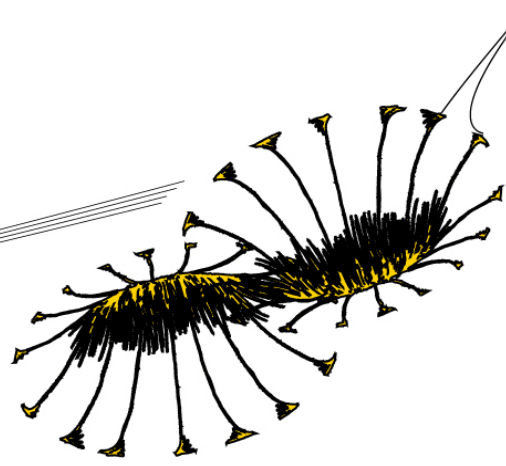





Metaphors used by innovation consultants

How metaphors shape innovation consulting



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'Key metaphors help determine what and how we perceive and how we think about our perceptions.'

M. H. Abrams

Foreword

After plenty of blood, sweat and tears, my final thesis lies before you. I have learned a lot during the writing of this Master Thesis. Primarily I would like to thank my supervisors, Dr. ir. Visscher and Prof. dr. ir. Fisscher. They have challenged me during my research to be as clear as possible in my writing, and to go the extra mile. The 'extra mile' became a 'full marathon'. Nevertheless I am highly satisfied with the end result.

I especially want to thank my mother, father and brother for their support during the past year in which I have completed this thesis. I highly relied on the support of my family, without their support I would never have been able to finish this thesis.

Finally, I would like to dedicate this thesis to my loving grandmother. I had promised her that she would be present at my graduation. I had done this in August 2010, because at that point my first thesis was almost finished. Sadly she became ill in October of that year. It was a woman of great pride and persistence. She had a great desire to see her grandson graduate, and I believe that she would have been very proud of me. Unfortunately I was not able to fulfill this desire. My grandmother, Riet Brilman, passed away December the 8th 2010.

Abstract

The consultancy sector has grown rapidly over the last 30 years. Innovation consulting today is dependent on the basic orientation, motivation and context of the organization. The use of metaphoric language within the field of innovation consulting is an area that has up till now received little attention. Because a metaphor has clear generative and descriptive quality, it has the ability to inspire and effectuate innovation. The goal of my research is to identify which conceptual metaphors are used in this innovation consulting context, and explain why these metaphors are used. The central research question that is addressed in this research is;

- Which conceptual metaphors are used by innovation consultants, and how can the use of these conceptual metaphors be explained?

The research is a combination of cognitive linguistics and discourse analysis. The explorative nature of the study has resulted in a grounded theory approach, based on theory building, content analysis, and coding. The research consists of 71 websites that were saved to a local computer. The texts on these websites were imported in a database to be able to analyze every sentence individually. An ANOVA (analysis of variance) and discriminant analysis were used as statistical research methods.

Within the research the conceptuality of the metaphors used by innovation consultants is investigated. Conceptual metaphors address the thought processes behind a metaphor. In this respect metaphors are cognitive mechanism functioning on the level of thought, and not mere linguistic mechanism operating exclusively on the level of language. Metaphorical expressions are tied to metaphorical concepts in a systematic way. A conceptual metaphor consists of a source domain and a target domain. The source domain says something about the target domain, with the basic structure *A is like B* or the '*man is like a lion*'. The shared ground of the source and target domain creates a new conceptual 'reality'. An example of a conceptualization that structures an everyday activity is an argument. The rhetoric within an argument can be;

- Your claims are *indefensible*.
- He *attacked* every weak point in my argument.
- He *shot down* all my argument.

The target domain 'argument' is in this respect conceptualized by the source domain 'battle' or 'war'.

The research has resulted in six conceptual target domains that are used by an innovation consultant. The concepts addressed by the consultants with respect to their source domain are very broad. The findings show that strategy consultants use on average slightly more metaphors than for instance management consultants. The use of metaphors of the strategy consultant is more focused on 'strategy', than on the 'description' of the organization. This is explained by their strategy consultant background. Another finding was that organizations with less than 10 employees use significantly less metaphors on the 'environment of the organization' than the other consultancies in the research. This is then attributed to their lack of available resources. The target domains were thus investigated thoroughly, but real shocking differences between the 71 websites were not found. The overall distribution on the

six target domains is presented in a model to show how 'reality' is mediated by the innovation consultant.

Much of the metaphors are not pragmatic in nature. In almost all of the uses of metaphors, the same could be said with normal content words, and this would then even result in more meaningful sentences and statements. The conceptual metaphors are in this respect blurring the understanding of the client. *'In the fifth century BC, Sun Tzu wrote: 'In peace prepare for war, in war prepare for peace.'*, is one of those 'blurring' metaphors used by an innovation consulting website. This is a comparison on the basis of war and peace. However how war and peace refer to the client's actual business situation is not evident. The research shows that the conceptual metaphors used are part of a more 'decorative' approach to metaphors use.

The fact that consultants use the same target domains, and very disperse source domains, is an indicator that the consultancy practice is not a real 'professional' profession, but a blend of vocation and profession. The 'artistic' component of the reflective practitioner is taken too far. The 'decorative' approach to metaphors supersedes the possibility to use 'real' metaphorical conceptualizations.

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1 Introduction

There is a wide range of products offered and obtained in the consulting market. This makes the consultancy market, a very heterogeneous market (Clark, 1995, pp. 35-37). Active relation management is therefore imperative in the client-consultant relation in order to be able to create value and differentiate the consultancy business. 'The sale merely consummates the 'courtship'. Then the marriage begins. How good the marriage is depends on the how well the relationship is managed by the 'seller' (Levitt, 1983, p. 111). The courtship is the first step in the client-consultant relation, whereby the consultant can make a first impression. By the use of charts, graphs, previous work and metaphors, the consultant will be able to 'win' the client (Clark, 1995, p. 42).

The term 'consultancy' or 'consulting' refers to services or advice to companies or individuals. The term is very broad, and ranges from for example architectural and engineering consulting to management consulting. In the Netherlands the word 'consulting' or 'consultancy' is more explicitly associated with corporate consulting. The consultancy sector is a sector that has rapidly grown over the last 30 years. Broadly speaking there are four types of consultancy that can be identified within the consultancy sector, namely;

1. Management consulting
2. Strategy consulting
3. Financial advisory consulting
4. IT consulting

The typology in these four markets is widely recognized within the industry (Kennedy Information, 2011; The Consultancy Group, 2011). Within the market of consultancy there is no indisputable space that is reserved for innovation consultants, innovation consultants are more a product of different disciplines, like engineering, strategy, and organizational development. For a professional field, like innovation consultancy, to maintain itself over time and be internal and externally legitimate, a discourse needs to be present, and institutionalized over time (Foucault, 1970).

A discourse is defined as all the written and spoken communication or debate within the field of interest (Foucault, 1970). The field of innovation consultancy is under development leaving the discourse for a big part untouched. The innovation consulting discourse develops itself around the innovation consultant and client relationship by the use of metaphoric symbols, and signs (Foucault, 1970). Critical discourse analysis views the use of language as a form of social interaction (Chouliaraki & Fairclough, 1999).

The relatively young field of innovation consulting can benefit from critical discourse analysis. The field is influenced by many forces. For instance the background of a typical innovation consultant is very diverse, some have an engineering background, others are strategists and even others have their roots in management consulting. The background deals with the body of knowledge a consultant brings to the table, however it is not the only force that needs to be reckoned with, in the turbulent field of innovation consulting. Other forces lie in the external as well as internal surroundings of the organization. Because of all the forces that play a part in the development of the discourse, discourse

analysis can shed light on the viability and growth potential of the field, as well as on the strength and coherency within the field.

My research is a combination between cognitive linguistics and discourse analysis. Because I focus on the use of conceptual metaphors, I will not conduct a full analysis of the discourse but will only investigate the instances where an apparent conceptual metaphor is present. Discourse analysis is classically not focused on metaphors but on the whole spectrum of spoken or written language. Because of the young nature of the field of innovation consulting, and the disparity within the discourse, a conceptual metaphor conveys more meaning than mere words and sentences. Analysis of the conceptual metaphors will contribute to the scientific and practical understanding and knowledge of the field and discourse of innovation consultancy (Charteris-Black, 2004; Stockwell, 1999).

The second field of study my research is heavily drawing upon is thus cognitive linguistics. Cognitive linguistics focuses on the way words help to make sense of the environment. The research will identify conceptual metaphors. A conceptual metaphor is a form of metaphorical language that represents the thought processes of the one who adopts such metaphors. Next to its sheer linguistic and semantic meaning, the metaphor has a clear cognitive and conceptual meaning. This conceptual meaning is a product of, and needs to be, understood by the mind and its imaginary abilities. Two conceptual domains are identifiable looking at conceptual metaphors, the source domain and the target domain. So A is like B, or the '*man is like a lion*'. A conceptual domain is in this respect any logical organization of individual understanding. The logic behind this scheme of conceptuality is that within different languages the same metaphors, with the same conceptual meaning, can be employed. The assumption is therefore that the perceptions provoked by these conceptual metaphors are similar even in other languages (Lakoff & Johnson, 1980b). This view can easily be combined with discourse analysis because discourse analysis is the result of discursive formation whereby a higher order resemblance between specific signs and language within the field is identified (Foucault, 1970).

The service provided by a consultant consists of an 'intangible product'. It is, to put it mildly, very difficult for clients to be able to evaluate the intangible services of the consultant in advance. Intangibility refers in this respect to not being able to perceive the value of the consultancy service in advance. The client does not know what he has purchased until he gets it. Clients rely therefore on the 'mental pictures of the phenomenon concerned' (Alvesson, 1990). The intangibility of the service enables the innovation consultant to create value by controlling the process of creating images, perceptions and impressions (Clark, 1995, p. 60). These images, perceptions and impressions are provoked and conveyed in a large part by the use of conceptual metaphors.

Metaphors can become 'innovation consulting' metaphors when they enter the discourse of the innovation consulting organization (Yanow, 2000, p. 48). For metaphors to be effective in the innovation consulting discourse, their source of meaning should be part of a shared context (Yanow, 2000, p. 47). The embedded cultural meaning that is agreed upon is an important pillar in the social interaction, and thus important when analyzing the metaphors that consultants use. Metaphors are not mere expressions of naming, they play an important role in the construction of reality (Lakoff & Johnson,

1980b; Yanow, 2000, p. 43). Because of their important role in the construction of reality, conceptual metaphors are vital for building and strengthening the discourse of the innovation consulting.

Previous studies have focused on the use of metaphors with respect to the way the organization is perceived, or depicted (Alvesson, 1990; Dunford & Palmer, 1996; Grant & Osrick, 1996a, 1996b; Morgan, 2006). This previous research has centered itself on the organizational development discourse, in which organizations are perceived in the light of different metaphors (Clark & Salaman, 1996; Morgan, 2006; Osrick & Grant, 1996). I will focus on the use of metaphors by the innovation consultant within the field of innovation consulting, a field that is fairly new, highly in motion, and has received up till now very little attention.

I will investigate what the conceptual metaphors are that are used by innovation consultants. By identifying the underlying assumptions we will be able to identify the source domain and the target domain, the vehicle and the focus of the metaphors (Yanow, 2000). By addressing the utilization of metaphors within a text we can identify the nature of a given metaphor and the direction it wants us to lead. The underlying meaning innovation consultants want to convey is best addressed by critical discourse analysis in combination with cognitive linguistics (Charteris-Black, 2004; Lakoff & Johnson, 1980b; Stockwell, 1999).

1.1 Purpose and relevance of the research

Metaphors are part of the innovation consulting practice and are a subject often mentioned in organization research, studied in the light of the mental images provoked around organizations (Alvesson, 1993; Dunford & Palmer, 1996; Morgan, 1980, 2006). Not much of these studies are concerned with the actual adoption of metaphors in spoken or written language. While experience teaches us that metaphors have been recognized as a desirable means to convey knowledge within science for years (Plato's cave metaphor is a good example of this).

The use of metaphoric language within the field of innovation consulting remains an area that has up till now received little attention. The study is based on the belief that thinking and speaking in metaphors can be perceived as a form of social interaction. Within the client consultant relation, conceptual metaphors show the discourse that is adopted within the innovation consultancy field. The use of conceptual metaphors guides the structuring of the clients' problem and solution. Conceptual metaphors are a means through which knowledge can be conveyed and produced, making it an important instrument for innovation consultants.

For study purposes it is important to address metaphors by means of their conceptual meanings. Therefore the aim is to gather information around the vehicle and focus of the conceptual metaphors that are used (Lakoff & Johnson, 1980b; Yanow, 2000). With this in mind many conceptual metaphors can be based on the same underlying conceptualization. These conceptualizations are important to look for, because it will give a better understanding of the thought process of the consultant to create and contribute to a certain discourse. When I look at the way in which the consultant is able to generate conceptual images, by drawing on other conceptual domains, the imagination of the consultant itself will become apparent. This addresses an important factor of innovation, the imagination, the ability we

have to be able to think outside the box, and come up with creative new ideas. By addressing these conceptualizations one can group the metaphors on the basis of their conceptual similarities. This also enables the researcher to identify the similarities between otherwise distinctive metaphors. The metaphors used in day to day writing by consultants will be attributed to conceptual categories, which will be subjected to meticulous investigation.

In line with the above, the research strategy comprises three subsequent steps;

1. Gathering conceptual metaphors from publicly available websites of innovation consultancy firms.
2. Analyzing the conceptual metaphors on the basis of the conceptual domain they draw upon. These conceptual domains will give insight as to where an innovation consultant draws his knowledge from.
3. Articulating the discourse of the innovation consultancy on the basis of the metaphors that are adopted. And afterwards draw conclusions on the basis of the similarities or disparities, and the viability of the market.

1.2 Central Research Question

- *Which conceptual metaphors are used by innovation consultants, and how can the use of these conceptual metaphors be explained?*

This research question is based on my personal interests as an Innovation & Entrepreneurship student, in the use of conceptual metaphors by innovation consultants. The focus is on the metaphors used within the client consultant relation, therefore the websites are an important source of information. The clients will be able to identify the conceptualization and apply or link these to their day-to-day business reality. Metaphors have the ability to bridge a gap, and give meaning to problems and solutions (Morgan, 1986). The consultant shapes this meaning and is an expert when it comes to 'symbolic manipulation' (Jackall, 1988, p. 132). The study will shed light on the 'symbolic manipulation', by classification of the conceptual metaphors, and the corresponding conceptual domains.

1.3 Sub-Research Questions

The central question can be broken down in the following three research questions.

1. *What are the conceptual metaphors that are used by innovation consultants?*

To be able to comment on the conceptual metaphors used by the innovation consultants, one needs to know what the metaphoric landscape of the language used by innovation consultants looks like. This question will answer the basic background on how innovation consultants use their metaphors. The discourse of innovation consultancy and the influence of the conceptual metaphors on the client consultant relation will become apparent.

2. *Which conceptual domains can be identified with respect to the target domain of the metaphor adopted by the innovation consultant?*

The target domain is the domain which the innovation consultant wants to comprehend and elaborate upon by the use of a conceptual metaphor. The target domain is important for identifying the stage in which the website is viewed by the customer, as well as identifying the issues that are dealt with during the innovation process. The conceptual metaphors used can strictly be for innovation purposes or for other purposes as well. Other target domains of the conceptual metaphors next to innovation can be to address the process of innovation consulting, or to focus on specific financial incentives. What does the use of conceptual metaphors tell us about the nature of the consultancy service offered, and the professionalization of the innovation consultant?

3. *Which conceptual domains can be identified with respect to the source domain of the metaphor adopted by the innovation consultant?*

The innovation consultant shapes and gives meaning to innovation, this meaning is vital to address for a new field of interest. The source domain for the conceptual metaphor is the domain from which a metaphorical expression is drawn. The conceptual domains that are used give important insight into the nature and background of the discourse of the innovation consultant. Conceptual domains are important bearers of meaning and give insights in the way the discourse of the innovation consultant is formed over the past decades. The source domain is a perfect example of the imagination and innovativeness of the innovation consultants in question. The source domain addresses namely the images that are provoked, and the creativity that the innovation consultant employs.

1.4 Research methods

1.4.1 Strategy and framework

Guided by a constructivist approach this study will analyze the adoption of metaphors within the client-consultant relation, and interpret the discourse within the field of innovation consultancy. It is envisaged that conceptual metaphors will enhance understanding of the consultant's actions, and thoughts.

1.4.2 Data analysis

The research is build around the conceptual metaphors used by consultants. This symbolic interactive nature of the research lends itself for a qualitative data collection, however for the analysis I will use quantitative research methods, whereby all the conceptual metaphors and domains are investigated by means of grounded theory (Swanson & Holton, 2005). The grounded theory approach is executed on the basis of a multiple case study.

I have chosen to use a multiple case study design. Case study research has clear advantages because it enables the researcher to gather in depth information. Especially when the researcher has little control over existing events and when the relevant behavior cannot be manipulated (Yin, 2009, pp. 7-9). The case study approach fits well with the aims of the research because I want to identify the discourse of innovation consulting through the investigation of conceptual metaphors.

With respect to case study approaches the purpose of the research is also imperative. Two main streams of case study research can be identified, namely hypothesis testing and theory building (Eisenhardt, 1989). The research is more prone to the latter, because the goal is to investigate how innovation

consultants use conceptual metaphors in their work. This is also best applicable because little scientific research has paid attention to this subject. The sample of innovation consultancies needs to be created, because there is no extensive list of innovation consultancy firms. The sample will be generated on the basis of Dutch consulting companies that are specialized, or say that they are specialized, in innovation consulting.

The data will be analyzed on the basis of content analysis. The data collection frame will be on the basis of the textual data that can be obtained through web analysis (Neuendorf, 2002, p. 206). When the data on the websites of innovation consultancy firms are collected, the first round of coding of the data can start. The coding is done by means of naming, comparing and memo-ing (Neuendorf, 2002, p. 206).

1.4.3 Data collection

The first step of the data collection is retrieving and analyzing the content of the different websites. Broadly speaking, content analysis is a method that studies 'recorded human communications, such as books, websites, paintings and laws' (Babbie, 2004). The qualitative content analysis of the research involves the categorization of conceptual metaphors. To be able to draw conclusions from the metaphors studied, the classification and categorization should be dependable. So the coding scheme should be interpreted and used in the same way by different people. I use the content analysis method not only for analyzing the words written, but also for identifying the underlying meaning. This qualitative content analysis addresses the meaning behind the metaphors used. (Neuendorf, 2002)

The research questions investigate the use of metaphors in the work of an innovation consultant. It deals with the application and use of a theory about metaphors within the context of innovation consultancy. The theory will reflect upon their selection of specific types of metaphors, and the choice of metaphors. The conceptual domain that they adopt for their metaphors is of vital importance.

The coding of the websites will be on the basis of an a priori design. The types of conceptual metaphors adopted by the innovation consultants are the main focus of the research. These types of metaphors are identified and grouped on the basis of the attributes they have in common. The websites will be coded on the basis of a codebook and guidelines will be used to be able to identify what is a metaphor and what is not. The results are analyzed on the basis of patterns that emerge during the research in the categories of the metaphors. (Neuendorf, 2002, pp. 11-14)

2 Theoretical framework

2.1 Metaphors in management and organization theory

Metaphors have the ability to inspire and effectuate innovation (Morgan). This is the main reason why I have chosen this research subject. People heavily draw upon stories and metaphors that allow them to make sense of their surroundings. Metaphors have the potential to appeal to creative processes, and to explain difficult phenomena.

In the early 1980's a body of knowledge about metaphors in organization research was shaped by scholars, on the basis of the work of Morgan (1986). This stream of research was looking at the use of metaphors in more depth (Hatch & Yanow, 2008). The adopted viewpoint was that the use of metaphors was recognized as a valuable source of knowledge for organization and management theory (Heracleous & Jacobs, 2008b, p. 49). This has provoked the use of more metaphorical instruments for understanding and theorizing about organization and organization theory.

A metaphor is not as proposed by some authors a rhetorical alternative for what could be otherwise framed in literal, less ambivalent, and generally more explicit terms. A metaphor carries semantic baggage, it can provide fresh, and previously non-existent, insights into the reality of organizational life (Cornelissen, 2004, pp. 705-706). Metaphors create meaning by understanding one phenomenon through another in a way that encourages us to understand what these phenomena have in common (Cornelissen & Kafouros, 2008; Morgan, 1983).

Every conceptual tool that we employ to understand the business is thus a metaphor, this means that the concept of 'organization' is itself a metaphor. The process of employing these metaphors in a business context has a conceptual impact on the source as well as the target domain (Cornelissen, 2004). When we interpret a metaphor the shared ground that is created on the basis of the similarities between the source and target domain creates a new conceptual reality (Cornelissen, 2004, p. 709).

The fact that metaphors are not to be taken literally does not depreciate their value. A metaphor is a perfect way to establish inferences about the dynamics of organizational life (Cornelissen, 2004, p. 716). Metaphor research is more and more focused on the process of metaphor creation than on the static concept. A great example of this is the fact that some authors even refer to the process around metaphor creation as 'metaphorical work' (Cornelissen, 2006, p. 486).

2.2 Conceptual Metaphors

As I have shown above some theorists argue that metaphors are not merely stylistic, but that they serve a cognitively important purpose. This cognitively important purpose is propagated since the introduction of the book *Metaphors we live by*, by Lakoff & Johnson (1980b). They state that metaphors are pervasive in everyday life, not just in language, but also in thought and action. Our conceptual understanding, in terms of which we think and act, is fundamentally metaphorical in nature. Our conceptual system thus plays a central role in defining our everyday reality.

'The essence of a metaphor is understanding and experiencing one kind of thing in terms of another' (Lakoff & Johnson, 1980b, p. 5). Metaphors are part of peoples' linguistic systems, as that they are part

of the brain, our cognitive system (Lakoff & Johnson, 1980b, p. 7). Metaphorical concepts can be used to highlight specific characteristics of a statement, and exclude or discard others. This implies a certain system behind the metaphor, that highlights certain artifacts, and discards others (Lakoff & Johnson, 1980b).

Metaphors work in many different ways, conceptual metaphors can occur in the following six forms;

1. Structural metaphors, metaphors that highlight one concept in terms of another.
 - Example; Time is money.
2. Orientational metaphors, organize a whole system of concepts with respect to one another, often spatially oriented.
 - Example; Happy is up, less is down.
3. Ontological metaphors, viewing something as an entity, use experience and treat them as discrete entities of a uniform kind.
 - Example; My mind isn't *operating* today. (*conceptualization; *the mind is an entity*)
4. Container metaphor, a metaphor with a clear in-out orientation.
 - Example; The ship is *coming into view*.
5. Personification metaphors, putting human qualities in things that are not human.
 - Example; Inflation is *eating* up our profits.
6. Metonymy, are cases of referring to an entity, with attributes that relate to it.
 - Example; The *Times* hasn't arrived at the press conference yet.

Conventional conceptual metaphors are metaphors that are used in our everyday language to give structure to a culture's conceptual system. Conceptual metaphors can be categorized on the basis of their cognitive function. The three resulting types of metaphor are a structural, ontological and orientational metaphor (Lakoff & Johnson, 1980b).

With a structural metaphor the target domain is understood by conveying the structure of a source domain onto the structure of the target domain. This makes it possible to understand a specific target construct by addressing the important structural aspects of the source construct. Yet the source only passes on essential information which means the transference is only partial. An example of a structural metaphor ARGUMENT AS WAR, would be 'Your claims are *indefensible*' (Lakoff & Johnson, 1980a).

An ontological metaphor is different, in the sense that an abstraction is taken and represented as something concrete. Three different types of ontological metaphors can be identified, namely a containment metaphor, an entity metaphor and a substance metaphor. A container metaphor represents concepts as having a clear boundary with an inside and outside. Container metaphors are capable of holding something in or out. An example of this is 'Life is *empty* for him'. The entity metaphor takes the abstract and represents it as a concrete physical object. An example of this is 'Her ego is very

fragile'. When an abstraction such as an event, activity, emotion, or idea, is taken and represented as material a substance metaphor is used. An example of this is 'There was *a lot of* good sprinting in the race'.

Personification is an important extension of the ontological entity metaphor. The target concept is then personified. A specific target concept is depicted as if it has human qualities. The function of personification is to gain a better understanding of a specific target domain. A personification metaphor gives room for interpreting experiences with certain concepts, by linking them to human motives, characteristics, and activities (Lakoff & Johnson, 1980b). An example of personification '*His religion tells him he can't drink wine*'.

This means that ontological metaphors represent abstractions as more concrete concepts. Ontological metaphors convey a sense of tangibility to the target domain. The functions of ontological metaphors are that they "enable us to see more sharply delineated structure where there is very little or none" (Kövecses, Benczes, & Csábi, 2009, p. 34). A good overall example of an ontological metaphor would be 'I *put* a lot of energy *into* washing the windows'.

Another conventional metaphor is that of an orientational metaphor, this metaphor is spatially correlated to the target domain. The consistency between target domains is important in this respect. These orientational metaphors are able to create a system of concepts with respect to one another (Lakoff & Johnson, 1980b, p. 14). Some even suggest to call this type of metaphor a coherence metaphor because this is the function they perform (Kövecses et al., 2009). An orientational metaphor sorts target domains spatially. This sorting is based on real physical and cultural experiences. Examples that can be given are 'I'm feeling down', whereby up and down is seen as the spatial orientation.

In summary, conceptual metaphors can communicate knowledge and build on the imagery that is provoked. Knowledge can be communicated about a specific source domain to understand the target domain, and in other instances elements of particular images are conveyed to a target domain from a source domain. The conceptual system is not something we are normally aware of, and is therefore an interesting part of our communication. One way to uncover our conceptual mappings is by looking at language use. On the basis of linguistic evidence, drawn from metaphors, I will be able to reveal the conceptual reality behind innovation proposed by innovation consultants.

2.2.1 Background of conceptual metaphors

Most conceptual metaphor theorists suggest that metaphors have an experiential motivation. The mapping between a source and a target domain is rooted in experience that is "perceptual, biological, or cultural". Some important assumptions are made with regard to the motivation for conceptual metaphors. Sometimes the mapping occurs when certain correlations of experience exist. Another possibility is that a conceptual metaphor is grounded in the similarities of structure that are perceived between a certain target domain and a source domain (Kövecses et al., 2009, p. 72). On the contrary, they emerge during the process of conceptualization when one is comparing the target domain with the source domain. The similarities can also be perceived through ontological metaphors. This means that the source domain and the target domain share a basic shape or status which creates a sense of

structural similarity between the two domains (Kövecses et al., 2009, p. 72). Sometimes the source domain is the root of the target domain. In this case the root is either biological or cultural. In other words, the mapping between the source and target domains originates in a specific biological relation.

It seems that the experiential basis for conceptual metaphors is to a high degree related to the physical experience of the world. This stems from a certain correlation in the experience of the person. Thus the perceived structural similarity has a biological root and is linked to the target domain. On the other hand the motivation for conceptual metaphors, and thus the target domain, arises from cultural experience and cultural background. However, as I have already pointed out in the introduction, all experience is in a way related to culture.

In addition, it can be maintained that physical experience is shared by all human beings, while cultural experience applies to specific cultural communities associated with different cultural practices and circumstances. As a result, certain conceptual metaphors are universal, while others appear only in particular cultural environments. This explains the cross-cultural universality as well as cross-cultural variation of conceptual metaphors. However, cultural variation does not depend only on “the broader culture knowledge”, but also on “the natural and physical environment in which a culture is located” (Kövecses et al., 2009, p. 186). Moreover, even if two languages share the same conceptual metaphor, the metaphor can be elaborated in different ways in the two languages.

2.2.2 The system behind metaphorical concepts

Essentially in our day to day live we follow specific patterns in our conceptualizations. The fact that we conceptualize arguments in terms of battle systematically influences the shape arguments take and the way we talk about what we do in arguing (Lakoff & Johnson, 1980a). Because the metaphorical concept is systematic, the language we use to talk about that aspect of the concept is systematic. This means that metaphors form a systematic way of talking about important concepts. Since metaphorical expressions in our language are tied to metaphorical concepts in a systematic way, we can use metaphorical linguistic expressions to study the nature of the metaphorical concepts underlying innovation within the field of innovation consulting. Important is the notion that metaphorical concepts can be extended beyond the range of ordinary literal ways of thinking and talking, into the range of what is called figurative language.

Metaphors are cognitive mechanisms functioning on the level of thought, and not mere linguistic mechanisms operating exclusively on the level of language (Lakoff & Johnson, 1980b). Metaphorical language is therefore a concrete demonstration of the fundamental conceptual metaphors that are part of our thought processes. This new perspective on metaphors assumes that most of our conceptual systemic is in a way structured by metaphors, which means that most concepts are partially understood in terms of other concepts (Lakoff & Johnson, 1980b, p. 56).

Metaphors in cognitive linguistics are therefore referred to as the mapping of one concept in terms of another, with a clearly identified target and source domain (Lakoff, 2008). The target domain is subjected to the type of knowledge that we want to convey, and the source domain is part of the underlying knowledge structure that encompasses the concept we use to give meaning to the target

domain. When we map the interaction between the target and source domains a highly structured pattern emerges, where the body of knowledge from the target domain corresponds to the body of knowledge from the source domain.

Metaphorical mapping is based on the notion that an abstract target domain is conceptualized with a more concrete source domain (Kövecses et al., 2009). This is logical in the sense that an abstract target domain is by the help of more concrete concepts and physical experience better understood. The source domain can also be understood by means of a more structured domain. Metaphors 'allow us to understand a relatively abstract or inherently unstructured subject matter in terms of a more concrete, or at least more highly structured subject matter' (Geeraerts, 2006, p. 232). Essentially the mapping between the two domains is based on a one way road of cognitive transfer. The other way around, from a more abstract source domain to a more concrete target domain just does not make sense, because the concrete target domain is understood better on its own.

Elements of the source domain can be introduced to a target domain when the structure of the source domain does not disturb the structure of the target domain. The principle forces limits onto the source domains that can be used to map a specific target domain. This principle is especially important in cases of metaphorical entailment where the characteristics of the source domain are passed on to the target domain by logical means (Lakoff & Johnson, 1980b, p. 90).

2.2.3 Conceptual metaphors as part of cognitive linguistics

Conceptual metaphors are part of a stream of research known as Cognitive Linguistics. Cognitive Linguistics is interested in the meaning of spoken and written language and interprets language in the sense that it identifies the underlying concepts that are used. It looks at the conceptual meaning, and not only at the semantic meaning of a linguistic construct.

The field of Cognitive Linguistics may be considered as very heterogeneous. Three main characteristics can be identified that almost every Cognitive Linguistics research consists of (Croft & Cruse, 2004).

1. it denies that there is an autonomous linguistic faculty in the mind
2. it understands grammar in terms of conceptualization
3. it claims that knowledge of language arises out of language use

Within Cognitive Linguistics the claim that language is modular in nature is refuted. Knowledge of linguistics is conceptual and not grammatical (Croft & Cruse, 2004). Studying the nature of language is in essence not different from the acquisition of other forms of information. This means that the use of language is understood cognitively just like one acquires knowledge from one's mistakes. This implies that meaning is obtained and constructed by the mind (Croft & Cruse, 2004). Language is therefore objectified and located in a context. The user is able to learn and reflect upon its environment, which is part of the exchange between language and cognition.

This is different from traditional linguistics that identifies speech and grammar, and other forms of communication as artifacts that can be objectively studied. The definition of language is in this respect *'a form of human communication by means of a system of symbols principally transmitted by vocal*

sounds' (Poole, 1999). Words are divided in content words and functions words, with the set of objects and actions related to a content word called the semantic range (Poole, 1999).

Within linguistics the study of implicit meanings of communication is studied by discourse analysis. Discourse analysis is conducted to identify the organization and dynamics of communication (Poole, 1999). A relatively new stream of research that identifies the meaning of communication outside a specific context is known as cognitive linguistics (Cornelissen, 2006; Kövecses et al., 2009).

2.3 Previous research on metaphors

The field of research that is concerned with metaphors is broad in nature, different views on metaphors exist, some scholars think that metaphorical research can contribute a great deal to organization and management research, others think that there is no basis for objective and reliable research (Cornelissen, 2006). Metaphors do not simply describe an external reality, they also help constitute this reality. Previous research has focused on the metaphorical exploration within a business context. To a great extent previous research on metaphors has inspired my research. I will shortly summarize the most important research on metaphors.

Metaphors use a combination of language and thought, to construct and appreciate reality. Metaphors can alter the pre-conception of certain phenomena. Seeing a familiar situation in a new and informative light, encourages different ways of thinking (Lakoff & Johnson, 1980b, p. 132; Tsoukas, 1993, p. 566). This implies a constructivist view, which is able to generate alternative social realities (Tsoukas, 1993, p. 324).

Early research on metaphors has a static "creative form" (Morgan, 1980, p. 610). Metaphors were an instrument to improve communication in organizations. But metaphors can also be very beneficial for understanding the dynamics within an organization. An example of the practical relevance is the 'embodied metaphors', which is a 'physical construction that can be touched, moved, examined from various angles and serve as engaging occasion for sense making' (Heracleous & Jacobs, 2008a, p. 309).

Some argue that empirically based science should be applied to understanding the reality we live in, this is a positivistic stance (Ortony, 1979, 1993). The goal then of scientists is 'to furnish an accurate description of physical reality' (Ortony, 1993, p. 2). With this in mind metaphors can be misleading because the use of metaphors is part of a personalized cognitive process (Tsoukas, 1993, p. 326). But this cognitive process can be studied, and elaborated on by metaphorical research.

Important is that the discussion between objective and subjectively identifiable truth is therefore abandoned, and for this a pragmatic approach is chosen, whereby the communication, identifying 'what are we actually talking about', is of utmost importance. What is 'true' about innovation is in this respect part of the communication between client and consultant, there is no objectively identifiable 'truth' but there is a point where both sides can find themselves in the linguistic representation of concepts (Rorty, 2009). This identifies an additional important aspect of the problems faced by innovation consultants, next to the operational and strategic characteristics. The additional aspect is the language that is used to identify problems, and to come up with solutions (Rorty, 2009). This implies that consultancy problems have an important linguistic and metaphorical component.

2.3.1 Reasons why metaphors are used

Metaphors are important in everyday language. This is because language is inherently figurative in nature. All language is figurative in the sense that it describes artifacts and actions. Borrowing metaphors from other disciplines gives legitimacy to the speaker. This enables him to demonstrate a broad knowledge base. Good use of cross disciplinary metaphors displays a broad knowledge base. Metaphor use can have a clarifying effect (Bourgeois & Pinder, 1983). Also metaphors are central to the way in which humans forge their experience. Language is developed through the use of metaphors by introducing new conceptualizations. Metaphors are a vital part of the development of our cognition. And by means of metaphors we are able to generate an image from sheer information or data (Morgan, 2006).

There has been a shifting focus on metaphor research within organizations. Important for contemporary scholars is how language and metaphors represent organizational life (Cornelissen, 2005; Morgan, 2006). After a scientific debate on the relevance of metaphors for theory and practice in the early years, scholars now accept the fact that metaphors exist, and play a part in research about organizations (Grant, Keenoy, & Oswick, 1998; Tsoukas, 1991).

An initial concern for the application and use of metaphors as an object of investigation, was the fact that research on this subject is not easily falsifiable (Tsoukas, 1991). This view of organizational research is in line with the view of other researchers that want to explicate literal meaning of a concept used in research (Ortony, 1979). However it is argued that all language is figurative to some degree, there needs to be always a cognitive component in language where the meaning to a certain sentence, or word is given (Lakoff & Johnson, 1980b). Metaphors are in essence not part of hard rock theory building and formal theory testing, however they are part of a heuristic scheme, a landscape in which scientific or less scientific solutions are created. The direction of a thought process is given by the use of metaphors and other tropes. A good example of this is the metaphor of the organization as a machine, in the beginning this meant that an organization comprises of a series of mechanical interconnected parts, this has led, after a period of time, to the concept of organizational structure (Morgan, 2006; Weick & Roberts, 1993). A metaphor at the beginning of a consulting assignment is part of the heuristic scheme in which a consultant, in dialogue with the client, can execute his task.

2.3.2 Metaphor research; context and development

Metaphorical research is concerned with the comparison between the source and target domain of the different concepts that are used within the metaphor itself. In other words the 'use of language in which one term or concept (called the target) is compared to another term or concept (called the source), with the source stemming from a domain of knowledge and language use that is not typically associated with the target' (Cornelissen, 2008).

There are two dimensions within metaphorical research concerning business research. The first is the dichotomy between projecting and eliciting metaphor research, and the second one is the dichotomy between contextual and de-contextual research.

