations take part in innovative activity as a comparable tool for competition, I take up a market oriented way and enhance this definition to include the outcome of the innovation. Accordingly, organizational innovation in this research is defined as the predisposition of the organization to make novel or meliorated products/services and its success in fetching those products/services to the market. This way is congruous with Damanpour's (1991) definition of product innovation as "new products/services introduced to meet an external user or market need," and the description provided by OECD (2004) as "the successful bringing of the new product or service to the market."

In addition to the impact on the tendency associated with organizations to innovate, transformational leadership could also have a positive influence on a particular market success of the innovations. The transformational leader mobilizes his/her followers to guarantee the success of the innovations (Jung et al., 2003). By articulating a strong vision associated with innovation and also by exhibiting a feeling of power and of self-assurance, this kind of leader will try to strive to ensure that this particular market success of the innovation does occur.

In addition to the internal roles, transformational leadership may be advised to be effective when taking part in external roles, such as boundary spanning as well as entrepreneuring/ championing (Howell and Higgins, 1990), which might be important both for understanding the needs of the industry, as well as for successfully marketing and advertising the innovation. Based on that which was previously mentioned, I expect a positive effect regarding transformational leadership on organizational innovation, which can be gestated in this article as including both the tendency of the organization to innovate and the success of innovations in the market.

## **2.5 Transformational Leadership in a Cross-Cultural Setting**

There are only a limited number of studies that exam the relationship between culture and transformational leadership. Most of these, however, were conceptual investigations. For example, Bass and Avolio (1993), based on their review, proposed that several characteristics of collectivistic cultures should enhance an easier emergence of transformational leadership than would be the case in individualistic cultures. Avolio (2009) also believed that the basic behaviours recognized in transformational leadership, such as inspiration, motivation, individual consideration, and intellectual challenge, were seen as a “core function” of outstanding leaders that should be similar around the world.

Based on their empirical data in the U.S. and Taiwan, Spreitzer, Perttula & Xin (2005) found that cultural values play a significant role in the relationships between transformational leadership and leadership effectiveness. In their research they found that there are differences in the cultural values in the effectiveness of different dimensions of transformational leadership.

Bass (1998) believed that transformational leadership should travel well across cultures. The transformational leadership in a cross cultural view, according to Bass (1998) was based on the fact that leaders who practiced transformational leadership were more effective than those who displayed transactional or non-leadership behavior, regardless of cultures, countries and organizations. Bass also acknowledged that “universal” in his meaning, was a universally applicable conceptualization. That

is, although the concept of transformational leadership appeared to be universally valid, the specific behaviors associated with each leadership factor might vary to some extent, particularly from one country to another.

### 3.0 Culture

A few issues must be considered when discussing culture and the definition of culture. Culture is usually defined as "the sum total of a way of life: it is the values, traits, or behaviors shared by the people within a region. The function of culture is to establish modes of conduct, standards of performance, and ways of dealing with interpersonal and environmental relations that will reduce uncertainty, increase predictability and thereby promote survival and growth among the members of any society." Their definition of culture implies that it is not stable; rather, it changes to meet society's needs (Kaasa & Vadi, 2008). Hofstede (2001) presents a less flexible interpretation, which views culture as extremely stable. According to him, culture is "the collective programming of the mind, which distinguishes the members of one human group from another." Hofstede asserts that people belong to different cultures at the same time (gender, organization), and he claims that when it comes to economic issues, the national scale is the most important one.

The stability of culture is accounted for by the fact that a given country's institutions reinforce specific cultural patterns, since they themselves are products of the dominant cultural value system. Even if cultures change in the long run, claims Hofstede (2001), they change together, and so the differences between them remain the same.

The most well-known and widely used model or operational culture through the use of multiple cultural dimensions is Hofstede's (2001) "model of cultural dimensions." This model consists of four dimensions: power distance, individualism, masculinity, and uncertainty avoidance. Hofstede based his model on a survey of IBM employees across 64 countries in 1964. Power distance, the first of the four dimensions, refers to the extent at which the less powerful members of institutions (e.g. the family) and organizations accept and expect that power is distributed unequally. This dimension corresponds to inequality (less vs. more), only from a bottom-up point of view rather than a top-down point of view. Individualism is the model's second dimension, and it is seen versus its opposite, collectivism. Individualistic societies are characterized by the slogan "each to himself": each member of society is expected to look after

himself/herself and his/her immediate family. In collectivist societies, on the other hand, the person is born into an integrated, strong cohesive in-group, which grants him/her support and protection in exchange for unquestioning loyalty and reciprocity. The dimension of masculinity addresses the distribution of roles between the genders, and it is seen versus its opposite, femininity. The IBM surveys revealed that while women's values do not differ much between societies, men's values vary on a dimension ranging from extremely assertive and competitive (and thus maximally different from women's values) to modest and caring (and thus similar to women's values). Men in feminine countries attain the same modest, caring values as women, whereas women in masculine countries are somewhat assertive and competitive, yet not as much as the men. Finally, uncertainty avoidance deals with the culture's tolerance concerning ambiguity and uncertainty. Uncertainty avoiding societies attempt to minimize the possibility of unstructured situations. They do so by means of strict laws and rules, safety and security measures, and in the philosophical and religious aspect, by belief in an absolute truth. Conversely, uncertainty accepting cultures are more tolerant and open to various different opinions. They try to have as few rules as possible, and they are comprised of people who are usually more pensive and contemplative.

### **3.1 Culture and leadership**

In an analysis in which a Japanese leader carried on either as an American leader would or as a Japanese leader would, his American supporters did not consider him to be as trustworthy when he was behaving like an American leader contrasted with when he acted like a Japanese leader (Thomas & Ravlin, 1995).

In addition, the growing differences in today's workforce imply that in order to be effective, leaders ought to develop a multicultural viewpoint and a comprehension of the perspectives of those who are different from them (Trianidis 1995). Doing so includes several things: (a) disposing of ethnocentrism (i.e., the acceptance that one's cultural values are the same as everyone else's, regardless of the evidence) and (b) growing isomorphic attributions or the extent that people from culturally diverse

social groups are capable of receiving a comparable evaluation of a given scenario or activity (Triandis, 1995).

### **3.2 Culture and innovation**

Kaasa and Vadi (2008) emphasize the important role of culture in innovativeness. They posit that existing cultural conditions determine whether, when, how and in what form a new innovation will be adopted and allude to several previous studies that attribute greater innovation capacities to societies that are characterized by certain features, such as higher individualism, willingness to take risks, readiness to accept change and openness to new information. Other such features include positive attitude towards science, weak uncertainty avoidance, long-term orientation, frequent travel and high education levels. It also must be remembered that most people work in hope of future reward, which is why systems that provide no opportunities of advancement may discourage people from working hard or from being innovative. In order for them to become active and innovative, both citizens and workers need to know and believe that they can affect their own destiny.

In fact, they further stress the importance of the correlation between religion and innovation. They argue that complete separation between church and public affairs is beneficial for the country's innovativeness. That is, in countries in which religious and political systems are weaved together, such as Arab countries, Spain and Latin America, there might exist biases against technological advances that could influence tradition. Nevertheless, these two authors also attest that some religious values, such as the Christian work ethic, may contribute to a country's innovative capacity.

## **4.0 Innovativeness in Denmark and Israel: A cultural prospective**

In this paper I would like to examine the arguments regarding the influence of culture on innovation, while drawing a comparison between two innovative countries whose cultures are very different from each other: Denmark and Israel. Both of these countries have been called “the lands of opportunity” and are often given as an example of the way entrepreneurship and innovativeness can flourish in different cultures (De Haan & Golany, 2011).

The culture of Denmark has a few general important features. The Danish way of life is one that places great importance on modesty, punctuality, and above all equality. According to the Danish unofficial code of Scandinavian conduct and morality ("Jante Law"), which was adopted by the Danish people from a Danish author's novel, *A Refugee Crosses His Tracks* (1933), states that a person should not display superiority materially or otherwise. Symbols of wealth, such as expensive dress, jewelry and housing, are downplayed in public, all for the sake of being discreet about individual distinction and avoid public boasting. In accordance to this unofficial code, most national surveys do not divide the population into different income groups. Rather, the population is categorized into the following five social layers, according to level of education and occupation: (1) skilled workers, small landowners and workers with a professional education (37%); workers without skills training (32%); farmers with a maximum of three employees, owners of small companies, and persons with jobs requiring expertise (21%); farmers with at least four employees, owners of companies with more than six employees, and college-educated business owners (7%); and academics, owners of large farms, and persons with more than fifty employees (4%) (Statistics: Denmark, 2010).

Denmark has adopted ideas from abroad for its innovation policy, which became part of the mandate of the Ministry of Science. As a result, there has been major focus on finding ways to implement university-produced research findings onto the market and industrial innovation. Much weight is given to the role of technological institutes and to the hiring of academic personnel in organizations. As such, there has been a shift in terminology from “science-driven” innovation to “user-driven” and “employee-

driven” innovation. Indeed, such policy practices are so strongly enforced, that they may be difficult to revise even if the outcomes prove to be negative (Lundvall, 2009). The culture of Israel is different in many regards compared to Denmark. Its population is extremely diverse and heterogeneous in nature, due to the arrival and settlement of many immigrants who hold various cultural backgrounds. Since its foundation in 1948, Israel has welcomed immigrants from more than 100 countries across five continents. Its culture combines the heritage of different religions, both secular and religious. Major subcultures within the Israeli culture include the Arabs and Palestinians, the Russians, and the Jewish Orthodox, each with their own newspapers and cultural networks. Concerning Israel’s economy, most of the population enjoys a similarly comfortable standard of life. However, it seems that the Palestinian and recent immigrants from Africa and Eastern Europe are at an economical disadvantage (Edelman, 1994).

Israeli culture is largely characterized by individualism, which is manifested both within the secular population, by different looks and clothing styles, and within the religious population, by different means of distinguishing between the various religious groups. Among Israeli Jews, clothing is often an indication of religious and political affiliation. Men wear skullcaps for prayer; more conservative men wear them at all times. In the strictest Orthodox communities, men dress in all-black and wear black hats and long side locks, while the women cover their heads, and traditionally shave their heads and wear wigs, after marriage. Religious Arabs often wear traditional Muslim dress – a turban and long robe for men, and a long robe that covers the head and the entire body for women. The majority of the population, however, is comprised of secular or less conservative Jews and Muslims, who wear Western-style clothing. The city of Tel Aviv is considered the centre of secular culture (Katz-Gerro, 1999).

A few factors have greatly promoted Israel’s innovativeness are the massive entrance of large multinational corporations into Israel; actions taken by the Israeli government to educate engineers and scientists; the role played by Israeli universities in general and by the Technion in particular; and the flow of many well-educated Jews who in the past several decades immigrated to Israel from the former USSR. Furthermore, an

article in *The Economist* (2009 in Haan & Golany, 2011) calls attention to the fact that Israel is a Middle Eastern country that is surrounded by Arab hostility. Thus, innovation might serve as a way to try to compensate for the country's constant inferiority in population, land, and other natural resources. Avishai Friedman (2008) discusses the very same issue in his article, and points out that Israel invests in and relies on its people, while its neighbors rely mostly on oil which show the main differences among the cultures in Israel and their neighbors.