2.3.2.1 Projecting or eliciting approaches to metaphor research

There is a difference between a metaphor that is projected, and a metaphor that is elicited upon the organizational reality. An elicited metaphor is a metaphor that reached the surface due to the nature of the different underlying concepts. These metaphors are introduced by a process of induction from the situation at hand. The metaphor naturally occurs on the surface within the speech and sense making of the different individual stakeholders (Cornelissen, Oswick, Christensen, & Phillips, 2008). The other form of metaphor introduction is that of projecting the metaphor to a certain situation for knowledge creation, and learning purposes. This is a deductive process whereby a good metaphor is selected for the situation; this is for instance part of a stream in Organizational Development (OD), whereby researchers employ certain metaphors to 'unfreeze' ingrained ways of thinking (Cornelissen et al., 2008).

2.3.2.2 Contextual and de-contextual approaches to metaphor research

The contextual approach to metaphorical research refers to the methodological reasoning adopted within the research. On the one hand there are cognitive linguistic approaches to research (Lakoff, 1987, 2010; Lakoff & Johnson, 1980b). These approaches de-contextualize the language use across speakers. Important here is the abstracted meaning that is part of the language context. The cognitive linguistic research streams emphasize the organizing principle of the metaphor. The organization is established through thoughts and experiences that create meaning. There is a clear distinction made between the linguistic level and the cognitive level of the metaphor (Lakoff & Johnson, 1980b). This means that when many expressions about a certain subject point to the same underlying conceptual metaphor, this must be a conventional way of talking about and understanding a certain subject.

On the other hand there is the contextualization of meaning research. Important in this respect is that metaphors are part of a discourse in which speakers give meaning to their metaphorical language use. Discourse analysis is an example of the contextual embedded nature of metaphors. Discourse analysis emphasizes the situated nature of social categories in language (Cornelissen et al., 2008). This implies that metaphors are employed and used within a specific context. Locally specific uses of language are employed to identify specific metaphors, and investigate the meaning given by metaphors in congruence with other elements of discourse. This type of research lends itself for more sociological use, emphasizing the social constructivist use of metaphorical language.

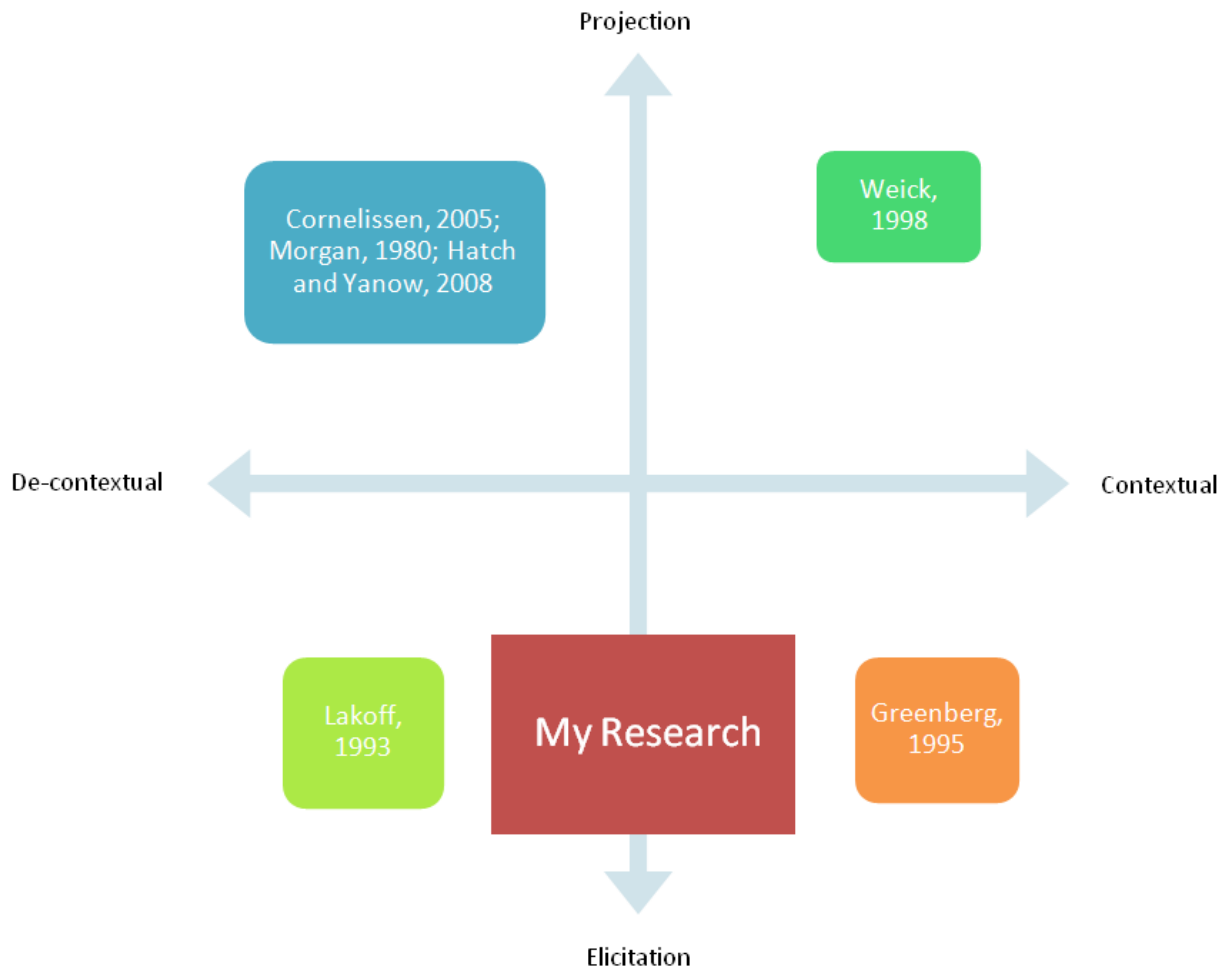


Figure 1 Focus and Form of Metaphor-based Organizational Research (Cornelissen et al., 2008)

Frame analysis takes place in a de-contextual matter(see also figure 1), examples of this type of research are Lakoff (1993) and Morgan (1980). On the other hand discourse analysis wants to be able to interpret the spoken and written text in a context in which it is enacted upon, examples of this type of research are Greenberg (1995), and Weick (1998). I place my research between these two conceptualizations of context. This is due to the fact that I want to be able to elaborate on the discourse used by innovation consultants, but also want to review the way in which their use of metaphors comes about.

On the other dichotomy my research is clearly based on elicitation, because I do not introduce new concepts or metaphors in the innovation consultancy landscape. All the metaphors that are used in this research have its source within the domain of innovation consulting. This means that my research is based on the conceptualizations of innovation consultants, on their metaphorical use of language to provide innovative capabilities, or convey innovation knowledge to the client firm.

2.3.3 Hierarchical typologies of metaphors

Alvesson speaks of first and second level meanings to metaphors (Alvesson, 2002). Just like Schön he identifies some kind of surface metaphor for day to day communication, and deep metaphors which constitute of a deeper conceptualization reality (Schön, 1993).

Tsoukas (1993) identifies a more extensive hierarchy, based on five domain similarities between the source and the target domain.

- Abstraction, source domain is based on a set of relationships that are similar to the target domain.
- Analogies, example, “Orchard Street is to Singapore what Oxford Street is to London”, a comparison based on few attributes that are shared.
- Literal similarities, transfers both relationship and attributes from the source to the target, example milk is like water.
- Mere appearance, specific attributes are transferred but there are no relationship similarities, example “the surface of the lake was calm and clear like a mirror”.
- Anomalies, few relationships or attributes are shared between the source and target domain, example “a computer is like coffee”.

2.3.4 Non-hierarchical metaphors

Non-hierarchical type metaphors make a distinction between live and dead and dormant metaphors (Lakoff & Johnson, 1980b). Dead metaphors are for example the ‘teeth of a saw’. These types of metaphors have become so common that we have forgotten their metaphorical nature. Live metaphors need a context and creativity to be able to interpret them. Dormant metaphors are metaphors that are easily identifiable, examples are organizational behavior or organizational structure. Dormant metaphors can develop in live metaphors or in dead metaphors. Inductive approaches want to discover those underlying metaphors that are already in use and influence our ways of thinking and seeing.

2.4 Metaphors in organizations

Metaphors are an outcome of a cognitive process. Meaning is applied to a new context in a figurative sense, we draw therefore on preexisting knowledge. Metaphors link the knowledge of a relatively known subject, the source domain, to a new and relatively unknown subject, the target domain (Lakoff & Johnson, 1980b). New meaning is generated through the comparison, substitution and interaction, between the source and target domain (Morgan, 1980).

Particularly important for theorizing about organizations is that the metaphors should produce conceptual advances and breakthroughs. This means that the choice and use of new metaphors should provide creative and cognitively profound new insights and conceptual advances that were inconceivable before.

A metaphor has a clear generative quality, it facilitates a ‘process by which new perspectives on the world come into existence’ (Schön, 1993, p. 137). Metaphors in this sense can be both descriptive and

generative. They 'name' a situation, they 'frame it', and they 'set the problem' (Schön, 1993). They can signal a new direction of solutions to business problems. Most of the research on metaphors is focused on the heuristic role, the role whereby new ways of understanding result in new problem definitions and alternative solutions (Lakoff & Johnson, 1980b; Tsoukas, 1991). The commonly adopted view is that metaphors are important for explicating existing knowledge by making 'the familiar more familiar' (Grant, 2004, p. 117). On the other hand metaphors are also important in reflecting on the subject and even 'making the familiar strange' (Foucault & Sheridan, 2007).

The underlying assumption with respect to a metaphor is that similarities between two concepts are explicated and explained by comparing the concepts to one another (Lakoff & Johnson, 1980b). This is called the comparison view, whereby two domains are identified, the source domain and the target domain. The features that are shared between the target and source domain of the metaphor is what makes the metaphor a conceptual metaphor.

The generation and creation of new meaning is an important aspect of metaphors that is not very much accounted for in the comparison model (Black, 1962). There it is assumed that the metaphoric meaning observed is part of the creation of reality, therefore not directly associated with the source and target domain. For research purposes we take into account that there is a domains-interaction model, but use the classical approach to analyzing the target and source domain. We want the target to be identified, but the target is not part of a conceptual creation of meaning in my research (Cornelissen, 2008).

2.4.1 Source domains in a business context

Many theories on conceptual metaphors depend on the interaction between the source and target domain. For instance the six forms of conceptual metaphors by Lakoff (Lakoff & Johnson, 1980b). An approach whereby the conceptual source and target domains have great face validity, and can be analyzed independently from each other is more fitting for this explorative study. The conceptual source domains of Morgan are widely used in business studies, and literature (Morgan, 2006). The eight source domains identified are all 'images of the organization' (Morgan, 2006).

The domains are also valuable with respect to other target domains than the 'organization'. On the websites of consultancies, the target domain in many cases is 'the organization'. The widely used domains are; 'Machine', 'Organism', 'Brain', 'Culture', 'Political system', 'Psychic Prison', 'Flux and transformation' and 'Domination'.

A Machine metaphor is focused on the operational aspects that are addressed in the source domain. Aspects are targeted on the 'machine' like sources of meaning. The metaphor then concentrates on the source domain in mechanical terms.

An Organism metaphor is based on the 'biological' mechanisms that are addressed. This means that the target domain is behaving in similar ways to known biological mechanisms. For instance, when the environment around us changes, our bodies will adapt. Successful Organism metaphors address the naturally occurring change. Structure is in this sense less important than in the machine category.

A Brain metaphor is based on logic. The target domain is seen in the light of rational thinking and logical structures. The source domain needs to address rational thinking and intelligent change. Good indicators for these types of metaphors are the learning systems that should underlie these metaphors. For a consultant's rhetoric, 'being reflective' will produce the ability to innovate.

A Culture metaphor consists of basic values and principles that under scribe the metaphor. Using cultural metaphors will address the sets of values, perspectives and principles held by the people who adopt these metaphors.

A Political System metaphor uses 'politics' as the source domain. Politics is about the social relations between individuals and groups, and their use of power and authority. Political metaphors address the less apparent lines between people - the forces that are not captured by the culture, machine and organism metaphors.

A Psychic Prison metaphor is a containment metaphor, the target domain is constrained by something that can be 'breached' or 'bridged' to be able to go forward. Conventional or usual ways of thinking are not sufficient. These metaphors help to dig beneath the surface and to identify the boundaries that affect the change capacity.

Flux and Transformation metaphors address the change as being an important part of life. By understanding the constant flux, one is able to better address and manage problems. A good flux metaphor appreciates change, and gives a better understanding of the 'change' that takes place.

Domination metaphors address the aspect of dominance, of being more powerful than the other. By identifying the exertion of power and imposing pressurized change. This metaphor persuades people to think about the ways in which one can have control and power. By addressing the imposed power one understands and appreciates how the target domain works.

2.5 Consulting

The term 'consultancy' or 'consulting' refers to services that are used to advise companies or individuals. The word consulting is currently associated with advising industry and business. The consultancy sector is a sector that has rapidly grown over the last 30 years. Broadly speaking there are four types of consulting that can be identified within the business consultancy sector, namely Management consulting, Strategy consulting, Financial Advisory services, and Information Technology consulting. Consulting is a process whereby a consultant studies the structure and functioning of an organization trying to enhance the organizational performance through the identification of growth and efficiency opportunities. A consultant does not only propose change, but also helps to implement it (The Consultancy Group, 2011; Plunkett Research, 2011).

Management has been a topic of interest since the industrial revolution. As the interest in management grew, the concept of management consulting was formed in 1886 by Arthur D. Little. After the Second World War the concept of Management Consulting started to emerge in Europe, because of the intensifying trade between the United States and Europe. (Plunkett Research, 2011)

2.5.1 The Consulting market

The consulting industry has grown rapidly over the last three decades, into a multi-billion dollar industry. Research shows that in recent years the market has grown steadily. In 2011 the total global revenues generated in the consulting market were € 271,1 billion (this includes Human Resources, Information Technology, Strategy Consulting and Operations Management and Business Advisory Services) (Plunkett Research 2011). This is a growth of 6 % with respect to the revenues generated by consulting in 2010 (€ 256, 5 billion in 2010) (Plunkett Research 2011; The Consultancy Group, 2011). This is a strong and steady growth of the consulting market in the past decades. For a consultant the seventies, eighties and nineties were booming. The global market grew on average in the 70's by 10,3 %, in the 80's by 18,9%, in the 90's by 13,2%. And even in the past decade with a global recession the global market of consultancy grew on average by 4,3% (The Consultancy Group, 2011).

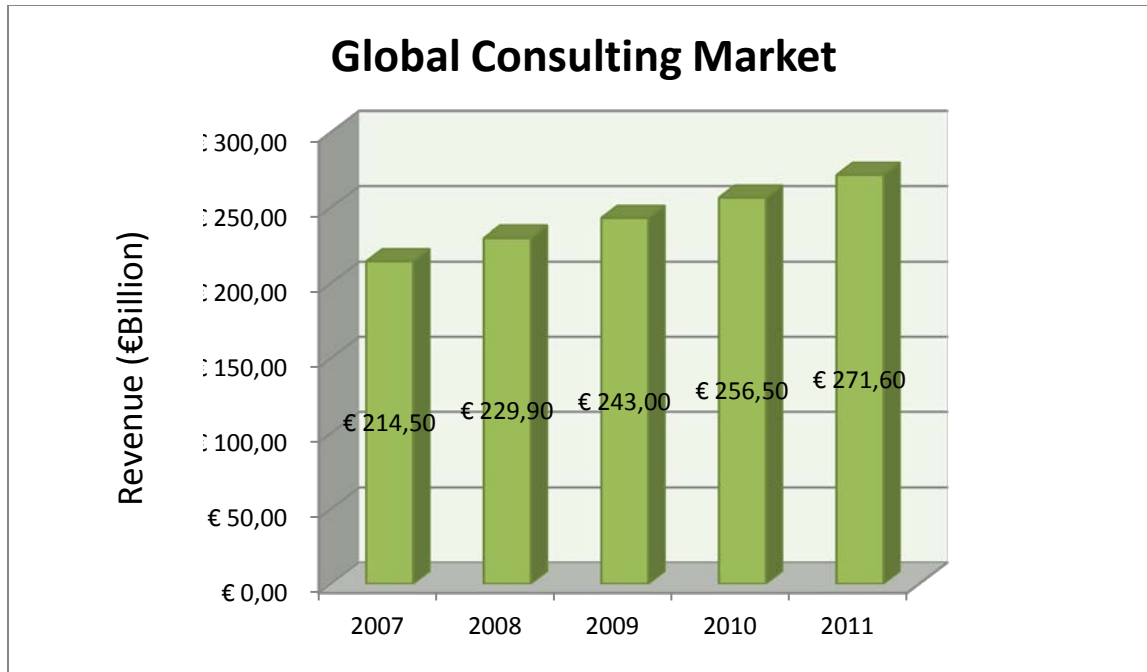


Table 1. Revenue of the Global Consulting Market over the past 5 years. (Source: The Consultancy Group, 2011)

The global recession which started in 2007, has not had many effect on the growth rate of the consulting market (Plunkett Research 2011). This is because corporate executives are more willing to authorize new consulting projects as long as they see the potential for a good return on the cost. This is also true for consultants in environmental specialties, such as carbon emissions, and energy efficiency. Consultants who assist firms in lowering costs are in high demand. These services are targeted at clients' pursuit of efficiency through cost reductions in their company. Many organizations are able to create changes in their cost structure by focusing on their overall business and operations efficiency. The task of the consultant is to advice on efficiency and growth issues (Plunkett Research 2011).

In contrast to the size and fame of the leading management consulting companies, a large portion of the consulting industry is comprised of very small companies. The demand for small tailored consulting has grown rapidly since 2000. Many of these professionals are self-employed consultants who have worked for large consultancy firms in the past. The large consulting companies are thus facing more and more competition from these small firms. These niche consultancies have a competitive advantage because they can offer very specific services to increase clients' profitability. (Plunkett Research 2011)

2.5.2 Sectors in the global consulting market

The global consulting market consists of the following 4 sectors:

- Strategy Consulting, 10% market share
- Management Consulting, (Consisting of; Operations Management; Human Resources and Business Advisory Services), represents a 37% market share.
- Information Technology Consulting (IT), 51% market share.
- Financial Advisory Services (FAS), 12% market share.

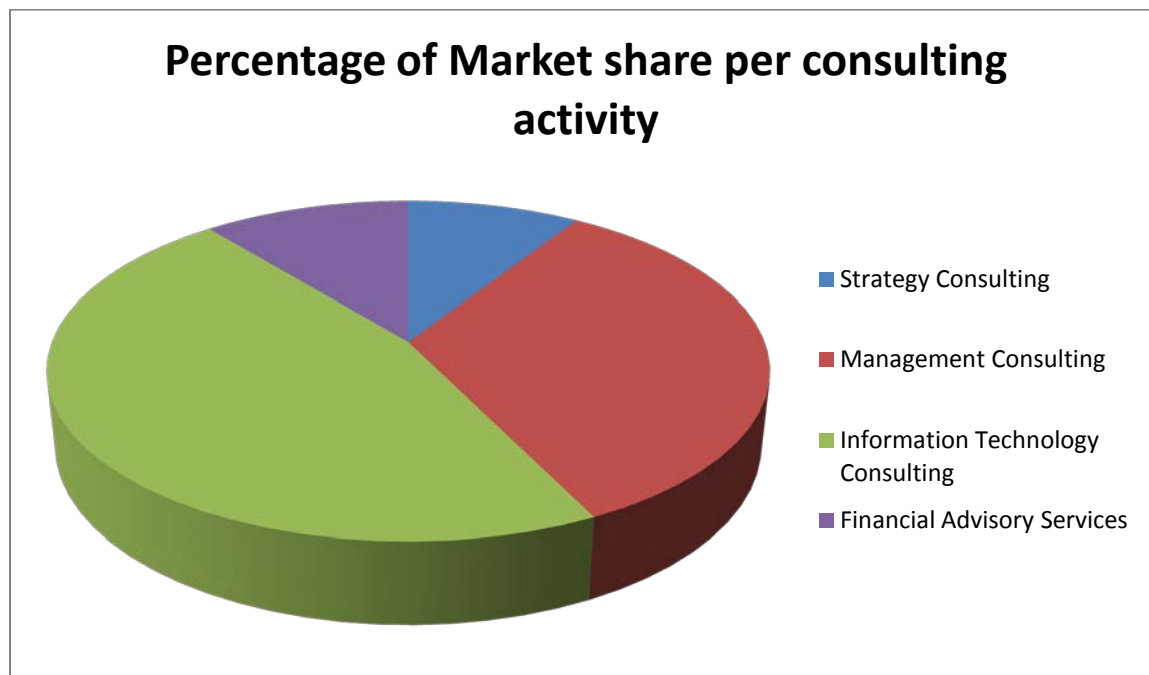


Figure 2. Percentage of Market share per consulting activity. (Source: The Consultancy Group, 2011)

These activities all offer a different service to their clients.

- A Strategy Consultant offers services that are aimed at improving long-term growth and profitability. These services could consist of, strategic planning, organizational strategy, marketing & sales strategy, and financial strategy.
- Management Consultants are divided in the following broad specializations;
 - An Operations Management Consultant offers services that should improve the value chain of the company. This could also include the research and design of products and the sourcing of inputs. These consulting activities create a more effective client organization, by altering the client's processes and systems.

- The Human Resources Consultant is concerned with improving the effectiveness of the corporate Human Resource function. A Human Resources consultant could advise on human capital strategy, and on talent management.
- Business Advisory Services are services based on the financial analysis of the organization. The recommendations are often based on alternative scenarios. These services are of growing importance for the support of vital corporate decisions.
- An Information Technology Consultant advises on the design and construction of Information Technology related business functions.
- A Financial Advisory Services Consultant generates financial reports on the organization, conform accountancy guidelines of the country of origin.

Many of these specializations overlap, and the large consultancy companies often offer the full range of consultancy services, to a wide range of markets, often the different served markets, and the types of services that are offered are part of a matrix structure in the large consultancy firms. The next paragraphs will elaborate in detail about what the consultancy practice is about.

2.5.3 Approaches to consulting

Because the boundaries between various disciplines within consulting are not clear cut, the way in which a consultant shapes his task is of utmost importance. Important in this respect is the way a consultant perceives his task. Some approaches to consulting address pragmatic problem solving, as others are more focused on transferring professional knowledge. To be able to work successfully and effectively together, consultants should have a professional attitude, and should be aware of the interaction that needs to take place between them and the client. There are mainly three approaches to consultancy, the purchase of expertise model, the doctor patient model and the process consultancy model. The first two models are looking at the content of the problem, while the process consultancy model is more focused on the interaction between client and consultant (Schein, 1969).

2.5.4 The client-consultant relation

The focus on the client-consultant interactions helps to understand “what happens when client and consultant interact and work together” (Clark, 1995, p. 109). A consultant in this respect ‘creates and sustains a reality that persuades clients of their value’ (Clark & Salaman, 1998, p. 25).

Because of the service characteristics it is difficult for a client to address the quality of the service in advance. The previous experiences form the client’s expectations and opinions about the offered service. Because of the heterogeneity of the service the quality becomes a variable to the client in this process. This is closely related to the perishable nature of the service, which makes it impossible for the client to purchase the same service again (Clark, 1995, p. 61). The nature of client-consultant interaction is based on these premises, the consultant manipulates the interaction by use of language and other cultural artifacts in order to convey an impression of value and quality to clients (Clark, 1995, p. 87). The critique to the consultancy industry is manifold and mostly concentrates on the mentioned value offered by consultancy.

Clients and consultants cooperate in a market that is non-transparent, has a large heterogeneity and consists of a large amount of uncertainty. The source for this uncertainty stems from the structural characteristics of the industry, and the characteristics of the services being offered. Some of these characteristics are; free entry to the consulting market, difficulty in assessing the quality of the service offered, and future success cannot be derived from past performances (Clark, 1995).

2.5.5 The practice of consulting

The consumption and translation of concepts like innovation are hardly explored with respect to the client consultant relation. For the translation and consumption of innovation to the client, a consultant should be able to use applicable rhetoric, and metaphors. This has up till now not been investigated by researchers, there is only the assumption that concepts are used on a pragmatic basis in consulting assignments to gain legitimacy and create demand (Heusinkveld & Visscher, 2012).

There is little known about innovation as a concept in relation to practice and the way in which consultants frame innovation. By revealing how consultants are able to shape innovation, I offer an understanding of innovation as a cognitive exercise, instead of a clear means to an end. Concepts like innovation are part of an enacted practice in the client-consultant relation where little scientific knowledge is available. (Heusinkveld & Visscher, 2012)

2.5.6 The offered management knowledge

Management consultants are predominantly concerned with converting management knowledge into a uniform, standardized form (Suddaby & Greenwood, 2001). Innovation as a management concept can be part of such a standardization. The 'mass-customization' of these knowledge products can produce immense economic benefits (Fincham, 1995; Suddaby & Greenwood, 2001). The standardization is an attempt of consultancies to create a discretionary space for their action, which enables them to market their expertise to their clients (Heusinkveld & Visscher, 2012). The client organization, if confronted with clear concepts, is better able to acknowledge urgency, which enables the client, as well as the consultant, to come up with efficient and innovative solution to their problems (Fincham, 1995).

Next to the fact that consultants want to exhibit their objective and universal knowledge, they emphasize the importance of their elaborate experience base for the application of certain concepts, this implies that consultants are mandatory passage points for their clients (Heusinkveld & Visscher, 2012). Thus consultants use their perceived indispensability and their rhetoric to create legitimacy for their innovative actions.

Representing knowledge on the basis of concepts embodied in metaphors provides the consultant and client with cognitive support in the advice process, adjusting and managing expectations of both sides (Fincham, 1999). Abstracted project ideas on the basis of these concepts become therefore rational and innovative solutions to the client's problems. This type of knowledge production is highly dependable on the way in which a consultant is able to translate the abstract range of concepts and position them in the organizational contexts. (Heusinkveld & Visscher, 2012)

To be able to offer standardized solutions 'translation' is the key. However there is still little empirical evidence on how management concepts are actually applied in organizational practice, resulting in a

primitive understanding of the adaptation of concepts in practice (Clark, 2004) . The present literature conceptualizes the supply of management concepts mainly as an important means for consultancies to legitimate their services and generate business, the consultant is depicted as extremely adaptive in finding ways to apply concepts and use rhetoric to practical situations (Heusinkveld & Visscher, 2012). A practice-based approach indicates how management concepts are enacted in practice. How they are able to adept remains however uninvestigated. Consultants are in this respect extremely pragmatic and try go along with clients' demands and cognitive processes (Heusinkveld & Visscher, 2012).

2.5.7 Consulting; pragmatism in action

'Bricolage' is a term used for the activities that people adopt to be able to interpret activities of the body of available practices (Jarzabkowski, 2004). This means that the way a practice is enacted is based on the circumstances and agendas of the actors that are involved (Tsoukas, 1996). The interaction in a pragmatic situation consists of a set of individuals that all have different interests and perceptions (Bourdieu, 1990; Jarzabkowski, 2004). A Professional's past experience plays an important role in understanding the specific interpretation and enactment of innovative problems and solutions. Consultants are able to respond to specific organizational problems or solutions on the basis of their past experience (Bourdieu, 1990). Social practices will enable a practitioner's cognitive ability to create new innovative ways of dealing with problems. This process in which a problem is recognized and dealt with on the basis of experience is called framing a problem situation (Heusinkveld & Visscher, 2012; Schön, 1983). Professionals with higher levels of prior knowledge are better able to understand a situation and use new practices to create innovation.

In situational actions prior experiences are enacted and made relevant when practitioners face local circumstances. This process is part of a reflective conversation, leading to experimenting with local circumstances that are part of the situation at hand. When we speak of pragmatic experimentation, and attempting to change a unique situation this takes place within a frame of the professional (Heusinkveld & Visscher, 2012; Schön, 1983). Reflecting on the consequences related to the original frame, actors will use, adapt or reproduce specific practices. The enactment of practices is shaped by how practitioners experience and assess the situation for further actions, this means that the professional's choices are influenced by considering what is possible in a specific situation (Heusinkveld & Visscher, 2012; Jarzabkowski, 2004).

My research tries to develop a more profound understanding of the way consultants use frames in their enacted practice (Suddaby & Greenwood, 2001). There are some key framing elements used by consultants to justify their actions and convince clients of their value. The specific relationship between the consultants' conceptual toolbox and the way organizational problems are dealt with is part of this framing process. Consultants use framing in relation to their prior knowledge, experience and their market positioning.(Heusinkveld & Visscher, 2012)

To be able to properly frame a situation a consultant should have a solid experience base. When the commitment of the client is high the professional is able to determine the scope of possibilities of management ideas. A strong and committed client is able to cope with complicated problems and solutions in the framing process, which allows professionals to use specific management concepts. In

the growing body of research on the client consultant relation, this study will focus on the pre-framing efforts of consultants (Sturdy & Clark, 2009). Consultants do not go into an assignment floating, but often have a preconceived cognitive map of the situation. This is done through framing and frame negotiation with the client. I assume that the creation of new ideas in a business can benefit greatly from the insight obtained with my research. Therefore the employment of conceptualizations by innovation consultants should have a positive effect on the creation of new ideas in a business context (Clark & Salaman, 1998; Heusinkveld & Visscher, 2012).

2.5.8 The consultant as a professional

A professional is someone who is able to link specific knowledge of the situation with the tested general knowledge he holds. The professional knowledge refers to a deeper claim of extraordinary knowledge that he possesses by effectuating his expertise. The trend is that professionals have lost confidence to these claims of extraordinary knowledge, and are in a struggle to defend their knowledge domain (Schön, 1983). Information is much easier to access via new forms of media, and thus knowledge of professionals becomes much more contested.

The most important element for innovation consultants with respect to their claims of knowledge is to create synergy between theory and practice, which means they are able to 'design a desirable future and invent ways of bringing it about' (Schön, 1983, p. 16). Professionals therefore often engage in innovation.

Within the context of technical rationality, a professional is a bearer of uncontested knowledge. The Innovation consultant addresses an area where uncontested knowledge is not available, an area between avocation and profession. An avocation and a profession are complete opposites. A profession involves the application of general principles to specific problems (Schön, 1983). Professions are grounded in knowledge. Avocations stem from passion and are grounded in emotion. Within an avocation one does not apply general principles and ratio, but uses his 'heart' to solve problems.

From the perspective of technical rationality professional practice is a process of *problem solving*. Setting a problem is however not a technical matter. Problem setting is a situation in which 'things of the situation are identified'. One sets the boundaries of what one is going to look at, and tries to look at the direction in which things should change. In the process of problem setting, one interactively names the things to which one will attend and frame the context which one will attend to them. (Schön, 1983, p. 40). When the problematic situation is *framed*, one understands and organizes the situation, which ultimately will result in a better understanding of ends. One can create a better understanding of means by *naming* the situation. *Naming* and *framing* are conditions necessary to execute technical expertise and to solve problems with nontechnical elements (Schön, 1983).

2.6 Innovation consulting

My research relies on innovation in action. This means that the innovation efforts of the different consultants can be adopted differently. Within the innovation context there are many models and typologies of innovation, these typologies are of course very important for understanding innovation as

a practitioner, but not for the purpose of this research. The way in which the consultant uses his knowledge and enacts upon it is evenly important as the professional choices he makes.

2.6.1 Innovation

Innovation has become less dependent on the creativity of individuals, but more on the basic orientation, motivation and context of the organization. It depends on resources that the organization makes available to support work in a domain targeted for innovation (Casper & Waarden, 2005). The emphasis in the literature has developed to a status quo in which innovation is part of the purposive actions of the organization (Nelson & Winter, 1982).

The first author who adopted the idea of innovation was Schumpeter (1934). His views on innovation were much broader and based on 5 different categories of innovation. These categories were; new goods (or modified existing products), new processes, new markets, new sources of raw material supply, and the creation of new types of industrial organizations (Schumpeter, 1934). In the years that followed, innovation has become an integral part of organizational practice, shifting the cognitive concepts from the initial 5 categories to a holistic view of innovation that should be adopted company wide. This makes that innovation practitioners and researchers are convinced that metaphors, stories and tangible cultural artefacts are all important tools to effectively adopt innovation companywide by changing the culture and values of an organization (Higgins & McAllaster, 2002).

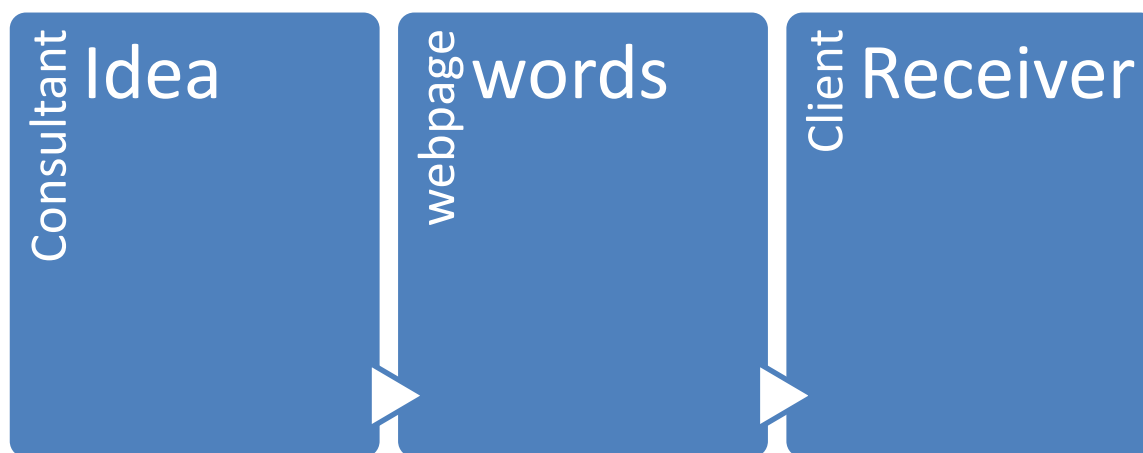
All organizations face the challenge of innovation, their survival and growth depends upon their capacity to renew what they offer the world and the ways in which they create and deliver that offering (Tidd, Bessant, & Pavitt, 2005). Innovation represents the core renewal process in any organization or society and as such it inherently implies some degree of change. Innovation has become an integral part of human behavior as we are constantly thriving ourselves forward, and try to create and acquire new knowledge. Innovation is part of our everyday live and has become an institutionalized construct, pushing individual goals, industry objectives, and societal change. Because innovation is an important concept in our social interaction, it is one of the fundamental concepts of the human conceptual system.

Management consulting consists of the advice or implementation services that are offered to management. Innovation consulting can be seen as a new form of consulting, sourcing information from different disciplines to create key changes in the organizations' innovative capabilities. The advice an innovation consultant gives to his client can be very diverse, and is based on his expertise.

The Dutch innovation landscape is part of the environment of the innovation consultant. In this landscape the innovation consultant needs to be meaningful, in a way that he can create value for the customer. The innovation consultant wants to offer his services in a way that enables him to create a discretionary space to expand his power and authority. Besides the expertise of the innovation consultant, other factors also determine what innovation is and how it is perceived. Innovation consultants are usually working for a consulting firm (such as PWC, KPMG and Arthur D. Little) and must take into account commercial and organizational objectives as well.

2.6.2 The innovation consultant

The innovation consultant uses his expertise to put his ideas about innovation (concept) into words on the webpage (container) and tries to convey meaning to the receiver of the message, the client, who takes the idea out of the container and interprets it. The metaphorical concepts used provide one with a partial understanding of what some conceptual domains or artifacts are. It is important to note that the metaphorical structuring is partial, not total. If it were total, one concept would actually be the other, not merely be understood in terms of it. Thus, part of a metaphorical concept does not and cannot fit. The partial nature of metaphorical conceptualizations under scribes the idea that the metaphors are purposefully chosen, to highlight certain aspects of innovation and underexpose other aspects.



The increase in the use of management consultants in the last couple of years has two main reasons (Clark & Salaman, 1996). The radical changes and increased pressure from the market and competitors, especially small niche consultancies, on the one hand, and on the other hand the developments managers face with respect to acquiring new skills, values, and qualities. Managers in this respect need to be persuaded that traditional structures, systems and cultures won't do (Clark & Salaman, 1996).

Interactive pragmatic consulting should be adopted in the cases and situations where problems are unstructured. This is often the case when the subject of the assignment is innovation. In an innovation context, consultants have to use stories and rhetoric to enable and facilitate the communication with their clients, because: 'Clients (managers) have difficulty understanding excessively technical language; have a short span of attention; a limited span of memory and judgment; and tend to be more convinced by certain modes of communication than others. Popular management ideas should take these limitations into account' (Huczynski, 1993).

For innovation consulting to be effective, the innovation consultant has to be able to source and bridge the information from different specialized sources in such a manner that innovation can be obtained.

2.6.2.1 The mediation of reality

In great respect, as mentioned earlier, the consultant is a mediator, between 'reality' and cognition of the client (McQuail, 2005, p. 84; Schön, 1983). In the process of adoption of knowledge the consultant is a mediator that is dependent on direct interactions with innovation in its surroundings, but also with indirect, long-term innovations that are anticipated. The consultant is in this respect not a free agent of change, but has its own preferences, expertise, and network forces, that shape public perception on reality.

In figure 3. the process of mass media communication is presented. This is in great respect applicable to the consulting practice. The consultant as addressed above is a mediator, just like the media in the picture. The consultant has an audience, 'the client', and he sources information and knowledge from his surroundings. Given the diversity of underlying motivation of the consultant makes the mediation not an entirely neutral process. The mediation is deemed a selection of the 'images of reality' provoked by consultant. (McQuail, 2005, pp. 84-85)

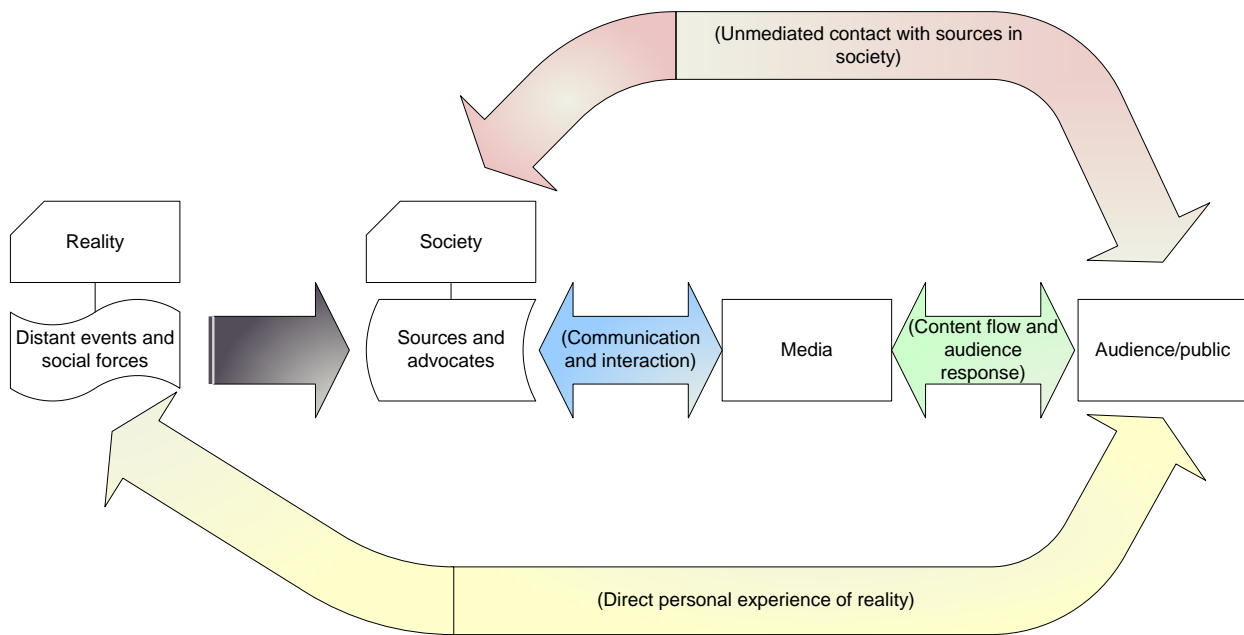


Figure 3. The mediation of reality by the media (McQuail, 2005, p. 85)

The media offer their audience information images, stories and impressions, guided by their own purpose or the anticipated needs of the audience. Often this is also guided by the motives of some key actors in their surroundings. In figure 3. it is clear that the audience can have unmediated contact with sources and advocates and distant events and social forces. This means that the experiences of the client are also important factors in communication. These experiences can underpin certain knowledge that is created through mediation. (McQuail, 2005, pp. 84-85)

2.7 Conclusion theoretical framework

Metaphors could be analyzed in as many ways as they are used. In this chapter the main characteristics of conceptual metaphors were discussed. Metaphors are used as important bearers of meaning, and conceptual metaphors could help address this meaning. Metaphors should be analyzed in a way in which the main focus should lie on the conceptual framework that the metaphor addresses. There are approaches that focus on the interaction between source and target domains, and there are approaches that focus more on the source domain and leave the target fixed.

One can distinguish between projecting metaphors, metaphors that are forced onto a situation, and eliciting metaphors that somewhat occur naturally. In combination with a contextual and de-contextual approach grid this creates four main options of metaphorical research. Between these four categories of research there is a large grey area, my research tries to bridge the gap between the contextual and de-contextual nature of metaphoric research. All of the metaphoric classifications are important in the research because they are used as a guidance to be able to really address the conceptual metaphors on the websites.

The consultancy market was described in detail, and the innovation consultant was positioned within this market. There is a medium needed for the communication between the client and the consultant, the medium or 'container' in the research is the consultant's website. The written text on the website could be marked as an a-synchronic communication process. Because of the one-way communication, the message on the website should be as crisp and clear as possible. This means that the main task of the consultant is to think over the information on the website thoroughly, while he is not able to elaborate on the aspects of the website the client does not understand.

At the end of my theoretical framework a model of mediation is presented. This model is used as a descriptive model on how 'framing' can influence the reality of the client. This model will be used to address different framing efforts of the consultant. This will clarify the scope and goal of the metaphors used.

3 Research design

This chapter will outline the research conducted. The general purpose of the research will be given, and the research strategy will be elaborated on. The method used in this research is based on 'live' metaphors, because 'live metaphors' are self-consciously used. These conceptual metaphors address and convey certain knowledge (Tsoukas, 1993). The question central to this research is not whether metaphors are used within innovation consulting, because that is clearly the case, but how these metaphors shape the client consultant relation, and eventually the outcome of the consulting efforts. For metaphors to address knowledge acceptance and creation, general properties of the innovation metaphor should be uncovered (Cornelissen, 2002).

3.1 Requirements to metaphorical research; some heuristics

There are some heuristics that need to be met before one is able to conduct a good metaphorical research. It is important to identify what is metaphorical, and what is not, especially in the light of the internal validity, a protocol for the identification of what is metaphorical is very helpful. And in the research there should be a clear demarcation of the linguistic community (Cornelissen et al., 2008). One wants to investigate a specific linguistic community because this diminishes cultural interference. In this research the linguistic community is the market of innovation consultants in the Netherlands.

Much research has focused on creativity and innovation at an individual and team level as well as at a level of corporate culture and structural innovation (Krogh, Ichijō, & Nonaka, 2000). What is still lacking is research on the use of metaphorical language to enhance innovation and value creation from knowledge, by the professionals and practitioners in the field of innovation consulting. I therefore limit the scope of my research to the use of metaphors by innovation consultants to create innovation from knowledge.

This study aims to identify the conceptualizations of innovation in the client-consultant relation, trying to identify how conceptual metaphors are used to frame innovation for the client, and the industry. By identifying these conceptualizations, one can better understand the knowledge transfer that occurs in the client-consultant relation. The innovation consultant is by means of conveying a perception of innovation, able to create a domain of knowledge that is mainly controlled by innovation consultants.

3.1.1 The comparison model

The comparison model of a metaphor is a paradigm that addresses the source and the target domain as different sources of meaning. The underlying theoretical assumption is that '*metaphors work by linking the source to the target concept*' (Cornelissen, Kafouros, & Lock, 2005, p. 9). This suggests that an analogy or simile not only exists as a necessary condition for metaphors, but also provides the grounds for their comprehension (Cornelissen et al., 2005, p. 9). The principle of the metaphor is based on extraction. Extraction means that the comparison between source and target domain is the basis for comprehending how discrete properties of relations that apply to one term of the metaphor can also apply to the other term in the same or similar sense (Cornelissen et al., 2005, p. 9).

3.2 Discourse and frame analysis

I will be applying a discourse analysis methodology, in which written communication will be studied, and whereby the meaning of these texts will be analyzed. Discourse analysis is focused on the presentation of the communication by the innovation consultant. Discourse analysis is 'the close study of language in use' (Yates, Taylor, & Wetherell, 2001). Language is constitutive, referring to the earlier discussed cognitive component. Important also for the study of metaphors adopted by innovation consultants is of course the situated use of language. Language is embedded in a context, and in this context language should be studied. However I also want to draw some de-contextual conclusions on the basis of the quality of communication (Yates et al., 2001).

Discourse analysis is the study of talk and text. It is a set of methods and theories that investigate language in the spoken and written form. Discourse analysis is of great importance, because the research focuses on the meaning given to words by innovation consultants (Yates et al., 2001).

It is possible to study the text on websites on the basis of discourse analysis. Discourse analysis takes the spoken or written forms of language as a basis to study sociological and psychological characteristics of the people that engage in the communication. With respect to forms of more traditional approaches to linguistics discussed earlier, discourse analysis takes also notice of the surroundings in which the language takes place.

Within this study, vast amounts of communication are taken, and are used to study the naturally occurring language on the different websites. With respect to other fields of research within linguistics, discourse analysis is more prone to identify the sociological characteristics of the object studied by means of text analysis, than to really identify the linguistic origin and nature of the text (Wetherell, Taylor, & Yates, 2001).

Discourses and frames are mental mechanisms by which we organize our thoughts, ideas and world views. Any new information is integrated into pre-existing frames or discourses which help us make sense of the world. Our use of these mechanisms is generally unconscious, yet they critically color the reality we see in the world. For innovation consultants who attempt to say something about reality, it is vitally important to bring our discourses and frames to the light of consciousness. Frames are important to get your point across, and as previously mentioned an important part of the work of an innovation consultant.

3.3 Frames in innovation consulting

Framing is part of the tension between client and consultant. This tension was addressed in the previous chapter that explained the task of a consultant, and the factors affecting the client-consultant relationship. Although previous studies have yielded much knowledge about framing, there is still much uncertainty around framing efforts in practice. The uncertainty in the field is based on the lack of a clear definition and operationalization of framing. The present study will try to address part of this uncertainty. The research focuses on framing metaphors, and not on the framing effects that take place at the receiver side.

The abovementioned relationship between client and consultant is the background in which framing occurs. Three types of framing can be distinguished in the framing process; framing by influence of the surroundings, framing in communications to the client, and framing by the client (the interpretation of the communication). This division in the framing process comes forward in research, but these three processes are then frequently confused. So frames can be the mental framework for processing information, and the textual properties of communication made by a consultant. There needs to be a clear distinction between interpretation and presentation frames. The research is focused on the presentation frames adopted by innovation consultants (Entman, 1993).

For research purposes we take into account that there is a domains-interaction model, but use the classical approach to analyzing the target and source domain. This has advantages because we use websites of different consultancy firms, whereby the target domain has a more passive character. (Cornelissen, 2004)

Concepts and conceptual metaphors are part of the ability to convey knowledge, these concepts and conceptual metaphors are part of an overarching frame, a frame that is provoked by the innovation consultant. By being able to frame something differently the consultant should be able to create new innovative ideas together with the client. I will look at the way innovation consultants frame innovation. Because innovation consultants are at the forefront of a field that is highly dynamic, and highly subjected to change, my assumption is that there is a vast disparity of frames that are provoked by their use of conceptual metaphors.

To be able to reveal how innovation is perceived in the mind of the innovation consultants, I commence by an in-depth analysis of the metaphors used on the websites of a number of consultancy firms that are concerned with innovation. By assessing the use of different types of metaphors on these websites, I am able to identify the conceptualizations that are provoked by consultants, in their quest to create a specific domain of knowledge that they control. It is part of a cognitive linguistics study because of the quest for more generalizable conclusions on the basis of the research findings.

The expressions are part of the behavior in a society as a whole and a discourse in particular. The discourse of a Dutch innovation consultant is a part of the Dutch society as a whole. This means that these metaphors are not only part of the material world that we experience, but also are culturally constructed by our experience. In essence all experiences are culturally embedded, however we can make a distinction between experiences that are more physical in nature, such as standing up, or going to bed, or those experiences that are more cultural, such as attending a funeral or acquiring a drivers license (Lakoff & Johnson, 1980b, p. 57).

A corpus approach to linguistic studies is concerned with quantifiable data. The metaphors that are adopted on these websites will be studied on the basis of their conceptual background. The conceptual background of the metaphors will produce quantitative data on the adopted metaphorical concept. The interaction via a website takes place a-synchronously, which means that the information on the website is put up there for the client to read in his own time. The communication is one to many, with the

exception that the group to which is spoken to, is able to take the information separately (Yates et al., 2001).

The focus of the research is on the internet interaction that takes place on a website. A website is no longer an unchanging artifact, but is an important communication channel, that has learning potential just like conventional language. The information on the websites will be viewed as a written form of purposeful language. Within this purposeful language there are numerous forms of conceptual metaphors that will be analyzed. The analysis will be done on the basis of content analysis, whereby the content of a text is studied in a quantitative manner. Word use will be studied and the similarities and differences over the websites of interest will be investigated (Yates et al., 2001).

3.4 Exploration as the general purpose of research

The central goal of the research, as stated in chapter one, is to explore whether and how metaphorical concepts influence the client-consultant relation. The innovation potential of the organization depends to great extent on the innovation consultant's ability to give meaning and convey knowledge. The content of the websites addresses the service that is offered, the meaning and knowledge. Following the literature on conceptual metaphors, the target domains are of great interest when one wants to know which parts of the service are described. More accurately, the aim of the research is to explore how the innovation consultants in the Netherlands use metaphorical language to communicate their services offered. In accordance with the research goal the central research question is a more descriptive research question. The ideal results of the research are some preliminary insights regarding the use of conceptual metaphors in the broader context of organization studies, and the narrow context of innovation, organizations and consultancies.

By this point it should be clear that the research has an explorative character. The explorative nature fits the research goal well. It is argued that conceptual metaphors are important bearers of meaning, and that they exert power on the client-consultant relationship. This is done by studying the innovation domain and the way in which concepts are produced to overcome barriers and friction in the consultancy process, ultimately to align client and consultant in the process. Furthermore, applying a metaphorical perspective or more generally a linguistic perspective to study business phenomena is part of a large field of study. This research stands out because it looks at elicited conceptual metaphors in practice. So in summary, the real explorative nature lies in the use of conceptual metaphor theory to explain innovation in the client consultant relationship.

An explorative study is the best option when one of the next three conditions is part of the research goal. (Babbie, 2004, p. 88);

1. Satisfy the researcher's curiosity and desire for better understanding
2. Test the feasibility of undertaking a more extensive study
3. To develop methods to be employed in any subsequent study

My research is mainly conducted for the first reason. The researcher's curiosity and understanding of the use of conceptual metaphors is the starting point of the research. Furthermore the goal of the research is to provide, not necessarily a better understanding of the client consultant relation, but to

provide a different understanding of this relationship by considering it from a conceptual metaphorical point of view. An explorative study is well suited to meet the research goal as it gives new insights for a specific research topic (Babbie, 2004, p. 89). Additionally, the research will possibly boost interest in this research topic for organization studies. It will provide insights for further research. The concepts applied in my research will provide guidance for future research on this topic.

One substantial limitation of explorative research is that it hardly ever provides satisfactory answers to research questions (Babbie, 2004, p. 89). The main cause for this is that of representativeness of the sample population with respect to the population of interest (Babbie, 2004). The problem of representativeness does affect my research substantially, in the sense that the Dutch innovation consulting firms, that I was able to find, are part of my research. Identifying this population was difficult, because of the lack of available information on the background of the different companies. After a thorough selection process, the consultancies that are focused on innovation and registered at the chamber of commerce (Kamer van Koophandel), are part of the research. This means there is no difference between the population in the research and the population of interest. The population of interest could be larger than envisioned in this research, making it important for future research to really identify what the population of innovation consultants in the Netherlands is. A deeper issue of representativeness in this research is related to the theoretical background of using conceptual metaphors as important bearers of meaning as discussed in the chapter 2.

3.5 Grounded theory

Part of the explorative nature of the study is the grounded theory approach that is employed. In figure 4. the 5 steps of grounded theory are given; starting with the *initiation of the research*, and followed by *data selection*, *Initiation of data collection*, *data analysis*, and *concluding the research*. The first step of grounded theory is the initiation of the research. After initiation, in this case an idea about metaphorical concepts used by innovation consultants, the second step of grounded theory starts (Egan, 2002).

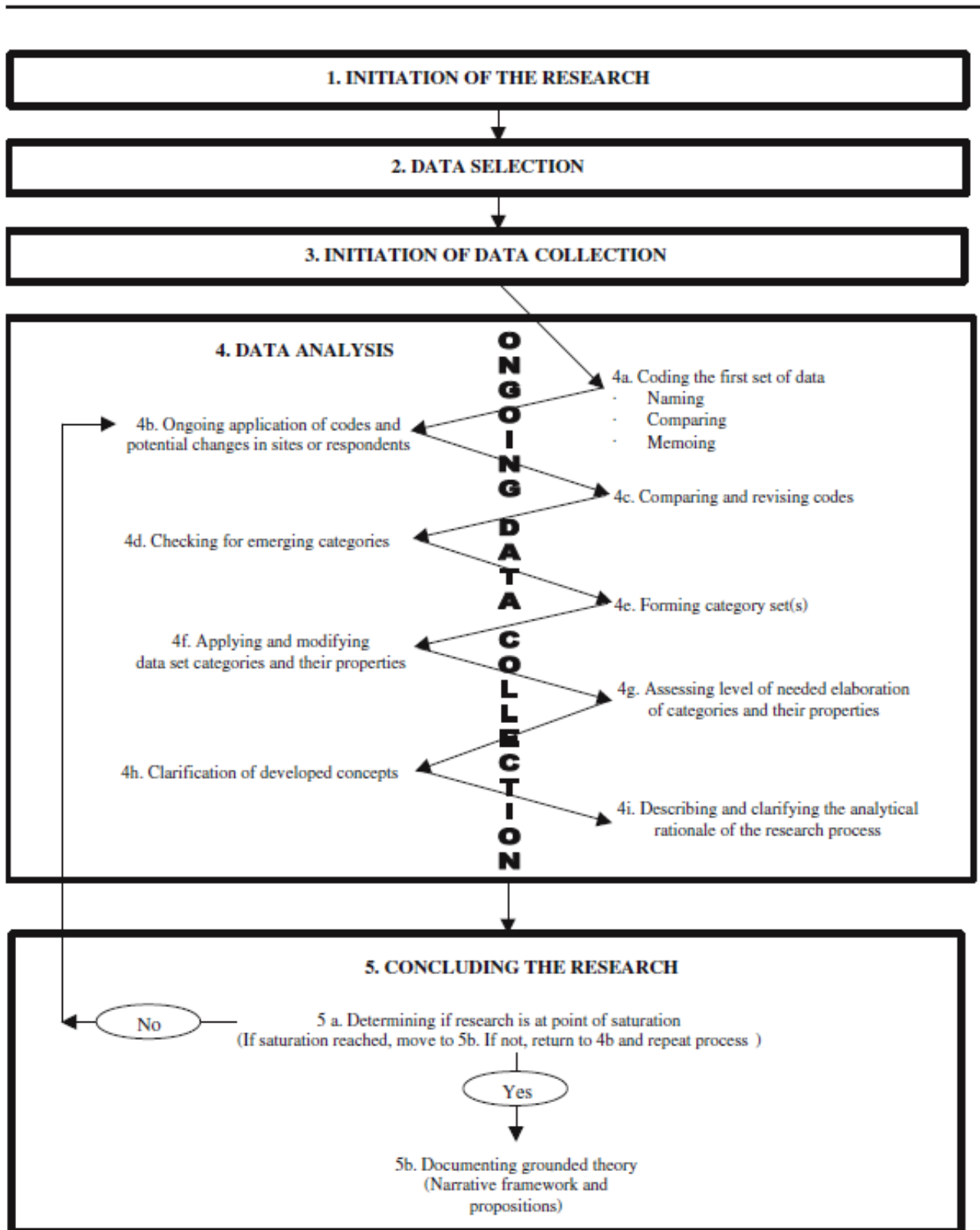


Figure 4. The process of grounded theory-building research (Egan, 2002, p. 281)

3.5.1 Second step of grounded theory; data selection

The list of consulting companies was selected on the basis of the characteristics stated on the websites of the Chamber of Commerce (Kamer van Koophandel; <http://www.kvk.nl>), company.info (<https://company.info>), and as cross reference the websites consultancy.nl (<http://www.consultancy.nl>) and the Consultancy Group (<http://www.theconsultancygroup.nl>). The sampling frame is generated on the basis of companies that are specialized in innovation. This non-random stratified sample consists of 71 consultancy companies (Neuendorf, 2002, p. 88). All these companies have a publicly available website. As a starting point extensive lists of the Chamber of Commerce and company.info were filtered. Many organizations in the category Organization Advice Agencies (organisatie –advies bureaus M70221) are in fact not consulting companies. Many of these companies were found to be bakeries, tool repair companies, engineering companies, empty holdings etc. The filtering of the companies is based on three core characteristics. Firstly location; the consulting company should be located in the Netherlands. Secondly, the presence of a website; the consulting companies taken into account in the analysis should all have a publicly available website. And finally, their focus on innovation; the consultancies should all pay attention to innovation. In the end, the filtering procedure resulted in 71 consulting companies (see also Appendix 1).

3.5.2 Third step of grounded theory; data collection

The quantitative data on metaphors used by innovation consultants are obtained by web analysis (Neuendorf, 2002, p. 206). The websites are ripped to pdf in order to keep the same lay-out and feel as the original website, and have a 'copy' of the website at that moment in time. These pdf's are very large in size. The pdf's were then used to create plain text files (.txt). Some pdf files however were unable to produce good plain text output. The menu structure of the website was in the way, this resulted in sentences with parts of the menu in the middle of the sentences. By creating an RTF document this problem was partly solved, hereafter the remaining 8 websites were done by hand. To be able to code the plain text files I have cut the websites up into sentences; this was done with UCTO an intelligent sentence creator. UCTO works well with plain text so the plain text files were easily converted into separate sentences. Then the sentences were placed in an excel sheet, with a corresponding line number and website source. The excel sheet was used as a database tool to analyze the websites. During the process all the menu text, headers and footers were deleted. To only analyze the information and text that was targeted at the client, vacancies, book lists, newsfeeds, and resumes of individual consultants that had no direct link with the customer were deleted from the dataset. This means that in the end only the 'client' content of the websites remained.

3.5.3 Fourth step of grounded theory; iterative process of data analysis

After the data collection was completed, the first round of coding started; this coding was based on coding the sentences into categories of conceptual metaphors. In this phase a codebook was used with the six forms of metaphors that could occur. This codebook was based on the occurrence of metonymy, structural, orientational, ontological, container, and personification metaphors. Using this in the codebook, a comparison could be made on the different forms in which a conceptual metaphor occurred, during the research. This has led to the notion that for my research the six forms of the conceptual metaphors are of less importance, than the meaning behind the comparison of the source

ant target domain of the conceptual metaphor. I believe that the six main categories have helped me to standardize the coding process, and therefore still of great importance for the heuristics behind the coding.

The coding throughout the research was carried out by means of naming, comparing and memo-ing (Neuendorf, 2002, p. 206). A conceptual metaphor is a metaphor with a clear cognitive appeal. This is a metaphor whereby someone is cognitively challenged. An example is the sentence; *'It is a matter of life and death.'* (Arthur D. Little, line 443). In this sentence life and death is meant metaphorically, because no one is going to *die* when things go wrong. The rationale behind the first coding scheme was, that *dead* metaphors would not be coded, and that the metaphoric appeal should be present for every customer. An example of a dead metaphor that is not coded is; *'The growth of Jatropha Curcas is managed via contracts with smallholder farmers and commercial growers'* (Accenture, line 191). In this sentence growth is deemed a dead metaphor because *'growth'* is embedded in the daily language use of consultants and clients know that *'growth'* has no, to very little conceptual value.

After the sentences were coded, on the basis of the presence of conceptual metaphors, all sentences were compared to investigate if metaphors were missing. This created a more even, crisper line of demarcation. The lowest conceptual metaphor present in the research is *'impact'*. An example of this is; *'That's why it is critical to implement high-impact strategies quickly and effectively'* (Bain & Company, line 89). Impact in this sentence is a conceptual metaphor because the strategy cannot have a high impact, in the sense that strategy is not an object, therefore unable to exert a *'force'* on something.

After the rough coding was finished, the metaphoric lines were grouped on the basis of their source metaphors. Groups were created on the basis of the metaphorical concepts used (for example an *'impact'* group with all the counts of impact in the study). This grouping was fairly straightforward. However for providing a clear picture of how conceptual metaphors are used, these groups had little explanatory value. Because of the fact that in some of the sentences more than one metaphor occurred, this could be seen as an effort to clarify and better demarcate the metaphors. The exercise created a more elaborate picture of all the metaphors used on the different websites.

After all the metaphors were identified independently, two groups were created on the basis of the target domain of the metaphor. I first used a division into metaphors that had as target domain the *'client organization'*, and metaphors that had miscellaneous target domains. Then the miscellaneous target domain group could be divided into two groups, metaphors that are targeted at the service offered by the consultant and metaphors that are targeted at the environment of the client organization.

The group *'client organization'* could be divided into 3 different categories, namely *'small change within the organization'*, *'large (strategic) change of the organization'*, and the *'description of the organization'* by the consultant.

Then the environment of the organization group was divided into 4 categories, *'Market'*, *'Industry or Sector'*, *'Government or Financial Institutions'*, and *'the Customer of the Client Organization'*. But later on in the analysis, no significant difference between these 4 categories was found. Therefore I have

maintained the category of 'Environment of the Organization'. So for the model the subdivision into these four environmental categories had no value for the research.

The category 'Service Offered' was then divided into a category that was focused on the 'Quality of the Consultant', and the 'Customization of the Service'. The 'Quality of the Consultant' addresses clearly a different aspect of the service offered than the 'Customization of the Service'. The 'Customization of the Service' addresses the intent of the consultant to offer tailored solutions. The 'Quality of the Service' communicates the 'quality' of the consultants, and does not go into detail on how this quality is created. A good example is '*What you see is what you get, as we say at i4b*' (source: i4b, line 154). This line contemplates on the offering of the service, and does not go into detail on how the 'quality' is created.

In summary there are six categories adopted in this research that are the outcome of the process of grounded theory, and are based on the target domains of the conceptual metaphors. Three main concepts are used to come to these 6 categories.

<u>Concepts</u>	<u>Categories</u>
Environment (of the organization)	Environment of the organization
Organization	Change within the organization
	Description of the organization (and organizational processes)
	Strategic change of the organization
Service (offered)	Customization of the service
	Quality of the service

Table 2. Concepts and categories of the target domain

3.5.4 Fifth step of grounded theory; concluding the research

An ANOVA and discriminant analysis are performed on the data obtained at the end of step 4, in order to see if there are significant differences between the consulting companies. The explaining categories used in the research for the ANOVA and discriminant analysis are some categories that may be useful, and have face validity with respect to other possible explaining variables.

I have examined three explaining variables that can be used to explain the differences between companies. The explaining categories are based on three basic aspects of the different consultancies examined, the 'size' of the consultancy, the 'specialization' of the consultancy, and the 'location' of headquarters in the Netherlands. The data obtained from the 'Chamber of Commerce' and Company.info consisted of some additional characteristics of the consultancies examined. On the basis of previous quantitative research on companies, these three characteristics are considered the most import for our research purpose. I could have used as a 'size' indicator the total revenue of the consultancies but the data on the total revenue per company was incomplete. The size can be used to identify some economy of 'scale' differences between the consultancies. The specialization could identify some important background characteristics of the consultancy, and could address the targeted customer base. And the location could address differences in culture or even differences in the targeted customer base.

Size of the consultancy

The first category is that of the size of the consultancy, the size of the consultancy can explain the frequency of the use of conceptual metaphors with respect to the 6 different target domains that are identified. The division in size is based on the number of employees. Category 1 is less than 10 employees, and is a so-called micro organization. Category 2 consists of less than 50 employees, and is a small organization. A medium sized organization has less than 250 employees and is category 3 with respect to organization size. The 4th category consists of all consultancies with more than 250 employees. This categorization is based on the definition used by the Dutch association for Small and Medium sized Companies (Midden en Klein Bedrijf NL, <http://www.mkb.nl/>).

Size of the consultancy

(in accordance with the division of the Dutch association of SME)

Cat 1	less than 10 employees	micro organization
Cat 2	less than 50 employees	small organization
Cat 3	less than 250 employees	medium sized organization
Cat 4	more than 250 employees	large organization

Table 3. Size of the consultancy

Specialization of the consultancy

The specialization of the consulting company is also introduced as an independent variable. This variable is based on the main activity of the consulting company. In the event that a company offers more than one service then, only the main specialization is taken into account. This has resulted in six categories of specialization; IT Consulting, Management Consulting, Strategy Consulting, HR Consulting, Innovation and Operations & Process Consulting.

Specialization of the consultancy

IT Consulting
Management Consulting
Strategy Consulting
HR Consulting
Innovation
Operations & Process Consulting

Table 4. Specialization of the consultancy

Location of the consultancy

The location of headquarters is also an explaining variable. The location is based on the geographical location of the headquarters of the consultancies in the Netherlands. Eight categories are identified on the basis of the provinces in the Netherlands. These categories are Zuid-Holland, Noord-Holland, Utrecht, Overijssel, Gelderland, Drenthe, Limburg, and Noord-Brabant.

Location of the consultancy

Drenthe
Gelderland
Limburg
Noord-Brabant
Noord-Holland
Overijssel
Utrecht
Zuid-Holland

Table 5. Location of the consultancy

3.5.4.1 Discriminant Analysis

A two-groups discriminatory analysis is an analysis that can be done to address factors that explain the underlying difference between two groups or concepts (Sharma, 1996, p. 237). A good brief example is the IRS that wants to know which 'type' of tax returns resulted in underpayment. The identified factors in the tax returns are then used to make a composition index that will address the difference in the two groups of tax returns. The eventual outcomes of this analytical process are one or more factors that are indicators for the underpayment of taxes (Sharma, 1996, p. 237).

For both the target domain and the source domain of the metaphor this analysis can be used. For the source domain the 637 categories of conceptual metaphors are used to explain the difference between the chosen groups. I will not use a two group discriminatory analysis, but a multi-group discriminatory analysis. Therefore the discriminatory factors could be numerous. In essence one wants the outcome of the Multi-group discriminatory analysis to consist of the least possible factors that explain the difference between the different groups in one's research (Sharma, 1996, p. 287).

The target domain of the metaphors in the research consists of six variables that are identified. These six variables could explain the difference between the identified groups of consulting organizations. The factors that could best explain in this respect the difference between groups are then used to identify the differences between the consulting categories. The outcomes of the analysis are rules that can classify future observation in one of the consulting categories (Sharma, 1996, p. 242).

3.5.4.2 ANOVA analysis

ANOVA stands for 'Analysis of variance', this is a procedure that identifies whether the population averages of two or more groups differ significantly. The objectives of an ANOVA are very similar to the objective of a discriminatory analysis, however the outcomes could differ because the two techniques have some important differences (Sharma, 1996, p. 342).

A good example of an ANOVA analysis is for instance a marketing manager who wants to know if the geographical area in which a consumer lives (North, East, South or West) has an effect on consumers' tastes, preferences, purchase intentions and attitude towards the product. In this example we have four categorical independent variables, and four metric categorical dependent variables. We want to know if the independent variable in the research, the location of the customer, has an effect on the dependant

variables in the research, the taste, preference, purchase intention and attitude towards the product (Sharma, p. 342).

The ANOVA analysis can be marked as a generalization of the t-test on two or more random samples. It looks at the variance between the different samples taken, in my research one of the sample dividing categories is the size of the company. Four sample categories are chosen for the analysis. An ANOVA looks at the variance in these four groups, and the variance between the groups on the basis of the 6 categories of the target domain of the metaphors that were explained in the fourth step of the research (Sharma, 1996, pp. 342-345).

When I focus on these groups, I want to know if the use of conceptual metaphorical target domains differs significantly between the four categories of size of the consulting companies that I use in the research. Within each group there are differences in the total number of metaphors used, and in the percentages of metaphors used with respect to the number of lines per website. When the average number of metaphors used by the four categories of consulting organizations differs significantly this means there is a significant difference between large, medium, small, and micro consultancies, on one of the six categories. By using this analytical method, I want to know if the total variance, so taken the whole innovation consulting sample, differs significantly from the variance between the categories and within the categories. This analysis will give insight in the random variance of the research, after the analysis I will be able to conclude whether the group differences are significantly different, or can be attributed to random variance (Sharma, 1996, p. 344).

4 Results of the analysis

4.1 Introduction

As discussed in the research design, the research is exploratory in nature and has a grounded theory design. This grounded theory design has led to a large dataset of 71 websites that are regarded as innovation consulting companies. The texts on these 71 websites have been used as input for my conceptual metaphorical research. The backgrounds of the metaphors are very broad and in many cases very compelling. The sources from which the metaphors draw are very diverse and in many instances very unique. For the results to be effective, the data is analyzed from different viewpoints to give a good view of the information on the innovation consulting websites.

The conceptual metaphors on these websites are numerous and draw from many different domains. The main research question is;

- *Which conceptual metaphors are used by innovation consultants, and how can the use of these conceptual metaphors be explained?*

The corresponding sub-research questions that will be answered in this chapter are;

- ❖ *What are the conceptual metaphors that are used by innovation consultants?*
- ❖ *Which conceptual domains can be identified with respect to the target domain of the metaphor adopted by the innovation consultant?*
- ❖ *Which conceptual domains can be identified with respect to the source domain of the metaphor adopted by the innovation consultant?*

4.2 Conceptual metaphors within the research

The research question addressed in this paragraph is;

- *What are the conceptual metaphors that are used by innovation consultants?*

The research comprises 71 innovation consultancy websites across the Netherlands. In total the websites sum up to 25689 lines. In this corpus of text 4030 lines are considered metaphorical. And in these metaphorical lines 4523 counts of conceptual metaphors are identified. Data analysis shows that, on average, one in every six sentences contains a conceptual metaphor.

Total number of websites	Total number of lines	Total number of conceptual metaphorical lines	total number of conceptual metaphors
71	25689	4030	4523

Table 6. Outline values of the research

4.2.1 Normal distribution of conceptual metaphors

The percentages of the metaphors per website display a normal distribution. The distribution is a normal distribution when we look at the metaphors used divided by the size of the websites. This means that there is potentially an explaining variable hidden in the data, but that the content of the website is distributed normally when it comes to the use of conceptual metaphors. In the next table the relative

percentages per website are given. These relative percentages are based on the metaphorical lines divided by the total number of lines per website. The purple columns are the percentage of metaphors per website. These percentages are created by dividing the total number of metaphors per website, through the total number of lines per website.