## 5.0 The Uniqueness of Small Sized Firms

Based on the European Commission (2005) there's an important role in the European economy for the small and medium sized firms. Because of their size, they mostly have a source of entrepreneurial skills, innovation and employment so they will be able to participate in the market. In 25 countries in the EU, the SME provide over 75 million jobs and represent 99 percent of all enterprises (European Commission, 2005). There is no widely accepted statistical demarcation of a small firm. The number of employees might define a small firm. In Europe the demarcation between small and medium sized firms ranges, across countries, between 5 and 250 employees (Commission Recommendation, 2003). Nonetheless, the current study refrains from a debate concerning the appropriate definition of a small firm and employs, instead, a definition that fits the purpose of this study. Namely, a small firm is a firm that is run and controlled under the direct supervision of the owner. A farm is a case in point.

Presumably, small firms have several disadvantages, mainly pertaining to two issues. First, small firms perform various activities with less expertise than large firms because they have little room for functional specialists (Freel, 2000). Second, small firms rarely have the sufficient financial resources to be amply equipped for a fundamental long-term planning process, as large firms do.

Thus, for example, small firms rarely have the legal expertise to acquire patents, nor can they build and defend trademarks. At the same time, such companies are characterized as having more intertwined private and business motives and goals of managers are more intertwined in small firms than in medium sized or large firms.

Small size limits the possibilities of fully capturing the gains of innovation. Also, small firms' limited access to finance for venture capital is a hotly debated barrier to innovation (Freel, 2000). Sometimes, small firms develop competencies in networks; this fact underlines the importance of networks for small firms. However, while large firms have the resources and strategic management capabilities to conceive and to develop future new core competencies, (networks of) small firms are rarely equipped for such a fundamental long-term planning process (Knight, 2000).

Nonetheless, the importance of small firms cannot be overstated, as illustrated by the fact that in the European Union, about 34 percent of the workforce is working in firms

with less than 10 employees (European Commission, 2000). In that study, the authors conclude that SMEs advantages are mainly behavioral, such as entrepreneurial dynamism, internal flexibility, and responsiveness to changing circumstances, while those of large firms are primarily material, such as financial and technological resources. These findings are further supported by other studies showing that, compared to large firms, small firms are non-bureaucratic and more flexible, as the owner is the decision maker (Nooteboom, 1994).

Put differently, small firms can be characterized, on the one hand, as having internal flexibility and better responsiveness to changing circumstances, thereby presumably demonstrating some of the traits attributed to the existence of transformational leadership. On the other hand, the management source and factor in such firms can be attributed to a single person, thereby substantially increasing our capability to accurately determine the extent to which a transformational leadership indeed exists in these firms.

Therefore, conducting the current study on small firms, rather than large ones, has two theoretical advantages. First, there is an initial theoretical reason to "suspect" that such firms are employing a transformational leadership style. Second, since there is only a single person in each firm that is accountable for the existence (or non-existence) of a transformational leadership, it is both easier to collect the data, and guarantees that there are no conflicting and/or ambiguous data, due to the splitting of the leadership among more than one person.

## **5.1 The Danish High-Tech industry**

The Danish economy relies on human resources, this is due to a very few natural resources, while the service sector makes up the vast amount of the employment and economy. The industrialized market economy in Denmark depends on import and foreign trade.

In the free market economy, Denmark is technologically advanced, while it is involved in high value-added production. For example processing and finishing products, more than extracting and creating raw materials. The export sector in

Denmark is mainly industrial products, such as agricultural products, cheese, meat and pork but also raw oil.

Denmark is combining its high-tech sector into the agricultural sector, and creates the latest development in the farming area. Most of the businesses in Denmark are small and medium size, and more than 75 percent of the companies in the Danish industry employ fewer than 75 people. The farms are mainly owned by families, who are supported in the law that says that no public companies can own farms. Because of the increasing accessibility to consumers in Europe, Danish businesses started to seek for ways to supply a larger scale of products to Europe, so they needed to develop networks of coordination and communication between several companies.

The most recent statistics for the Danish IT industry looks very promising. The costs for IT equipment for corporations with minimum 10 employees increased by 10% in 2010 Brodersen J. & Fleischer J. (2012). Divided by categories of costs the highscore was services related to IT that accounted for 52%, while standardized software was 16% and special designed software accounted for 15% Brodersen J. & Fleischer J. (2012).

## **5.2 The Israeli High tech industry**

The high-tech industry in Israel is growing mainly from the universities and the army research industry. Scientists from the Technion, Weizman University and the Hebrew University in Jerusalem managed to reach high compliments regarding development and research already in the 50's. Rafael was the first company in Israel that created an R&D division, which is in charge of all army developments in Israel, such as weapons, materials etc. which was the boost the Israeli high-tech industry needed to get recognition (Offenhauer, 2008).

In many ways, this procedure and those companies, and the companies that came afterwards, are similar to the United States model, which showed how to benefit from the process that is being done over the universities and in the army industry as a leverage to make the economy in the state bigger, while after a while, many of the

people which used to work in the armed industries in the United States, left, and moved to the private sector and developed industrial products (Offenhauer, 2008).

In Israel, on the other hand, the involvement of the private sector came in a later stage. The first company who entered into the private sector was Ausron. The company was created in the early 60's, while it was built in order to push the local electrical industry forward, which was based on the skills of the R&D people who used to work in the labs and in the armed industries. But, the real breakthrough occurred in 1967, when the French government decided to stop supplying advanced equipment to the armed industry in Israel. Then Israel had to look for a local solution regarding innovation in the technological sector, although in a later stage, the United States supplied Israel with the equipment they needed. Israel then decided not to rely on other companies, and develop its own technologies (Offenhauer, 2008).

When the peace process started, the high-tech industry in Israel became the force to drive the economy in Israel. People's dreams became reality. Within 15 years, the computer sector's sales grew from 1 Billion dollars to 7 Billion dollars, and in 1997, 75% of all sales in the technological sector was to foreign clients. Many Israelis, who lived abroad, and had engineering skills decided to come back to Israel, bringing a lot of management and technological experience and networking they have had (Offenhauer (2008)).

## **6.0 Methodology**

Quantitative research is aimed at producing more specific answers of a subject you already have knowledge of. The quantitative research represents a more conclusive manner of research, which is suitable for testing and answering the hypotheses. The purpose of the quantitative research in the research is to produce statistically sound answers, which are directly applicable in the evaluation of the hypothesis.

### **6.1 Ontology**

Ontology is the philosophical study of being, existence or reality as well as the basic categories of the human being and their relations (Buch-Hansen & Nielsen 2005:108; Porta & Keating 2008:23).

The positivism's underlying ontological perception is that reality exists objectively before us in the light of a positive and objective base of empirical facts (Thisted 2010:39). This means that the world is seen as real and exists independently from the human existence (Kvale 1996:61; Porta & Keating 2008:23). Only what can be observed exists (Thurén 2004:15) and the world is seen as an ordered, structured place that is governed by physical laws and empiric knowledge (Kvale 1996:63). Studying the world from this position is done objectively and without concern for how people create meaning, which best can be done through quantitative methods, which is the case of this study.

### **6.2 Deductive study**

This study takes on a deductive approach, as the theoretical framework is developed from secondary data based on existing and relevant theory (Birkler 2005:67).

In the deductive approach the researcher begins with theory and uses research to test the theory. This approach proceeds as follows: Theories generate hypotheses. Hypotheses lead to data generation. Generations leads to generalizations. Generalizations are used to support the theory to suggest modifications to it or refuse it. (Kendall 2011:37)

### **6.3 The current research**

The current research talks about the meaning of transformational leadership on innovativeness, in order to examine the direct and indirect factors that influence the innovation within an organization. Specifically, this research revolves around making and validating five main propositions. The first is that transformational leadership exerts a positive influence on innovativeness (where the latter is measured by the number of modified and new products being continuously created and launched). The second proposition is that national culture has a significant impact on the way transformational leadership is enacted. Indeed, as this research will demonstrate, Denmark and Israel exhibit a very different transformational leadership style from each other. In this study, innovation is investigated at the firm level because of the desire to understand the impact of management characteristics on the level of innovation in the small firm. The third is how national culture impact organizational innovation. The fourth is how cultural characteristics impact innovativeness. Finally the fifth is how cultural characteristics influence correlates with transformational leadership style.

### **6.4 Research formation**

A comparison between Denmark and Israel regarding the links that were examined above has been created. For this sample I have chosen small and medium sized creative IT organizations from each country. I shall distribute a questionnaire which examines the leadership style of the heads of the company, in the way which the workers see it as based on (Bass, 1998). Also, I will measure the level of innovation and creativity within the organization based on the research of T. Amabile (1998). The questionnaire will include the measuring of cultural characteristics based on Hofstede (2001).

### **6.5 Limitations**

Despite the attempt to carry out a comparative study between two countries and two cultures, the resulting sample is significantly less of the population, and does not

include all components. This situation does not allow me to conclude that this is indeed a representation of the two cultures in general. In light of this, based on the research, I cannot argue that the only differences between Israeli culture to the culture in Denmark are in Femininity masculinity. Therefore, the goals of this study can be defined in a modest and limited way, as examination of perceptions of both groups, while the differences that were observed between the groups are valid only for them, no matter what country they came from. However, it certainly can be derived from the work, regarding the other relationships, such as the relationship between cultural characteristics of the groups with the desired leadership perceptions, perceptions of innovation and innovation in practice.

## **6.6 Questionnaire**

In order to explore the assumptions made in this research, I have conducted a questionnaire, which was distributed in small and medium IT firms in Denmark and in Israel. The questionnaire is long due to my requirements to take into consideration all the differences between the two cultures, and the questionnaire is there to help understand the perception of good management and which ways management should act and lead in the organization in order to achieve the required results. I have also examined the perceptions regarding innovation, the advantages from innovation and the obstacles that are in the way of initiating it.

I have distributed the questionnaires by e-mails, which have been found after researching companies fitting the criteria. The list of companies includes 298 small and medium companies in Denmark, and 147 small and medium companies in Israel. Each company received a chance to take part in the research and answer the questionnaire. They have all been promised anonymity, and that the information gathered will not be exposed online. The research consists of 30 questionnaires from Denmark and 37 questionnaires from Israel. In total, 67 companies took part in the research.

## **6.7 Research tools**

During the research a questionnaire including 131 questions was made (see appendix 1) which included questions regarding characteristics of companies and questions to measure each variable. The questionnaire was distributed in English so as to maintain uniformity of phrasing and avoid the possibility of bias due to translation. Since it involves the high-tech industry which operates mostly in English it was received well.

## **6.8 Why some respondents did not participate**

The questionnaire was built in word, because the cultural questions required a differential semantic scale. Differential semantic scales are costly to make at the companies like surveymonkey.com or Enalyzer.dk and funding is a great problem. Therefore it was decided to make the design in word and email it to the respondents. Then the respondents were supposed to mark the answers with a yellow marker and send it back. For some people working in the IT – industry this was deemed unsatisfactory. Therefore they refused to participate. Some companies wrote that the questions were in conflict with their trade political decisions. More classical excuses were that the questionnaire was too time demanding and questions were hard to answer. Others excused by stating that the same scale should have been used during the entire questionnaire.

## **6.9 Likert scale**

The Likert scale that is used for the questions has the same number of positive and negative categories, which makes the scale balanced and thus useful for the analysis part following. Interval scales are easy to use because the distance between the categories is equal.

### **6.91 Face Validity**

Face validity, also known as content validity, is the least scientific method for judging and measuring validity. Face validity is judged subjectively and despite not being very scientific in nature (Jensen et al., 2006), it is rather relevant in this case.

Almost no face validity issues were found. Furthermore, all respondents were encouraged to give feedback, positive and negative, on the survey and questionnaire in the attached e-mail. Almost only positive feedback was received, which indicates that close to none had problems understanding the questions. There is still the risk that some respondents have failed to understand some questions in the desired way, answered it anyway, or just did not care to mention it or give feedback. From a Face validity point of view however, the data appears valid.

## **6.92 Reliability**

Reliability equals the accountability of the survey. A reliability analysis is made to measure the unsystematic error that defines the accountability of the data set. To secure a high reliability it is crucial that you have the same results if you did the survey again (Jensen et al., 2006). For securing the accountability of data, testing of the questionnaire; data collection and data handling are extremely important variables. A reduction of the accountability may happen if the coding of the data set to SPSS is not done sufficiently and should therefore be tested before further analysis.

## 7.0 Analysis

The variable "transformative leadership" was measured by defining the desirable leader among respondents according to criteria of the transformational leadership style (40 items), which were built based on the research of Bass and Avolio (1993). In the analysis the separate items were grouped into indexes, and had internal reliability calculation done for each country separately, in order to avoid the affect of the uniqueness of any country on the efficiency of the research tools. Examining the internal reliability of each of the criteria and according to each country showed a high level of internal consistency within the index. The criteria included were:

Leadership characteristics	Denmark	Israel
Charismatic leadership (17 items)	0.968 $\alpha$	0.958 $\alpha$
Individualized Consideration (7 items)	0.820 $\alpha$	0.820 $\alpha$
Intellectual stimulation (3 items)	0.923 $\alpha$	0.897 $\alpha$
Contingent reward (7 items)	0.889 $\alpha$	0.903 $\alpha$
Management by exception (6 items)	0.903 $\alpha$	0.930 $\alpha$

$\alpha$  is cronbachs alpha.

To avoid any incoherence regarding the different concepts, among the questions the respondents were also asked to specify characteristics for a "good manager". In this manner, the employees' perceptions of what is desirable from a manager were examined. This evaluation will allow characterizing the common perceptions and not necessarily the existing characteristics of the manager to which the employee is subordinate. The goal of this research is to examine the general perceptions and not

the specific characteristics of the managers that were sampled. Therefore, it was not necessary to construct a representative sampling for the entire population sampled.

The variable "innovation in the organization" included questions meant to characterize the respondents' organization in regards to innovation, according to eight criteria to which the respondents were asked to specify whether or not they existed in their organization. Among those criteria, the first, third and fourth indicate a tendency towards conservativeness and a need for changes to be made in order to build an innovation-conducive infrastructure, while the other five indicate a tendency towards innovation in the organization.

1) Works on a traditional line of business (bureaucracy, strict procedures)
2) Works in an innovation-driven sector (high-tech companies, etc.)
3) Needs training in creativity and innovation issues
4) Needs to improve the general competence skills of its employees
5) Is within the strategic objectives of the company to grow rapidly within the next years
6) Uses a sufficient amount of resources annually for training
7) Supports employees to take risks and does not penalize them when they fail
8) All employees, regardless of position, have the same chances to share their creative potential within their organization and propose new solutions

The variable "perception of innovation" was divided into several subsections in order to examine the different perceptions that were inspired by T. Amabile (1998). The variable included the following criteria:

Perception of innovation characteristics	Denmark	Israel
Measures to encourage innovation (17 items)	0.679 $\alpha$	0.673 $\alpha$
Possible obstacles in the way of innovation (5 items)	0.618 $\alpha$	0.820 $\alpha$
The advantages of innovation (5 items)	0.709 $\alpha$	0.925 $\alpha$

$\alpha$  is Cronbach's alpha.

The variable "cultural characteristics" was evaluated according to Hofstede's criteria of cultural definition. Examination of each of the criteria's internal reliability according to each country demonstrated a high level of internal consistency in the index. The criteria included were:

Cultural characteristics	Denmark	Israel
Power distance (8 items)	0.698 $\alpha$	0.971 $\alpha$
Short term-long term (7 items)*	0.630 $\alpha$	0.826 $\alpha$
Feminine-masculine (11 items)	0.842 $\alpha$	0.969 $\alpha$
Collectivist-individualist (10 items)	0.749 $\alpha$	0.962 $\alpha$

$\alpha$  is cronbachs alpha.

\*Originally 9 items 2 were discarded due to internal reliability.

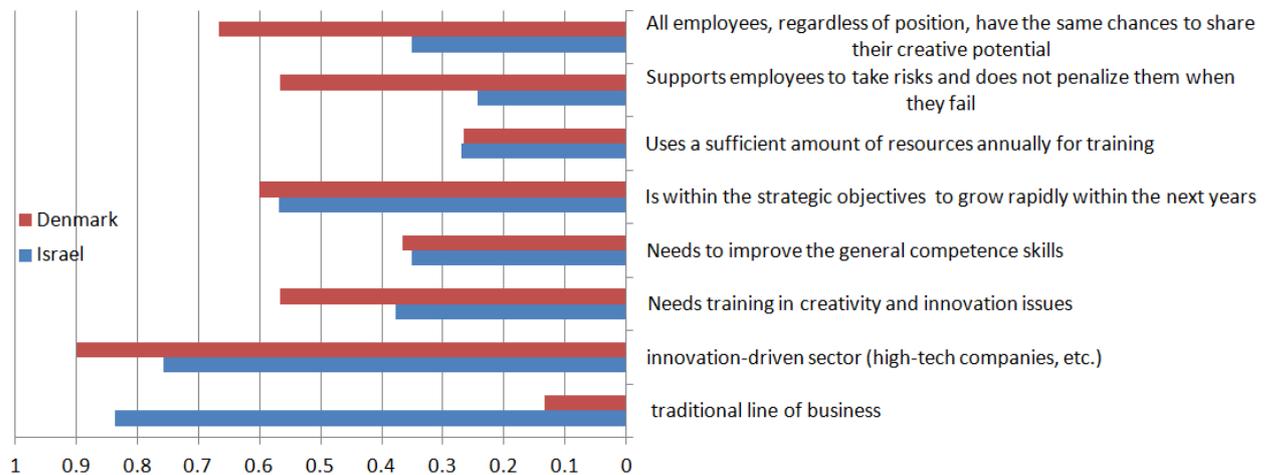
## 7.1 Description of the characteristics of the sampling

The research included 67 employees of high-tech organizations. By examining the respondents and their organizations, one can see great similarities between subjects, making comparisons and inferences much easier (see appendix 2.1): 30 respondents were from Denmark and 37 from Israel. As for the type of organization, the sampling included mostly organizations with less than 10 employees (43.3% of Danish companies and 54.1% of Israeli companies). Among the organizations the majority never listed patents (63.3% of Danish companies and 71.4% of Israeli companies). The majority of those sampled in both countries had tertiary education or higher (87.9% of Danes and 52.8% of Israelis). As for positions there was great similarity between subjects, when most managers were either middle or top managers in both the Danish (63.3%) and the Israeli (59.5%) groups. All the respondents had been in the organization for more than a year. In one third of cases they had been in the organization for over 5 years.

## 7.2 Comparison of innovation Perception

When comparing Denmark to Israel according to the criteria defined to examine innovation in an organization (as table No. 1 demonstrates), the Israeli organizations differ significantly from the Danish ones in five of the criteria. In the Danish organizations all employees have the same chances to share their creative potential; employees are encouraged to take risks and are less penalized for failure; the Danish organizations belong to a sector more motivated by considerations of innovation and have a smaller tendency towards a "traditional line of business". Furthermore the Danes also reported they are interested in more training in creativity and innovation issues.

Diagram 1: The difference between Danish and Israeli employees according to criteria of innovation

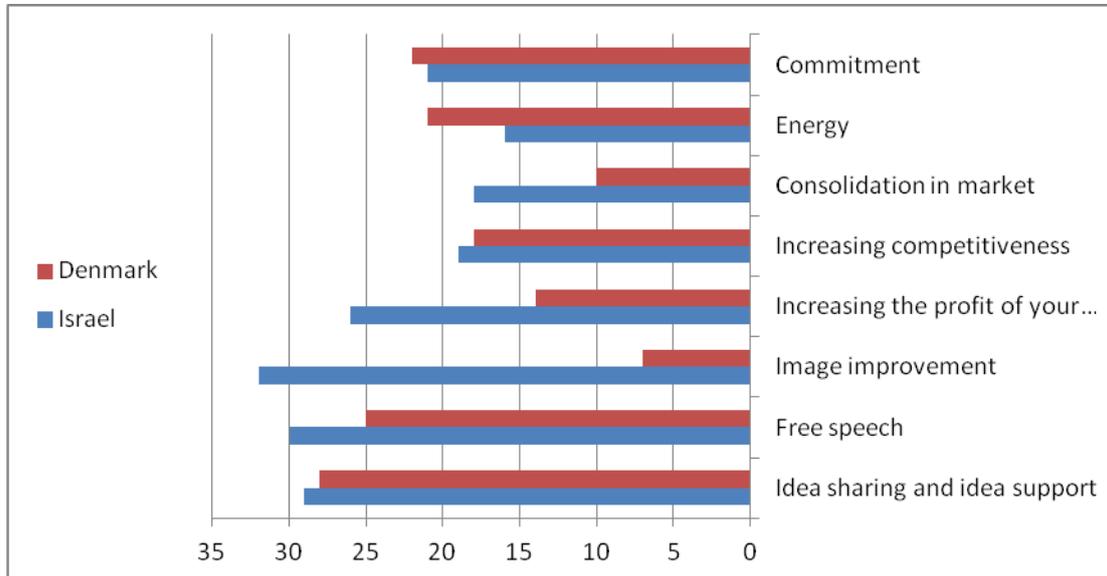


In order to allow for systematic comparison between countries and a quantitative analysis of the relative influence of the different factors, an index was composed based on these criteria, when the positive and negative criteria regarding innovation were assigned the values (+1) and (-1) and the index was built by adding the values of the criteria. The different criteria were divided as follows:

Characteristics impeding the tendency for innovation (-1)	Traditional line of business
	Needs training in creativity and innovation issues
	Needs to improve the general competence skills
Characteristics promoting the tendency for innovation (+1)	Is within the strategic objectives to grow rapidly within the next years
	Uses a sufficient amount of resources annually for training
	Supports employees to take risks and does not penalize them when they fail
	All employees, regardless of position, have the same chances to share their creative potential
	Innovation-driven sector (high-tech companies, etc.)

Diagram 2 shows the differences in approaches to innovation and factors relating to it. The differences, which were found to significantly statistically differ ( $\text{sig} < 0.01$ ), were represented in innovation perception as related to employee energy, consolidation in the market, increasing the profit of the organization and image improvement. Generally, on the basis of this analysis, it may be said that the Danes associate more value to innovation as contributing to internal improvement in to organization, while Israelis view it as an important and effective means to promote and market the organization and its products.

Diagram 2: A comparison in perceptions of the effects of innovation between Israelis and Danes



### 7.3 Comparison of cultural characteristics

Examining the significance of the differences between Denmark and Israel, according to cultural criteria based on Hofstede's characteristics (see appendix 2.2), shows significant differences between the countries according to masculinity-femininity criterion alone, when the Israeli group shows a higher tendency towards masculine values compared to the Danish group. No statistically significant differences were found in regards to the other criteria (power-distance, short term-long term and collectivism-individualism). Accordingly, for most criteria defined by Hofstede, no significant differences were found between Danes and Israelis.