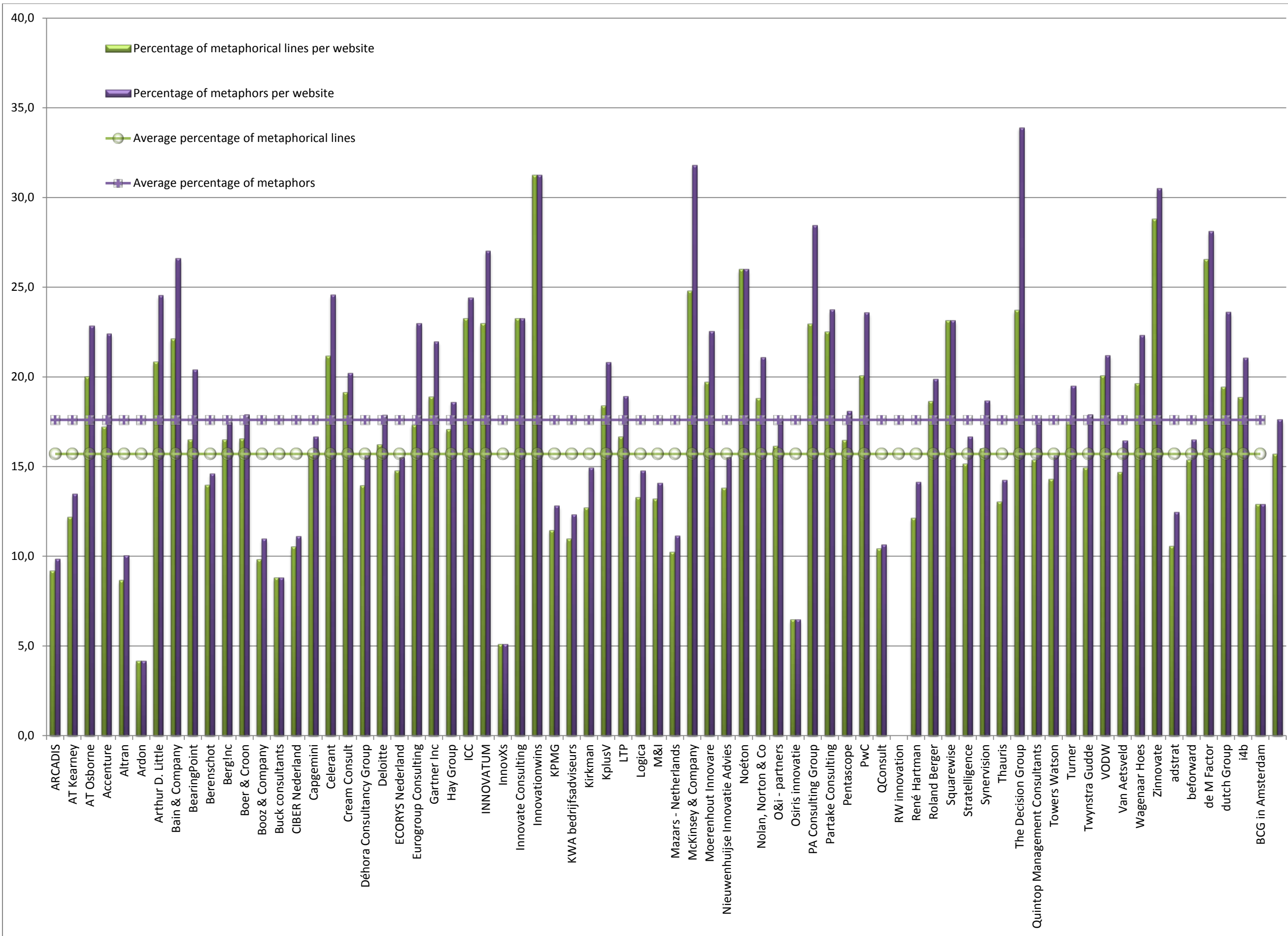


Table 7. Percentage of conceptual metaphor use per website

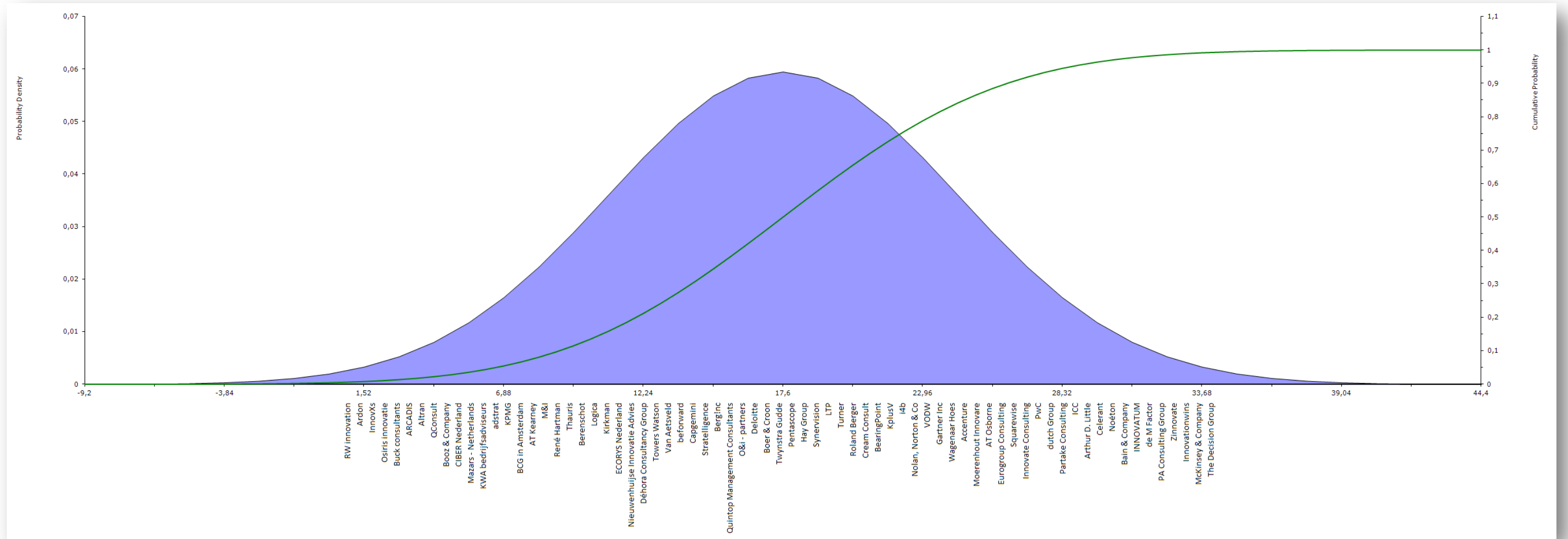


Table 8. Normal distribution of conceptual metaphors

Total average number of metaphorical lines		Total average number of metaphors	
Mean	15,7	Mean	17,6
σ	5,8	σ	6,7
Lower σ	9,9	Lower σ	10,9
Top σ	21,5	Top σ	24,3

Table 9. Normal distribution over the websites

One of the differences between the consultancies, on the basis of sheer quantitative data, was that the websites of strategy consultants used more conceptual metaphors than other websites. The relative values of the use of metaphors are shown in table 10. The Strategy websites have a mean that is slightly above the mean of the total of the websites which is approximately 18 percent.

		Average use per website category σ	
1	HR Consulting	15,5	4,7
2	Innovation	16,1	
3	Management Consulting	17,9	
4	Operations & Process Consulting	18,5	
5	IT Consulting	18,6	
6	Strategy Consulting	21,4	

Table 10. Average use of metaphors per specialization

The difference between the specializations of the consultancies is not more than one standard deviation (as shown in table 10). The mean of the strategy consultants lies the furthest away from the overall mean. During the coding process of the websites I noticed that strategy consultants used more conceptual metaphors per line than other consultants, as quantitatively shown above. Strategy consulting organizations are more prone to the use conceptual metaphors, in their websites, than other consultancies. We can assume that of the six categories of specialization, a strategy consultant has to deal with the highest amount of uncertainty. This uncertainty can be perceived by the client as a weakness. The strategy consultant therefore addresses the uncertainty indirectly, by using a high density of conceptual metaphors. This does not say anything about the aptness of the metaphor, or the image that he provokes it only says something about the frequency of use.

The frequency of use of conceptual metaphors can be subject to further investigation, by linking the uncertainty within a 'specialization' to the density of conceptual metaphor use in a specific corpus. The uncertainty can then be measured by interviewing different consultants on their task execution, and make a scale from certain to uncertain. Where after the relationship between 'uncertainty of the environment' and the 'density of conceptual metaphors' can be analyzed.

4.3 Target domain of the conceptual metaphor

The discriminatory analysis and ANOVA analysis are performed on the target domain of the metaphor, because the target domain determines the scope of information and knowledge the consultant wants to convey to the practical situation of the client. The innovation consultant wants to convey specific knowledge and know-how about and around the consulting process. On their websites the consultants convey information in the form of language. This information is often underpinned by the use of conceptual metaphors. These conceptual metaphors are important bearers of meaning and are able to 'paint a picture' for the client. The target domains of the conceptual metaphors are grouped into six categories based on three domains of knowledge that a consultant tries to address on his website.

The target domain of the metaphors is divided into the inductively created six categories, as discussed in the research design. The bases for these categories are three domains that are part of the consulting process, of which the consultant is trying to give information about. The three domains I have identified are the result of a meticulous coding exercise. The three domains are the environment of the (client) organization, the (client) organization, and the offered service (to the client). All these domains are subjected to the mediation of 'reality' by the consultant.

The three main categories;

1. The environment of the organization
2. The organization
3. The service offered

The six categories created are a subdivision of these three main categories.

The environment

Within the category of the environment of the organization there is no need for further allocation. The metaphors on the environment of the organization are basically based on the external environment of the client organization. The external environment consists of metaphors targeted at the market, sector, governments, financial institutions and customers of the client organization. It is primarily about the 'reality' of the environment of the organization that the consultant tries to mediate.

The organization

The metaphors on the organization are allocated on the background of the process of organizational change. The model of the 'Soll' and 'Ist' situation of the organization best explains these categories.

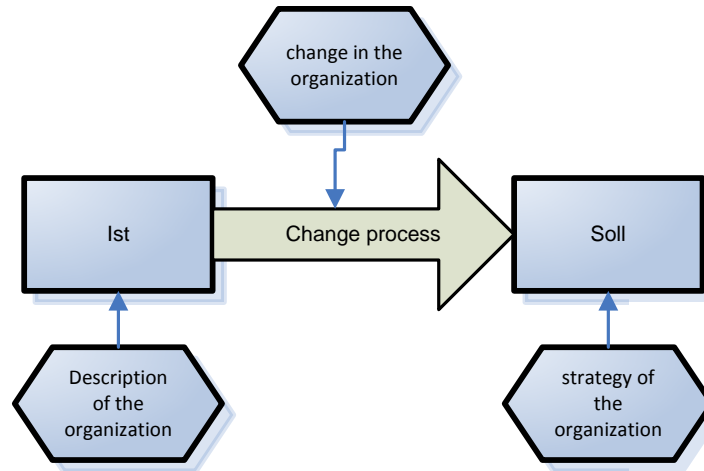


Figure 5. 'Soll' & 'Ist' situation and the metaphorical categories of the consultant

The descriptive metaphors deal with the organization's 'Ist' situation, whereby the consultant tries to describe the current situation of the organization. The 'description' of the organizational processes category is a category of metaphors that do not propagate change. The perception of 'reality' is mediated by the consultant, but the client can easily address whether this painted reality is 'true'.

The change in the organization metaphors, are metaphors that deal with the 'change process' between the 'Ist' & 'Soll' situations. The change process metaphors are targeted at the pragmatic changes proposed by a consultant. It should be considered as change *within* the organization. Its scope and implementation are clearly within the organization, and are in great respect based on the perception of 'reality' by the client.

The strategy describes in great respect the desired future 'state' of the organization, the 'Soll' situation. The strategic metaphors used by the consultant contemplate on the appropriate strategy for the organization. In this respect the mediation of reality is very elaborate. The consultant has an idea about the future, and needs to convince the client of that 'reality'. This mediation is also very difficult for the client to address even after the consulting process, because another strategy would result in another unforeseeable future change, therefore in another 'reality'.

The service

The customized service is the way in which a consultant is able to address his tailored service offering. In all categories it is about what is addressed, and not what is actually performed as a service. Therefore the customization of the service should be seen as a 'promise' to the client. The customization of the service addresses the 'reality' that is clearly co-created. There is no objective perception of 'reality' possible. That is because the service is part of an iterative process.

The quality of the service is based on criteria of the client's perception of the 'reality' of a good quality service. The consultant addresses his quality by metaphors, but this has very little to no influence on the client's perception of quality.

Concepts	Categories
Environment of the organization	Environment of the organization
The organization	Change in the organization
	Description of the organization, organizational processes
	Strategy of the organization
The service offered	Customized consulting service
	The quality of the consulting service offered

Table 11. Concepts and categories of the target domain

4.3.1 Model of mediation of the consultant; six categories and their domains

I have created a model of the consulting process on the basis of the framing efforts of the consultant. The consultant tries to address different target domains in his communication. He is in this respect a great example of a ‘mediator’.

The ‘environment of the organization’ is something the consultant can do by himself. Therefore the framing efforts are limited in scope. There is only a direct link between the consultant and the sources of innovation, there is no direct link with the client (see also figure 6).

The ‘description’ creates a mutual frame of reference for the client and the consultant. This is one way traffic, the metaphors need to be apt to the situation. The client can judge whether the metaphors used fit its organization. The consultant only describes the organization, and the daily organizational ‘reality’.

‘Change’ in the organization has a fairly limited time span. This change is mediated by the consultant between ‘the sources of innovation’ and the client. These metaphors frame the ‘change’ that is needed within the organization. The contact with the client influences the change efforts, making the efforts for change a co-constructed ‘reality’.

The strategy is mediated by the consultant. The consultant tries to mediate the long term goals of the client, to create a widespread perception of ‘reality’ within the organization. The implications for the framing effort are all-embracing. The mediation of ‘reality’ should contribute to a renewed strategy of the organization. The consultant influences and mediates the perception of the client to a great extent.

The service of the consultant is difficult to address in advance. The consultant tries to convince the client that the service offered is of great value by means of conceptual metaphors. He does this by concentrating his metaphors on ‘customization’ and ‘quality’. The ‘customization’ addresses a co-created ‘reality’, whereby the metaphors identify an iterative process.

‘Quality’ is a category whereby the consultant identifies and contemplates on the quality that is delivered with respect to the service. The promise of ‘quality’ used by consultants in their metaphors however is not under scribed by any examples or claims of what this quality is. The metaphors only describe and contemplate on their own excellence. By use of metaphors the consultant ‘promises’ a high quality service but a client cannot objectively verify these claims to ‘reality’.

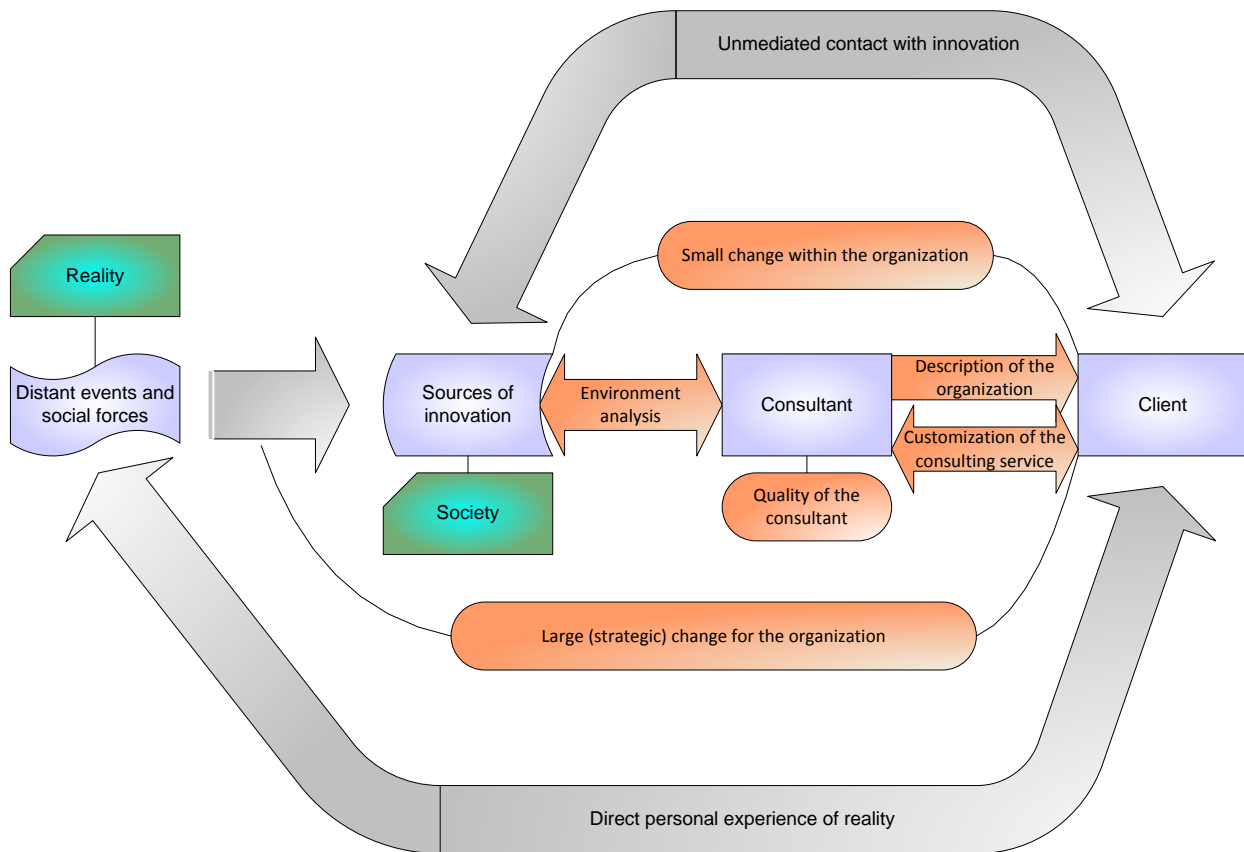


Figure 6. Conceptual model of mediation between 'reality', consultant, and client (based on McQuail (2005, p. 85))

4.4 Outcomes of the ANOVA and discriminant Analysis

4.4.1 Counts

The ANOVA & Discriminant Analysis on metaphors was first executed on the raw counts of occurrence per website. The three mentioned explaining variables in the research design, 'size', 'specialization' and 'location', were used as independent variables.

On the raw counts of metaphors, the differences are not of any importance because the ANOVA and discriminant analysis have a fixed measurement unit, in this research 'the website'. The websites are not identical in size. The difference found on the outcomes of the ANOVA Analysis & discriminant analysis can be explained by the number of lines per website in which the metaphors occur. The number of companies per explaining category is also an important factor to note. In appendix 6 the total output of the ANOVA and discriminant analyses are shown. The difference is not as strong as suggested, because of the emergence of an imbalance between different groups of explanatory variables.

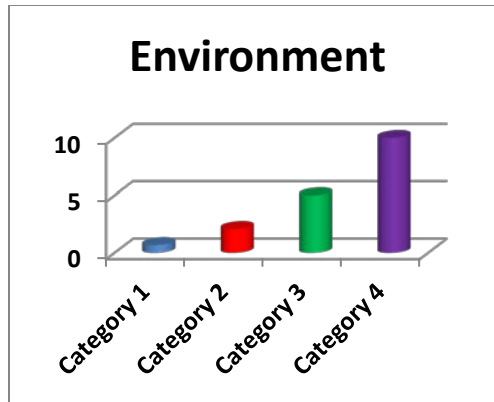


Figure 7. Environment on the basis of the counts

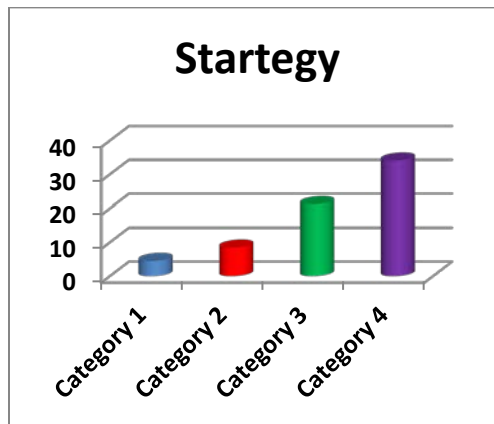


Figure 8. Strategy on the basis of counts

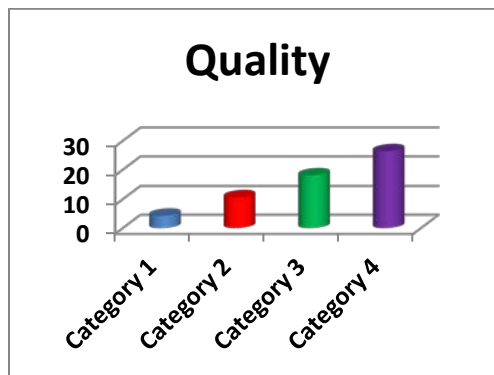


Figure 9. Quality of service on the basis of counts

The graphs (Figure7, 8, 9) show the difference found in the ANOVA analysis on the basis of counts. This is intervened by the 'Average number of lines per website category' in table 12. The differences shown look like a difference based on the 'size of a company'. Logical thought however teaches us, that in a large text, more metaphors will occur than in a small text. The differences in counts are explained by the size of the different websites.

Table 12 gives the number of lines and the number of ‘websites’ per category. Category 1 companies have fewer lines than category 2 companies and category 3 companies have fewer lines than Category 4. However the difference between the number of lines between the categories 1 & 2 and 3 & 4 is negligible. The difference is not present when we look at the average number of lines per website within each category.

Size of the organization	Number of companies	Number of lines	Average number of lines per website category
Cat 1	22	2061	94
Cat 2	11	2635	240
Cat 3	24	10493	437
Cat 4	14	10500	750
Total	71	25689	362

Table 12. Average number of lines per category, on the basis of the size of the consultancy

The graphs (Figure 7,8,9) are showing a difference in MEANS over the categories because the MEAN of the different websites does not account for the number of lines within the 71 website. Each website is considered an equal measurement value in an ANOVA and discriminant analysis. The ANOVA analysis thus takes the 71 websites as individual measurement values. The used websites are therefore not ‘comparable’ because they differ so much in size. The ratio of the metaphors per website is of much more important than the simple raw counts. This means the occurrence of lines and the occurrence of metaphors needs to be accounted for in the analysis.

The measurement values need to be standardized to be able to compare the websites. This is done by using the relative values of the metaphors with respect to the total use of metaphors on a website.

The analysis on the basis of counts produces categories whereby the number of lines, and therefore the number of metaphors per category, is disproportionately distributed among the groups. This means that every major category, on the basis of the average number of lines, will score the highest on the ANOVA analysis and the discriminant analysis. Therefore we have done a second ANOVA and Discriminant analysis on the basis of the relative values of the metaphors used.

Specialization

Table 13 shows that the same graphs can be created as with the 'size' of the company, but then with the lowest value 'Innovation consulting' and the highest value 'Management Consulting'.

Specialization	Number of companies	Number of lines	Average number of lines per category
Operations & Process Consulting	2	658	329
Innovation consulting	15	1576	105
HR Consulting	6	2571	429
Strategy Consulting	15	3833	256
IT Consulting	13	4719	363
Management Consulting	20	12332	617
Total	71	25689	362

Table 13. Average number of lines per category, on the basis of the specialization of the consultancy

Location

Table 14. shows that the same graphs can be created as with the 'size' of the company, but then with the lowest value Overijssel, and the highest value Noord-Holand.

Province	Number of companies	Number of lines	Average number of lines per category
Drenthe	2	102	51
Overijssel	5	108	22
Limburg	2	162	81
Noord-Brabant	5	1077	215
Zuid-Holland	27	1651	61
Gelderland	2	3279	1640
Utrecht	21	7609	362
Noord-Holland	7	11701	1672
Total	71	25689	362

Table 14. Average number of lines per category, on the basis of the location of the consultancy

4.4.2 Percentages

The websites do not correlate significantly individually in their use of conceptual metaphors with respect to their target domain. The individual instances are not all significant on the level of individual websites, because of the limited amount of lines on some of these websites. However we can group the websites in such a manner that the independent variables in the research can form categories, on which the consultancies can be compared. The total sample of the 71 websites on the basis of the target domains identified, are given in table 15. These values are the raw input for the ANOVA and discriminatory analyses on 'size', 'specializations', and 'location' of the consultancies.

Total-Sample				
Variable	N	Mean	Variance	Standard Deviation
Environment	71	5.50697	18.89946	4.3474
Change process	71	13.59301	88.98560	9.4332
Description	71	20.55223	114.01776	10.6779
Strategy	71	24.07509	145.80690	12.0751
Customized service	71	7.98450	51.03013	7.1435
Quality of Service	71	26.87975	208.32947	14.4336

Table 15. Total sample of innovation consultancies (relative values) with respect to the 6 target domains

4.4.2.1 'Size' of the consultancy

When the consultancies are grouped on 'size' of the company, the variances of the means are the same as the initially found variance, except for the 'environment' category. This implies that the 'size' of the company only gives a significant explanation with respect to the 'environment' category. There is no further significant difference on the other independent variables, considering the discriminant and ANOVA analyses performed.

The target domain 'environment' has a significant variance over the 'size' of the companies. This implies that the size of the company explains the amount of metaphors used with respect to the 'environment'. The target domain 'environment' is less frequently used by micro consultancies (as shown in table 16). The size of a company says something about the client and resource base. The micro companies (category 1 companies) have far fewer clients than larger companies. With respect to their resource base, micro companies have probably far less resources than larger companies.

Environment			
Size of the company	N	Mean	Standard Deviation
Category 1	22	3,77	5,22
Category 2	11	5,75	3,37
Category 3	24	6,01	4,13
Category 4	14	7,18	3,19

Table 16. Linear relation between the size of the consultancy, and the use of metaphors on the 'environment' of the organization

This indicates the difference in the target domain 'environment'. The difference does not rely on difficult cognitive and conceptual principles. It has a clear practical explanation. It specifies that the small, medium and large 'size' consultancy, focus their metaphors more on the 'environment' of the organization, than micro consultancies. Bigger companies can do extensive market analysis, and often possess a larger client base, making consulting on the 'environment' more feasible, and straightforward than it is for micro consultancies. Micro consultancies do not possess these economies of scale therefore are less focused on the 'environment' of the organization. The availability of more customers has also some sizable advantages with respect to the knowledge background and the availability of market knowledge.

Table 17 shows the ANOVA procedure that is used to calculate the difference, and demonstrates the statistical significance of these findings. The 'size' of the company is used to indicate the contrast between the MEANS of the target domain 'environment'. The procedure identifies the difference between the categories on the basis of the significant differences in the MEANS. When a 5 % confidence interval is taken as a starting point, the Pr>F value should be lower than 0,05. This means that Category 1 and Category 4 differ significantly from each other, and that category 1 differs significantly from the rest. Looking closer to table 16, you see a difference between the categories. An analysis of variance looks at the significant difference of the means, making the difference between category 2, 3, and 4 not significant, but present. For future analysis on the basis of the use of conceptual 'environment' metaphors used by consultants, a different categorization on the size of the organization could produce results that are significantly different over the categories.

The GLM Procedure

Dependent Variable: Environment

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1 vs. Category 2	1	28.58468584	28.58468584	1.58	0.2129
mean Category 1 vs. Category 3	1	57.61149133	57.61149133	3.19	0.0787
mean Category 1 vs. Category 4	1	99.42955731	99.42955731	5.50	0.0220
mean Category 2 vs. Category 3	1	0.53386429	0.53386429	0.03	0.8640
mean Category 2 vs. Category 3	1	12.68021534	12.68021534	0.70	0.4052
mean Category 3 vs. Category 4	1	12.07705119	12.07705119	0.67	0.4165
mean Category 1 vs. other Categories	1	94.79943591	94.79943591	5.25	0.0252
mean Category 2 vs. other Categories	1	0.07660298	0.07660298	0.00	0.9483
mean Category 3 vs. other Categories	1	3.07043811	3.07043811	0.17	0.6815
mean Category 4 vs. other Categories	1	44.03775237	44.03775237	2.44	0.1232
mean Category 1&2 vs. mean Category 3&4	1	54.14241064	54.14241064	3.00	0.0881

Table 17. ANOVA analysis on the 'environment' metaphors with respect to the size of the organization

4.4.2.2 'Specialization' of the consultancy

The specialization of the consultancy is not an ordinal measurement level like the 'size' in the previous paragraph. The specialization is a measurement on a nominal level, whereby the explanation of variance is more open for interpretation. The dataset consists of 71 websites that are separated into 6 'specialization' categories. The number of lines per 'specialization' (Table 18) gives an indication of the validity per category. The 'Innovation Consulting' category and the 'Operations & Process Consulting' category are relatively small, which makes it difficult to draw solid conclusions on these findings if they would differ significantly from other categories. These two categories have little statistical value because the sample of these groups is too low. I have therefore omitted these categories from further elaboration, but use these categories as an addition to the 'other categories' as input for the ordinal comparison (as shown in Table 19).

Specialization	Number of lines
HR Consulting	2571
Innovation Consulting	1576
IT Consulting	4719
Management Consulting	12332
Operations & Process Consulting	658
Strategy Consulting	3833

Table 18. Number of lines per 'specialization'

The two categories in which the MEANs of the 'specialization' differ significantly are the 'description' and the 'strategy' of the organization. With respect to these categories the Strategy Consulting differs in a statistical relevant sense. Strategy consultants use significantly less metaphors on the 'description' of the organization, and the related process of change, than other consultancies. This could be linked to the fact that Strategy consultants are more prone to long term strategic change metaphors, and less to the use of metaphors for description of the steady state of the organization. Within the ANOVA Analysis this should then be shown by an additional statistical significantly different value on 'Strategy'. The value that is shown lies just outside the 5 % confidence interval of the Pr>F value, whereby the value should be lower than 0,05. The value of strategy consultants on 'strategy' is 0,055. I therefore find the explanation plausible that a Strategy consultant is less focused on the 'description' of the organization with respect to their use of conceptual metaphors, but more prone to using metaphors on the 'strategy' of the organization.

The GLM Procedure

Dependent Variable: DescrOrgPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	158.104695	158.104695	1.75	0.1911
mean IT Consulting - Other Categories	1	344.739763	344.739763	3.81	0.0554
mean Innovation - Other Categories	4	4065.544765	1016.386416	11.76	0.0014

mean Management Consulting - Other Categories	1	27.373878	27.373878	0.30	0.5844
mean Operations & Process Consulting - Other Categories	4	900.529605	900.529605	9.94	0.0024
mean Strategy Consulting - Other Categories	1	814.409588	814.409588	8.99	0.0038

Table 19. ANOVA analysis on the 'Description' metaphors with respect to the specialization of the consultancy

The GLM Procedure

Dependent Variable: StratOrgPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	20.7552024	20.7552024	0.14	0.7047
mean IT Consulting - Other Categories	1	26.0164159	26.0164159	0.18	0.6714
mean Innovation - Other Categories	1	137.7383311	137.7383311	0.96	0.3305
mean Management Consulting - Other Categories	1	109.1487529	109.1487529	0.76	0.3860
mean Operations & Process Consulting - Other Categories	1	0.2168702	0.2168702	0.00	0.9691
mean Strategy Consulting - Other Categories	1	547.2129441	547.2129441	3.82	0.0550

Table 20. ANOVA analysis on the 'Strategy' metaphors with respect to the specialization of the consultancy

Because of the very limited differences between the groups within the research, in the next section we will elaborate on an overall model of framing that is adopted by the innovation consultants. The assumption is that with a large corpus of text, in this case a minimum size of the website, a fixed percentage over the identified categories of the target domain will be found.

4.5 Overall model of innovation consulting

On the categories of target domains in the model there is very little difference between the chosen independent variables. It is arguable that the innovation consulting websites all have a clear structure with respect to the target domain of the metaphor. They use metaphors to identify the same target domains in a relatively homogeneous sense. This implies that the use of metaphors to address the six target domains over a large enough corpus of text will result in a distribution in the following percentages.

- ❖ 6 % of the conceptual metaphors on the 'Environment'
- ❖ 14% of the conceptual metaphors on 'Change' in the organization
- ❖ 21% of the conceptual metaphors on the 'Description' of the organization
- ❖ 24% of the conceptual metaphors on the 'Strategy' of the organization
- ❖ 8% of the conceptual metaphors on the 'Customized' service
- ❖ 27 % of the conceptual metaphors on the 'Quality' of the service

4.5.1 Environment

The 'Environment' of the organization is a topic that comprises 6% of the total metaphorical language used. In other words 6 % of the conceptual framing efforts of the innovation consultant are based on his effort to address the 'environment' of the client organization.

Examples of sentences;

- **Concurrentie** duikt op vanuit nieuwe hoeken. (Deloitte, line 205)
- **De industrie** moet (weer) meer op eigen benen staan, nu de overheid zich terugtrekt. (Berenschot, line 577)
- Hoe kom je als organisatie aan de broodnodige fondsen voor innovatie, nu de financiering er vanwege bezuinigingen op **overheidssubsidies** onder druk staat? (Berenschot, line 1610)

4.5.2 Change in the organization

The incremental change, or the pragmatic approach to change, comprises 14% of the total of metaphors used, this is the smallest category concerning the organization.

Examples of sentences;

- Celerant Consulting can help you bypass these roadblocks by improving **your operations** (Celerant, line 293).
- Squarewise helpt **organisaties** bij het doorbreken van patstellingen en het **boeken van vooruitgang**. (Squarewise, line 64)
- Just like moving house it will be a success if you **get the move done on time** and if you don't lose any of **your prized possessions in the process**. (PA Consulting Group, line 69)

4.5.3 Description of the organization

The description of the organization comprises 21 % of the total of metaphors used, this is the second largest category.

Examples of sentences;

- **Most CEOs** seem to have gotten the memo. (PwC, line 1005)
- **Elke organisatie** worstelt daar van tijd tot tijd mee. (Pentascopie, line 55)
- Een verhaal ligt **u** zwaar op de maag. (Moerenhout Innovare, line 55)

4.5.4 Strategy of the organization

The 'strategy' category is the largest category regarding the organization. 26 % of the framing efforts of innovation consultant are focused on the strategy of the client organization.

Examples of sentences;

- Dat geeft een veerkrachtige **organisatie** en lange termijn winst. (Turner, line 679)
- Dat maakt dat **sommige klanten** opzien tegen de route er naartoe. (O&i – partners, line 737)
- De uitkomsten van de analyse gebruik ik om samen **met de bedrijven** op een creatieve manier de nieuwe koers uit te stippelen. (René Hartman, line 115)

4.5.5 Customized consulting service

The customization of the consultancy service is a fairly small part of the framing done by consultants. This group comprises 8% of the total use of metaphors of the innovation consultant.

Examples of sentences;

- Maatwerk is dan ook de specialiteit van CIBER. (CIBER Nederland, line 342)
- We offer pragmatic solutions to the strategic challenges you face, tailored to your unique requirements. (Arthur D. Little, line 267)
- Vanuit de overtuiging dat organisatieadvies een ambacht is. (Turner, line 132)

4.5.6 The quality of the consulting service offered

The quality of the consultancy service offered comprises a large part of the framing efforts with respect to conceptual metaphors as 27% of the metaphors used are targeted at the quality of the consultancy service.

Examples of sentences;

- It is anchored in our core values, our Code of Business Ethics and, ultimately, it is reflected in the actions of our people. (Accenture, line 139)
- We zijn niet bang om de handen uit de mouwen te steken en mensen op een charmante manier wakker te schudden. (Squarewise, line 52)
- We are driven by Passion. (BearingPoint, line 62)

The overall model of framing of the innovation consultant is constructed in Figure 10.

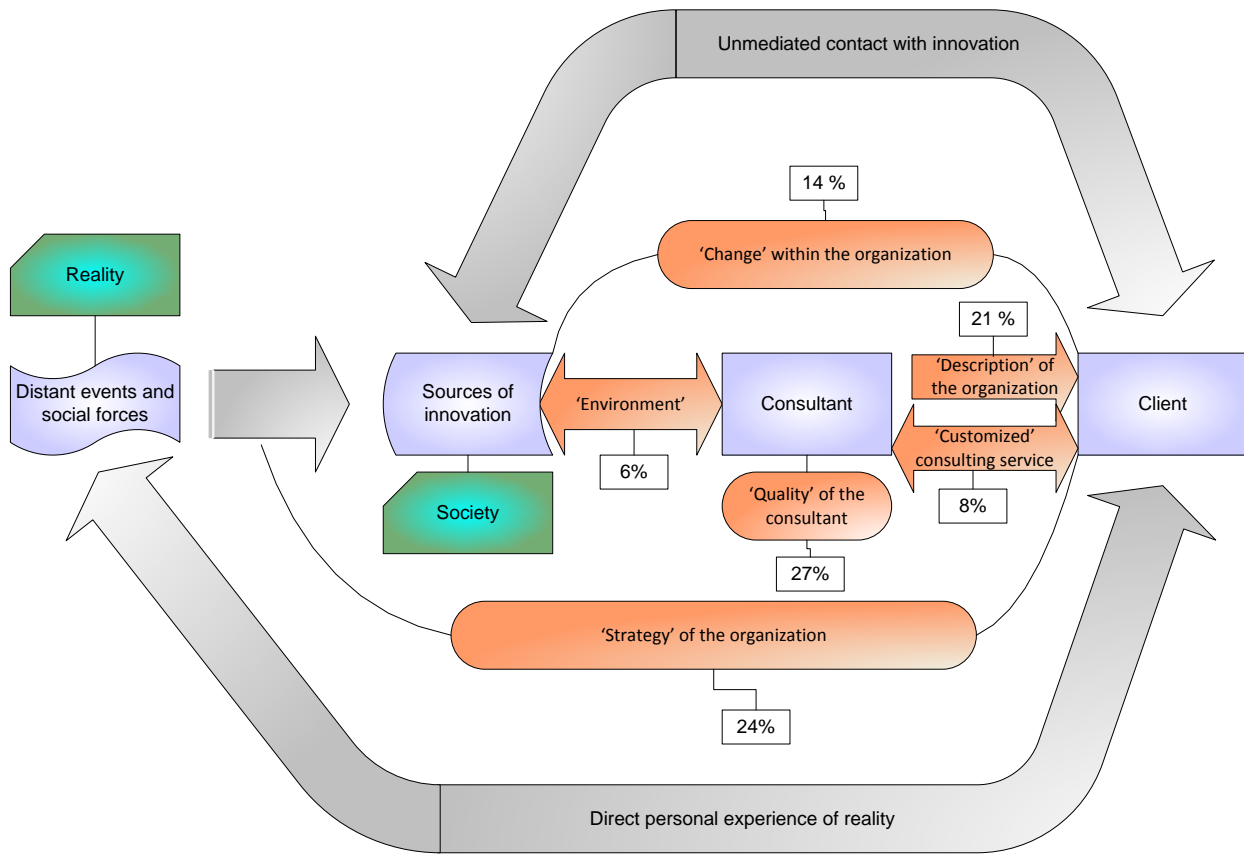


Figure 10. Model of intervention of reality by the innovation consultant (framing in practice)

4.5.7 Concluding remarks on the target domain

Luckily the 'Organization' is the largest category in the model with 59 percent, meaning that the largest amount of metaphors is spent on the organization. This should of course be the object of interest of the innovation consultant, because the service should be focused on the client. The conceptual metaphors used could help the consultants to get their point across, and could have a very deep impact on how the client perceives the usefulness and necessity of the innovation consultant.