### 7.4 Comparison of desired leadership characteristics

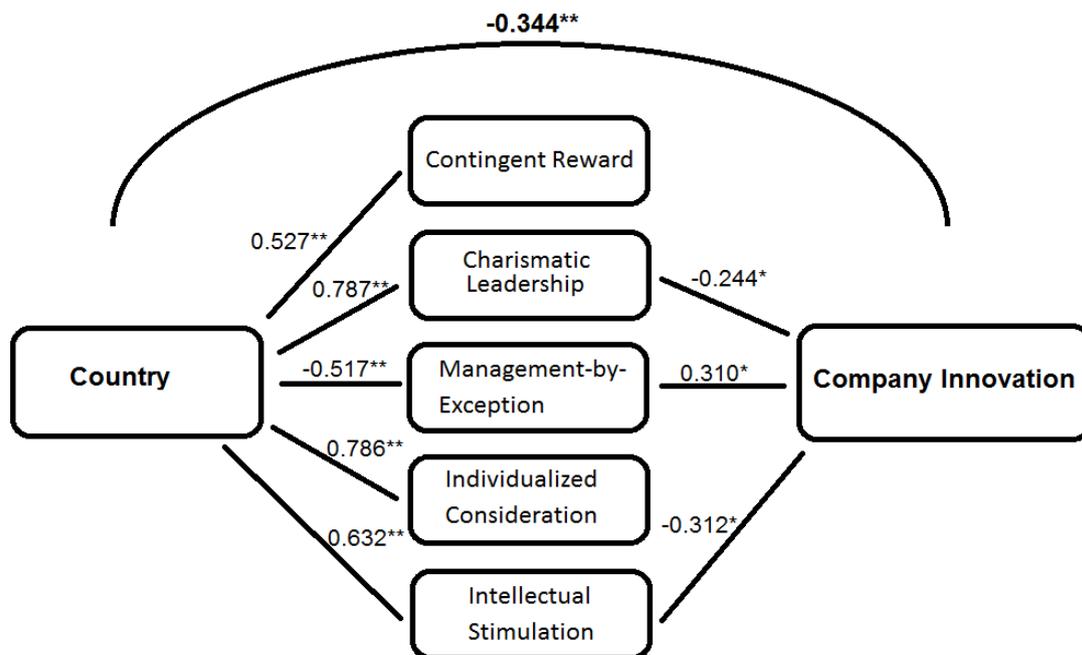
Examining the significance of the differences between Denmark and Israel according to criteria of the characteristics of a desirable leader based on Bass and Avolio' 1998 definition of transformational leadership (see appendix 2.3), shows significant differences between the two countries in the perception of desirable leadership, in conjunction with all the defined criteria. The analysis suggests that:

- Israelis see greater importance in the charisma of the leader, compared to Danes.
- Israelis see greater importance in contingent rewarding, compared to Danes.
- Israelis see greater importance in individualized consideration, compared to Danes.
- Israelis see greater importance in intellectual stimulation, compared to Danes.
- Israelis see greater importance for management by exception, compared to Danes.

The analysis shows that compared to Danes, Israelis showed a higher tendency for the majority of the criteria defined by Bass and Avolio (1998). Accordingly it may be deduced that the Israelis in the sampling have a higher tendency towards transformational leadership, in comparison with the Danes.

## 8.0 Finding connections between country and innovation in an organization and transformational leadership

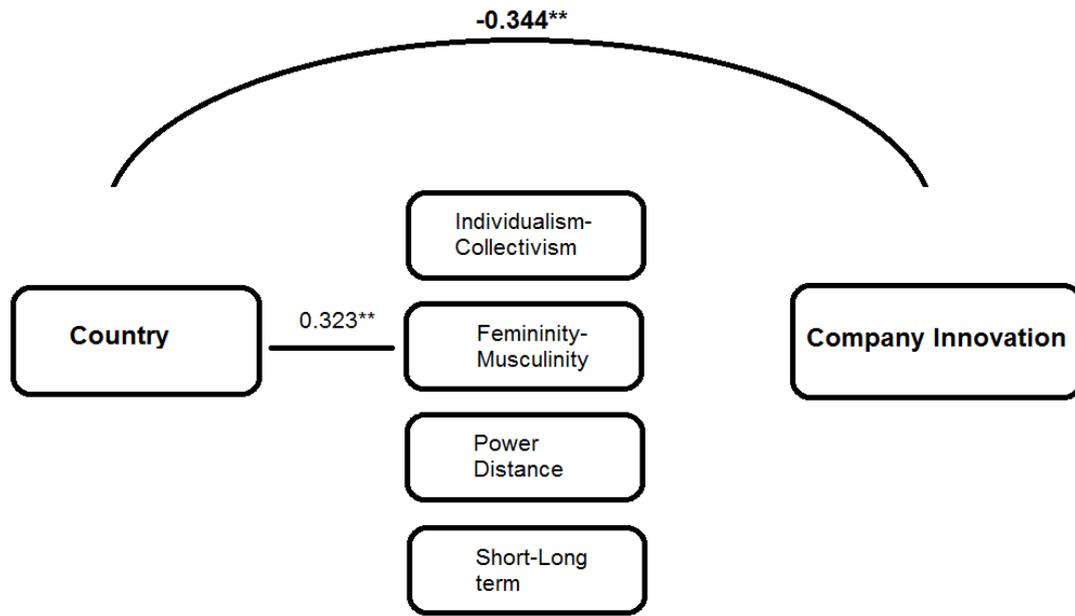
Diagram 3: examining correlations between country, characteristics of transformational leadership and actual innovation in an organization



It seems that, surprisingly, only management by exception has a positive influence on the existence of innovation in organization. While contingent reward and individualized consideration have no significant effect and charismatic leadership and intellectual stimulation have significant negative effect. A comparison between countries shows that for all the characteristics of transformational leadership, except management by exception, the relation between countries is inverse, and Denmark shows the higher tendency. Generally it was found that the level of innovation in organization is significantly higher in Denmark than it is in Israel. It was done by examining the correlation between country and innovation in an organization and transformational leadership, divided by its sub-categories (Denmark:1 Israel:2 – see appendix 2.4):

## 8.1 Finding connections between country and innovation in an organization and cultural characteristics

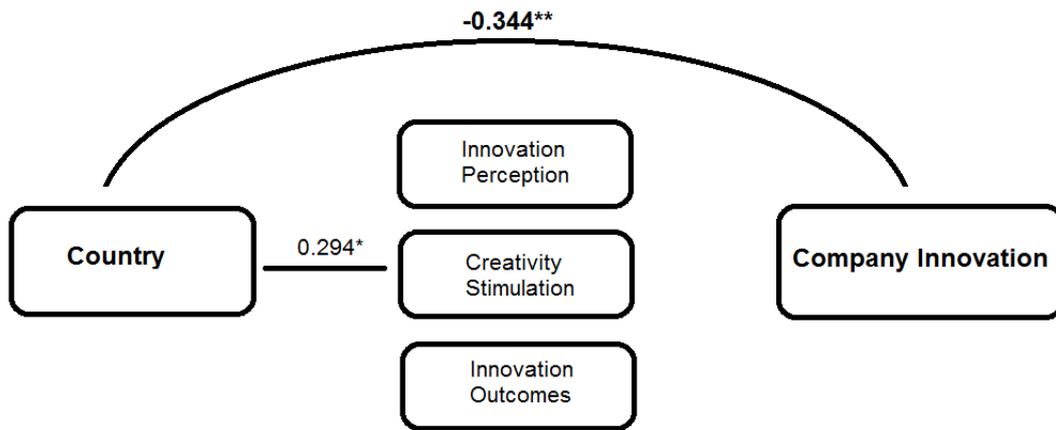
Diagram 4: Examining correlation between country, cultural characteristics and actual innovation in an organization.



Inspection of the correlation shows that the only differences between countries are in the masculinity-femininity criterion. Also, the diagram shows that no significant correlation exists between cultural characteristics and innovation in an organization. It was done by reviewing the correlation between country and innovation in an organization and transformational leadership, divided by its subcategories presents the following (Denmark:1 Israel:2 – see appendix 2.5):

## 8.2 Finding connections between country and innovation in an organization and perception of innovation

Diagram 5: examining correlation between country, innovation in an organization and perception of innovation

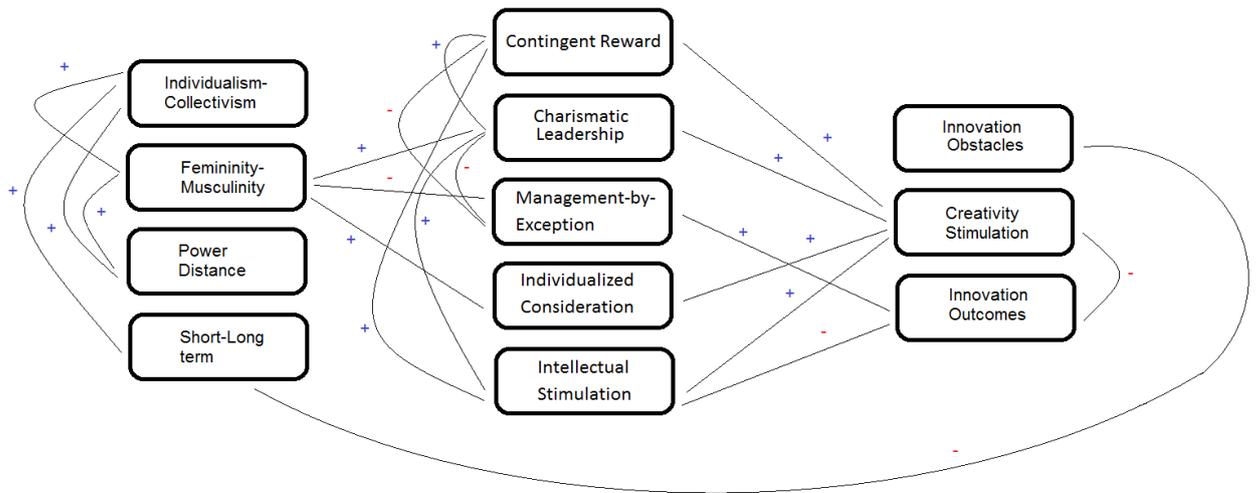


Inspection of the correlation shows that the only differences between countries are in the creativity stimulation criterion. Also, the diagram shows that no significant correlation exists between the perception of innovation and innovation in an organization. This was done by examining the correlation between country and innovation in an organization and the perception of innovation, divided by its sub-categories shows the following (Denmark:1 Israel:2 – see appendix 2.6):

### **8.3 Finding connections between cultural characteristics, tendency towards transformational leadership and perceptions of innovation**

As the mapping of the cultural characteristics, the tendency towards transformational leadership and the perception of innovation show in diagram 5 (see appendix 2.7) there is almost no simple connection between cultural characteristics and perceptions of innovation. Furthermore, it is evident that the one criterion of the cultural characteristics found to be most influential on the tendency towards transformational leadership is the masculinity-femininity criterion. This variable was found to have a connection with three out of five of the criteria for transformational leadership, which also have a positive effect on the perceptions of creativity stimulation.

Diagram 6: examining correlation between cultural characteristics, tendency towards transformational leadership and perceptions of innovation



## 8.4 Examining the relative influence of the different factors on the tendency towards innovation

In order to examine the relative influence of country of origin, cultural characteristics, perception of innovation and the tendency towards transformational leadership, a regression model was built, designed for comprehensive examination of all such influences on the tendency towards actual innovation in an organization.

First, the general influence of all factors for the entire sampling was examined, and subsequently a separate analysis was conducted for each country, comparing the ability of prediction for each culture. Furthermore, the analysis included individual characteristics of the respondents – their education and term of employment in the organization, so as to control the influence of these factors. The results are as follows (for output see appendix 2.8):

Table 3: examining the relative influence of the different factors

Beta	Measurement criteria	Independent variables
-0.067	Contingent Reward	Transformational leadership characteristics
0.036	Charismatic Leadership	
0.332*	Management-by-Exception	
0.273	Intellectual Stimulation	
0.222	Individualized Consideration	

-0.102	Power distance	Cultural characteristics
0.092	Femininity-masculinity	
-0.130	Short-Long term	
-0.023	Collectivism-Individualism	
0.331*	Creativity Stimulation perception	Perception of innovation
-0.123	Innovation obstacles	
0.008	Innovation outcomes	
0.403**	Education	Specific characteristics of the employee
0.125	Years within the company	
-0.170	Country	Country
0.254	R <sup>2</sup> Adj.	
0.008**	F	

\*p<0.05; \*\*p<0.01

As the analysis in table 3 shows, when regulating alternative variables, three criteria have significant influence on the style of leadership: management by exception – which is one of the criteria of transactional leadership; creativity stimulation perception – which is a criteria for perception of innovation; and the level of education of the individual, this criteria being found to have the most significant influence among the variables examined. Surprisingly, cultural characteristics and country of origin were not found to have any influence at all.

In summary the major differences or trends that became apparent in this study was that Danish companies perceive themselves as more innovative; and that Israeli companies place a greater focus on the desired leadership characteristics that are identified with the transformational leadership style. Cultural differences were not found to play a central part in these relationships. In the following discussion, I shall try to provide explanations to these trends based on past studies dealing with the same concepts, as well as the major theories in the fields examined. In addition, I shall speak of the possible limitation of this research that may have masked important relationships or exaggerated ones that are of lesser importance. Finally, I will discuss the implications of this study and ideas for future studies that clarify and elaborate on the findings that I have shown here.

## **9.0 Culture and Innovation: Why Do Danes Value Innovation more than Israelis Do?**

This study has shown important differences in the ways that Danes and Israelis perceive innovation. Specifically, Danish companies have shown higher scores in creativity, encouragement of taking risks and a motivation for innovation rather than traditional lines of business. It was concluded that Danish companies value their innovativeness as a way to improve the company, while Israeli companies had a more utilitarian view of it, as a means of promotion and marketing.

Can these differences in the perception of innovation be attributed to culture? Kaasa and Vadi (2008) have shown that cultural conditions can indeed play a role in the way people of different cultures think of innovation and the value they attach to it. Cultural characteristics' that were shown to be related to positive views of innovation were high individualism; readiness to accept change; openness to new information; willingness to take risks; a positive attitude toward science; high levels of education and long-term orientation. Another cultural element that was found to affect innovation was religion: a separation between religious institutions and the state was shown to promote innovativeness in the country. While Denmark and Israel both boast prolific numbers of high-tech companies that thrive on innovation and entrepreneurship, there are still differences between them in the aspects pertaining to the companies themselves. An important feature of the Danish industry world is its connection with the academia. It is a common practice of the industry to adopt ideas from academic research and integrate them into products and processes; also, hiring university personnel by commercial companies has become common practice in Denmark (Lundvall, 2009). In fact, innovation is incorporated in almost every aspect of the Danish business world. This is largely due to the fact that the Danish Ministry of Science promotes an official innovation policy, which has broadened the scope of innovative research and its application in the industry (Lundvall, 2008). All these innovation-related characteristics of the Danish business world are congruent with results found in the study regarding the perception of innovation in Danish companies. Clearly, Danish companies are innovation-oriented from the start;

furthermore, it is an inherent characteristic in these companies and not simply a means of advancing and gaining more success.

Israel, too, is characterized by innovation and entrepreneurship. The elements that contribute to the prevalence of these aspects in the Israeli business are mostly different than those that contribute to innovation in the Danish business world. While universities and academic research play a part in innovation in Israel, too, there are several other factors that contribute to it, that are not characteristic of Denmark. These include the establishment in Israel of R&D centres by many large international corporations, mostly from the United States; the Russian immigration into Israel in the last decades; and Israel's position in the midst of hostile Arab countries (The Economist, 2009). In relation to this last factor, the defense industry is a key source of development innovation in Israeli technology. It is often the case that Israeli who complete their service in intensive technology army units such as MAMRAM (the computer unit of the Israeli defense forces) go on to enter high tech companies or form start up companies (Breznitz, 2006). In addition, and as a result of forming tightly-knit social connection during the military service, Israeli culture is characterized by a high degree of networking and socialization (Hofstede, 1984). The elements that contribute to these factors and the informality that is prevalent in Israeli society, as well as the general lack of hierarchy. Perhaps it is the result of all these characteristics listed above that make Israeli high-tech companies very intent on internationalizations. As of 2001, 50% of all Israeli high-tech companies had offices abroad (Khavul, 2001). This is due to intense marketing efforts done on their part and their large desire to expand and make higher profits by becoming international. Therefore, the factors that shape the outlook of Israeli companies on innovation suggest that it may be more related to the desire to grow and develop on the international level. Being a tiny country set in the Middle East, Israel is at a disadvantage, compared to a country like Denmark, which can easily create connections with other European countries. This may explain why the high degree of innovation shown by Israeli companies may not be the product of an inner desire fueled by creativity but rather a good means of overcoming its isolation and comparing favorably with companies from Europe and the United States.

## **9.1 Danes are More Innovative; Israelis are more focused on Transformational Leadership**

Examination of the relationship between the desired characteristics of a leader (based on the transformational leadership model) and the perception of innovation have shown that only one desired leadership characteristic relates to innovation perception: management-by-exception. Transformational leadership is a management style that seeks to transform the employees in aspects such as performance and work attendance. The factors that aid transformational leaders in doing that are: contingent reward, charismatic leadership, management-by-exception, intellectual stimulation and individualized stimulation (Avolio & Bass, 1993). It has been suggested that these factors can contribute to organizational innovation. For example, transformational leaders place a focus on forming connections between employees' identities to the organizational identity, which increase the employees' motivation. An increase in motivation leads to creativity because people that are highly motivated have been shown to think of novel solutions to problems (Zhou, 1998). In addition, transformational leaders provide intellectual stimulation and encourage employees to think 'out of the box' (Sosik, Avolio & Kahai, 1997), which, in turn, leads employees to conceptualize new ideas. Also, organizations based on transformational leadership have been shown to perform better in R&D projects (Keller, 1992). Therefore, it was expected that this study, too, will show a high relationship between transformational leadership and innovation.

Management-by-exception is one of the components of transformational leadership. This component places importance on leader vigilance: the leader makes sure that the employees meet certain standards that have been predetermined (Bass & Avolio, 1994). This component has been shown to influence innovation specifically. For example, Yukl (2002) have shown that it promotes innovation by inducing compliance; employees carry out the leader's directions and requests, in the purpose of gaining a reward or avoiding a punishment (the contingent reward component of transformational leadership). This in turns leads to a positive, open communication, which is highly important for innovation (Kickul & Gundry, 2001).

Therefore, based on past findings, it is quite clear why management-by-exception was found to be related to innovation perception in this study. What is not so clear is the fact that none of the other components of transformational leadership was shown to be related to innovation. However, one must remember that these relationships were not inferred from direct connections between the factors but rather by an attempt to correlate three variables: country, innovation perception and desired leadership characteristics. Therefore, the complexity of the relationships between all the components that were examined – seven in total – may be masking important relationships. Perhaps these relationships are only due to small effects and this is why they are not apparent in the results; but even small effects may be significant. However, another thing that becomes apparent in the results is that Israelis show a greater tendency than do Danes to desire four of the five transformational leadership characteristics, namely, all of them except for management by exception. Combining these results with those discussed in the former section, it appears as though the Danish higher tendency towards innovation may be the product of management by exception. Indeed, this component which was found to be the only transformational leadership characteristic favored by Danes more than Israelis.

Can these differences be explained, once again, in terms of culture? Perhaps. While Bass (1998) was in the opinion that transformational leadership can be applied in a great number of countries and cultures, cultural values have been shown to influence the relationship between transformational leadership and its effectiveness (Spreitzer, Perttula & Xin, 2005). As has been previously discussed, Israelis tend to be informal in their relationships and hierarchy in the workplace often takes on lower importance than it does in other countries (Hofstede, 1984). This may account for the fact that Israelis view the 'management by exception' component of transformational leadership less favorably than Danes do. Israelis tend to be more individualistic (Katz-Gerro, 1999) and less hierarchy oriented, and therefore, may place less importance on complying with standards dictated by the leader. The Danes on the other hand, are characterized by modesty and punctuality (Hofstede, 1984), and therefore are expected to be more compliant to the leader's requests. This may serve as the explanation for the fact that they show a higher tendency than Israelis do to the

'management by exception' component of transformational leadership. Also, this result suggests that 'management by exception' may be a better predictor for innovation perception than are the other four components. Ultimately, this may mean that the Danes' higher tendency to perceive themselves as innovative may be mediated by the 'management by exception' component of transformational leadership. In fact, as Israelis showed a higher tendency than Danes to be in favor of the remaining four components, it may also be the case that Danish companies are generally not in favor of the transformational leadership style. However, this remains to be tested in future studies.

## **9.2 Slight cultural differences may not play a part in innovation perception and desired leadership characteristics**

As a major part of this study was based on the comparison of two countries that are similar in some measures (technological advances, size, few natural resources, a well-educated work force and high dependability on international trade; Hirsch & Thomsen, 1993) but different in others (peaceful neighbors vs. conflicted ground, homogenous vs. heterogeneous population, very high GDP vs. a low one; Hirsch & Thomsen, 1993). Indeed, cultures may play a great role in a country's industry and its outlook on internationalization, innovation, openness to technology, education and so on. Culture is a very strong force in shaping standards of performance, ways of conducts and the manner of dealing with the environment and interpersonal relationships. Hofstede (2001) suggests, in fact, that the national (and thereby cultural) aspect plays a major role in a country's economic issues. Hofstede's four cultural dimensions, power distance, individualism, masculinity/femininity and uncertainty avoidance describe the manner in which cultures may differ from one another (2001). Therefore, it was surmised that Israel and Denmark would show differences on these measures. However, the only measure that differed between the two countries was the masculinity/femininity measure, with Israel showing a higher tendency towards masculinity values, characterized by assertiveness and competitiveness. It is perhaps not too surprising that Israel is more characterized by masculinity than Denmark is. While the Danish people are known for their modesty

and compliance, which are considered 'feminine' characteristics on the masculinity/femininity dimension, it is often said that militarism is imprinted in the Israeli society (Lomsky-Feder & Ben-Ari, 1999).

The single cultural difference that was found between the two countries does not seem to play a major role on either innovation perception or desired leadership characteristics. Initially, it was shown that no significant correlation between any of the cultural dimensions to innovation perception. This lack of relationship may relate to the fact that hardly any cultural differences were found between Israel and Denmark. If cultural differences are nonexistent, then it is highly unlikely that they will exert an influence on any other variable in the study. However, an additional analysis had shown that the masculinity/femininity dimension is positively related to three desired leadership characteristics: charismatic leadership, management-by-exception and individualized consideration. If these results are taken together with a previous result, namely that the Israeli culture as examined by this study is more masculinity-oriented, then a partial explanation for these relationships can be provided. The higher focus on masculinity in Israel may be congruent with a more charismatic leadership style, because charisma, similar to the masculinity dimension, is related to assertiveness, being achievement-oriented and mission-oriented. Israelis were previously shown to show a higher preference for all the transformational characteristics but one – management by exception. The fact that the Danish seem to place more emphasis on this characteristic, may be related to their tendency for the feminine side of the scale on the masculinity/femininity dimension. Why individualized consideration is also congruent with the masculinity/femininity scale is harder to explain. As individualized consideration was another one of the transformational leadership characters that Israelis seemed to favor more than Danes, then it is probably related to the higher masculinity in the Israeli culture. Individualized consideration focuses on recognizing the employees' needs, pushing them to higher levels of potential, delegating responsibilities to them and advising them on their careers (Bass, Avolio & Atwater, 1996). These characteristics may relate to the qualities apparent in Israeli army officers, many of whom go on to become managers

in hi-tech companies. However, the true relationship between these factors remains to be seen in future research.