However a large part of the conceptual metaphors used are spent on contemplating on the 'service offered' as 35% of all the conceptual metaphors are spent on the 'service'. In these metaphors the consultant basically talks about himself, and does not address a domain of direct importance for the client. The discrepancy can be explained by the next metaphor 'the proof of the pudding is the eating'. Contemplating on your service offering by conceptual metaphors without explicating your service offering is like 'sitting in front of the client and eating his pudding'.

The examples shown do also contain the source domains of the conceptual metaphors. In the next paragraph we will take a closer look to the source domains of the metaphors that are used by the innovation consultants, to address the knowledge that they want to convey onto the target domain of the metaphor.

4.6 The source domain of the conceptual metaphor

In this paragraph the following research question will be addressed; *which conceptual domains can be identified with respect to the source domain of the metaphor adopted by the innovation consultant?* In this paragraph the intention is to address the source concepts used by the consultants. I have tried to address the 'deep' metaphorical concepts that are used for the source domain (Alvesson, 1993; Schön, 1993; Zaltman & Zaltman, 2008).

The metaphorical range of the source domain of the metaphor is very broad. Whereas some websites use, 'war' as a source domain of the metaphors, others use nautical sources like 'navigate' or 'compass'. The broad range of conceptual metaphors has resulted in 637 unique metaphors.

This conceptual metaphorical language is very broad, and consists of 637 different unique uses of conceptual metaphorical language in the 71 innovation consulting websites analyzed. The distribution of these categories can be grouped on the basis of the frequency of use within the entire corpus of text. As shown figure 11 (The table of data for this figure is given in Appendix 2).

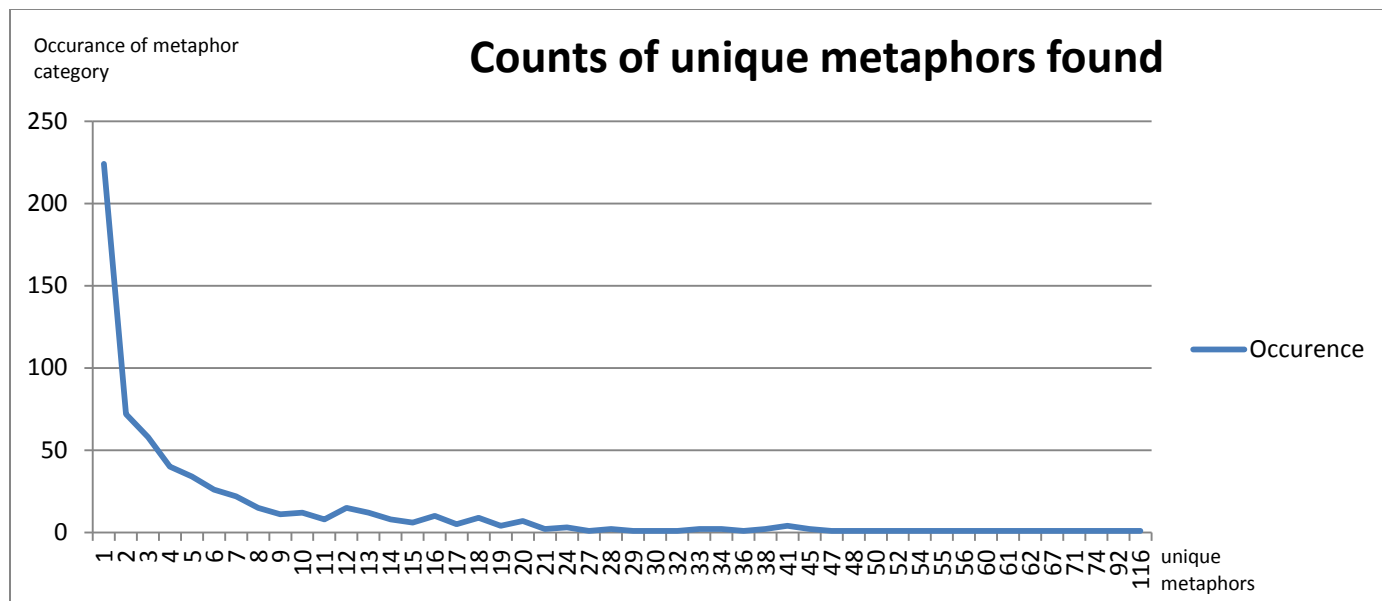


Figure 11. Unique metaphors and their occurrence

Within the table and the graph the unique categories of metaphors are summarized in an easy to read table. There are 224 truly unique conceptual metaphors in the research, this means that none of these 224 metaphors occur more than once. For example *'The proof of the pudding is in the eating'* (VODW, line 73). The bottom side of the table contains categories of metaphorical concepts that are very commonly used. For instance 'translate' (vertalen) and 'map' (in kaart brengen). These unique categories of metaphors have respectively 116 and 92 occurrences.

One can easily detect that the distribution of 'unique' metaphors is 'highly skewed to the right'. This means that in an infinite number of websites, just a few conceptual metaphors will be commonly used, and a large amount of conceptual metaphors will be unique. From conceptual metaphors with 7 or more of the same metaphors the slope of the graph is getting more and more flat. For a higher number of lines and websites, this breaking point should be considered a little higher, however the same basic graph should be present, in line with $y = 1/x$. When for instance the function would be $y = x$, the opposite was true and the slope was getting more and more steep with respect to larger categories. This means that the consultants all would use a high amount of exactly the same conceptual metaphors, which would make all language use on the consultant websites alike.

On the basis of a two-group discriminatory analysis, a commonly used metaphor is a metaphor that is used 8 or more times, and a unique metaphor is a metaphor that is used less than 8 times. The breaking point lies after 7 metaphors. This means that within a corpus of 25689 lines, a unique metaphor is a metaphor that occurs 1 to 7 times and a general metaphor occurs more than 7 times. To extrapolate this to a ratio, a metaphor occurs frequently if it occurs more than once every 3670 lines. If it occurs less, it is deemed to be a more unique metaphor.

75 % of the study consists of unique metaphors, and 25 % of the study consists of common metaphors. So the unique metaphors are a very large part of the study. This makes it very difficult to find

discriminatory factors that are helpful in the analysis of the 637 source domain categories of metaphors. This is because many of the unique metaphors are concentrated on one or two websites that have no independent characteristics or factors in common. This has to do with the individual style and background of the consultant. In essence there are so many explaining variables introduced in the ANOVA and the discriminatory analysis, that there is no theoretical underpinning for the source concepts that are used. (See also Appendix 3 for an overview of the 637 identified metaphorical concepts).

4.6.1 Categorizing the source domains

It is very difficult to attend the source domains to a categorization that is objective and has face validity. The categorization is in essence very subjective in nature, and has therefore less explanatory value. In principle, the 637 conceptual source domains are all slightly different. When looking at these 637 categories, there will be no significant difference over the websites. This is because too few categories are used frequently over the websites. In 224 instances the metaphor is used only once in the entire dataset.

The allocation of a single metaphor to a group like I just did is very difficult, and subjected to the understanding and conceptual mind map of the reader. A good example could be winning, winning is a metaphor that can be a source metaphor used in a political arena. You can 'win' over the competition you can 'win' a debate etc. Therefore it can be argued that winning is part of a political force field, in which the client and consultant are situated. However it is very well possible that other people, with a different mind map, will think of winning and losing, in terms of 'domination'. This makes the concept less dependent on common discourse, and gives the term winning more depth. However this is not the aim of the research, we want to comprehend the discourse of the innovation consultant.

Looking at the nature of the words, 'to win' or 'winning' is a verb, but 'winner' is a noun. This has some implications for the research too. Because of this difference, winning is an action, and winner is a status. Both terms are very similar but yet different in source domain. A winner is someone who has won in the past. One can neglect these semantic differences for looking at the conceptual value. However to be able to address the different conceptual metaphors correctly and as objectively as possible, one needs to take these difference into consideration.

The eight source domains identified in the theoretical framework are used to allocate the 637 unique counts of conceptual metaphors (Morgan, 1986). These metaphors can be allocated to the eight main types of source domains, but this allocation is ambiguous in nature. It needs to be substantiated by good arguments, and even then, with different arguments on the same level, another allocation can be chosen. In essence this is the difficulty with language research, whereby the context is an important factor.

I have tried to allocate the different source domains to the eight categories on the basis of a lower level of abstraction. The point of departure is the viewpoint of 'the client'. In this respect the client wants to be able to understand the conceptual metaphors, in a pragmatic sense in order for him to be able to

apply it to the organization. ‘Winning’ therefore is not a part of the domination domain, but of the political domain. This is because the pragmatic implications are more apparent when we think of ‘winning’ in a political sense.

The 637 categories are part of the following eight source domains, on a higher level of abstraction;

- ‘Machine’ or mechanistic metaphors,
- ‘Organism’ or ecological metaphors,
- Logical or ‘brain’ metaphors,
- ‘Culture’ or common practice metaphors
- ‘Political system’ metaphors,
- Containment metaphors or ‘Psychic prison metaphors’
- ‘Transformational metaphors’
- ‘Domination metaphors’

On the basis of the different instances the categories are addressed to a specific source domain. Morgan uses his categorization to give ‘images’ of the organization (Morgan, 1986). Because the target domains of the metaphors used are broader than ‘the organization’, the categorization is separated from ‘the organization’. Morgan uses for instance ‘the organization as a machine’ metaphor. I address the mechanistic nature of the metaphor used. There are many extensive categorizations and theories on the source domain of the metaphor. Not many theories address the source domain separately. Other theories on the categorizations are Zaltman & Zaltman (2008), which is in many respects similar to that of Morgan, and on a higher abstraction level Lakoff & Johnson (1980b).

Machine	Organism	Brain	Culture	Political System	Psychic Prison	Transformation	Domination
153	170	33	73	54	32	97	25

Table 21. Distribution of the conceptualization of the source domain

Consultancy agencies do not make use of one specific category of source domains. On their websites many different sources are used. This extensive blending of source domains on the different websites suggests that there is a very disperse understanding or conceptualization of the different identified target domains. The different sources of conceptuality do not point in a clear direction and domain of knowledge. If there would be a lot of organic metaphors on a specific website, then one could argue that these consultants use an Organizational Development Approach in their day to day work. However this is not the case. None of the websites commit themselves to one specific category, or to one conceptual domain.

The metaphors that are used are almost all structural in nature (Lakoff & Johnson). These are metaphors that highlight one concept in terms of another. A structural metaphor uses the source domain’s

structure to clarify the target domain. The transference of these metaphors is only partial, which means that the metaphors can be created without difficulty. Frequent use of this type of metaphors can stem from ignorance.

4.6.1.1 Examples

The categorization of the source domains is multi-interpretable. Another person would address some metaphors to a different group. However the distribution in table 21 can be used as a rule of thumb within the study. Many metaphors are based on a 'machine' or 'organism' source. These are the groups that are very general in background information, and one of the easiest ways to generate a metaphor. Everybody should, to some extent, understand the source domain of these metaphors. Some examples are;

'Organism'

- Celerant's **DNA** is about results. (Celerant, line 190).
- Each service offering is supported by a global network of expert practitioners dedicated to continuous **evolution** and enhancement of our clients' business. (Arthur D. Little, line 51)

'Machine'

- Durf **gas terug te nemen** om om je heen te kijken. (Turner, line 456)
- Kortom, **gedoseerd gas geven** is het devies. (Deloitte, 240)
- Bedrijven die snel een nieuw management team aanstellen hebben meer dan twee keer zoveel kans om binnen het jaar **één geolied geheel te vormen**. (Hay Group, line 588)

'Brain'

- Eenmaal gedefinieerd, laten bedrijfsfuncties zich weer gemakkelijk **aaneenrijgen tot processen**. (O&i – partners, line 729)
- Innovation is not the product of **logical thought**, although the result is tied to **logical structure**. Albert Einstein (KplusV, line 469)
- Natuurlijk is het goed om met enige regelmaat je verdienmodel **tegen het licht te houden**. (René Hartman, line 54)

'Culture'

- PwC perspective 10 Minutes on rethinking pivotal talent **Business myth**: In a downturn, my pivotal talent will stay. (PwC, line 34)
- **Our philosophy** is to generate profitable growth and simultaneously cut costs through competitive excellence. (Roland Berger, line 263)
- Onze medewerkers zijn thuis in de branche en **spreken dezelfde taal**. (Qconsult, line 217)

'Political system'

- Binnen nu en vijf jaar zal er een nieuw **speelveld** zijn ontstaan met winnaars en verliezers. (Kirkman, line 511)
- En de tijd krijgt om **de troef** ook echt **uit te spelen**. (Eurogroup Consulting, 112)
- Gartner for Sales Professionals **Win** more business. (Gartner Inc, line 276)

'Psychic prison'

- Program management approach and our alliance with our partners in the **strategic management arena**. (i4b, line 83).
- En de uitvoering **buiten de deur** maakt vaak ook een zakelijker aansturing mogelijk. (Berenschot, line 1107)
- InnovationWins aims to support client companies in identifying and overcoming major **growth barriers** to accelerate and secure their future growth. (Innovationwins, line 3)

'Transformational metaphors'

- Programme Management is a multidisciplinary approach that enables companies to **steer** and execute complex transformations. (Nolan, Norton & Co, line 251)
- Waarmee u wilt **sturen** en managen en uw prestaties verbeteren. (Deloitte, line 2709)
- We work with our clients to identify the innovations and trends set **to shape** their businesses, finding fresh ways to capitalize on new opportunities and manage threats. (Arthur D. Little, line 45)

'Domination metaphors'

- Een **revolutie** in de energiesector. (KPMG, line 49)
- For multinationals, succeeding in emerging markets is increasingly essential in order to **defend** and increase their share of the global market. (Bain & Company, line 365)
- Human Capital Hoe positioneer ik me effectief in **de strijd** om het Human Capital? (Berenschot, line 565)

5 Conclusion

The central research question that is addressed in this study is;

- Which conceptual metaphors are used by innovation consultants, and how can the use of these conceptual metaphors be explained?

The conceptual metaphors used by innovation consultants are very broad in scope, and rich in data. In order to answer the central research question, I first summarize the main findings of the analysis. These findings will partially answer the central research question, whereafter the subsequent paragraphs will deepen the understanding of how consultants use 'conceptual' metaphors.

The metaphors used by the innovation consultants within their websites are pretty similar in aim and scope. These similarities are shown over the different website groups investigated on the basis of their relative occurrences.

The density of metaphors is higher on strategy consulting websites than on other consultancy websites, this can be linked to the uncertainty that is higher within a strategic consulting context. The frequent use of metaphors of the strategy consultants then relate to the higher level of uncertainty concerning the execution of their task.

Consultancies with less than 10 employees use significantly less metaphors on the 'environment' than consultancies that have more than 10 employees. This can be explained by the limited resources of a micro consultancy, and their limited experience with other companies, because of their small customer base.

Another important finding is that Strategy consultants use fewer metaphors on the 'description' of the organization. However they use relatively more metaphors on 'strategy', or the 'Soll' situation. This can be marked as a clear choice for strategy metaphors instead of describing the 'Ist' situation of the organization.

Although the mentioned differences on the target domains are statistically significant, the whole dataset is pretty similar in nature. The dataset on the level of individual websites and explaining variables could be deemed very similar with respect to the complete dataset. Meaning that there are no real shocking differences, and that the difference that are discovered are fairly small. This has resulted in an innovation consultant model of 'framing'.

5.1 Metaphors and the role the consultant wants to play

On the basis of the research I conclude that there is a focus on the 'organization' and on the 'service offered' within the different websites of the consultancies. Much less attention is paid to the 'environment' of the organization. This means that there is no real expert approach to innovation consulting, because a consultant would then address their 'objective' knowledge of the 'environment' of the innovation 'reality'. The consultant is in this respect more focused on the pragmatic aspects of the client consultant relation, and not on the knowledge base and theories that contribute to achieving innovation. The approaches to consulting, that throughout the websites can be identified, are those of

process consulting and doctor-patient consulting (Schein, 1969). The consultant is to great extent focused on the process and not on the outcomes of the process or the eventual goals, which implies a process approach. The 'description' of the organization in combination with the 'change process' implies a doctor-patient model, whereby a good diagnosis will result in a good result for the organization. The two approaches mentioned take into account the situation of the client, and do not claim an 'objective' body of knowledge, which is more the case in an 'expert' approach.

5.2 Conceptual metaphors

Innovation consultants use a high variety when it comes to the source domain of the metaphors. However this variety of source domains of the metaphors does not mean that the metaphors used are unique in nature when it comes to the target domain of the metaphor. It is fairly straightforward that the uses of metaphors with respect to the target domain are very common and even the same over websites. Over the domains 'environment' 'organization' and 'service' the Discriminant and ANOVA scores on the different independent variables are not very different from the overall sample scores. The independent variables used are; the size of the company on the basis of the number of employees, the specialization of the service, and the location of the company headquarters.

Because there is no real difference between the websites on the basis of the target domain, I can conclude that there is a clear notion of discourse in the innovation consulting practice. This discourse with respect to conceptual metaphors is part of the idiosyncratic background of the consultant, and the clear demarcation of the subjects talked about. The target domains which consultants want to say something about are pretty much the same. In essence, the way in which consultants address their clients on their websites differ in style, but not in meaning. The distribution of the consultants' framing efforts is considered the same over the 6 target domains.

The pragmatic nature of the consulting service, prescribes pragmatic conceptual metaphors. Much of these metaphors are not apt for the goal they serve. In almost all of the uses of metaphors, the same could be said with normal content words. This would even result in more meaningful sentences. The different uses of metaphors on these innovation consulting websites, does not make the sentences more understandable. The conceptual metaphors used are blurring the understanding of the actual consulting process of the client, and the way in which consultants mediate reality.

An example is for instance; *'Stuurt u op het zo scherp mogelijk aan de wind varen?'* (O&i – partners, line: 744). This sentence does not give a clear idea to the client, what he should focus on. He should alter his strategy, but it stays this vague. The target domain is set to the strategy of the organization, but this type of metaphor raises more questions, than it gives answers.

Another example is; *'In the fifth century BC, Sun Tzu wrote: 'In peace prepare for war, in war prepare for peace.'* (Arthur D. Little, line; 441). This is a comparison on the basis of war and peace. However how war and peace refer to the client's actual business situation is not evident. Just like the previous example this metaphor is also part of the category 'strategy of the organization'. What is actually meant by this metaphor remains unclear. What one should learn from this with respect to the consulting practice is very obscure.

The research shows that conceptual metaphors are not really used in a conceptual setting and sense, but are part of a more 'decorative' approach of the use of metaphors (Deignan, 2005, pp. 9-10). The consultant uses the concepts of the metaphors not to their conceptual potential, but uses it to just 'paint' a picture, and not to clarify 'reality'.

5.3 Metaphors without conception

The amount of 'empty' metaphors spent on the 'service offered' is rather shocking. I could not imagine beforehand that so many metaphors would address non-knowledge. This is deemed non-knowledge because the practical use of this knowledge by the client is very limited. The information transferred is of very little practical use in the client's business context.

The ongoing institutionalization of the consultancy practice, in combination with the annual growth of the consulting market, should have resulted in a fairly low amount of metaphors used to describe how 'good' the service is. Take for instance the example of your new general practitioner. Also a service that is offered, also professional in nature, and highly institutionalized. When you make an appointment with your general practitioner, you know that you;

- Need to wait in the waiting room
- That he can ask you to take of your shirt
- that he has the knowledge to diagnose your problem
- And that you get a prescription afterwards

The service of a general practitioner is not very different from the service that a consultant offers. But a general practitioner does not under scribe his expertise on his website or in direct contact with the patient. How come a consultant wants to metaphorically reflect on his service offering? Maybe the best way to explain this is that the consultant has less control over his own body of knowledge. Therefore trying to gain control over the perception of the service offered, with as ultimate goal service legitimacy. But when everybody does it, it is not a good differentiator anymore, and it is becoming part of a 'dormant' and 'empty' form of the discourse.

I note here that, another possible explanation for the use of 'empty' metaphors by innovation consultants could be given. It is very well possible that the consultant does not really want to convey any kind of knowledge, but wants to gain the attention of the client. An implication of the conclusion can be that the use metaphors are 'artistic' rather than 'conceptual'. By keeping the metaphors 'obscure' they then try to convince the client to come to them, so they can initiate the consulting process and help the organization on their way 'forward'.

5.4 The innovation consultant; between profession and vocation

The fact that a consultant uses the same target domains, and very disperse source domains, is an indicator that the consultancy practice is not a real 'professional' profession, but more a blend of vocation and profession (Schön, 1983). The 'artistic' component of the reflective practitioner, as described by Schön, is taken too far (Schön, 1983). The 'decorative' approach to metaphors supersedes the possibility to use real metaphorical conceptualizations (Deignan, 2005, pp. 9-10). When one looks at

the metaphor use by consultants, they do not serve a conceptual purpose, but serve a purpose of 'artistry'. When one takes a cynical, but maybe the most realistic outlook on the data, the reality of innovation consulting is pretty harsh. The impressions that innovation consultants provoke are very diverse and draw from very different source domains. The extent to which this leads to new insights in the client-consultant relation is very low, because they elaborate on the same target domains, with the same intentions. There are many 'buzzwords', but they don't contribute in a constructive manner to the change that is envisioned (Bloch, 1999). They deceive their customers by addressing important concepts by very broad and sometimes even unsuited metaphors. They are experts at making a good impression by using fancy unique metaphors. But this expertise is no indicator for their level of technical skill (Bloch, 1999). To a great extent the different consultancies do not know what they want to achieve with the metaphors on their website. This indicates that the real contribution of metaphors for innovation and business improvements would be very minimal in the context of the innovation consultant (Bloch, 1999).

6 Recommendations

The metaphors that are used on the websites have the potential to contribute to the conceptualization of the target domains. However this study shows that the way in which consultants use metaphors has no clear higher order conceptualization. Innovation consultants use metaphors as a form of 'artistry' and not as 'conceptual' metaphors. Consultants could gain legitimacy by using their metaphors in a conceptual sense. By addressing one subject by one specific conceptual domain, a consultant will be able to create more meaning. Real conceptual metaphors should be used on their websites, instead of the more 'artistry' metaphors that are currently used. These real concepts should start at the target domain, and should be based on one of the six forms of conceptual metaphors: structural, orientational, ontological, container, personification, or metonymy. Furthermore, on a specific target domain the concepts should have a more or less uniform framework where meaning is derived from (Lakoff & Johnson, 1980b).

Consultancy is a service oriented profession that relies on highly educated people and a high amount of personal experience. The consultancy sector should try to professionalize their communication so that the first impression of the service becomes more legitimate. The consultants could professionalize their service by aiming their metaphors at target domains that are important for the customer's daily processes. Much of the metaphors found in this research are aimed at themselves. By concentrating on 'empty' metaphors they diminish the value of the other metaphors used on their websites. Unless metaphors explain the consulting process in a conceptually relevant way, the client's understanding of the process will not benefit.

The innovation consultant should try to address some meaning in every metaphor that is applied. In this respect not every metaphor needs to be a highly challenging conceptual metaphor over which one needs to contemplate extensively, however some meaning should be addressed, in order to better consult the client. It is almost impossible to use a metaphor without meaning, but the innovation consultant accomplishes this in some cases with flying colors. This seems to be caused mainly by the numerous conceptual source domains that serve no identifiable purpose.

Finally, a clear distinction should be made regarding the content of consultant's websites, namely between subjects that should be underpinned by metaphors, and subjects that are relatively easy to understand. The subjects that need to be supported by metaphors should be subjects that are difficult to grasp or need further explanation. They should keep it simple when possible, and use conceptual metaphors when needed. This approach will result in a better understanding of the semantics of the information, by both consultants and clients. This will improve the overall quality of the content of the consultant's website, and could thereby improve the impression of the consultant's legitimacy.

6.1 Future research

Because of the explorative nature of the research conducted, the implications for future research are abundant. I will briefly highlight what are in my opinion the most important future research directions.

Future research could for instance address the differences in language use between strategy consultants and management consultants, with respect to concepts related to the client 'organization'. This can best

be performed by using metaphors that occur in texts of the consultant. To be able to really compare these texts, it is important to standardize the data in one way or another. This could be done in a similar manner as in this research.

Future research could also focus on the differences in metaphor use between strategy consultants and management consultants on the basis of an in depth qualitative analysis. Hereby the research should focus more on the source domain of the metaphor. The researcher will then be able to address the difference in a qualitative manner and contemplate on the differences in source domains.

In general interviews would have been a nice addition to my research. However because of the quantitative nature of the data that I firstly have obtained, interviews would be another qualitative source of data. The data obtained was already very extensive, and adding qualitative data of interviews would make the dataset too large for a masterthesis. Future research could use the quantitative analysis in this research as startingpoint for a qualitative study of spoken language use of consultants.

It would also be an interesting subject of study why micro consultancies talk less about the 'environment' than large consultancies. This could for example be investigated by performing interviews with a number of consultancy companies, after analysis of their websites.

By adopting an approach on startup consultancies versus established consultancies, the researcher could possibly find reasons why metaphors on the 'environment' are not much elaborated on in the startup phase. This will lead to a better understanding of the more primal communication and metaphors, that are used in the startup phase, and the more institutionalized metaphors adopted by established consultancies.

The uncertainty in the environment can be linked to the 'specializations' of the consultant, as identified in this research. This can uncover the background of most of the 'blurring' metaphors. It could be very interesting to compare for instance Operations & Process consulting firms with Strategy consultants on a qualitative in depth basis. The underlying hypothesis could be that Operations & Process Consulting operates in a less uncertain environment than Strategy consultants.

Finally, future research could be aimed at testing the model depicted in figure 10 in other types of business consulting companies. For example, by taking a sample out of all the Dutch Business consultancies the researcher should be able to test the model, and its validity for the Dutch consulting market. The scope of this model can even be extended beyond the scope of business consulting, and be targeted at service orientated companies that also have a constantly shifting and relative uncertain body of knowledge. There can be a comparison approach used between two or more service sectors, to identify differences and similarities between the uses of 'conceptual' metaphors.

The findings of my research could also contribute to learning theory (Phillips & Soltis, 2004). The way in which consultants try to address problems and communicate with their clients on their websites, is different to conventional learning theories. Conventional learning theories assume there is something to learn, whereas on the consultancy websites the client learns very little.

7 Appendices

Appendix 1; list of consulting companies that are part of the research

Bedrijfsnaam	Domein website	KvK/ID
Accenture B.V.	www.accenture.com/nl-en	34156015
Adstrat Consulting B.V.	www.adstrat.com	30176885
Altran B.V.	www.altran.nl	34106539
Arcadis Nederland	www.arcadis.nl	09036504
Ardon Innovatie	www.ardoninnovatie.nl	20134046
Arthur D. Little Benelux N.V.	www.adlittle.nl	24336922
A.T. Kearney B.V.	www.atkearney.nl	33279525
AT Osborne B.V.	www.atosborne.nl	30046822
Bain & Company Netherlands	www.bain.com	33293447
Boston Consulting Group B.V.	www.bcg.nl	31040324
BearingPoint B.V.	www.bearingpoint.com/en-nl	30142784
Be Forward	www.beforward.nl	27259534
Berenschot B.V.	www.berenschot.nl	30046663
Berg!nc Innovatie en organisatie adviesbureau	www.berginc.nl	14128452
Boer & Croon Consulting B.V.	www.boercroon.nl	33282239
Booz & Company B.V.	www.booz.com/nl/home	33192455
Buck Consultants B.V.	www.buckconsultants.nl	24367831
Capgemini Nederland B.V.	www.nl.capgemini.com	30053172
Celerant Consulting BVBA	www.celerantconsulting.nl	33295838
Ciber Nederland	www.ciber.nl	30186372
Cream Consult, Creativiteit & Innovatie	www.annetgoltstein.nl	17190197
De M. Factor B.V.	www.mfactor.nl	34107966
Déhora Consultancy Group B.V.	www.dehora.nl	33193627
Deloitte Consulting B.V.	www.deloitte.com/nl	33259541
dutch group B.V.	www.dutch.com	34146363
Ecorys Nederland B.V.	www.ecorys.nl	24316726
Eurogroup Consulting B.V.	www.eurogroup-consulting.nl	32116168
Gartner Nederland B.V.	www.gartner.com	33212014
Hay Group B.V.	www.HayGroup.nl	30096468
Intelligence for Business B.V.	www.i4b.nl	30186368
Innovative Creative Concepts (ICC)	www.icc-nederland.nl	10041742
Innovate Consulting	www.innovateconsulting.eu	27250420
InnovationWins	www.innovationwins.com	04087512
Innovatum	www.innovatum.nl	37133837
Innovxs	www.innovxs.com	30179875
Kirkman Company B.V.	www.kirkmancompany.com	30164279

KplusV organisatieadvies B.V.	www.kplusv.nl	09055476
KPMG Management Services B.V.	www.kpmg.com/nl	33169258
Kwa Bedrijfsadviseurs B.V.	www.kwa.nl	32069286
Logica Nederland B.V.	www.logica.com	33136004
LTP Advies B.V.	www.ltp.nl	34139534
M & I /Partners B.V.	www.mxi.nl	31030991
Mazars Paardekooper Hoffman N.V.	www.mazars.nl	24389296
McKinsey & Company Netherlands	www.mckinsey.com	33114342
Moerenhout-Innovare	www.moerenhout-innovare.nl	20134931
Nieuwenhuijse Innovatieadvies	www.innovatie-advies.com	08137021
Noéton	www.noeton.nl	34153167
Nolan, Norton & Co. B.V.	www.nolannorton.com	30212455
O & I Management Partners B.V.	www.oi.nl	30112674
Osiris-Innovatie	www.osiris-innovatie.nl	20116689
PA Consulting Services B.V.	www.paconsulting.com	27110990
Partake Consulting Europe B.V.	www.partake.com/nl	30148565
Penta Scope B.V.	www.pentascopel.nl	27154344
Pricewaterhousecoopers Advisory N.V.	www.pwc.com	34180287
Q-Consult Bedrijfskundig Advies B.V.	www.qconsult.nl	09099690
Quintop	www.quintop.nl	29047288
Hartman Innovatie	www.renehartman.nl	30191933
Roland Berger Strategy Consultants B.V.	www.rolandberger.com	34166316
RW Innovation	www.rwinnovation.com	30236075
Squarewise B.V.	www.squarewise.com	34138272
Stratelligence B.V.	www.stratelligence.nl	28112271
Synervision B.V.	www.synervision.nl	34140469
Thauris B.V.	www.thauris.nl	27374662
The Decision Group B.V.	www.thedecisiongroup.nl	30170082
Towers Watson B.V.	www.towerswatson.com/netherlands	34071443
Turner	www.turner.nl	30114501
Twynstra Gudde	www.twynstragudde.nl	31031754
Van Aetsveld	www.aetsveld.nl	32065048
VODW Marketing & Management Consultants B.V.	www.vodw.com	30110235
WagenaarHoes Organisatieadvies	www.wagenaarhoes.nl	30092891
Zinnovatie	www.zinnovatie.nl	12065703

List of companies that are part of the study (Source; Company.info; KvK.nl; theconsultancygroup.nl; consultancy.nl)

Appendix 2; Counts of Unique metaphors table

Category with 'X' counts of metaphors	Times that these categories occur
1	224
2	72
3	58
4	40
5	34
6	26
7	22
8	15
9	11
10	12
11	8
12	15
13	12
14	8
15	6
16	10
17	5
18	9
19	4
20	7
21	2
24	3
27	1
28	2
29	1
30	1
32	1
33	2
34	2
36	1
38	2
41	4
45	2
47	1
48	1
50	1
52	1

54	1
55	1
56	1
60	1
61	1
62	1
67	1
71	1
74	1
92	1
116	1
Total number of metaphorical categories	637

Appendix 3; An overview of the 637 indentified unique metaphorical concepts

Category of the 637	Occurrence	Metaphor
1	1	The supreme act of war is to subdue the enemy without fighting
2	1	Know your enemy , know yourself and you can fight a hundred battles without disaster
3	1	times , they are a-changin
4	1	omzetlekkages
5	1	The proof of the pudding is in the eating
6	1	tussen wal en schip te belanden
7	1	het onderspit delven
8	1	op te potten
9	1	Veel veranderprojecten zijn gedoemd te mislukken omdat al bij het startschot de verkeerde afslag wordt gekozen
10	1	de maakbare mens nou de kip of het ei was , de professional of de cliënt
11	1	niks nieuws onder de zon
12	1	Innovation is not the product of logical thought , although the result is tied to logical structure
13	1	organisaties lijken stroperig
14	1	Take for instance , the caterpillar , as it morphs into the more appealing butterfly
15	1	grijpen als een zwaluwstaart in elkaar
16	1	Voorkomen is beter dan genezen
17	1	chronic challenges

18	1	de knoop ontwarren
19	1	hoping the storm will pass
20	1	wendbaarheid vergroten
21	1	aaneenrijgen tot processen
22	1	Terwijl het water stijgt, vluchten de paarden naar de kwelder
23	1	dicteert eisen
24	1	lean and mean
25	1	We dronken een glas , we deden een plas en verder bleef alles zoals het was
26	1	de Trias Politica van het keurmerk
27	1	pour our energy
28	1	'Turners' form a close-knit , interdisciplinary team
29	1	Een Turner bestuursadviseur is geen eenpitter
30	1	van het toneel verdwijnen
31	1	het vuur mist
32	1	Zwijg hem of haar niet de tent uit , maar vecht hem of haar de tent in !
33	1	hindernissen
34	1	drill through the hype
35	1	hiaten komen naar voren
36	1	het paard achter de wagen spannen
37	1	één geolied geheel vormen
38	1	CEO als grote held
39	1	opvolging is als een heet hangijzer
40	1	in de steigers staan
41	1	a driving forces
42	1	Succesvolle mensen beslissen snel en veranderen traag van gedachten . Niet succesvolle personen beslissen traag en veranderen snel van gedachten
43	1	Be the change that you want to see in the world !
44	1	The mere formulation of a problem is often far more essential then it's solution which may be merely a matter of mathematical or experimental skills
45	1	incorporeren
46	1	vinger aan de pols houden
47	1	remedy
48	1	follow the herd
49	1	linchpin
50	1	a retrospective bean-counting exercise
51	1	kind aan huis
52	1	vechten voor hun bestaansrecht
53	1	poolse landdagen creeëren
54	1	bestuurlijke hygiëne

55	1	het procrustusbed van organisatie control
56	1	He that will not apply new remedies must expect new evils ; for time is the great innovator,
57	1	de tien geboden respecteren
58	1	Ga surfen in je hoofd
59	1	gedoseerd gas geven
60	1	Ik hoor en ik vergeet , ik zie en ik onthoud , ik doe en ik begrijp'
61	1	hole in one
62	1	inzoomen
63	1	het zoemend centrum van coördinatie
64	1	The round pegs in the square holes
65	1	drie vliegen in een klap
66	1	de juiste snaar raken
67	1	bergen werk verzetten
68	1	van meel, boter, eieren en suiker, de cake te bakken die iedereen lekker vindt
69	1	de krenten uit de pap
70	1	clean slate approach
71	1	inertie
72	1	onbekende wegen inslaan
73	1	de baas worden
74	1	ambacht
75	1	sink or swim
76	1	diepgravend
77	1	innovation death spiral
78	1	have gotten the memo
79	1	van een olifant een mug weten te maken
80	1	bloemen groeien niet door er hard aan te trekken
81	1	tanden op stuk bijt
82	1	je tanden ergens in zetten
83	1	tectonic shift
84	1	iets op je lever hebben
85	1	de juiste toon aanslaan
86	1	tweetrapsraket
87	1	freeze in the headlights
88	1	zwaar op de maag
89	1	myth
90	1	moed vinden
91	1	paal boven water staan
92	1	good housekeeping