Another relationship that was shown by the analysis of cultural dimension, leadership characteristics and innovation components was a positive correlation between two of the characteristics that were just discussed (charismatic leadership and individualized consideration) and the creativity stimulation component of the innovation perception. These relationships have been shown in previous studies, to some extent. For example, Bass (1998) have shown that individualized consideration serves as a reward that may promote creative thinking. Also, he have shown that charismatic leadership was shown to inspire employees with creativity-enhancing forces. Management by exception has been shown earlier to be correlated with innovation; so it is not surprising that this analysis shows that the innovation component affects is the innovation outcomes.

### **9.3 Management-by-exception, creativity stimulation and education level influence the preference for transformational leadership**

The final statistical test that was carried out in this study was a regression. The purpose of the regression was to analyze which of the many criteria involved in this study had the highest effects on the leadership style in an organization. The results have shown that there are three criteria that have a positive effect on the tendency for transformational leadership and these are: management-by-exception, creativity stimulation and the level of education.

Based on this analysis we can see that when developing the diverse factors, cultural characteristics has no real influence on the tendency to innovation. More to add, when analyzing the diverse factors of leadership, only Management-by-Exceptions has a significant influence, and from the factors of Perceptions of innovation, only one of

them, Creativity Stimulation perception has a significant influence. Those findings raise the necessary question to make a precise examination of the different impact factors, so that not every leader with some character will be found as affecting on the tendency to innovation, but he should have the Management-by-Exception characterization.

Surprisingly and contrary to previous findings, cultural characteristics were not found as affecting the tendency to innovation in the organization. When linking it to previous findings, it might be that the effect of cultural characters, if any, is mediated by different leadership characteristics, in particular, the femininity masculinity characteristic. Therefore, it comes to mind that we must consider the ways of implementing various cultural characteristics in the administrative process in order to understand how the characters of the femininity masculinity are expressed and influenced, again through the mediation and the conditioning of leadership style, on the tendency to innovation.

It is interesting to see that here, under the supervision of other variables, is the clear relationship between Creativity Stimulation perception and the tendency to innovation in practice, while there is no simple adaption between the variables. This finding reveals that these perceptions does have significant effects on the tendency to innovation in practice, but are enclaves by other factors, among those who were taken into account in the regression model.

Comparing the beta coefficients indicate that the strongest influence on the tendency for innovation in practice, which does not disappear when controlling the cultural characteristics, leadership style, perceptions of innovation and other factors – is education. Among the variables examined, education has the ability to actually best predict the tendency of innovation in practice.

Therefore, it can be concluded that the specific context and characteristics of the culture has a relatively weak effect on the tendency of innovation in practice. Individual's subjective perceptions about innovation and about the characteristics of the desired and education manager, which is not related to culture, has the ability to best predict the existence of innovation in practice at the organization. More specifically, the formula to innovation at the organization, is encouraging the desire to

Management-by-Exception, training for Creativity Stimulation perception that matches the desired goals and higher general education. These findings are coming out of this study, which examined the variables of two states, Israel and Denmark, which are substantively different from its natures and their processes.

## 10.0 Conclusion

The results of the study show that there are several major differences between Israeli and Danish companies in innovation perception criteria and desired leadership characteristics. No major differences were found between the cultural characteristics of the two countries. An analysis of the relationship between the country, the desired leadership characteristics and the perception of innovation was shown to be quite complex. Generally, it was found that Danish companies were more likely to perceive themselves as innovative. However, in the attempt to link this to desired leadership characteristics, only the characteristic of management-by-exception was shown to correlate positively with the perception of innovation on the company; this tendency was shown in Danish companies only. Surprisingly, Israeli companies showed a higher tendency for desiring leadership characteristics like contingent reward, charismatic leadership, individualized consideration and intellectual stimulation, but none of this was shown to correlate positively with the perception of innovation. Charismatic leadership and intellectual stimulation showed negative correlations with innovation perception, while the two other characteristics did not appear to be correlated to innovation perception. In an analysis examining the relationships between cultural characteristics, innovation perception and country, no significant correlations were found between cultural differences between countries and the perception of innovation in the country. Another analysis, which looked at the relationships between cultural differences, desired leadership characteristics and the components of innovation perception showed interesting results. The only cultural dimension that had any effect on desired leadership characteristics was the masculinity-femininity criterion, which is also the only criterion that was found to be significantly different between the two countries. This criterion was shown to be in a positive relationship of three desired leadership characteristics: charismatic leadership, management by exception and individualized consideration. These, in turn, had a positive relationship on the creativity stimulation of the innovations perceptions. Lastly, a regression was carried out in order to examine how desired

leadership characteristics are affected by the country of origin, the cultural differences between countries and the perception of innovation; as well as by seniority and education of the employees. The results obtained by this regression showed the three main criteria significantly affect the desired leadership characteristics: these are management-by-exception, creativity stimulation and the level of education. No effect of nationality or cultural differences was found.

## **11.0 Perspectives**

In future research, I will recommend a comprehensive examination of the connections for each of the countries, as well as a mixture of other countries, to create stratification and variety at the state variable, and examine the directly and indirectly effects related to the tendency for innovation in practice at the organization. A cluster analysis would also have been beneficial to make to see if there are any differences within the Israeli or Danish group, but it would require a much larger sample size.

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# Appendixes

## Appendix 1: Questionnaire

Number of employees: <10 10-25 26-50 51-250

Patent registrations: Never Rarely Regularly

### Background information

Level of education:

- Primary education
- Secondary education
- Tertiary education
- MSc, MA
- PhD

Job Position:

- Top Management
- Middle management
- Core staff
- Administrative personnel
- Other (please specify):

Number of years with current organization: <1 1-5 5-10 >10

What is your nationality:

What country do you live in:

### Company details

Name of the company you work for?:

Legal statI:

- Public
- Private

Other (please specify):

Year of establishment:

Company ownership, nationality:

What is your perception of a good leader?

Use the scale where 1 = strongly agree and 5 = strongly disagree

**Charismatic Leadership Characteristics\***

Makes me feel good to be around him/her	1	2	3	4	5
Commands respect from everyone	1	2	3	4	5
Is a model for me to follow	1	2	3	4	5
In my mind, he/she is a symbol of success and accomplishment	1	2	3	4	5
I am ready to trust his capacity and judgment to overcome any obstacle	1	2	3	4	5
Is an inspiration to I	1	2	3	4	5
Makes me proud to be associated with him/her	1	2	3	4	5
Has a special gift for seeing what is really important for me to consider	1	2	3	4	5
Increases my optimism for the future	1	2	3	4	5
Inspires loyalty to the organization	1	2	3	4	5
I have complete faith in him/her	1	2	3	4	5
Excites I with his/her visions of what we may be able to accomplish if we work together	1	2	3	4	5
Encourages me to express my ideas and opinions	1	2	3	4	5
Encourages understanding of points of view of other members	1	2	3	4	5
Gives me a sense of overall purpose	1	2	3	4	5
Has a sense of mission which he/she transmit to me	1	2	3	4	5
Makes everyone around him/her enthusiastic about assignments	1	2	3	4	5

**Individualized consideration\***

Is satisfied when I meet the agreed-upon standards for good work	1	2	3	4	5
Makes me feel we can reach my goals without him/her if we have to	1	2	3	4	5
I earn credit with him/her for doing my job well	1	2	3	4	5
Finds out what I want and tries to help me get it	1	2	3	4	5
You can count on him/her to express his/her appreciation when you do a	1	2	3	4	5

good job					
Gives personal attention to members who seem neglected	1	2	3	4	5
Treats each subordinate individually	1	2	3	4	5

**Intellectual stimulation\***

Has provided me with new ways of looking at things which used to be a puzzle for me	1	2	3	4	5
His/her ideas have forced me to rethink some of my own ideas which I had never questioned before	1	2	3	4	5
Enables me to think about old problems in new ways	1	2	3	4	5

**Contingent reward\***

Assures me I can get what I personally want in exchange for my efforts	1	2	3	4	5
Talks a lot about special commendations and promotions for good work	1	2	3	4	5
I decide what I want; he/she shows me how to get it	1	2	3	4	5
Whenever I feel it necessary, I can negotiate with him/her about what I can get for what I accomplish	1	2	3	4	5
Tells me what I should do if I want to be rewarded for my efforts	1	2	3	4	5
Gives me what I want in exchange for showing my support for him/her	1	2	3	4	5
There is close agreement between what I am expected to put into the group effort and what I can get out of it	1	2	3	4	5

**Management by exception\***

Is content to let me continue doing my job in the same ways as always	1	2	3	4	5
Asks no more of me than what is absolutely essential to get the work done	1	2	3	4	5
Only tells me what I have to know to do my job	1	2	3	4	5
As long as things are going all right, he/she does not try to change anything	1	2	3	4	5
As long as the old way work, he/she is satisfied with my performance	1	2	3	4	5
It is all right if I take initiatives, but he/she does not encourage me to do so	1	2	3	4	5

Characterize the way your organization works with innovation. Multiple answers are preferred.

My organization:	
Works on a traditional line of business (bureaucracy, strict procedures)	X
Works in an innovation-driven sector (high-tech companies, etc.)	X
Needs training in creativity and innovation issues	X
Needs to improve the general competence skills of its employees	X
Is within the strategic objectives of the company to grow rapidly within the next years	X
Uses a sufficient amount of resources annually for training	X
Supports employees to take risks and does not penalize them when they fail	X
All employees, regardless of position, have the same chances to share their creative potential within their organization and propose new solutions	X

What is your view about important factors that stimulate creativity at work?	Very important	Important	Not very important	Not at all important	Don't know / not relevant
Expertise	1	2	3	4	5
Creative thinking skills	1	2	3	4	5
Motivation	1	2	3	4	5
Passion	1	2	3	4	5
Personal interest	1	2	3	4	5
Financial compensation	1	2	3	4	5
Physical space	1	2	3	4	5
Time pressure	1	2	3	4	5
Create homogeneous teams	1	2	3	4	5

Do you believe that creativity is connected with:	Yes	Possibly	No	Don't know
Idea sharing and idea support	1	2	3	4
Free speech	1	2	3	4
Image improvement	1	2	3	4
Increasing the profit of my organization / enterprise	1	2	3	4

Increasing competitiveness	1	2	3	4
Consolidation in market	1	2	3	4
Energy	1	2	3	4
Commitment	1	2	3	4

To what degree do you believe the following may constitute obstacles for creativity development? (Ie the scale where 1 = minor obstacle and 5 = major obstacle)					
Lack of financial resources	1	2	3	4	5
Lack of time for exchange of ideas and promotion of creativity	1	2	3	4	5
Company culture does not nurture risk	1	2	3	4	5
Lack of suitable infrastructure (e.g meeting rooms)	1	2	3	4	5
Lack of experience / knowledge of the personnel	1	2	3	4	5

If you were to receive training on creativity & innovation management, what outcomes would you seek: (Ie the scale where 1 = major significance and 5 = minor significance)					
Gain competitive advantage	1	2	3	4	5
Create new products / services	1	2	3	4	5
Improve the capabilities of personnel	1	2	3	4	5
Improve team work	1	2	3	4	5
Promote innovation in general	1	2	3	4	5
Other (please specify)					

Please choose ONE number from 1-5 according to the statements that characterize the culture that you belong to? One number for every two opposing statements.