93	1	raise the bar
94	1	in een notendop
95	1	cookie-cutterapproach
96	1	perfect storm
97	1	bring to the table
98	1	rijzen de pan uit
99	1	zijn als een veelkoppig monster
100	1	spoilt for choice
101	1	stay on top
102	1	steen en been klagen
103	1	nieuwkomers op sleeptouw nemen
104	1	'loszingen' van techniek
105	1	menukaart
106	1	geijkt
107	1	patstelling
108	1	op de lauweren rusten
109	1	verschillende hoeken
110	1	om de hoek kijken
111	1	vlucht nemen
112	1	infectious energy
113	1	bloedgroepen bij elkaar laten komen
114	1	hit a dead end
115	1	deadlock
116	1	a matter of life & death
117	1	walks of life
118	1	snoeien
119	1	crystal ball
120	1	rite of passage
121	1	twee handen voor één applaus
122	1	gas terug nemen
123	1	het kwartje valt
124	1	steun in de rug
125	1	polar star
126	1	steam ahead
127	1	sounding board
128	1	take the wheel
129	1	over de schutting gooien
130	1	vruchtbaar
131	1	speed bump

132	1	plant the seed
133	1	profit hunts
134	1	gras bij de buren groener
135	1	gazamenlijk belang destilleren
136	1	hakken in het zand
137	1	brushing up their experience
138	1	het bullwhip effect
139	1	sexy
140	1	een leger aan (in dienst hebben)
141	1	hefboomwerking
142	1	avontuur
143	1	adventure
144	1	goud oppoetsen
145	1	gouden greep
146	1	goudhaantjes
147	1	wedstrijd
148	1	handen uit de mouwen
149	1	world-class symphony orchestra
150	1	orkestreren
151	1	roadblocks
152	1	van papier
153	1	aan welke knoppen we moeten draaien
154	1	pijplijn
155	1	negatieve spiraal keren
156	1	alle zeilen bijzetten
157	1	gecultiveerde
158	1	battlefield
159	1	hoeksteen
160	1	corner stone
161	1	uit de hand lopen
162	1	fijnmaziger
163	1	kort door de bocht
164	1	een woud aan kennis en ervaring
165	1	put a stamp (on our future)
166	1	schatgravers om verborgen schatten op te graven
167	1	papieren tijger
168	1	onderste uit de kan halen
169	1	back burner
170	1	groen licht

171	1	tegen het licht
172	1	door één deur
173	1	deur open houden
174	1	buiten de deur
175	1	a door
176	1	blind vertrouwen in
177	1	bloed toch stromen waar het niet gaan kan
178	1	stroomversnelling
179	1	in de kinderschoenen staan
180	1	stevig in de schoenen staan
181	1	waar de schoen wringt
182	1	handschoen op pakken
183	1	muurvast
184	1	een lans breken
185	1	handen vol hebben aan
186	1	samen vloeien
187	1	vervlechten tot
188	1	ingredients
189	1	broodnodige
190	1	eigen benen staan
191	1	sap the life
192	1	hurdle
193	1	winnaar
194	1	onder de motorkap
195	1	op weg
196	1	zwaar wegen
197	1	tunnelvisie
198	1	building blocks
199	1	In the fifth century BC , Sun Tzu wrote : ' In peace prepare for war , in war prepare for peace
200	1	The art of war is of vital importance to the state
201	1	kaas van het brood laten eten
202	1	revolutie
203	1	evolutie
204	1	staan te springen
205	1	in het oog springen
206	1	in springen
207	1	springplank
208	1	crossroad

209	1	stuurmanskunst
210	1	aan de wind varen
211	1	laten varen
212	1	uit varen
213	1	moeten varen op
214	1	slijpen de geest
215	1	in de geest
216	1	onderbelicht
217	1	organisatieklimaat
218	1	onzeker klimaat
219	1	mapped out
220	1	niet uit het oog verliezen
221	1	opduiken
222	1	duik in de wereld van
223	1	als bruggenbouwers
224	1	rolling up their sleeves
225	2	to invent
226	2	Een Trabant is nooit bedacht om te vliegen
227	2	finish
228	2	what you see is what you get
229	2	downward spiral
230	2	hijgerig (heid)
231	2	angel er uit halen
232	2	infancy
233	2	je steentje aan bijdragen
234	2	toetssteen
235	2	weten van wanten
236	2	vogelvlucht
237	2	web
238	2	bijspijkeren
239	2	pain
240	2	stap vooruit
241	2	beweging in beton
242	2	bloot leggen
243	2	intelligente handjes
244	2	regimes
245	2	puntjes op de i
246	2	aan tafel zitten
247	2	nurture

248	2	over de streep trekken
249	2	duw(tje) in de rug
250	2	bagage (meegeven)
251	2	tinten
252	2	sweet spot
253	2	startblokken
254	2	vastgeroest
255	2	catalyse
256	2	topvorm
257	2	orchestrate
258	2	het tij keren
259	2	palette
260	2	lens
261	2	battleground
262	2	een beeld schetsen
263	2	recept
264	2	een schat aan gegevens
265	2	drijvende kracht
266	2	licht werpen / schijnen op
267	2	onbegrensd
268	2	staan voor de deur
269	2	open deur
270	2	blind
271	2	walk in other peoples shoes
272	2	vacuum
273	2	revitaliseren
274	2	vliegwiel
275	2	prijs betalen
276	2	op de plank liggen
277	2	op het lijf geschreven
278	2	bring to life
279	2	erosion
280	2	anker
281	2	the big picture
282	2	war for talent
283	2	harmonise
284	2	kapitein
285	2	teamgeest
286	2	in good shape

287	2	bedrijfsklimaat / zakelijk klimaat
288	2	economisch klimaat
289	2	mirror
290	2	op de kaart
291	2	kaart (.)
292	2	laaghangend fruit plukken (oogsten)
293	2	oogsten
294	2	harvest
295	2	een brug te ver
296	2	als brug tussen
297	3	flux
298	3	onder een vergrootglas
299	3	nimble
300	3	squeezed
301	3	market attack
302	3	appels en peren
303	3	have the courage
304	3	trefzeker
305	3	aan de wieg staan
306	3	naar een hoger plan tillen
307	3	veerkracht
308	3	steer
309	3	aankloppen bij
310	3	wilde gans (ganzen)
311	3	in het bloed zitten
312	3	aan het roer
313	3	one size fits all / nobody
314	3	tekentafel
315	3	puzzle / puzzel
316	3	rijp
317	3	katalysator (van innovatie)
318	3	troef uitspelen
319	3	samenspel
320	3	craft
321	3	daar op voortborduren
322	3	voortrekkersrol
323	3	heart (.)
324	3	calibre
325	3	je stempel er op drukken

326	3	op het spel
327	3	het spel (spelen)
328	3	in het licht
329	3	aan het licht
330	3	obstacle
331	3	ambassadeur
332	3	flow
333	3	revive (revival)
334	3	wall
335	3	2.0
336	3	vloeiend
337	3	gat in de markt
338	3	horde
339	3	wegen (weg er naartoe)
340	3	afwegen
341	3	schouders er onder zetten
342	3	voort bouwen op
343	3	opbouwen
344	3	equilibrium
345	3	navigeren
346	3	Heart & Mind
347	3	evolueren
348	3	evolving (consultancy services, evolve)
349	3	spil
350	3	hoger springen
351	3	kruisbestuiving
352	3	loods
353	3	carriérepad
354	3	vitaal
355	4	kleur geven aan
356	4	blokkade
357	4	ingesleten patronen (inslijten)
358	4	de lat komt steeds hoger te liggen
359	4	fine tune
360	4	tactiek van verleiding
361	4	wave
362	4	arena
363	4	ontwerpen
364	4	kristallen bol

365	4	worstelen
366	4	leading edge
367	4	thrive
368	4	dak
369	4	conditie (in vorm)
370	4	lanceren
371	4	over het hoofd zien
372	4	boven tafel
373	4	demystifying
374	4	philosophy
375	4	organische groei
376	4	fronten
377	4	bril
378	4	vlot trekken
379	4	uit handen nemen
380	4	mobilize
381	4	pyramid
382	4	silo
383	4	verankeren (in de consultant organisatie)
384	4	in de weg
385	4	revolution
386	4	mes snijdt aan twee kanten
387	4	kruispunt
388	4	koers varen
389	4	innovatief klimaat / innovatieklimaat
390	4	schakelen
391	4	map
392	4	voetafdruk
393	4	handen en voeten geven
394	4	sparren
395	5	dig deep
396	5	race
397	5	pillars
398	5	voorsprong
399	5	klankbord
400	5	onder de loep nemen
401	5	ombuigen
402	5	to defend
403	5	menselijke maat

404	5	in de schijnwerpers staan
405	5	spotlight
406	5	in zwaar weer terechtkomen
407	5	in beeld
408	5	een beeld zegt meer dan duizend woorden
409	5	spagaat
410	5	pionier / pioniersfase
411	5	fuel innovation
412	5	game
413	5	acteren
414	5	obstakel
415	5	grensoverschreidend
416	5	stromen (als in vloeien)
417	5	ingrediënten
418	5	gat
419	5	op peil houden
420	5	bloeien / tot bloei brengen
421	5	loodsen
422	5	gebaande paden
423	5	vitaliteit
424	5	uit het oog verliezen
425	5	vanuit het oogpunt
426	5	hoofdrol
427	5	bridge the gap
428	5	roll-out
429	6	moving house
430	6	vakmanschap
431	6	pijn
432	6	out of the box
433	6	gevoel
434	6	competitive edge
435	6	journey
436	6	het hart van
437	6	zingeving
438	6	tijdperk
439	6	cultivate
440	6	jungle
441	6	frontier
442	6	root of a problem

443	6	nieuwe markten aanboren
444	6	anchored
445	6	kaasschaaf /kaasschaven
446	6	spelregel
447	6	snijden
448	6	heritage
449	6	inspire
450	6	vruchten plukken / reap fruit
451	6	vruchten af werpen
452	6	an eye for
453	6	rol van voor de organisatie
454	6	overbruggen
455	7	save time and money / without wasting time and money
456	7	best in class
457	7	worden uitgestippeld
458	7	atmosphere
459	7	at the heart
460	7	era
461	7	palet
462	7	pipeline
463	7	een schat aan ervaring
464	7	fit (in conditie)
465	7	organic growth
466	7	zit in de / onze genen
467	7	verweven
468	7	bundelen
469	7	to bundle
470	7	gezond
471	7	state of the art
472	7	vital
473	7	balance (as part of the consulting service)
474	7	road map
475	7	oog (ogen) (.)
476	7	één lijn
477	8	verzilverd (verzilveren)
478	8	in goede banen leiden
479	8	leidraad
480	8	naadloos
481	8	het hoofd bieden

482	8	rode draad
483	8	de kern
484	8	pitfall
485	8	koesteren
486	8	blueprint
487	8	wINNERS
488	8	cutting edge
489	8	vitale
490	8	rol (van de overheid/gemeente)
491	8	Impact (on technology/innovation)
492	9	thuis zijn in
493	9	strijd
494	9	ontzorgen
495	9	pioneer (pioneering)
496	9	hoog in het vaandel hebben staan
497	9	diagnose
498	9	blue (thinking) & red (Thinking)
499	9	nieuwe koers
500	9	sleutel (tot succes)
501	9	balans tussen werk en privé
502	9	rol (van de organisatie)
503	10	in house
504	10	facets
505	10	op papier
506	10	hart (.)
507	10	frontline
508	10	prikkelen
509	10	mobiliseren
510	10	evolution
511	10	health
512	10	weerspiegelt zich in
513	10	hand in hand
514	10	evenwicht (aanbrengen door middel van advisering)
515	11	stappen zetten
516	11	conflict
517	11	toegesneden
518	11	hoofd en hart
519	11	blauwdruk
520	11	give a picture

521	11	landschap
522	11	evolving (markets, evolve)
523	12	facetten
524	12	overleven
525	12	barrier
526	12	wortel / geworteld
527	12	bijsturen
528	12	agile
529	12	DNA
530	12	gap
531	12	way / road (pathway/ roadway)
532	12	harmoniseren
533	12	werkklimaat
534	12	The art
535	12	schakel
536	12	een brug slaan
537	12	evenwicht (binnen de client organisatie)
538	13	scheppen
539	13	dezelfde taal spreken
540	13	second opinion
541	13	survive (survival)
542	13	unlock
543	13	bouwstenen
544	13	navigate
545	13	bundelen van krachten
546	13	evolving (strategy, evolve)
547	13	360°
548	13	speerpunt
549	13	role (as a consultant, Role)
550	14	boost
551	14	stay ahead
552	14	fit (strategic etc.)
553	14	filosofie
554	14	grens (grenzen)
555	14	kompas
556	14	ontdekken
557	14	weg (.)
558	15	boundary
559	15	volatile

560	15	lab (laboratorium)
561	15	cutting costs
562	15	oog (hebben) voor
563	15	op de voet volgen
564	16	mature
565	16	blik/kijk (frisse/open)
566	16	valkuil
567	16	voortvloeiën
568	16	blauw (denken) & rood (denken)
569	16	quick wins
570	16	bouwen
571	16	route
572	16	stroomlijn
573	16	sparring partner
574	17	customized
575	17	winnen
576	17	inbedden
577	17	de/een kunst
578	17	role (with respect to the organization, role)
579	18	capture
580	18	verankeren (in de client organisatie)
581	18	landscape
582	18	snijvlak
583	18	path
584	18	Turbulent
585	18	zachte & harde
586	18	uitrol /uitrollen
587	18	impact (on the environment)
588	19	drijfveer
589	19	translate (translating)
590	19	pad
591	19	streamline
592	20	hands on approach
593	20	to tackle
594	20	bundelen van kennis
595	20	regisseur
596	20	balance (organization)
597	20	roadmap
598	20	rol (van de consultant)

599	21	invalshoek
600	21	koers
601	24	pijler
602	24	passion
603	24	speelveld
604	27	winning (to win)
605	28	spectrum
606	28	in lijn
607	29	handvat / handvatten
608	30	grip
609	32	Impact (within the business)
610	33	knelpunt
611	33	impact (on strategy)
612	34	inspireren (van werknemers in de organisatie)
613	34	inspiratie
614	36	leverage (leveraging)
615	38	track record
616	38	launch
617	41	align strategy
618	41	passie
619	41	inspelen op
620	41	Impact (on the business)
621	45	shape (vormen, reshape)
622	45	regie
623	47	borgen
624	48	balans
625	50	in huis
626	52	key
627	54	maatwerk
628	55	footprint
629	56	op maat (snijden / maken)
630	60	build
631	61	tailor / tailored
632	62	sturen
633	67	afstemmen
634	71	impact (van de service, expertise)
635	74	rollen (in de organisatie)
636	92	in kaart brengen
637	116	vertalen (vertaal -t -d , vertaling)

Appendix 4; Counts per website category on the 'size' of the consulting organization

Total Number of lines	Cat. organi zation	Environmen t of the organization	The organization			The service offered		Counts of Metaphors per category	%meta phors per Cat.
			change in the organizati on	Description of the organization (organizational processes)	Strategy of the organizati on	Customize d consulting service	The quality of the consulting service offered		
2061	Cat 1	15	57	78	99	28	93	370	17,95
2635	Cat 2	23	92	126	93	32	117	483	18,33
10493	Cat 3	120	297	454	509	135	432	1947	18,55
10500	Cat 4	140	227	374	477	136	369	1723	16,41
	Totaal	298	673	1032	1178	331	1011	4523	

Appendix 5; Counts per website category on the 'specialization' of the consulting organization

Total Number of lines	Cat. organization	Environ ment of the organiz ation	The organization			The service offered		Counts of Metaphors per category	% of metaphors per category
		Environ ment	change in the organizat ion	Description of the organization (organizational processes)	Strategy of the organizati on	Customize d consulting service	The quality of the consulting service offered		
2571	HR Consulting	23	50	149	98	29	97	446	17,35
1576	Innovation	12	39	43	45	16	67	222	14,09
4719	IT Consulting	45	117	161	194	69	183	769	16,30
12332	Management Consulting	157	344	482	555	151	473	2162	17,53
658	Operations & Process Consulting	4	13	46	30	9	15	117	17,78
3833	Strategy Consulting	57	110	151	256	57	176	807	21,05
		298	673	1032	1178	331	1011	4523	

Appendix 6; Discriminant, ANOVA analysis, and correlation table

Discriminant analysis on the basis of counts

Discriminant Analysis Employee-Categories COUNTS

Program

```
proc candisc data = Data pcov pcorr wcov wcorr distance simple out = candisc;
class NEmployees;
var Market EffectChange DescrOrg StratOrg CustServ QualServ;
run;
```

Results

The CANDISC Procedure

Total Sample Size	71	DF Total	70
Variables	6	DF Within Classes	67
Classes	4	DF Between Classes	3

Number of Observations Read	71
Number of Observations Used	71

Class Level Information

	Variable Name	Frequency	Weight	Proportion
NEmployees				
Category 1	Category 1	22	22.0000	0.309859
Category 2	Category 2	11	11.0000	0.154930
Category 3	Category 3	24	24.0000	0.338028
Category 4	Category 4	14	14.0000	0.197183

The CANDISC Procedure

Within-Class Covariance Matrices

NEmployees = Category 1, DF = 21						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	0.79870130	0.29220779	0.32467532	-0.21428571	0.04329004	0.64718615
EffectChange	0.29220779	6.15800866	4.90043290	4.35714286	0.78354978	3.90692641
DescrOrg	0.32467532	4.90043290	12.06926407	12.28571429	0.55844156	3.25108225
StratOrg	-0.21428571	4.35714286	12.28571429	21.02380952	2.28571429	4.73809524
CustServ	0.04329004	0.78354978	0.55844156	2.28571429	1.44588745	1.07792208
QualServ	0.64718615	3.90692641	3.25108225	4.73809524	1.07792208	7.80303030

NEmployees = Category 2, DF = 10						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.6909091	0.0636364	10.4545455	0.6545455	1.3090909	7.8363636
EffectChange	0.0636364	85.8545455	41.4181818	16.2181818	-0.9636364	14.8454545
DescrOrg	10.4545455	41.4181818	160.2727273	34.1727273	16.9454545	57.3818182
StratOrg	0.6545455	16.2181818	34.1727273	35.4727273	6.8454545	4.3818182
CustServ	1.3090909	-0.9636364	16.9454545	6.8454545	4.8909091	5.3636364

QualServ	7.8363636	14.8454545	57.3818182	4.3818182	5.3636364	41.6545455
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NEmployees = Category 3, DF = 23						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	23.3913043	31.9130435	50.3043478	67.2608696	13.8695652	41.6521739
EffectChange	31.9130435	208.4184783	162.0326087	189.2663043	50.1902174	157.7826087
DescrOrg	50.3043478	162.0326087	249.9927536	239.0181159	54.2717391	159.4782609
StratOrg	67.2608696	189.2663043	239.0181159	377.4764493	86.1684783	166.8695652
CustServ	13.8695652	50.1902174	54.2717391	86.1684783	25.7228261	41.3478261
QualServ	41.6521739	157.7826087	159.4782609	166.8695652	41.3478261	174.7826087

NEmployees = Category 4, DF = 13						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	154.307692	195.692308	392.769231	453.923077	126.461538	248.461538
EffectChange	195.692308	301.104396	510.142857	574.521978	160.758242	336.609890
DescrOrg	392.769231	510.142857	1025.142857	1130.406593	338.219780	676.263736
StratOrg	453.923077	574.521978	1130.406593	1524.071429	325.637363	680.664835
CustServ	126.461538	160.758242	338.219780	325.637363	143.912088	255.494505
QualServ	248.461538	336.609890	676.263736	680.664835	255.494505	582.862637

The CANDISC Procedure

Pooled Within-Class Covariance Matrix, DF = 67						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	38.4728630	49.0264586	95.1397558	111.1947083	29.5074627	63.8799186
EffectChange	49.0264586	144.7141161	162.3238515	180.2327244	48.5231392	122.9168443
DescrOrg	95.1397558	162.3238515	312.4309298	310.3347710	86.9595367	195.5450669
StratOrg	111.1947083	180.2327244	310.3347710	437.1808086	94.5017203	191.4919558
CustServ	29.5074627	48.5231392	86.9595367	94.5017203	37.9366399	64.9059895
QualServ	63.8799186	122.9168443	195.5450669	191.4919558	64.9059895	181.7555728

The CANDISC Procedure

Within-Class Correlation Coefficients / Pr > |r|

NEmployees = Category 1						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.13176	0.10457	-0.05229	0.04028	0.25924
		0.5589	0.6433	0.8172	0.8587	0.2440
EffectChange	0.13176	1.00000	0.56843	0.38294	0.26259	0.56362
	0.5589		0.0058	0.0786	0.2378	0.0063
DescrOrg	0.10457	0.56843	1.00000	0.77127	0.13368	0.33501
	0.6433	0.0058		<.0001	0.5531	0.1275
StratOrg	-0.05229	0.38294	0.77127	1.00000	0.41457	0.36993
	0.8172	0.0786	<.0001		0.0551	0.0902
CustServ	0.04028	0.26259	0.13368	0.41457	1.00000	0.32091
	0.8587	0.2378	0.5531	0.0551		0.1453
QualServ	0.25924	0.56362	0.33501	0.36993	0.32091	1.00000
	0.2440	0.0063	0.1275	0.0902	0.1453	

NEmployees = Category 2						
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Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.00528	0.63506	0.08451	0.45521	0.93373
		0.9877	0.0358	0.8049	0.1595	<.0001
EffectChange	0.00528	1.00000	0.35309	0.29388	-0.04703	0.24825
	0.9877		0.2868	0.3804	0.8908	0.4617
DescrOrg	0.63506	0.35309	1.00000	0.45321	0.60524	0.70228
	0.0358	0.2868		0.1615	0.0485	0.0160
StratOrg	0.08451	0.29388	0.45321	1.00000	0.51971	0.11399
	0.8049	0.3804	0.1615		0.1013	0.7386
CustServ	0.45521	-0.04703	0.60524	0.51971	1.00000	0.37578
	0.1595	0.8908	0.0485	0.1013		0.2547
QualServ	0.93373	0.24825	0.70228	0.11399	0.37578	1.00000
	<.0001	0.4617	0.0160	0.7386	0.2547	

NEmployees = Category 3						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.45706	0.65783	0.71580	0.56543	0.65142
		0.0247	0.0005	<.0001	0.0040	0.0006
EffectChange	0.45706	1.00000	0.70986	0.67478	0.68548	0.82669
	0.0247		0.0001	0.0003	0.0002	<.0001
DescrOrg	0.65783	0.70986	1.00000	0.77808	0.67678	0.76294
	0.0005	0.0001		<.0001	0.0003	<.0001
StratOrg	0.71580	0.67478	0.77808	1.00000	0.87447	0.64966
	<.0001	0.0003	<.0001		<.0001	0.0006
CustServ	0.56543	0.68548	0.67678	0.87447	1.00000	0.61666
	0.0040	0.0002	0.0003	<.0001		0.0013
QualServ	0.65142	0.82669	0.76294	0.64966	0.61666	1.00000
	0.0006	<.0001	<.0001	0.0006	0.0013	

NEmployees = Category 4						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.90787	0.98753	0.93602	0.84863	0.82848
		<.0001	<.0001	<.0001	0.0001	0.0003
EffectChange	0.90787	1.00000	0.91821	0.84810	0.77226	0.80350
	<.0001		<.0001	0.0001	0.0012	0.0005
DescrOrg	0.98753	0.91821	1.00000	0.90436	0.88056	0.87486
	<.0001	<.0001		<.0001	<.0001	<.0001
StratOrg	0.93602	0.84810	0.90436	1.00000	0.69532	0.72218
	<.0001	0.0001	<.0001		0.0058	0.0035
CustServ	0.84863	0.77226	0.88056	0.69532	1.00000	0.88216
	0.0001	0.0012	<.0001	0.0058		<.0001
QualServ	0.82848	0.80350	0.87486	0.72218	0.88216	1.00000
	0.0003	0.0005	<.0001	0.0035	<.0001	

The CANDISC Procedure

Pooled Within-Class Correlation Coefficients / Pr > |r|

Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.65705	0.86778	0.85739	0.77237	0.76391
		<.0001	<.0001	<.0001	<.0001	<.0001
EffectChange	0.65705	1.00000	0.76340	0.71655	0.65488	0.75790
	<.0001		<.0001	<.0001	<.0001	<.0001
DescrOrg	0.86778	0.76340	1.00000	0.83970	0.79875	0.82059
	<.0001	<.0001		<.0001	<.0001	<.0001
StratOrg	0.85739	0.71655	0.83970	1.00000	0.73380	0.67932
	<.0001	<.0001	<.0001		<.0001	<.0001
CustServ	0.77237	0.65488	0.79875	0.73380	1.00000	0.78165
	<.0001	<.0001	<.0001	<.0001		<.0001
QualServ	0.76391	0.75790	0.82059	0.67932	0.78165	1.00000
	<.0001	<.0001	<.0001	<.0001	<.0001	

The CANDISC Procedure

Simple Statistics

Total-Sample					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	71	298.00000	4.19718	48.36056	6.9542
EffectChange	71	673.00000	9.47887	165.56740	12.8673
DescrOrg	71	1032	14.53521	374.73803	19.3582
StratOrg	71	1178	16.59155	543.21650	23.3070
CustServ	71	331.00000	4.66197	45.82696	6.7696
QualServ	71	1011	14.23944	241.72757	15.5476

NEmployees = Category 1					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	22	15.00000	0.68182	0.79870	0.8937
EffectChange	22	57.00000	2.59091	6.15801	2.4815
DescrOrg	22	78.00000	3.54545	12.06926	3.4741
StratOrg	22	99.00000	4.50000	21.02381	4.5852
CustServ	22	28.00000	1.27273	1.44589	1.2025
QualServ	22	93.00000	4.22727	7.80303	2.7934

NEmployees = Category 2					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	11	23.00000	2.09091	1.69091	1.3003
EffectChange	11	92.00000	8.36364	85.85455	9.2658
DescrOrg	11	126.00000	11.45455	160.27273	12.6599
StratOrg	11	93.00000	8.45455	35.47273	5.9559
CustServ	11	32.00000	2.90909	4.89091	2.2115
QualServ	11	117.00000	10.63636	41.65455	6.4540

NEmployees = Category 3					
Variable	N	Sum	Mean	Variance	Standard Deviation

Market	24	120.00000	5.00000	23.39130	4.8365
EffectChange	24	297.00000	12.37500	208.41848	14.4367
DescrOrg	24	454.00000	18.91667	249.99275	15.8112
StratOrg	24	509.00000	21.20833	377.47645	19.4288
CustServ	24	135.00000	5.62500	25.72283	5.0718
QualServ	24	432.00000	18.00000	174.78261	13.2205

NEmployees = Category 4					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	14	140.00000	10.00000	154.30769	12.4221
EffectChange	14	227.00000	16.21429	301.10440	17.3524
DescrOrg	14	374.00000	26.71429	1025	32.0179
StratOrg	14	477.00000	34.07143	1524	39.0394
CustServ	14	136.00000	9.71429	143.91209	11.9963
QualServ	14	369.00000	26.35714	582.86264	24.1425

The CANDISC Procedure

Squared Distance to NEmployees				
From NEmployees	Category 1	Category 2	Category 3	Category 4
Category 1	0	0.45816	1.22076	3.22302
Category 2	0.45816	0	0.62131	2.78199
Category 3	1.22076	0.62131	0	1.08740
Category 4	3.22302	2.78199	1.08740	0

F Statistics, NDF=6, DDF=62 for Squared Distance to NEmployees				
From NEmployees	Category 1	Category 2	Category 3	Category 4
Category 1	0	0.51818	2.16108	4.25282
Category 2	0.51818	0	0.72279	2.64303
Category 3	2.16108	0.72279	0	1.48289
Category 4	4.25282	2.64303	1.48289	0

Prob > Mahalanobis Distance for Squared Distance to NEmployees				
From NEmployees	Category 1	Category 2	Category 3	Category 4
Category 1	1.0000	0.7924	0.0588	0.0012
Category 2	0.7924	1.0000	0.6328	0.0239
Category 3	0.0588	0.6328	1.0000	0.1988
Category 4	0.0012	0.0239	0.1988	1.0000

The CANDISC Procedure

Multivariate Statistics and F Approximations					
S=3 M=1 N=30					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.61784614	1.81	18	175.85	0.0268
Pillai's Trace	0.41323753	1.70	18	192	0.0413
Hotelling-Lawley Trace	0.56883409	1.93	18	118.13	0.0196
Roy's Greatest Root	0.46647097	4.98	6	64	0.0003
NOTE: F Statistic for Roy's Greatest Root is an upper bound.					

The CANDISC Procedure

	Cano nical Correl ation	Adjus ted Cano nical Correl ation	Approx imate Stand ard Error	Squar ed Cano nical Correl ation	Eigenvalues of Inv(E)*H = CanRsq/(1-CanRsq)				Test of H0: The canonical correlations in the cur rent row and all that follow are zero				
					Eigen value	Differ ence	Propo rtion	Cumu lative	Likelihood Ratio	Approximate F Value	Num DF	Den DF	Pr > F
1	0.5639 95	0.5017 38	0.0815 04	0.3180 91	0.466 5	0.379 3	0.820 0	0.8200	0.61784614	1.81	18	175.85	0.0268
2	0.2831 58	0.1698 70	0.1099 40	0.0801 79	0.087 2	0.072 0	0.153 2	0.9733	0.90605342	0.64	10	126	0.7797
3	0.1223 44	- .02116 6	0.1177 34	0.0149 68	0.015 2		0.026 7	1.0000	0.98503189	0.24	4	64	0.9128

The CANDISC Procedure

Total Canonical Structure			
Variable	Can1	Can2	Can3
Market	0.862611	-0.092563	-0.280173
EffectChange	0.682849	0.416881	-0.277810
DescrOrg	0.777221	0.336323	-0.228352
StratOrg	0.848928	0.057171	0.112029
CustServ	0.806308	0.022855	-0.232870
QualServ	0.926233	0.287536	-0.231266

Between Canonical Structure			
Variable	Can1	Can2	Can3
Market	0.996090	-0.053663	-0.070181
EffectChange	0.952711	0.292013	-0.084080
DescrOrg	0.975315	0.211890	-0.062160
StratOrg	0.999020	0.033778	0.028598
CustServ	0.997943	0.014202	-0.062521
QualServ	0.986659	0.153777	-0.053440

Pooled Within Canonical Structure			
Variable	Can1	Can2	Can3
Market	0.816316	-0.101735	-0.318662
EffectChange	0.616498	0.437127	-0.301451
DescrOrg	0.718466	0.361083	-0.253705
StratOrg	0.798733	0.062473	0.126685
CustServ	0.748009	0.024625	-0.259646
QualServ	0.901601	0.325068	-0.270562

The CANDISC Procedure

Total-Sample Standardized Canonical Coefficients			
Variable	Can1	Can2	Can3
Market	0.218197070	-1.718897989	-1.726490833
EffectChange	-0.315916205	0.334194326	-0.857538461
DescrOrg	-0.734425977	1.791190217	-0.329234267
StratOrg	0.772253556	-0.103648664	2.348566615
CustServ	-0.020850765	-0.618032335	-0.305694144
QualServ	1.235418992	0.484434869	0.629935678

Pooled Within-Class Standardized Canonical Coefficients			
Variable	Can1	Can2	Can3
Market	0.194616873	-1.533139526	-1.539911824
EffectChange	-0.295352010	0.312440338	-0.801718002
DescrOrg	-0.670596306	1.635516145	-0.300620199
StratOrg	0.692793788	-0.092983904	2.106914691
CustServ	-0.018971029	-0.562315553	-0.278135240
QualServ	1.071260403	0.420064688	0.546231807

Raw Canonical Coefficients			
Variable	Can1	Can2	Can3
Market	0.0313764091	-.2471749344	-.2482667740
EffectChange	-.0245518648	0.0259723742	-.0666447875
DescrOrg	-.0379388486	0.0925289907	-.0170075261
StratOrg	0.0331339674	-.0044471034	0.1007665540
CustServ	-.0030800762	-.0912957720	-.0451571564
QualServ	0.0794604801	0.0311581961	0.0405166115

Class Means on Canonical Variables			
NEmployees	Can1	Can2	Can3
Category 1	-0.710021665	-0.275622685	0.047669725
Category 2	-0.472343378	0.290553352	-0.237129945
Category 3	0.236679169	0.290915374	0.107252858
Category 4	1.081139553	-0.293882627	-0.072455225

Discriminant Analysis Provinces COUNTS

Program

```
proc candisc data = Data pcv pcorr wcov wcorr distance simple out = candisc;
class Province;
var Market EffectChange DescrOrg StratOrg CustServ QualServ;
run;
```

Results

The CANDISC Procedure

Total Sample Size	71	DF Total	70
Variables	6	DF Within Classes	63
Classes	8	DF Between Classes	7

Number of Observations Read	71
Number of Observations Used	71

Class Level Information				
Province	Variable Name	Frequency	Weight	Proportion
Drenthe	Drenthe	2	2.0000	0.028169
Gelderland	Gelderland	5	5.0000	0.070423
Limburg	Limburg	2	2.0000	0.028169
Noord-Brabant	Noord-Brabant	5	5.0000	0.070423
Noord-Holland	Noord-Holland	27	27.0000	0.380282
Overijssel	Overijssel	2	2.0000	0.028169
Utrecht	Utrecht	21	21.0000	0.295775
Zuid-Holland	Zuid-Holland	7	7.0000	0.098592

The CANDISC Procedure

Within-Class Covariance Matrices

Province = Drenthe, DF = 1						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	0.50000000	0.50000000	2.50000000	2.50000000	-1.00000000	3.00000000
EffectChange	0.50000000	0.50000000	2.50000000	2.50000000	-1.00000000	3.00000000
DescrOrg	2.50000000	2.50000000	12.50000000	12.50000000	-5.00000000	15.00000000
StratOrg	2.50000000	2.50000000	12.50000000	12.50000000	-5.00000000	15.00000000
CustServ	-1.00000000	-1.00000000	-5.00000000	-5.00000000	2.00000000	-6.00000000
QualServ	3.00000000	3.00000000	15.00000000	15.00000000	-6.00000000	18.00000000

Province = Gelderland, DF = 4						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	63.5000000	138.7500000	169.0000000	158.0000000	32.5000000	185.5000000
EffectChange	138.7500000	304.8000000	371.3500000	345.0000000	70.5000000	402.9000000
DescrOrg	169.0000000	371.3500000	455.7000000	427.0000000	89.5000000	505.8000000
StratOrg	158.0000000	345.0000000	427.0000000	407.5000000	89.0000000	496.2500000
CustServ	32.5000000	70.5000000	89.5000000	89.0000000	22.0000000	119.5000000
QualServ	185.5000000	402.9000000	505.8000000	496.2500000	119.5000000	657.7000000

Province = Limburg, DF = 1						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
EffectChange	0.00000000	2.00000000	-1.00000000	-5.00000000	0.00000000	4.00000000
DescrOrg	0.00000000	-1.00000000	0.50000000	2.50000000	0.00000000	-2.00000000
StratOrg	0.00000000	-5.00000000	2.50000000	12.50000000	0.00000000	-10.00000000
CustServ	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000
QualServ	0.00000000	4.00000000	-2.00000000	-10.00000000	0.00000000	8.00000000

Province = Noord-Brabant, DF = 4						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.20000000	2.20000000	3.10000000	1.60000000	5.30000000	5.80000000
EffectChange	2.20000000	28.20000000	13.60000000	13.35000000	37.05000000	43.05000000
DescrOrg	3.10000000	13.60000000	16.30000000	11.80000000	23.65000000	25.15000000
StratOrg	1.60000000	13.35000000	11.80000000	9.80000000	19.65000000	21.40000000
CustServ	5.30000000	37.05000000	23.65000000	19.65000000	60.20000000	65.70000000
QualServ	5.80000000	43.05000000	25.15000000	21.40000000	65.70000000	73.70000000

Province = Noord-Holland, DF = 26						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	93.720798	101.834758	228.366097	286.487179	83.468661	152.488604
EffectChange	101.834758	156.712251	279.099715	335.820513	99.881766	192.558405
DescrOrg	228.366097	279.099715	642.652422	701.679487	221.678063	422.561254
StratOrg	286.487179	335.820513	701.679487	1038.692308	251.641026	456.435897
CustServ	83.468661	99.881766	221.678063	251.641026	90.242165	156.843305
QualServ	152.488604	192.558405	422.561254	456.435897	156.843305	318.789174

Province = Overijssel, DF = 1						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	2.00000000	2.00000000	-2.00000000	1.00000000	1.00000000	0.00000000
EffectChange	2.00000000	2.00000000	-2.00000000	1.00000000	1.00000000	0.00000000
DescrOrg	-2.00000000	-2.00000000	2.00000000	-1.00000000	-1.00000000	0.00000000
StratOrg	1.00000000	1.00000000	-1.00000000	0.50000000	0.50000000	0.00000000
CustServ	1.00000000	1.00000000	-1.00000000	0.50000000	0.50000000	0.00000000
QualServ	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000	0.00000000

Province = Utrecht, DF = 20						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	15.5476190	37.2023810	46.0452381	39.0190476	6.5904762	30.9595238
EffectChange	37.2023810	254.3476190	186.5547619	201.1809524	47.8595238	152.3404762
DescrOrg	46.0452381	186.5547619	252.5904762	213.2880952	39.6809524	143.8690476
StratOrg	39.0190476	201.1809524	213.2880952	226.3476190	43.7261905	135.6738095
CustServ	6.5904762	47.8595238	39.6809524	43.7261905	13.7619048	33.4380952
QualServ	30.9595238	152.3404762	143.8690476	135.6738095	33.4380952	159.3619048

Province = Zuid-Holland, DF = 6						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	2.47619048	-0.04761905	5.09523810	1.90476190	4.42857143	11.52380952
EffectChange	-0.04761905	5.90476190	9.52380952	1.47619048	0.35714286	-1.28571429
DescrOrg	5.09523810	9.52380952	34.28571429	3.71428571	14.45238095	26.23809524
StratOrg	1.90476190	1.47619048	3.71428571	5.61904762	2.04761905	8.76190476

CustServ	4.42857143	0.35714286	14.45238095	2.04761905	10.61904762	22.90476190
QualServ	11.52380952	-1.28571429	26.23809524	8.76190476	22.90476190	59.80952381

The CANDISC Procedure

Pooled Within-Class Covariance Matrix, DF = 63						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	47.9976232	62.8216763	120.2840430	140.9900983	39.3613673	86.0513815
EffectChange	62.8216763	167.1968170	199.7481062	225.3287226	63.2771311	156.1335517
DescrOrg	120.2840430	199.7481062	378.8807424	385.7287982	112.5486185	256.4793987
StratOrg	140.9900983	225.3287226	385.7287982	527.9582011	124.7551776	265.2219199
CustServ	39.3613673	63.2771311	112.5486185	124.7551776	47.8817250	89.1891492
QualServ	86.0513815	156.1335517	256.4793987	265.2219199	89.1891492	234.7018057

The CANDISC Procedure

Within-Class Correlation Coefficients / Pr > |r|

Province = Drenthe						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	1.00000	1.00000	1.00000	-1.00000	1.00000

EffectChange	1.00000	1.00000	1.00000	1.00000	-1.00000	1.00000

DescrOrg	1.00000	1.00000	1.00000	1.00000	-1.00000	1.00000

StratOrg	1.00000	1.00000	1.00000	1.00000	-1.00000	1.00000

CustServ	-1.00000	-1.00000	-1.00000	-1.00000	1.00000	-1.00000

QualServ	1.00000	1.00000	1.00000	1.00000	-1.00000	1.00000

Province = Gelderland						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.99733	0.99348	0.98221	0.86953	0.90770
		0.0002	0.0006	0.0028	0.0555	0.0332
EffectChange	0.99733	1.00000	0.99641	0.97892	0.86093	0.89986
	0.0002		0.0003	0.0037	0.0609	0.0375
DescrOrg	0.99348	0.99641	1.00000	0.99089	0.89387	0.92390
	0.0006	0.0003		0.0010	0.0408	0.0249
StratOrg	0.98221	0.97892	0.99089	1.00000	0.93997	0.95857
	0.0028	0.0037	0.0010		0.0175	0.0101
CustServ	0.86953	0.86093	0.89387	0.93997	1.00000	0.99344
	0.0555	0.0609	0.0408	0.0175		0.0006
QualServ	0.90770	0.89986	0.92390	0.95857	0.99344	1.00000
	0.0332	0.0375	0.0249	0.0101	0.0006	

Province = Limburg						
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Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market
EffectChange	.	1.00000	-1.00000	-1.00000	.	1.00000
DescrOrg	.	-1.00000	1.00000	1.00000	.	-1.00000
StratOrg	.	-1.00000	1.00000	1.00000	.	-1.00000
CustServ
QualServ	.	1.00000	-1.00000	-1.00000	.	1.00000

Province = Noord-Brabant						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.37819	0.70093	0.46657	0.62357	0.61674
		0.5302	0.1873	0.4283	0.2610	0.2678
EffectChange	0.37819	1.00000	0.63434	0.80305	0.89922	0.94431
	0.5302		0.2504	0.1018	0.0378	0.0156
DescrOrg	0.70093	0.63434	1.00000	0.93363	0.75499	0.72562
	0.1873	0.2504		0.0203	0.1401	0.1652
StratOrg	0.46657	0.80305	0.93363	1.00000	0.80901	0.79628
	0.4283	0.1018	0.0203		0.0973	0.1069
CustServ	0.62357	0.89922	0.75499	0.80901	1.00000	0.98636
	0.2610	0.0378	0.1401	0.0973		0.0019
QualServ	0.61674	0.94431	0.72562	0.79628	0.98636	1.00000
	0.2678	0.0156	0.1652	0.1069	0.0019	

Province = Noord-Holland						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.84028	0.93052	0.91821	0.90761	0.88220
		<.0001	<.0001	<.0001	<.0001	<.0001
EffectChange	0.84028	1.00000	0.87947	0.83236	0.83990	0.86151
	<.0001		<.0001	<.0001	<.0001	<.0001
DescrOrg	0.93052	0.87947	1.00000	0.85883	0.92051	0.93358
	<.0001	<.0001		<.0001	<.0001	<.0001
StratOrg	0.91821	0.83236	0.85883	1.00000	0.82193	0.79320
	<.0001	<.0001	<.0001		<.0001	<.0001
CustServ	0.90761	0.83990	0.92051	0.82193	1.00000	0.92472
	<.0001	<.0001	<.0001	<.0001		<.0001
QualServ	0.88220	0.86151	0.93358	0.79320	0.92472	1.00000
	<.0001	<.0001	<.0001	<.0001	<.0001	

Province = Overijssel						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	1.00000	-1.00000	1.00000	1.00000	.

EffectChange	1.00000	1.00000	-1.00000	1.00000	1.00000	.

DescrOrg	-1.00000	-1.00000	1.00000	-1.00000	-1.00000	.

StratOrg	1.00000	1.00000	-1.00000	1.00000	1.00000	.

CustServ	1.00000	1.00000	-1.00000	1.00000	1.00000	.

QualServ

Province = Utrecht						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.59160	0.73476	0.65774	0.45055	0.62197
		0.0047	0.0001	0.0012	0.0404	0.0026
EffectChange	0.59160	1.00000	0.73601	0.83847	0.80894	0.75667
	0.0047		0.0001	<.0001	<.0001	<.0001
DescrOrg	0.73476	0.73601	1.00000	0.89201	0.67303	0.71708
	0.0001	0.0001		<.0001	0.0008	0.0003
StratOrg	0.65774	0.83847	0.89201	1.00000	0.78346	0.71436
	0.0012	<.0001	<.0001		<.0001	0.0003
CustServ	0.45055	0.80894	0.67303	0.78346	1.00000	0.71402
	0.0404	<.0001	0.0008	<.0001		0.0003
QualServ	0.62197	0.75667	0.71708	0.71436	0.71402	1.00000
	0.0026	<.0001	0.0003	0.0003	0.0003	

Province = Zuid-Holland						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	-0.01245	0.55299	0.51064	0.86363	0.94693
		0.9789	0.1979	0.2416	0.0122	0.0012
EffectChange	-0.01245	1.00000	0.66935	0.25628	0.04510	-0.06842
	0.9789		0.1001	0.5791	0.9235	0.8841
DescrOrg	0.55299	0.66935	1.00000	0.26760	0.75743	0.57942
	0.1979	0.1001		0.5618	0.0486	0.1728
StratOrg	0.51064	0.25628	0.26760	1.00000	0.26508	0.47795
	0.2416	0.5791	0.5618		0.5656	0.2780
CustServ	0.86363	0.04510	0.75743	0.26508	1.00000	0.90886
	0.0122	0.9235	0.0486	0.5656		0.0046
QualServ	0.94693	-0.06842	0.57942	0.47795	0.90886	1.00000
	0.0012	0.8841	0.1728	0.2780	0.0046	

The CANDISC Procedure

Pooled Within-Class Correlation Coefficients / Pr > r						
Variable	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ
Market	1.00000	0.70127	0.89196	0.88568	0.82106	0.81076

		<.0001	<.0001	<.0001	<.0001	<.0001
EffectChange	0.70127 <.0001	1.00000	0.79363 <.0001	0.75841 <.0001	0.70721 <.0001	0.78818 <.0001
DescrOrg	0.89196 <.0001	0.79363 <.0001	1.00000	0.86244 <.0001	0.83561 <.0001	0.86009 <.0001
StratOrg	0.88568 <.0001	0.75841 <.0001	0.86244 <.0001	1.00000	0.78465 <.0001	0.75344 <.0001
CustServ	0.82106 <.0001	0.70721 <.0001	0.83561 <.0001	0.78465 <.0001	1.00000	0.84133 <.0001
QualServ	0.81076 <.0001	0.78818 <.0001	0.86009 <.0001	0.75344 <.0001	0.84133 <.0001	1.00000

The CANDISC Procedure

Simple Statistics

Total-Sample					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	71	298.00000	4.19718	48.36056	6.9542
EffectChange	71	673.00000	9.47887	165.56740	12.8673
DescrOrg	71	1032	14.53521	374.73803	19.3582
StratOrg	71	1178	16.59155	543.21650	23.3070
CustServ	71	331.00000	4.66197	45.82696	6.7696
QualServ	71	1011	14.23944	241.72757	15.5476

Province = Drenthe					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	2	1.00000	0.50000	0.50000	0.7071
EffectChange	2	1.00000	0.50000	0.50000	0.7071
DescrOrg	2	5.00000	2.50000	12.50000	3.5355
StratOrg	2	9.00000	4.50000	12.50000	3.5355
CustServ	2	2.00000	1.00000	2.00000	1.4142
QualServ	2	8.00000	4.00000	18.00000	4.2426

Province = Gelderland					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	5	35.00000	7.00000	63.50000	7.9687
EffectChange	5	77.00000	15.40000	304.80000	17.4585
DescrOrg	5	89.00000	17.80000	455.70000	21.3471
StratOrg	5	85.00000	17.00000	407.50000	20.1866
CustServ	5	25.00000	5.00000	22.00000	4.6904
QualServ	5	131.00000	26.20000	657.70000	25.6457

Province = Limburg					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	2	4.00000	2.00000	0	0
EffectChange	2	8.00000	4.00000	2.00000	1.4142

DescrOrg	2	9.00000	4.50000	0.50000	0.7071
StratOrg	2	5.00000	2.50000	12.50000	3.5355
CustServ	2	4.00000	2.00000	0	0
QualServ	2	6.00000	3.00000	8.00000	2.8284

Province = Noord-Brabant					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	5	4.00000	0.80000	1.20000	1.0954
EffectChange	5	24.00000	4.80000	28.20000	5.3104
DescrOrg	5	22.00000	4.40000	16.30000	4.0373
StratOrg	5	17.00000	3.40000	9.80000	3.1305
CustServ	5	21.00000	4.20000	60.20000	7.7589
QualServ	5	36.00000	7.20000	73.70000	8.5849

Province = Noord-Holland					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	27	175.00000	6.48148	93.72080	9.6810
EffectChange	27	308.00000	11.40741	156.71225	12.5185
DescrOrg	27	514.00000	19.03704	642.65242	25.3506
StratOrg	27	684.00000	25.33333	1039	32.2287
CustServ	27	172.00000	6.37037	90.24217	9.4996
QualServ	27	470.00000	17.40741	318.78917	17.8547

Province = Overijssel					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	2	2.00000	1.00000	2.00000	1.4142
EffectChange	2	6.00000	3.00000	2.00000	1.4142
DescrOrg	2	2.00000	1.00000	2.00000	1.4142
StratOrg	2	5.00000	2.50000	0.50000	0.7071
CustServ	2	1.00000	0.50000	0.50000	0.7071
QualServ	2	6.00000	3.00000	0	0

Province = Utrecht					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	21	64.00000	3.04762	15.54762	3.9430
EffectChange	21	230.00000	10.95238	254.34762	15.9483
DescrOrg	21	338.00000	16.09524	252.59048	15.8931
StratOrg	21	328.00000	15.61905	226.34762	15.0449
CustServ	21	88.00000	4.19048	13.76190	3.7097
QualServ	21	290.00000	13.80952	159.36190	12.6239

Province = Zuid-Holland					
Variable	N	Sum	Mean	Variance	Standard Deviation
Market	7	13.00000	1.85714	2.47619	1.5736
EffectChange	7	19.00000	2.71429	5.90476	2.4300
DescrOrg	7	53.00000	7.57143	34.28571	5.8554
StratOrg	7	45.00000	6.42857	5.61905	2.3705

CustServ	7	18.00000	2.57143	10.61905	3.2587
QualServ	7	64.00000	9.14286	59.80952	7.7337

The CANDISC Procedure

Squared Distance to Province								
From Province	Drenthe	Gelderland	Limburg	Noord-Brabant	Noord-Holland	Overijssel	Utrecht	Zuid-Holland
Drenthe	0	4.45258	1.15880	0.93169	0.93471	0.51227	0.99393	0.20523
Gelderland	4.45258	0	5.22408	5.14991	3.09398	3.86676	3.78799	3.40321
Limburg	1.15880	5.22408	0	0.95665	2.15854	0.38006	2.11285	1.33490
Noord-Brabant	0.93169	5.14991	0.95665	0	1.75526	0.98338	1.50373	0.92795
Noord-Holland	0.93471	3.09398	2.15854	1.75526	0	1.43394	0.76070	0.77656
Overijssel	0.51227	3.86676	0.38006	0.98338	1.43394	0	1.58745	0.79260
Utrecht	0.99393	3.78799	2.11285	1.50373	0.76070	1.58745	0	0.73518
Zuid-Holland	0.20523	3.40321	1.33490	0.92795	0.77656	0.79260	0.73518	0

F Statistics, NDF=6, DDF=58 for Squared Distance to Province								
From Province	Drenthe	Gelderland	Limburg	Noord-Brabant	Noord-Holland	Overijssel	Utrecht	Zuid-Holland
Drenthe	0	0.97600	0.17781	0.20422	0.26706	0.07860	0.27849	0.04899
Gelderland	0.97600	0	1.14511	1.97550	2.00280	0.84759	2.34726	1.52304
Limburg	0.17781	1.14511	0	0.20970	0.61673	0.05832	0.59201	0.31862
Noord-Brabant	0.20422	1.97550	0.20970	0	1.13621	0.21556	0.93180	0.41529
Noord-Holland	0.26706	2.00280	0.61673	1.13621	0	0.40970	1.37878	0.66236
Overijssel	0.07860	0.84759	0.05832	0.21556	0.40970	0	0.44479	0.18918
Utrecht	0.27849	2.34726	0.59201	0.93180	1.37878	0.44479	0	0.59223
Zuid-Holland	0.04899	1.52304	0.31862	0.41529	0.66236	0.18918	0.59223	0

Prob > Mahalanobis Distance for Squared Distance to Province								
From Province	Drenthe	Gelderland	Limburg	Noord-Brabant	Noord-Holland	Overijssel	Utrecht	Zuid-Holland
Drenthe	1.0000	0.4497	0.9818	0.9741	0.9501	0.9980	0.9449	0.9995
Gelderland	0.4497	1.0000	0.3482	0.0839	0.0799	0.5387	0.0426	0.1868
Limburg	0.9818	0.3482	1.0000	0.9724	0.7160	0.9991	0.7354	0.9247
Noord-Brabant	0.9741	0.0839	0.9724	1.0000	0.3531	0.9704	0.4793	0.8659
Noord-Holland	0.9501	0.0799	0.7160	0.3531	1.0000	0.8697	0.2385	0.6802
Overijssel	0.9980	0.5387	0.9991	0.9704	0.8697	1.0000	0.8457	0.9787
Utrecht	0.9449	0.0426	0.7354	0.4793	0.2385	0.8457	1.0000	0.7352
Zuid-Holland	0.9995	0.1868	0.9247	0.8659	0.6802	0.9787	0.7352	1.0000

The CANDISC Procedure

Multivariate Statistics and F Approximations					
S=6 M=0 N=28					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.56017211	0.86	42	275.5	0.7124
Pillai's Trace	0.53414277	0.88	42	378	0.6866
Hotelling-Lawley Trace	0.63121290	0.85	42	167.57	0.7244
Roy's Greatest Root	0.26983121	2.43	7	63	0.0287

NOTE: F Statistic for Roy's Greatest Root is an upper bound.

The CANDISC Procedure

	Cano nical Correl ation	Adjus ted Cano nical Correl ation	Approx imate Stand ard Error	Squar ed Cano nical Correl ation	Eigenvalues of $\text{Inv}(E)^*H = \text{CanRs}q/(1-\text{CanRs}q)$				Test of H_0 : The canonical correlations in the current row and all that follow are zero				
					Eigen value	Differ ence	Propo rtion	Cumu lative	Likelihood Ratio	Approximate F Value	Num DF	Den DF	Pr > F
1	0.460970	0.262486	0.094125	0.212494	0.2698	0.1068	0.4275	0.4275	0.56017211	0.86	42	275.5	0.7124
2	0.374424	0.134461	0.102767	0.140193	0.1631	0.0333	0.2583	0.6858	0.71132403	0.71	30	238	0.8737
3	0.338894	.	0.105796	0.114849	0.1298	0.0951	0.2056	0.8914	0.82730705	0.59	20	199.95	0.9182
4	0.183047	.	0.115518	0.033506	0.0347	0.0064	0.0549	0.9463	0.93465083	0.35	12	161.68	0.9784
5	0.165916	.	0.116233	0.027528	0.0283	0.0227	0.0448	0.9911	0.96705309	0.35	6	124	0.9093
6	0.074648	.	0.118857	0.005572	0.0056		0.0089	1.0000	0.99442773	0.18	2	63	0.8386

The CANDISC Procedure

Total Canonical Structure						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
Market	0.508925	0.469283	-0.363306	0.344132	-0.097704	0.510690
EffectChange	0.413780	0.483897	0.184301	0.721921	-0.126272	0.153454
DescrOrg	0.326693	0.660978	0.014144	0.356659	-0.013086	0.573413
StratOrg	0.336499	0.777160	-0.318744	0.369506	-0.049205	0.205516
CustServ	0.213844	0.431465	-0.255546	0.594015	0.341300	0.483182
QualServ	0.648863	0.448257	0.054846	0.392130	0.285788	0.373622

Between Canonical Structure						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
Market	0.718016	0.537782	-0.376828	0.192794	-0.049614	0.116676
EffectChange	0.631803	0.600144	0.206886	0.437715	-0.069396	0.037943
DescrOrg	0.501845	0.824723	0.015974	0.217557	-0.007235	0.142640
StratOrg	0.438245	0.822117	-0.305186	0.191092	-0.023065	0.043343
CustServ	0.403625	0.661482	-0.354603	0.445213	0.231863	0.147685
QualServ	0.842109	0.472534	0.052330	0.202085	0.133497	0.078522

Pooled Within Canonical Structure						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
Market	0.477854	0.460416	-0.361656	0.357964	-0.101945	0.538839
EffectChange	0.385167	0.470658	0.181881	0.744460	-0.130616	0.160516
DescrOrg	0.303919	0.642509	0.013950	0.367573	-0.013528	0.599440
StratOrg	0.319284	0.770506	-0.320639	0.388407	-0.051882	0.219128
CustServ	0.195694	0.412573	-0.247932	0.602215	0.347079	0.496881
QualServ	0.615976	0.444643	0.055200	0.412395	0.301485	0.398568

The CANDISC Procedure

Total-Sample Standardized Canonical Coefficients						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
Market	0.508925	0.469283	-0.363306	0.344132	-0.097704	0.510690
EffectChange	0.413780	0.483897	0.184301	0.721921	-0.126272	0.153454
DescrOrg	0.326693	0.660978	0.014144	0.356659	-0.013086	0.573413
StratOrg	0.336499	0.777160	-0.318744	0.369506	-0.049205	0.205516
CustServ	0.213844	0.431465	-0.255546	0.594015	0.341300	0.483182
QualServ	0.648863	0.448257	0.054846	0.392130	0.285788	0.373622

Market	1.151388001	-1.428217660	-1.261433175	0.196409010	-1.374384818	0.824974831
EffectChange	0.088653278	-0.460081009	0.515429637	1.388377115	-0.919809813	-0.435908712
DescrOrg	-1.169872210	1.019907972	1.466334600	-0.816974385	-0.402360075	1.616781507
StratOrg	-0.113816084	1.744086318	-0.742310688	-0.466197899	0.415821919	-1.499160551
CustServ	-1.129155980	-0.393408133	-0.661008701	1.097780034	1.031153933	0.359663214
QualServ	1.708123623	0.125258411	0.525224603	-0.748107093	1.311642807	-0.524172052

Pooled Within-Class Standardized Canonical Coefficients						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
Market	1.147059351	-1.422848267	-1.256690809	0.195670609	-1.369217810	0.821873333
EffectChange	0.089088446	-0.462339384	0.517959698	1.395192165	-0.924324833	-0.438048433
DescrOrg	-1.176320882	1.025529999	1.474417459	-0.821477782	-0.404578000	1.625693672
StratOrg	-0.112206220	1.719417209	-0.731811126	-0.459603795	0.409940355	-1.477955779
CustServ	-1.154192639	-0.402131131	-0.675665179	1.122120998	1.054017603	0.367637990
QualServ	1.683117461	0.123424684	0.517535551	-0.737155141	1.292440945	-0.516498409

Raw Canonical Coefficients						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
Market	0.1655678554	-.2053755422	-.1813921852	0.0282433189	-.1976344609	0.1186301346
EffectChange	0.0068898121	-.0357558319	0.0400573271	0.1078996476	-.0714842917	-.0338772484
DescrOrg	-.0604330538	0.0526862275	0.0757476561	-.0422031198	-.0207850463	0.0835194161
StratOrg	-.0048833423	0.0748309914	-.0318492521	-.0200024796	0.0178410702	-.0643223155
CustServ	-.1667989860	-.0581142719	-.0976442432	0.1621641295	0.1523221180	0.0531294706
QualServ	0.1098642031	0.0080564517	0.0337817367	-.0481172372	0.0843630928	-.0337140380

Class Means on Canonical Variables						
Province	Can1	Can2	Can3	Can4	Can5	Can6
Drenthe	-0.401760039	-0.328235134	-0.203897268	-0.424600623	-0.014664421	-0.211181048
Gelderland	1.563211086	-0.508055240	0.334108772	0.051400824	0.022746938	-0.006971813
Limburg	-0.517056526	-0.871904111	-0.252017064	0.161293209	-0.570604341	0.230720756
Noord-Brabant	-0.614105921	-0.685993157	-0.111473714	0.354607713	0.316938696	-0.029693354
Noord-Holland	0.139832862	0.279485487	-0.334314212	0.032362836	0.000562845	0.003312485
Overijssel	-0.227800026	-0.728003125	-0.229332638	-0.070385033	-0.457221103	-0.226044292
Utrecht	-0.238293824	0.216761564	0.448204176	0.024364441	-0.036002873	-0.004001452
Zuid-Holland	-0.174801375	-0.324510608	-0.018355047	-0.392586805	0.161059300	0.084418344

ANOVA Analysis on the basis of counts

ANOVA Employee-Categories COUNTS

Program

```
proc glm;
class NEmployees;
model Market EffectChange DescrOrg StratOrg CustServ QualServ = NEmployees;
means NEmployees /deonly;
contrast 'mean Category 1-Category 2' NEmployees -1 1 0 0;
contrast 'mean Category 1-Category 3' NEmployees -1 0 1 0;
contrast 'mean Category 1-Category 4' NEmployees -1 0 0 1;
contrast 'mean Category 2-Category 3' NEmployees 0 -1 1 0;
```

```

contrast 'mean Category 2-Category 3' NEmployees 0 -1 0 1;
contrast 'mean Category 3-Category 4' NEmployees 0 0 -1 1;
contrast 'mean Category 1 vs. other Categories' NEmployees -3 1 1 1;
contrast 'mean Category 2 vs. other Categories' NEmployees 1 -3 1 1;
contrast 'mean Category 3 vs. other Categories' NEmployees 1 1 -3 1;
contrast 'mean Category 4 vs. other Categories' NEmployees 1 1 1 -3;
contrast 'mean Category 1&2 vs. mean Category 3&4' NEmployees -1 -1 1 1;
run;

```

Results

The GLM Procedure

Class Level Information				
Class	Levels	Values		
NEmployees	4	Category 1	Category 2	Category 3 Category 4
		Number of Observations Read	71	
		Number of Observations Used	71	

The GLM Procedure

Dependent Variable: Market

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	807.557618	269.185873	7.00	0.0004
Error	67	2577.681818	38.472863		
Corrected Total	70	3385.239437			

R-Square	Coeff Var	Root MSE	Market Mean
0.238553	147.7813	6.202650	4.197183

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEmployees	3	807.5576184	269.1858728	7.00	0.0004

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEmployees	3	807.5576184	269.1858728	7.00	0.0004

The GLM Procedure

Dependent Variable: EffectChange

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1893.87253	631.29084	4.36	0.0072
Error	67	9695.84578	144.71412		
Corrected Total	70	11589.71831			

R-Square	Coeff Var	Root MSE	EffectChange Mean
0.163410	126.9108	12.02972	9.478873

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEmployees	3	1893.872531	631.290844	4.36	0.0072

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEmployees	3	1893.872531	631.290844	4.36	0.0072

The GLM Procedure

Dependent Variable: DescrOrg

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	5298.78968	1766.26323	5.65	0.0016
Error	67	20932.87229	312.43093		
Corrected Total	70	26231.66197			

R-Square	Coeff Var	Root MSE	DescrOrg Mean
0.202000	121.6062	17.67572	14.53521

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEmployees	3	5298.789677	1766.263226	5.65	0.0016

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEmployees	3	5298.789677	1766.263226	5.65	0.0016

The GLM Procedure

Dependent Variable: StratOrg

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	8734.04075	2911.34692	6.66	0.0005
Error	67	29291.11418	437.18081		
Corrected Total	70	38025.15493			

R-Square	Coeff Var	Root MSE	StratOrg Mean
0.229691	126.0212	20.90887	16.59155

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEmployees	3	8734.040752	2911.346917	6.66	0.0005

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEmployees	3	8734.040752	2911.346917	6.66	0.0005

The GLM Procedure

Dependent Variable: CustServ

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	666.132454	222.044151	5.85	0.0013
Error	67	2541.754870	37.936640		
Corrected Total	70	3207.887324			

R-Square	Coeff Var	Root MSE	CustServ Mean
0.207655	132.1173	6.159273	4.661972

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEmployees	3	666.1324538	222.0441513	5.85	0.0013

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEmployees	3	666.1324538	222.0441513	5.85	0.0013

The GLM Procedure

Dependent Variable: QualServ

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	4743.30620	1581.10207	8.70	<.0001
Error	67	12177.62338	181.75557		
Corrected Total	70	16920.92958			

R-Square	Coeff Var	Root MSE	QualServ Mean
0.280322	94.67843	13.48168	14.23944

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEmployees	3	4743.306201	1581.102067	8.70	<.0001

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEmployees	3	4743.306201	1581.102067	8.70	<.0001

The GLM Procedure

Level of NEmployees	N	Market		EffectChange		DescrOrg		StratOrg		CustServ		QualServ	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Category 1	2	0.6818	0.8937	2.5909	2.4815	3.5454	3.4740	4.5000	4.5851	1.2727	1.2024	4.2272	2.7933
	2	182	009	091	335	545	846	000	728	2727	506	727	905
Category 2	1	2.0909	1.3003	8.3636	9.2657	11.454	12.659	8.4545	5.9558	2.9090	2.2115	10.636	6.4540
	1	091	496	364	728	5455	8865	455	985	9091	400	3636	333
Category 3	2	5.0000	4.8364	12.375	14.436	18.916	15.811	21.208	19.428	5.6250	5.0717	18.000	13.220
	4	000	558	0000	7059	6667	1591	3333	7532	0000	676	0000	5374
Category 4	1	10.000	12.422	16.214	17.352	26.714	32.017	34.071	39.039	9.7142	11.996	26.357	24.142
	4	0000	0647	2857	3599	2857	8522	4286	3574	8571	3364	1429	5483

The GLM Procedure

Dependent Variable: Market

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	14.5606061	14.5606061	0.38	0.5405
mean Category 1-Category 3	1	214.0316206	214.0316206	5.56	0.0213
mean Category 1-Category 4	1	742.8661616	742.8661616	19.31	<.0001
mean Category 2-Category 3	1	63.8337662	63.8337662	1.66	0.2021
mean Category 2-Category 3	1	385.3309091	385.3309091	10.02	0.0023
mean Category 3-Category 4	1	221.0526316	221.0526316	5.75	0.0193
mean Category 1 vs. other Categories	1	369.2178448	369.2178448	9.60	0.0028
mean Category 2 vs. other Categories	1	90.6400403	90.6400403	2.36	0.1295
mean Category 3 vs. other Categories	1	8.5120284	8.5120284	0.22	0.6396
mean Category 4 vs. other Categories	1	601.8506622	601.8506622	15.64	0.0002
mean Category 1&2 vs. mean Category 3&4	1	599.3220272	599.3220272	15.58	0.0002

The GLM Procedure

Dependent Variable: EffectChange

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	244.378788	244.378788	1.69	0.1982
mean Category 1-Category 3	1	1098.795949	1098.795949	7.59	0.0075
mean Category 1-Category 4	1	1587.880231	1587.880231	10.97	0.0015
mean Category 2-Category 3	1	121.372403	121.372403	0.84	0.3631
mean Category 2-Category 3	1	379.657403	379.657403	2.62	0.1100
mean Category 3-Category 4	1	130.333647	130.333647	0.90	0.3460
mean Category 1 vs. other Categories	1	1388.827895	1388.827895	9.60	0.0028
mean Category 2 vs. other Categories	1	37.962732	37.962732	0.26	0.6102
mean Category 3 vs. other Categories	1	170.086862	170.086862	1.18	0.2822
mean Category 4 vs. other Categories	1	780.574428	780.574428	5.39	0.0233
mean Category 1&2 vs. mean Category 3&4	1	1246.634599	1246.634599	8.61	0.0046

The GLM Procedure

Dependent Variable: DescrOrg

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	458.727273	458.727273	1.47	0.2299
mean Category 1-Category 3	1	2712.016469	2712.016469	8.68	0.0044
mean Category 1-Category 4	1	4592.577201	4592.577201	14.70	0.0003
mean Category 2-Category 3	1	420.010823	420.010823	1.34	0.2504
mean Category 2-Category 3	1	1434.415584	1434.415584	4.59	0.0358
mean Category 3-Category 4	1	537.625313	537.625313	1.72	0.1941
mean Category 1 vs. other Categories	1	3519.065120	3519.065120	11.26	0.0013
mean Category 2 vs. other Categories	1	224.645308	224.645308	0.72	0.3995
mean Category 3 vs. other Categories	1	387.913052	387.913052	1.24	0.2691
mean Category 4 vs. other Categories	1	2603.110447	2603.110447	8.33	0.0052
mean Category 1&2 vs. mean Category 3&4	1	3761.162018	3761.162018	12.04	0.0009

The GLM Procedure

Dependent Variable: StratOrg

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	114.681818	114.681818	0.26	0.6102
mean Category 1-Category 3	1	3204.367754	3204.367754	7.33	0.0086
mean Category 1-Category 4	1	7481.571429	7481.571429	17.11	0.0001
mean Category 2-Category 3	1	1226.914394	1226.914394	2.81	0.0985
mean Category 2-Category 3	1	4042.344156	4042.344156	9.25	0.0034
mean Category 3-Category 4	1	1463.007832	1463.007832	3.35	0.0718
mean Category 1 vs. other Categories	1	4115.976571	4115.976571	9.41	0.0031
mean Category 2 vs. other Categories	1	1212.686981	1212.686981	2.77	0.1005
mean Category 3 vs. other Categories	1	472.771701	472.771701	1.08	0.3021
mean Category 4 vs. other Categories	1	5641.448176	5641.448176	12.90	0.0006
mean Category 1&2 vs. mean Category 3&4	1	7181.239599	7181.239599	16.43	0.0001

The GLM Procedure

Dependent Variable: CustServ

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	19.6363636	19.6363636	0.52	0.4744
mean Category 1-Category 3	1	217.4244071	217.4244071	5.73	0.0195
mean Category 1-Category 4	1	609.6681097	609.6681097	16.07	0.0002
mean Category 2-Category 3	1	55.6373377	55.6373377	1.47	0.2301
mean Category 2-Category 3	1	285.2737662	285.2737662	7.52	0.0078
mean Category 3-Category 4	1	147.8599624	147.8599624	3.90	0.0525
mean Category 1 vs. other Categories	1	339.6381332	339.6381332	8.95	0.0039
mean Category 2 vs. other Categories	1	63.6501664	63.6501664	1.68	0.1997
mean Category 3 vs. other Categories	1	15.2263909	15.2263909	0.40	0.5285
mean Category 4 vs. other Categories	1	455.4612262	455.4612262	12.01	0.0009
mean Category 1&2 vs. mean Category 3&4	1	499.0364925	499.0364925	13.15	0.0006

The GLM Procedure

Dependent Variable: QualServ

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	301.227273	301.227273	1.66	0.2024
mean Category 1-Category 3	1	2177.288538	2177.288538	11.98	0.0009
mean Category 1-Category 4	1	4189.922078	4189.922078	23.05	<.0001
mean Category 2-Category 3	1	408.997403	408.997403	2.25	0.1383
mean Category 2-Category 3	1	1522.400260	1522.400260	8.38	0.0051
mean Category 3-Category 4	1	617.548872	617.548872	3.40	0.0697
mean Category 1 vs. other Categories	1	2920.066666	2920.066666	16.07	0.0002
mean Category 2 vs. other Categories	1	284.690751	284.690751	1.57	0.2151
mean Category 3 vs. other Categories	1	280.217343	280.217343	1.54	0.2187
mean Category 4 vs. other Categories	1	2601.038756	2601.038756	14.31	0.0003
mean Category 1&2 vs. mean Category 3&4	1	3487.015353	3487.015353	19.19	<.0001

ANOVA Provinces COUNTS

Program

```

proc glm;
class Province;
model Market EffectChange DescrOrg StratOrg CustServ QualServ = Province;
means Province /deponly;
contrast 'mean Drenthe vs. Other Provinces' Province -7 1 1 1 1 1 1 1;
contrast 'mean Gelderland vs. Other Provinces' Province 1 -7 1 1 1 1 1 1;
contrast 'mean Limburg vs. Other Provinces' Province 1 1 -7 1 1 1 1 1;
contrast 'mean Noord-Brabant vs. Other Provinces' Province 1 1 1 -7 1 1 1 1;
contrast 'mean Noord-Holland vs. Other Provinces' Province 1 1 1 1 -7 1 1 1;
contrast 'mean Overijssel vs. Other Provinces' Province 1 1 1 1 1 -7 1 1;
contrast 'mean Utrecht vs. Other Provinces' Province 1 1 1 1 1 1 -7 1;
contrast 'mean Zuid-Holland vs. Other Provinces' Province 1 1 1 1 1 1 1 -7;
run;

```

Results

The GLM Procedure

Class Level Information									
Class	Levels	Values							
Province	8	Drenthe	Gelderland	Limburg	Noord-Brabant	Noord-Holland	Overijssel	Utrecht	Zuid-Holland

Number of Observations Read	71
Number of Observations Used	71

The GLM Procedure

Dependent Variable: Market

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	361.389172	51.627025	1.08	0.3896
Error	63	3023.850265	47.997623		
Corrected Total	70	3385.239437			

R-Square	Coeff Var	Root MSE	Market Mean
0.106754	165.0638	6.928032	4.197183

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	361.3891721	51.6270246	1.08	0.3896

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	361.3891721	51.6270246	1.08	0.3896

The GLM Procedure

Dependent Variable: EffectChange

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	1056.31884	150.90269	0.90	0.5103
Error	63	10533.39947	167.19682		

Corrected Total	70	11589.71831			
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R-Square	Coeff Var	Root MSE	EffectChange Mean
0.091143	136.4135	12.93046	9.478873

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	1056.318839	150.902691	0.90	0.5103

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	1056.318839	150.902691	0.90	0.5103

The GLM Procedure

Dependent Variable: DescrOrg

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	2362.17520	337.45360	0.89	0.5193
Error	63	23869.48677	378.88074		
Corrected Total	70	26231.66197			

R-Square	Coeff Var	Root MSE	DescrOrg Mean
0.090051	133.9152	19.46486	14.53521

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	2362.175199	337.453600	0.89	0.5193

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	2362.175199	337.453600	0.89	0.5193

The GLM Procedure

Dependent Variable: StratOrg

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	4763.78826	680.54118	1.29	0.2704
Error	63	33261.36667	527.95820		
Corrected Total	70	38025.15493			

R-Square	Coeff Var	Root MSE	StratOrg Mean
0.125280	138.4882	22.97734	16.59155

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	4763.788263	680.541180	1.29	0.2704

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	4763.788263	680.541180	1.29	0.2704