<b>Small Power distance*</b>					<b>Large Power distance*</b>					
Inequalities among people should be minimized	1	2	3	4	5	Inequalities among people are expected and desired				
Teachers expect initiative from students in class	1	2	3	4	5	Teachers should take all initiative in class				

The use of power should be legitimate and follow criteria of good and evil	1	2	3	4	5	Might prevails over right: whoever holds the power is right and good
Privileges and status symbols are frowned upon	1	2	3	4	5	Privileges and status symbols are normal and popular
All should have equal rights	1	2	3	4	5	The powerful should have privileges
Subordinates expect to be consulted	1	2	3	4	5	Subordinates expect to be told what to do
Social relationship should be handled with care	1	2	3	4	5	Status should be balanced with restraint
Decentralization in popular	1	2	3	4	5	Centralization is popular
<b>Collectivist*</b>						<b>Individualist*</b>
Relationship prevails over task	1	2	3	4	5	Task prevails over relationship
In group customers get better treatment (particularism)	1	2	3	4	5	Every customer should get the same treatment (universalism)
Consumption patterns show dependence on others	1	2	3	4	5	Consumption patterns show self-supporting lifestyles.
Social network is the primary source of information	1	2	3	4	5	Media is the primary source of information.
Use of the word I is avoided	1	2	3	4	5	Use of the word I is encouraged.
Children learn to think in terms of "we"	1	2	3	4	5	Children learn to think in terms of "I".
Harmony should always be maintained and direct confrontations are avoided	1	2	3	4	5	Speaking one's mind is a characteristic of an honest person.
People are born into extended families or other in group that continue protecting them in exchange for loyalty	1	2	3	4	5	Everyone grows up to look after him- or herself and his or her immediate (nuclear) family only.
Interdependent self	1	2	3	4	5	Independent self.
Private life is invaded by group(s)	1	2	3	4	5	Everyone has a right to privacy.
<b>Feminine*</b>						<b>Masculine*</b>

Friendliness in teachers is appreciated.	1	2	3	4	5	Brilliance in teachers is admired
Relationships and quality of life are important.	1	2	3	4	5	Challenge, earnings, recognition, and advancement are important.
Resolution of conflicts by compromise and negotiation.	1	2	3	4	5	Resolution of conflicts by letting the strongest win.
Homosexuality is considered a fact of life.	1	2	3	4	5	Homosexuality is considered a threat to society.
People work in order to live.	1	2	3	4	5	People live in order to work.
Both men and women should be modest.	1	2	3	4	5	Men should be assertive, ambitious, and tough.
Being responsible, decisive, ambitious, caring, and gentle is for women and men alike.	1	2	3	4	5	Being responsible, decisive, and ambitious is for men; being caring and gentle is for women.
Girls don't cheer for boys.	1	2	3	4	5	Women's ambition is channeled towards men's success.
Single standard: both sexes are subjects.	1	2	3	4	5	Double standards: men are subjects, women objects.
Same norm for showing male or female nudity.	1	2	3	4	5	Stronger taboo on showing male than female nudity.
<b>Weak uncertainty avoidance*</b>						<b>Strong uncertainty avoidance*</b>
Comfortable in ambiguous situations and with unfamiliar risks.	1	2	3	4	5	Acceptance of familiar risks; fear of ambiguous situations and of unfamiliar risks.
Similar modes of address for different others.	1	2	3	4	5	Different modes of address for different others.
Appeal of humor in advertising.	1	2	3	4	5	Appeal of expertise in advertising.
There is tolerance for ambiguity and	1	2	3	4	5	There is a need for precision and

chaos.						formalization.
Teachers may say, "I don't know".	1	2	3	4	5	Teachers are supposed to have all the answers.
Uncertainty is a normal feature of life, and each day is accepted as it comes.	1	2	3	4	5	The uncertainty inherent in life is a continuous threat that must be fought.
What is different is curious.	1	2	3	4	5	What is different is dangerous.
Liberalism.	1	2	3	4	5	Conservatism, law and order.
Tolerance, even of extreme ideas.	1	2	3	4	5	Extremism and repression of extremism.
<b>Short term Orientation*</b>						<b>Long Term orientation*</b>
Efforts should produce quick results.	1	2	3	4	5	Perseverance, sustained efforts toward slow results.
There is a need for cognitive consistency.	1	2	3	4	5	Disagreement does not hurt.
Dissatisfaction with own contributions to daily human relations and to correcting injustice.	1	2	3	4	5	Satisfaction with own contributions to daily human relations and to correcting injustice.
Personal loyalties vary with business needs.	1	2	3	4	5	Investment in lifelong personal networks.
Preschool children can be cared for by others.	1	2	3	4	5	Mothers should have time for their preschool children.
Social pressure toward spending.	1	2	3	4	5	Thrift, being sparing with resources.
Leisure time is important.	1	2	3	4	5	Leisure time is not important.
If A is true, its opposite B must be false.	1	2	3	4	5	If A is true, its opposite B can also be true.
Concern with personal stability.	1	2	3	4	5	Concern with personal adaptiveness.

Thank you very much for participating in this survey please SAVE the questionnaire on the computer and send the questionnaire back to [bebu03ab@student.cbs.dk](mailto:bebu03ab@student.cbs.dk). Please call +45-26131796 if you have problems with sending the email.

This survey is of great importance for the research on the cultural, leadership and innovative development in minor IT companies. Hopefully it also gave you some interesting knowledge you can use in your daily work and private life. The results will hopefully be able to give an insight on how cultural differences and leadership style can foster new innovativeness in minor companies in the IT industry.

Best regards from

Bernhard Buchman

\*= Heading was not seen in the original questionnaire.

Appendix 2.1:

Israel (N=37)			Denmark (N=30)				
Frequency	Valid Percent	Valid Percent	Frequency	Valid Percent	Cumulative Percent		
20	54.1%	54.1%	13	43.3%	43.3%	<10	Number of employees
8	21.6%	75.7%	10	33.3%	76.7%	10-25	
			3	10%	86.7%	26-50	
9	24.3%	100%	4	13.3%	100%	51-250	
25	71.4%	71.4%	19	63.3%	63.3%	Never	Patent
1	2.9%	74.3%	10	33.3%	96.7%	Rarely	
9	25.7%	100%	1	3.3%	100%	Regularly	

7	19.4%	19.4%				Primary education	Education
10	27.8%	47.2%	3	9.1%	12.1%	Secondary education	
9	25%	72.2%	15	45.5%	57.6%	Tertiary education	
9	25%	97.2%	14	42.4%	100%	MSc, MA	
1	2.8%	100%				PhD	
11	29.7%	29.7%	11	36.7%	36.7%	Top Management	Job position
11	29.7%	59.5%	8	26.7%	63.3%	Middle management	
7	18.9%	78.4%	7	23.3%	86.7%	Core staff	
8	21.6%	100%	3	10%	96.7%	Administrative personnel	
			1	3.3%	100%	Other	
7	18.5%	18.5%	8	23.3%	23.3%	<1	Number of years with current organization
18	48.6%	67.6%	15	50%	73.3%	1-5	
7	18.9%	86.5%	8	20%	93.3%	5-10	
5	13.5%	100%	2	6.7%	100%	>10	

Appendix 2.2

**Group Statistics**

	country	N	Mean	Std. Deviation	Std. Error Mean
feminine_musculine	denmark	33	2.2956	.68819	.11980
	israel	34	3.0000	1.30431	.22369
Power_distance	denmark	33	2.4946	.68546	.11932
	israel	34	2.6949	1.56161	.26781
short_long_term	denmark	33	3.1472	.57530	.10015
	israel	34	3.0777	1.02811	.17632
collectivist_individualist	denmark	33	3.3621	.53204	.09262
	israel	34	2.9971	1.34828	.23123
charismatic_leader	denmark	33	2.1680	.93682	.16308
	israel	34	4.3945	.83271	.14281
contingent_leader	denmark	33	3.1732	.96743	.16841
	israel	34	4.2815	.84661	.14519
Individualized_leader	denmark	33	2.1797	.98153	.17086
	israel	34	4.3866	.76933	.13194
Intellectual_leader	denmark	33	2.5202	1.21318	.21119
	israel	34	4.2451	.91493	.15691
exception_leader	denmark	33	3.7222	1.05957	.18445
	israel	34	2.3039	1.30492	.22379
creativity_perception	denmark	33	4.3939	2.26301	.39394
	israel	34	5.6176	1.75835	.30155
Innovation_Company	denmark	33	12.3030	1.38033	.24028
	israel	34	11.9118	1.86463	.31978

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**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
feminine_musculine	Equal variances assumed	25.334	.000	-2.752	65	.008	-.70438	.25593	-1.21550	-.19326
	Equal variances not assumed			-2.776	50.372	.008	-.70438	.25375	-1.21395	-.19481
Power_distance	Equal variances assumed	48.788	.000	-.676	65	.501	-.20026	.29622	-.79185	.39132
	Equal variances not assumed			-.683	45.551	.498	-.20026	.29319	-.79059	.39006
short_long_term	Equal variances assumed	12.343	.001	.340	65	.735	.06946	.20439	-.33874	.47765
	Equal variances not assumed			.343	52.132	.733	.06946	.20278	-.33742	.47633
collectivist_individualist	Equal variances assumed	33.839	.000	1.449	65	.152	.36506	.25186	-.13794	.86806
	Equal variances not assumed			1.466	43.289	.150	.36506	.24909	-.13717	.86730
charismatic_leader	Equal variances assumed	.006	.939	-10.289	65	.000	-2.22642	.21639	-2.65857	-1.79426
	Equal variances not assumed			-10.271	63.619	.000	-2.22642	.21677	-2.65951	-1.79332
contingent_leader	Equal variances assumed	1.837	.180	-4.995	65	.000	-1.10835	.22191	-1.55153	-.66517
	Equal variances not assumed			-4.985	63.325	.000	-1.10835	.22235	-1.55265	-.66406
Individualized_leader	Equal variances assumed	.054	.817	-10.260	65	.000	-2.20690	.21509	-2.63648	-1.77733
	Equal variances not assumed			-10.223	60.634	.000	-2.20690	.21588	-2.63862	-1.77518
Intellectual_leader	Equal variances assumed	1.628	.207	-6.583	65	.000	-1.72490	.26200	-2.24815	-1.20164
	Equal variances not assumed			-6.556	59.499	.000	-1.72490	.26310	-2.25126	-1.19853
exception_leader	Equal variances assumed	2.295	.135	4.875	65	.000	1.41830	.29091	.83731	1.99929
	Equal variances not assumed			4.891	63.055	.000	1.41830	.29001	.83878	1.99782
creativity_perception	Equal variances assumed	1.875	.176	-2.476	65	.016	-1.22371	.49425	-2.21080	-.23661
	Equal variances not assumed			-2.467	60.384	.016	-1.22371	.49611	-2.21594	-.23147
Innovation_Company	Equal variances assumed	1.595	.211	.974	65	.334	.39127	.40177	-.41112	1.19365
	Equal variances not assumed			.978	60.797	.332	.39127	.40000	-.40863	1.19116

Appendix 2.3:

**Group Statistics**

	country	N	Mean	Std. Deviation	Std. Error Mean
stimulate_innovation	denmark	30	1.8848	.27688	.05055
	israel	37	1.5673	.32747	.05384
innovation_outcome	denmark	30	2.0467	.71365	.13029
	israel	37	1.8054	1.11204	.18282
innovation_obstacles	denmark	30	3.2067	.76741	.14011
	israel	37	3.1243	1.27135	.20901

**Independent Samples Test**

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
stimulate_innovation	Equal variances assumed	.787	.378	4.225	65	.000	.31754	.07516	.16743	.46765
	Equal variances not assumed			4.300	64.868	.000	.31754	.07385	.17005	.46503
innovation_outcome	Equal variances assumed	3.531	.065	1.028	65	.308	.24126	.23464	-.22735	.70987
	Equal variances not assumed			1.075	62.002	.287	.24126	.22450	-.20750	.69003
innovation_obstacles	Equal variances assumed	11.734	.001	.311	65	.756	.08234	.26438	-.44565	.61034
	Equal variances not assumed			.327	60.467	.745	.08234	.25163	-.42090	.58559

Appendix 2.4:

Correlations

		company_ innovation	country	Individualiz ed leader	exception_ leader	carismatic_ leader	Intellectual_ leader	contingent_ leader
company_ innovation	Pearson Correlation	1	-.344**	-.232	.310*	-.244*	-.312*	-.200
	Sig. (2-tailed)		.004	.059	.011	.046	.010	.104
	N	67	67	67	67	67	67	67
country	Pearson Correlation	-.344**	1	.786**	-.517**	.787**	.632**	.527**
	Sig. (2-tailed)	.004		.000	.000	.000	.000	.000
	N	67	67	67	67	67	67	67
Individualized_ leader	Pearson Correlation	-.232	.786**	1	-.442**	.916**	.841**	.805**
	Sig. (2-tailed)	.059	.000		.000	.000	.000	.000
	N	67	67	67	67	67	67	67
exception_ leader	Pearson Correlation	.310*	-.517**	-.442**	1	-.551**	-.464**	-.285*
	Sig. (2-tailed)	.011	.000	.000		.000	.000	.019
	N	67	67	67	67	67	67	67
carismatic_ leader	Pearson Correlation	-.244*	.787**	.916**	-.551**	1	.798**	.728**
	Sig. (2-tailed)	.046	.000	.000	.000		.000	.000
	N	67	67	67	67	67	67	67
Intellectual_ leader	Pearson Correlation	-.312*	.632**	.841**	-.464**	.798**	1	.827**
	Sig. (2-tailed)	.010	.000	.000	.000	.000		.000
	N	67	67	67	67	67	67	67
contingent_ leader	Pearson Correlation	-.200	.527**	.805**	-.285*	.728**	.827**	1
	Sig. (2-tailed)	.104	.000	.000	.019	.000	.000	
	N	67	67	67	67	67	67	67

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Appendix 2.5:

Correlations

		company_ innovation	country	collectiv ist_ individualist	f eminine_ masculine	Power_ distance	short_ long_ term
company_ innovation	Pearson Correlation	1	-.344**	.115	-.145	.010	.017
	Sig. (2-tailed)		.004	.355	.242	.938	.889
	N	67	67	67	67	67	67
country	Pearson Correlation	-.344**	1	-.177	.323**	.084	-.042
	Sig. (2-tailed)	.004		.152	.008	.501	.735
	N	67	67	67	67	67	67
collectiv ist_ individualist	Pearson Correlation	.115	-.177	1	.593**	.436**	.282*
	Sig. (2-tailed)	.355	.152		.000	.000	.021
	N	67	67	67	67	67	67
f eminine_ masculine	Pearson Correlation	-.145	.323**	.593**	1	.594**	.170
	Sig. (2-tailed)	.242	.008	.000		.000	.170
	N	67	67	67	67	67	67
Power_ distance	Pearson Correlation	.010	.084	.436**	.594**	1	.130
	Sig. (2-tailed)	.938	.501	.000	.000		.294
	N	67	67	67	67	67	67
short_ long_ term	Pearson Correlation	.017	-.042	.282*	.170	.130	1
	Sig. (2-tailed)	.889	.735	.021	.170	.294	
	N	67	67	67	67	67	67

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Appendix 2.6:

**Correlations**

		company_ innovation	country	creativity_ perception	innovation_ obstacle	innovation_ outcomes
company_innovation	Pearson Correlation	1	-.344**	.213	-.056	.001
	Sig. (2-tailed)		.004	.083	.652	.996
	N	67	67	67	67	67
country	Pearson Correlation	-.344**	1	.294*	.037	-.040
	Sig. (2-tailed)	.004		.016	.765	.751
	N	67	67	67	67	67
creativity_perception	Pearson Correlation	.213	.294*	1	-.046	-.250*
	Sig. (2-tailed)	.083	.016		.714	.041
	N	67	67	67	67	67
innovation_obstacle	Pearson Correlation	-.056	.037	-.046	1	.163
	Sig. (2-tailed)	.652	.765	.714		.188
	N	67	67	67	67	67
innovation_outcomes	Pearson Correlation	.001	-.040	-.250*	.163	1
	Sig. (2-tailed)	.996	.751	.041	.188	
	N	67	67	67	67	67

\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

Appendix 2.7

	Accompany_ innovation	Acitivity_ perception	Innovation_ obstacle	Innovation_ outcomes	Acasrnatic_ leader	Accomtingt_ leader	Acception_ leader	Andividual_ zed_ leader	Ahlectual_ leader	Acchievist_ individualist	Afemine_ musculine	APower_ distance	Ashort_ long_ term
Accompany_ innovation	1	.213	-.056	.001	-.244*	-.200	.310*	-.232	-.312*	.115	.010	.017	
	Pearson Correlation												
	Sig. (2-tailed)	.083	.652	.996	.046	.104	.011	.051	.041	.355	.938	.089	
	N	67	67	67	67	67	67	67	67	67	67	67	
Acitivity_ perception	.213	1	-.046	-.250*	.522**	.377**	-.224	.486**	.373**	-.035	-.137	-.062	
	Pearson Correlation												
	Sig. (2-tailed)	.083	.714	.041	.000	.002	.069	.000	.002	.778	.267	.170	
	N	67	67	67	67	67	67	67	67	67	67	67	
Innovation_ obstacle	-.056	-.046	1	.163	-.060	.075	.163	-.022	.012	-.230	-.185	-.415**	
	Pearson Correlation												
	Sig. (2-tailed)	.652	.714	.188	.630	.547	.188	.925	.925	.061	.182	.000	
	N	67	67	67	67	67	67	67	67	67	67	67	
Innovation_ outcomes	.001	-.250*	.163	1	-.195	-.068	.247*	-.090	-.246*	-.042	.193	.023	
	Pearson Correlation												
	Sig. (2-tailed)	.996	.041	.188	.014	.114	.044	.468	.000	.738	.117	.023	
	N	67	67	67	67	67	67	67	67	67	67	67	
Acasrnatic_ leader	-.244*	.522**	-.060	-.195	1	.728**	-.551**	.916**	.798**	-.084	.023	-.056	
	Pearson Correlation												
	Sig. (2-tailed)	.046	.000	.630	.114	.000	.000	.000	.000	.004	.023	.056	
	N	67	67	67	67	67	67	67	67	67	67	67	
Accomtingt_ leader	-.200	.377**	.075	-.068	.728**	1	-.285*	.805**	.827**	-.145	-.094	-.094	
	Pearson Correlation												
	Sig. (2-tailed)	.104	.002	.547	.000	.019	.019	.000	.000	.017	.019	.019	
	N	67	67	67	67	67	67	67	67	67	67	67	
Acception_ leader	.310*	-.224	.163	.247*	-.551**	-.285*	1	-.442**	-.464**	-.087	.019	.019	
	Pearson Correlation												
	Sig. (2-tailed)	.069	.069	.188	.000	.044	.000	.000	.000	.484	.017	.017	
	N	67	67	67	67	67	67	67	67	67	67	67	
Andividual_ zed_ leader	-.232	.486**	-.022	-.090	.805**	-.442**	.805**	1	.841**	-.145	.296*	.019	
	Pearson Correlation												
	Sig. (2-tailed)	.059	.000	.857	.000	.000	.000	.000	.000	.434	.018	.018	
	N	67	67	67	67	67	67	67	67	67	67	67	
Ahlectual_ leader	-.312*	.373**	.012	-.246*	.798**	.827**	-.464**	.841**	1	-.097	-.023	-.023	
	Pearson Correlation												
	Sig. (2-tailed)	.010	.002	.925	.045	.000	.000	.000	.000	.434	.018	.018	
	N	67	67	67	67	67	67	67	67	67	67	67	
Acchievist_ individualist	.355	-.035	-.230	-.042	-.084	-.145	-.087	-.145	-.097	1	.593**	.436**	
	Pearson Correlation												
	Sig. (2-tailed)	.355	.778	.061	.738	.241	.484	.242	.434	.000	.000	.000	
	N	67	67	67	67	67	67	67	67	67	67	67	
Afemine_ musculine	-.145	.041	-.239	-.029	.351**	.111	-.392*	.296*	.289*	.593**	1	.594**	
	Pearson Correlation												
	Sig. (2-tailed)	.242	.740	.051	.816	.004	.017	.015	.018	.000	.000	.000	
	N	67	67	67	67	67	67	67	67	67	67	67	
APower_ distance	.010	-.137	-.185	.193	.023	-.094	-.023	.019	-.023	.436**	.594**	1	
	Pearson Correlation												
	Sig. (2-tailed)	.938	.267	.182	.117	.023	.019	.019	.019	.000	.000	.000	
	N	67	67	67	67	67	67	67	67	67	67	67	
Ashort_ long_ term	.017	-.062	-.415**	.023	-.056	-.201	.076	-.107	-.151	.282*	.170	.130	
	Pearson Correlation												
	Sig. (2-tailed)	.889	.082	.000	.056	.102	.542	.388	.224	.021	.170	.130	
	N	67	67	67	67	67	67	67	67	67	67	67	

\*. Correlation is significant at the 0.05 level (2-tailed).  
 \*\*. Correlation is significant at the 0.01 level (2-tailed).

Appendix 2.8:

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.653 <sup>a</sup>	.426	.254	1.36997

a. Predictors: (Constant), country, innovation\_obstacle, years\_current\_org, innovation\_outcomes, education, creativity\_perception, feminine\_musculine, short\_long\_term, contingent\_leader, exception\_leader, Power\_distance, collectivist\_individualist, Intellectual\_leader, charismatic\_leader, Individualized\_leader

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	69.750	15	4.650	2.478	.008 <sup>a</sup>
	Residual	93.841	50	1.877		
	Total	163.591	65			

a. Predictors: (Constant), country, innovation\_obstacle, years\_current\_org, innovation\_outcomes, education, creativity\_perception, feminine\_musculine, short\_long\_term, contingent\_leader, exception\_leader, Power\_distance, collectivist\_individualist, Intellectual\_leader, charismatic\_leader, Individualized\_leader

b. Dependent Variable: company\_innovation

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-1.004	1.825		-.550	.585
	contingent_leader	-.100	.360	-.067	-.278	.782
	carismatic_leader	.040	.383	.036	.105	.917
	exception_leader	.380	.176	.332	2.153	.036
	Intellectual_leader	-.316	.323	-.273	-.979	.332
	Individualized_leader	.248	.423	.222	.586	.560
	Power_distance	-.137	.223	-.102	-.615	.542
	feminine_musculine	.133	.294	.092	.452	.653
	short_long_term	-.247	.259	-.130	-.954	.344
	collectivist_individualist	.034	.260	.023	.132	.895
	creativity_perception	.248	.104	.331	2.376	.021
	education	.626	.210	.403	2.973	.005
	years_current_org	.224	.236	.125	.950	.347
	innovation_obstacle	-.183	.198	-.123	-.922	.361
	innovation_outcomes	.012	.214	.008	.058	.954
	country	-.535	.690	-.170	-.776	.441

a. Dependent Variable: company\_innovation