The GLM Procedure

Dependent Variable: CustServ

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	191.338647	27.334092	0.57	0.7768
Error	63	3016.548677	47.881725		
Corrected Total	70	3207.887324			

R-Square	Coeff Var	Root MSE	CustServ Mean
0.059646	148.4278	6.919662	4.661972

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	191.3386467	27.3340924	0.57	0.7768

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	191.3386467	27.3340924	0.57	0.7768

The GLM Procedure

Dependent Variable: QualServ

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	2134.71582	304.95940	1.30	0.2654
Error	63	14786.21376	234.70181		
Corrected Total	70	16920.92958			

R-Square	Coeff Var	Root MSE	QualServ Mean
0.126158	107.5884	15.31998	14.23944

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	2134.715821	304.959403	1.30	0.2654

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	2134.715821	304.959403	1.30	0.2654

The GLM Procedure

Level of Province	N	Market		EffectChange		DescrOrg		StratOrg		CustServ		QualServ	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Drenthe	2	0.5000 0000	0.7071 0678	0.5000 000	0.7071 068	2.5000 000	3.5355 339	4.5000 000	3.5355 339	1.0000 0000	1.4142 1356	4.0000 000	4.2426 407
Gelderland	5	7.0000 0000	7.9686 8873	15.400 0000	17.458 5223	17.800 0000	21.347 1310	17.000 0000	20.186 6292	5.0000 0000	4.6904 1576	26.200 0000	25.645 6624
Limburg	2	2.0000 0000	0.0000 0000	4.0000 000	1.4142 136	4.5000 000	0.7071 068	2.5000 000	3.5355 339	2.0000 0000	0.0000 0000	3.0000 000	2.8284 271
Noord-Brabant	5	0.8000 0000	1.0954 4512	4.8000 000	5.3103 672	4.4000 000	4.0373 258	3.4000 000	3.1304 952	4.2000 0000	7.7588 6590	7.2000 000	8.5848 704
Noord-Holland	2 7	6.4814 8148	9.6809 5025	11.407 4074	12.518 4764	19.037 0370	25.350 5902	25.333 3333	32.228 7497	6.3703 7037	9.4995 8764	17.407 4074	17.854 6681
Overijssel	2	1.0000 0000	1.4142 1356	3.0000 000	1.4142 136	1.0000 000	1.4142 136	2.5000 000	0.7071 068	0.5000 0000	0.7071 0678	3.0000 000	0.0000 000
Utrecht	2 1	3.0476 1905	3.9430 4692	10.952 3810	15.948 2795	16.095 2381	15.893 0952	15.619 0476	15.044 8536	4.1904 7619	3.7097 0413	13.809 5238	12.623 8625
Zuid-Holland	7	1.8571 4286	1.5735 9158	2.7142 857	2.4299 716	7.5714 286	5.8554 004	6.4285 714	2.3704 530	2.5714 2857	3.2586 8802	9.1428 571	7.7336 617

The GLM Procedure

Dependent Variable: Market

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
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mean Drenthe vs. Other Provinces	1	13.3642911	13.3642911	0.28	0.5996
mean Gelderland vs. Other Provinces	1	94.6327118	94.6327118	1.97	0.1652
mean Limburg vs. Other Provinces	1	1.7110641	1.7110641	0.04	0.8508
mean Noord-Brabant vs. Other Provinces	1	22.6170475	22.6170475	0.47	0.4949
mean Noord-Holland vs. Other Provinces	1	217.8154499	217.8154499	4.54	0.0371
mean Overijssel vs. Other Provinces	1	8.2551195	8.2551195	0.17	0.6798
mean Utrecht vs. Other Provinces	1	0.6507796	0.6507796	0.01	0.9077
mean Zuid-Holland vs. Other Provinces	1	6.8221660	6.8221660	0.14	0.7074

The GLM Procedure

Dependent Variable: EffectChange

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	91.0500085	91.0500085	0.54	0.4633
mean Gelderland vs. Other Provinces	1	422.9209506	422.9209506	2.53	0.1167
mean Limburg vs. Other Provinces	1	16.5175365	16.5175365	0.10	0.7543
mean Noord-Brabant vs. Other Provinces	1	17.6178872	17.6178872	0.11	0.7466
mean Noord-Holland vs. Other Provinces	1	379.2571352	379.2571352	2.27	0.1370
mean Overijssel vs. Other Provinces	1	31.6887157	31.6887157	0.19	0.6648
mean Utrecht vs. Other Provinces	1	275.1211393	275.1211393	1.65	0.2043
mean Zuid-Holland vs. Other Provinces	1	107.3731085	107.3731085	0.64	0.4259

The GLM Procedure

Dependent Variable: DescrOrg

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	107.120867	107.120867	0.28	0.5968
mean Gelderland vs. Other Provinces	1	411.829439	411.829439	1.09	0.3011
mean Limburg vs. Other Provinces	1	52.124492	52.124492	0.14	0.7119
mean Noord-Brabant vs. Other Provinces	1	121.216599	121.216599	0.32	0.5737
mean Noord-Holland vs. Other Provinces	1	1614.011286	1614.011286	4.26	0.0431
mean Overijssel vs. Other Provinces	1	161.228155	161.228155	0.43	0.5166
mean Utrecht vs. Other Provinces	1	706.997003	706.997003	1.87	0.1768
mean Zuid-Holland vs. Other Provinces	1	16.927193	16.927193	0.04	0.8333

The GLM Procedure

Dependent Variable: StratOrg

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	65.223086	65.223086	0.12	0.7264
mean Gelderland vs. Other Provinces	1	294.003212	294.003212	0.56	0.4583
mean Limburg vs. Other Provinces	1	125.580551	125.580551	0.24	0.6274
mean Noord-Brabant vs. Other Provinces	1	213.864759	213.864759	0.41	0.5268
mean Noord-Holland vs. Other Provinces	1	4025.712124	4025.712124	7.63	0.0075
mean Overijssel vs. Other Provinces	1	125.580551	125.580551	0.24	0.6274

mean Utrecht vs. Other Provinces	1	514.944017	514.944017	0.98	0.3271
mean Zuid-Holland vs. Other Provinces	1	74.387444	74.387444	0.14	0.7087

The GLM Procedure

Dependent Variable: CustServ

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	12.1706966	12.1706966	0.25	0.6159
mean Gelderland vs. Other Provinces	1	17.1156855	17.1156855	0.36	0.5521
mean Limburg vs. Other Provinces	1	3.7000702	3.7000702	0.08	0.7819
mean Noord-Brabant vs. Other Provinces	1	5.1449569	5.1449569	0.11	0.7442
mean Noord-Holland vs. Other Provinces	1	161.7168785	161.7168785	3.38	0.0708
mean Overijssel vs. Other Provinces	1	18.2431536	18.2431536	0.38	0.5393
mean Utrecht vs. Other Provinces	1	13.4050876	13.4050876	0.28	0.5986
mean Zuid-Holland vs. Other Provinces	1	3.0804191	3.0804191	0.06	0.8006

The GLM Procedure

Dependent Variable: QualServ

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	102.538488	102.538488	0.44	0.5110
mean Gelderland vs. Other Provinces	1	1350.308335	1350.308335	5.75	0.0194
mean Limburg vs. Other Provinces	1	136.684738	136.684738	0.58	0.4482
mean Noord-Brabant vs. Other Provinces	1	58.352910	58.352910	0.25	0.6198
mean Noord-Holland vs. Other Provinces	1	788.722599	788.722599	3.36	0.0715
mean Overijssel vs. Other Provinces	1	136.684738	136.684738	0.58	0.4482
mean Utrecht vs. Other Provinces	1	161.733366	161.733366	0.69	0.4096
mean Zuid-Holland vs. Other Provinces	1	12.545748	12.545748	0.05	0.8179

ANOVA Specialization-Categories COUNTS

Program

```

proc glm;
class Specialization;
model Market EffectChange DescrOrg StratOrg CustServ QualServ =
Specialization;
means Specialization /deonly;
contrast 'mean HR Consulting - Other Categories' Specialization -5 1 1 1 1 1;
contrast 'mean IT Consulting - Other Categories' Specialization 1 -5 1 1 1 1;
contrast 'mean Innovation - Other Categories' Specialization 1 1 -5 1 1 1;
contrast 'mean Management Consulting - Other Categories' Specialization 1 1 1
-5 1 1;
contrast 'mean Operations & Process Consulting - Other Categories'
Specialization 1 1 1 1 -5 1;
contrast 'mean Strategy Consulting - Other Categories' Specialization 1 1 1 1
1 -5;
run;

```

Results

The GLM Procedure

Class Level Information		
Class	Level	Values
Specialization	6	HR Consulting IT Consulting Innovation Management Consulting Operations & Process Consulting Strategy Consulting

Number of Observations Read	71
Number of Observations Used	71

The GLM Procedure

Dependent Variable: Market

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	459.825334	91.965067	2.04	0.0841
Error	65	2925.414103	45.006371		
Corrected Total	70	3385.239437			

R-Square	Coeff Var	Root MSE	Market Mean
0.135832	159.8376	6.708679	4.197183

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	459.8253341	91.9650668	2.04	0.0841

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	459.8253341	91.9650668	2.04	0.0841

The GLM Procedure

Dependent Variable: EffectChange

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	1999.75164	399.95033	2.71	0.0276
Error	65	9589.96667	147.53795		
Corrected Total	70	11589.71831			

R-Square	Coeff Var	Root MSE	EffectChange Mean
0.172545	128.1431	12.14652	9.478873

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	1999.751643	399.950329	2.71	0.0276

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	1999.751643	399.950329	2.71	0.0276

The GLM Procedure

Dependent Variable: DescrOrg

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	5011.28505	1002.25701	3.07	0.0150
Error	65	21220.37692	326.46734		
Corrected Total	70	26231.66197			

R-Square	Coeff Var	Root MSE	DescrOrg Mean
0.191040	124.3078	18.06841	14.53521

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	5011.285049	1002.257010	3.07	0.0150

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	5011.285049	1002.257010	3.07	0.0150

The GLM Procedure

Dependent Variable: StratOrg

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	5306.21519	1061.24304	2.11	0.0755
Error	65	32718.93974	503.36830		
Corrected Total	70	38025.15493			

R-Square	Coeff Var	Root MSE	StratOrg Mean
0.139545	135.2247	22.43587	16.59155

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	5306.215186	1061.243037	2.11	0.0755

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	5306.215186	1061.243037	2.11	0.0755

The GLM Procedure

Dependent Variable: CustServ

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
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Model	5	377.501427	75.500285	1.73	0.1394
Error	65	2830.385897	43.544398		
Corrected Total	70	3207.887324			

R-Square	Coeff Var	Root MSE	CustServ Mean
0.117679	141.5456	6.598818	4.661972

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	377.5014265	75.5002853	1.73	0.1394

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	377.5014265	75.5002853	1.73	0.1394

The GLM Procedure

Dependent Variable: QualServ

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	3411.45650	682.29130	3.28	0.0105
Error	65	13509.47308	207.83805		
Corrected Total	70	16920.92958			

R-Square	Coeff Var	Root MSE	QualServ Mean
0.201612	101.2441	14.41659	14.23944

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	3411.456501	682.291300	3.28	0.0105

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	3411.456501	682.291300	3.28	0.0105

The GLM Procedure

Level of Specialization	Market		EffectChange		DescrOrg		StratOrg		CustServ		QualServ		
	N	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
HR Consulting	6	3.8333	2.6394	8.3333	5.9553	24.833	21.122	16.333	14.962	4.8333	3.8686	16.166	8.8411
		3333	444	333	897	3333	6577	3333	1745	3333	776	6667	915
IT Consulting	1	3.4615	2.8170	9.0000	7.8845	12.384	10.797	14.923	9.9285	5.3076	4.4978	14.076	10.234
	3	3846	725	000	841	6154	6731	0769	912	9231	627	9231	4316
Innovation	1	0.8000	1.2071	2.6000	2.9952	2.8666	2.6956	3.0000	2.5071	1.0666	1.2227	4.4666	4.4539
	5	0000	217	000	343	667	755	000	327	6667	993	667	977
Management Consulting	2	7.8500	11.426	17.200	19.726	24.100	28.878	27.750	35.732	7.5500	10.465	23.650	23.355
	0	0000	0782	0000	0181	0000	8759	0000	7434	0000	3564	0000	9978
Operations & Process Consulting	2	2.0000	1.4142	6.5000	6.3639	23.000	2.8284	15.000	11.313	4.5000	2.1213	7.5000	3.5355
		0000	136	000	610	0000	271	0000	7085	0000	203	000	339
Strategy Consulting	1	3.8000	4.5700	7.3333	8.8935	10.066	10.806	17.066	20.599	3.8000	5.3878	11.733	9.2849
	5	0000	891	333	504	6667	5236	6667	8151	0000	169	3333	084

The GLM Procedure

Dependent Variable: Market

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
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mean HR Consulting - Other Categories	1	0.3197425	0.3197425	0.01	0.9331
mean IT Consulting - Other Categories	1	0.3432560	0.3432560	0.01	0.9307
mean Innovation - Other Categories	1	113.6277882	113.6277882	2.52	0.1169
mean Management Consulting - Other Categories	1	302.2594156	302.2594156	6.72	0.0118
mean Operations & Process Consulting - Other Categories	1	7.3461044	7.3461044	0.16	0.6875
mean Strategy Consulting - Other Categories	1	0.4405736	0.4405736	0.01	0.9215

The GLM Procedure

Dependent Variable: EffectChange

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	0.189661	0.189661	0.00	0.9715
mean IT Consulting - Other Categories	1	3.318015	3.318015	0.02	0.8813
mean Innovation - Other Categories	1	494.989785	494.989785	3.35	0.0716
mean Management Consulting - Other Categories	1	1282.754953	1282.754953	8.69	0.0044
mean Operations & Process Consulting - Other Categories	1	11.077741	11.077741	0.08	0.7849
mean Strategy Consulting - Other Categories	1	19.206934	19.206934	0.13	0.7194

The GLM Procedure

Dependent Variable: DescrOrg

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	543.529860	543.529860	1.66	0.2015
mean IT Consulting - Other Categories	1	189.828240	189.828240	0.58	0.4485
mean Innovation - Other Categories	1	2535.972629	2535.972629	7.77	0.0070
mean Management Consulting - Other Categories	1	1054.058379	1054.058379	3.23	0.0770
mean Operations & Process Consulting - Other Categories	1	128.449594	128.449594	0.39	0.5327
mean Strategy Consulting - Other Categories	1	537.419204	537.419204	1.65	0.2040

The GLM Procedure

Dependent Variable: StratOrg

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	3.129890	3.129890	0.01	0.9374
mean IT Consulting - Other Categories	1	7.415134	7.415134	0.01	0.9038
mean Innovation - Other Categories	1	2290.181718	2290.181718	4.55	0.0367
mean Management Consulting - Other Categories	1	2466.313542	2466.313542	4.90	0.0304
mean Operations & Process Consulting - Other Categories	1	1.283365	1.283365	0.00	0.9599
mean Strategy Consulting - Other Categories	1	27.439556	27.439556	0.05	0.8161

The GLM Procedure

Dependent Variable: CustServ

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
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mean HR Consulting - Other Categories	1	0.7657029	0.7657029	0.02	0.8949
mean IT Consulting - Other Categories	1	8.2685640	8.2685640	0.19	0.6645
mean Innovation - Other Categories	1	168.8774207	168.8774207	3.88	0.0532
mean Management Consulting - Other Categories	1	156.4616011	156.4616011	3.59	0.0625
mean Operations & Process Consulting - Other Categories	1	0.0002575	0.0002575	0.00	0.9981
mean Strategy Consulting - Other Categories	1	7.1739199	7.1739199	0.16	0.6862

The GLM Procedure

Dependent Variable: QualServ

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	76.438936	76.438936	0.37	0.5463
mean IT Consulting - Other Categories	1	17.009524	17.009524	0.08	0.7757
mean Innovation - Other Categories	1	1021.000118	1021.000118	4.91	0.0302
mean Management Consulting - Other Categories	1	1944.270785	1944.270785	9.35	0.0032
mean Operations & Process Consulting - Other Categories	1	82.180584	82.180584	0.40	0.5317
mean Strategy Consulting - Other Categories	1	20.478555	20.478555	0.10	0.7546

Discriminant Analysis on the basis of percentages

Discriminant Analysis Employee-Categories PERCENTAGES

Program

```
proc candisc data = Data pcov pcorr wcov wcorr distance simple out = candisc;
class NEmployees;
var MarketPerc EffectChangePerc DescrOrgPerc StratOrgPerc CustServPerc
QualServPerc;
run;
```

Results

The CANDISC Procedure

Total Sample Size	71	DF Total	70
Variables	6	DF Within Classes	67
Classes	4	DF Between Classes	3

Number of Observations Read	71
Number of Observations Used	71

Class Level Information				
NEmployees	Variable Name	Frequency	Weight	Proportion
Category 1	Category 1	22	22.0000	0.309859
Category 2	Category 2	11	11.0000	0.154930
Category 3	Category 3	24	24.0000	0.338028
Category 4	Category 4	14	14.0000	0.197183

The CANDISC Procedure

Within-Class Covariance Matrices

NEmployees = Category 1, DF = 21						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	27.2830363	18.3902790	7.5367469	-19.3087686	-5.3113777	-10.6300019
EffectChangePerc	18.3902790	131.4623304	28.0957167	-64.2102067	-33.8765543	-17.5861654
DescrOrgPerc	7.5367469	28.0957167	164.2356580	25.5370369	-66.6388561	-75.5716102
StratOrgPerc	-19.3087686	-64.2102067	25.5370369	237.4120757	49.3946028	-116.6502605
CustServPerc	-5.3113777	-33.8765543	-66.6388561	49.3946028	114.2519560	-14.8259000
QualServPerc	-10.6300019	-17.5861654	-75.5716102	-116.6502605	-14.8259000	371.2110362

NEmployees = Category 2, DF = 10						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	11.3330597	-28.7870632	-15.1733323	0.8027966	-0.3422426	32.1667818
EffectChangePerc	-28.7870632	212.4824865	-23.6715869	-43.5453143	-26.9715892	-89.5069328
DescrOrgPerc	-15.1733323	-23.6715869	104.4056137	-26.6292900	8.4959402	-47.4273447
StratOrgPerc	0.8027966	-43.5453143	-26.6292900	103.1326825	12.8422933	-46.6031682
CustServPerc	-0.3422426	-26.9715892	8.4959402	12.8422933	15.2900616	-9.3144633
QualServPerc	32.1667818	-89.5069328	-47.4273447	-46.6031682	-9.3144633	160.6851272

NEmployees = Category 3, DF = 23						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	17.0347845	-9.0051765	10.5816130	-0.9933402	-7.7524012	-9.8654795
EffectChangePerc	-9.0051765	36.8080692	-14.1082898	1.3050462	-2.2606793	-12.7389697
DescrOrgPerc	10.5816130	-14.1082898	115.1232327	-21.6425828	-15.2960865	-74.6578866
StratOrgPerc	-0.9933402	1.3050462	-21.6425828	92.7077270	-6.0897125	-65.2871377
CustServPerc	-7.7524012	-2.2606793	-15.2960865	-6.0897125	19.8837448	11.5151348
QualServPerc	-9.8654795	-12.7389697	-74.6578866	-65.2871377	11.5151348	151.0343387

NEmployees = Category 4, DF = 13						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	10.2053357	-3.9467251	4.9038577	13.5746541	-1.8937867	-22.8433358
EffectChangePerc	-3.9467251	29.7018092	-8.2007285	7.9351696	-6.4670786	-19.0224466
DescrOrgPerc	4.9038577	-8.2007285	39.8731799	-23.1647382	-12.5044455	-0.9071254
StratOrgPerc	13.5746541	7.9351696	-23.1647382	139.6595526	-39.0589250	-98.9457132
CustServPerc	-1.8937867	-6.4670786	-12.5044455	-39.0589250	39.5281260	20.3961097
QualServPerc	-22.8433358	-19.0224466	-0.9071254	-98.9457132	20.3961097	121.3225112

The CANDISC Procedure

Pooled Within-Class Covariance Matrix, DF = 67						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	18.0708025	-2.3895711	4.6815763	-3.6392910	-4.7445644	-6.3497256
EffectChangePerc	-2.3895711	91.3170584	-1.1612829	-24.6372271	-16.6744952	-26.9353270
DescrOrgPerc	4.6815763	-1.1612829	114.3162783	-7.8945690	-27.2958860	-56.5701684
StratOrgPerc	-3.6392910	-24.6372271	-7.8945690	148.7288406	7.7295549	-85.1281431
CustServPerc	-4.7445644	-16.6744952	-27.2958860	7.7295549	52.5878129	1.8732686
QualServPerc	-6.3497256	-26.9353270	-56.5701684	-85.1281431	1.8732686	215.7203801

The CANDISC Procedure

Within-Class Correlation Coefficients / Pr > |r|

NEmployees = Category 1						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	0.30707	0.11259	-0.23991	-0.09513	-0.10563
		0.1645	0.6179	0.2822	0.6737	0.6399
EffectChangePerc	0.30707	1.00000	0.19121	-0.36346	-0.27642	-0.07961
	0.1645		0.3940	0.0964	0.2130	0.7247
DescrOrgPerc	0.11259	0.19121	1.00000	0.12933	-0.48648	-0.30607
	0.6179	0.3940		0.5662	0.0217	0.1660
StratOrgPerc	-0.23991	-0.36346	0.12933	1.00000	0.29991	-0.39294
	0.2822	0.0964	0.5662		0.1751	0.0704
CustServPerc	-0.09513	-0.27642	-0.48648	0.29991	1.00000	-0.07199
	0.6737	0.2130	0.0217	0.1751		0.7502
QualServPerc	-0.10563	-0.07961	-0.30607	-0.39294	-0.07199	1.00000
	0.6399	0.7247	0.1660	0.0704	0.7502	

NEmployees = Category 2						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	-0.58663	-0.44111	0.02348	-0.02600	0.75378
		0.0578	0.1744	0.9454	0.9395	0.0074
EffectChangePerc	-0.58663	1.00000	-0.15893	-0.29416	-0.47320	-0.48440
	0.0578		0.6407	0.3799	0.1415	0.1311
DescrOrgPerc	-0.44111	-0.15893	1.00000	-0.25663	0.21264	-0.36617
	0.1744	0.6407		0.4462	0.5302	0.2681
StratOrgPerc	0.02348	-0.29416	-0.25663	1.00000	0.32340	-0.36202
	0.9454	0.3799	0.4462		0.3320	0.2739
CustServPerc	-0.02600	-0.47320	0.21264	0.32340	1.00000	-0.18792
	0.9395	0.1415	0.5302	0.3320		0.5800
QualServPerc	0.75378	-0.48440	-0.36617	-0.36202	-0.18792	1.00000
	0.0074	0.1311	0.2681	0.2739	0.5800	

NEmployees = Category 3						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	-0.35963	0.23895	-0.02500	-0.42123	-0.19450
		0.0843	0.2608	0.9077	0.0404	0.3624
EffectChangePerc	-0.35963	1.00000	-0.21673	0.02234	-0.08356	-0.17085
	0.0843		0.3090	0.9175	0.6979	0.4247
DescrOrgPerc	0.23895	-0.21673	1.00000	-0.20949	-0.31971	-0.56618
	0.2608	0.3090		0.3259	0.1278	0.0039
StratOrgPerc	-0.02500	0.02234	-0.20949	1.00000	-0.14184	-0.55174
	0.9077	0.9175	0.3259		0.5085	0.0052
CustServPerc	-0.42123	-0.08356	-0.31971	-0.14184	1.00000	0.21013
	0.0404	0.6979	0.1278	0.5085		0.3244
QualServPerc	-0.19450	-0.17085	-0.56618	-0.55174	0.21013	1.00000
	0.3624	0.4247	0.0039	0.0052	0.3244	

NEmployees = Category 4						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	-0.22669	0.24310	0.35957	-0.09429	-0.64920
		0.4358	0.4023	0.2067	0.7485	0.0120
EffectChangePerc	-0.22669	1.00000	-0.23830	0.12321	-0.18874	-0.31689
	0.4358		0.4120	0.6748	0.5181	0.2696
DescrOrgPerc	0.24310	-0.23830	1.00000	-0.31042	-0.31497	-0.01304
	0.4023	0.4120		0.2801	0.2727	0.9647
StratOrgPerc	0.35957	0.12321	-0.31042	1.00000	-0.52569	-0.76014
	0.2067	0.6748	0.2801		0.0535	0.0016
CustServPerc	-0.09429	-0.18874	-0.31497	-0.52569	1.00000	0.29453
	0.7485	0.5181	0.2727	0.0535		0.3067
QualServPerc	-0.64920	-0.31689	-0.01304	-0.76014	0.29453	1.00000
	0.0120	0.2696	0.9647	0.0016	0.3067	

The CANDISC Procedure

Pooled Within-Class Correlation Coefficients / Pr > r						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	-0.05882	0.10300	-0.07020	-0.15391	-0.10170
		0.6337	0.4032	0.5695	0.2102	0.4092
EffectChangePerc	-0.05882	1.00000	-0.01137	-0.21141	-0.24062	-0.19191
	0.6337		0.9267	0.0835	0.0481	0.1169
DescrOrgPerc	0.10300	-0.01137	1.00000	-0.06054	-0.35205	-0.36024
	0.4032	0.9267		0.6238	0.0032	0.0025
StratOrgPerc	-0.07020	-0.21141	-0.06054	1.00000	0.08740	-0.47526
	0.5695	0.0835	0.6238		0.4785	<.0001
CustServPerc	-0.15391	-0.24062	-0.35205	0.08740	1.00000	0.01759
	0.2102	0.0481	0.0032	0.4785		0.8868
QualServPerc	-0.10170	-0.19191	-0.36024	-0.47526	0.01759	1.00000
	0.4092	0.1169	0.0025	<.0001	0.8868	

The CANDISC Procedure

Simple Statistics

Total-Sample					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	71	390.99497	5.50697	18.89946	4.3474
EffectChangePerc	71	965.10403	13.59301	88.98560	9.4332
DescrOrgPerc	71	1459	20.55223	114.01776	10.6779
StratOrgPerc	71	1709	24.07509	145.80690	12.0751
CustServPerc	71	566.89948	7.98450	51.03013	7.1435
QualServPerc	71	1908	26.87975	208.32947	14.4336

NEmployees = Category 1					
Variable	N	Sum	Mean	Variance	Standard Deviation

MarketPerc	22	82.97480	3.77158	27.28304	5.2233
EffectChangePerc	22	287.71235	13.07783	131.46233	11.4657
DescrOrgPerc	22	384.35948	17.47089	164.23566	12.8154
StratOrgPerc	22	518.24610	23.55664	237.41208	15.4082
CustServPerc	22	198.63168	9.02871	114.25196	10.6889
QualServPerc	22	628.07559	28.54889	371.21104	19.2668

NEmployees = Category 2					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	11	63.20484	5.74589	11.33306	3.3665
EffectChangePerc	11	181.15535	16.46867	212.48249	14.5768
DescrOrgPerc	11	249.53679	22.68516	104.40561	10.2179
StratOrgPerc	11	223.35688	20.30517	103.13268	10.1554
CustServPerc	11	76.81119	6.98284	15.29006	3.9103
QualServPerc	11	305.93494	27.81227	160.68513	12.6762

NEmployees = Category 3					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	24	144.28645	6.01194	17.03478	4.1273
EffectChangePerc	24	318.65126	13.27714	36.80807	6.0670
DescrOrgPerc	24	531.29760	22.13740	115.12323	10.7295
StratOrgPerc	24	618.37669	25.76570	92.70773	9.6285
CustServPerc	24	174.70303	7.27929	19.88374	4.4591
QualServPerc	24	612.68498	25.52854	151.03434	12.2896

NEmployees = Category 4					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	14	100.52888	7.18063	10.20534	3.1946
EffectChangePerc	14	177.58508	12.68465	29.70181	5.4499
DescrOrgPerc	14	294.01421	21.00101	39.87318	6.3145
StratOrgPerc	14	349.35144	24.95367	139.65955	11.8178
CustServPerc	14	116.75357	8.33954	39.52813	6.2871
QualServPerc	14	361.76683	25.84049	121.32251	11.0146

The CANDISC Procedure

Squared Distance to NEmployees				
From NEmployees	Category 1	Category 2	Category 3	Category 4
Category 1	0	0.63459	0.53278	0.78621
Category 2	0.63459	0	0.27314	0.40969
Category 3	0.53278	0.27314	0	0.12274
Category 4	0.78621	0.40969	0.12274	0

F Statistics, NDF=6, DDF=62 for Squared Distance to NEmployees				
From NEmployees	Category 1	Category 2	Category 3	Category 4
Category 1	0	0.71773	0.94316	1.03742
Category 2	0.71773	0	0.31775	0.38922
Category 3	0.94316	0.31775	0	0.16738
Category 4	1.03742	0.38922	0.16738	0

Prob > Mahalanobis Distance for Squared Distance to NEmployees				
From NEmployees	Category 1	Category 2	Category 3	Category 4
Category 1	1.0000	0.6368	0.4710	0.4100
Category 2	0.6368	1.0000	0.9254	0.8832
Category 3	0.4710	0.9254	1.0000	0.9845
Category 4	0.4100	0.8832	0.9845	1.0000

The CANDISC Procedure

Multivariate Statistics and F Approximations					
S=3 M=1 N=30					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.84289724	0.61	18	175.85	0.8900
Pillai's Trace	0.16302937	0.61	18	192	0.8870
Hotelling-Lawley Trace	0.17941334	0.61	18	118.13	0.8872
Roy's Greatest Root	0.12972959	1.38	6	64	0.2348

NOTE: F Statistic for Roy's Greatest Root is an upper bound.

The CANDISC Procedure

	Canonical Correlation	Adjusted Canonical Correlation	Approximate Standard Error	Squared Canonical Correlation	Eigenvalues of Inv(E)*H = CanRsq/(1-CanRsq)				Test of H0: The canonical correlations in the current row and all that follow are zero				
					Eigenvalue	Difference	Proportion	Cumulative	Likelihood Ratio	Approximate F Value	Num DF	Den DF	Pr > F
1	0.338869	0.191436	0.105798	0.114832	0.1297	0.0926	0.7231	0.7231	0.84289724	0.61	18	175.85	0.8900
2	0.189312	0.001022	0.115239	0.035839	0.0372	0.0247	0.2072	0.9303	0.95224595	0.31	10	126	0.9769
3	0.111167	-0.000475	0.118046	0.012358	0.0125		0.0697	1.0000	0.98764195	0.20	4	64	0.9373

The CANDISC Procedure

Total Canonical Structure			
Variable	Can1	Can2	Can3
MarketPerc	0.843336	-0.163561	-0.421375
EffectChangePerc	0.049952	0.698643	0.001077
DescrOrgPerc	0.534256	0.356934	0.493418
StratOrgPerc	0.127755	-0.717590	0.520441
CustServPerc	-0.248798	-0.304169	-0.510177
QualServPerc	-0.241473	0.198094	-0.254176

Between Canonical Structure			
Variable	Can1	Can2	Can3
MarketPerc	0.981238	-0.106316	-0.160837
EffectChangePerc	0.126946	0.991909	0.000898
DescrOrgPerc	0.901267	0.336385	0.273063
StratOrgPerc	0.281354	-0.882872	0.376002
CustServPerc	-0.721878	-0.493034	-0.485603
QualServPerc	-0.867346	0.397503	-0.299502

Pooled Within Canonical Structure			
Variable	Can1	Can2	Can3
MarketPerc	0.829394	-0.167881	-0.437740
EffectChangePerc	0.047420	0.692190	0.001080
DescrOrgPerc	0.513104	0.357772	0.500563
StratOrgPerc	0.121645	-0.713106	0.523449
CustServPerc	-0.235690	-0.300727	-0.510509
QualServPerc	-0.228204	0.195383	-0.253732

The CANDISC Procedure

Total-Sample Standardized Canonical Coefficients			
Variable	Can1	Can2	Can3
MarketPerc	0.8915474770	-.1822388062	-.4984694786
EffectChangePerc	0.2987616944	0.6400490351	0.0532916957
DescrOrgPerc	0.6324091724	0.4566103181	0.5108552517
StratOrgPerc	0.4355563450	-.4366485449	0.6696728607
CustServPerc	0.1473488744	0.0225126413	-.4486572282
QualServPerc	0.3469868703	0.2519724274	0.2169639422

Pooled Within-Class Standardized Canonical Coefficients			
Variable	Can1	Can2	Can3
MarketPerc	0.8717832166	-.1781988472	-.4874191635
EffectChangePerc	0.3026502343	0.6483796083	0.0539853151
DescrOrgPerc	0.6332365109	0.4572076708	0.5115235694
StratOrgPerc	0.4398989235	-.4410020129	0.6763496249
CustServPerc	0.1495808703	0.0228536559	-.4554533514
QualServPerc	0.3530882581	0.2564030892	0.2207790178

Raw Canonical Coefficients			
Variable	Can1	Can2	Can3
MarketPerc	0.2050783356	-.0419195074	-.1146605130
EffectChangePerc	0.0316712393	0.0678505529	0.0056493656
DescrOrgPerc	0.0592259327	0.0427621438	0.0478422516
StratOrgPerc	0.0360707608	-.0361612118	0.0554592072
CustServPerc	0.0206268781	0.0031514697	-.0628060308
QualServPerc	0.0240401784	0.0174573237	0.0150318422

Class Means on Canonical Variables			
NEmployees	Can1	Can2	Can3
Category 1	-.5117379371	-.0427962472	-.0205932979
Category 2	0.1321716465	0.4257553047	-.0412535424
Category 3	0.2013882591	-.0617604070	0.1338942429
Category 4	0.3550734490	-.1613957960	-.1647585934

Discriminant Analysis Provinces PERCENTAGES

Program

```
proc candisc data = Data pcov pcorr wcov wcorr distance simple out = candisc;
class Province;
var MarketPerc EffectChangePerc DescrOrgPerc StratOrgPerc CustServPerc
QualServPerc;
run;
```

Results

The CANDISC Procedure

Total Sample Size	71	DF Total	70
Variables	6	DF Within Classes	63
Classes	8	DF Between Classes	7

Number of Observations Read	71
Number of Observations Used	71

Class Level Information

Province	Variable Name	Frequency	Weight	Proportion
Drenthe	Drenthe	2	2.0000	0.028169
Gelderland	Gelderland	5	5.0000	0.070423
Limburg	Limburg	2	2.0000	0.028169
Noord-Brabant	Noord-Brabant	5	5.0000	0.070423
Noord-Holland	Noord-Holland	27	27.0000	0.380282
Overijssel	Overijssel	2	2.0000	0.028169
Utrecht	Utrecht	21	21.0000	0.295775
Zuid-Holland	Zuid-Holland	7	7.0000	0.098592

The CANDISC Procedure

Within-Class Covariance Matrices

Province = Drenthe, DF = 1						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	11.3378685	11.3378685	56.6893424	-15.8730159	-95.2380952	31.7460317
EffectChangePerc	11.3378685	11.3378685	56.6893424	-15.8730159	-95.2380952	31.7460317
DescrOrgPerc	56.6893424	56.6893424	283.4467120	-79.3650794	-476.1904762	158.7301587
StratOrgPerc	-15.8730159	-15.8730159	-79.3650794	22.2222222	133.3333333	-44.4444444
CustServPerc	-95.2380952	-95.2380952	-476.1904762	133.3333333	800.0000000	-266.6666667
QualServPerc	31.7460317	31.7460317	158.7301587	-44.4444444	-266.6666667	88.8888889

Province = Gelderland, DF = 4						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	13.5894094	28.2863382	28.5250514	-25.4585075	-43.1953663	-1.7469252
EffectChangePerc	28.2863382	95.7704945	79.1414960	-107.7420153	-104.8244523	9.3681389
DescrOrgPerc	28.5250514	79.1414960	81.9299875	-72.5015385	-105.2006253	-11.8943711
StratOrgPerc	-25.4585075	-107.7420153	-72.5015385	143.3882229	100.9344134	-38.6205749
CustServPerc	-43.1953663	-104.8244523	-105.2006253	100.9344134	149.7323913	2.5536392

QualServPerc	-1.7469252	9.3681389	-11.8943711	-38.6205749	2.5536392	40.3400930
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Province = Limburg, DF = 1						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
EffectChangePerc	0.0000000	61.7283951	-30.8641975	-154.3209877	0.0000000	123.4567901
DescrOrgPerc	0.0000000	-30.8641975	15.4320988	77.1604938	0.0000000	-61.7283951
StratOrgPerc	0.0000000	-154.3209877	77.1604938	385.8024691	0.0000000	-308.6419753
CustServPerc	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
QualServPerc	0.0000000	123.4567901	-61.7283951	-308.6419753	0.0000000	246.9135802

Province = Noord-Brabant, DF = 4						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	33.403807	-29.926442	48.329619	-1.145646	5.477652	-56.138990
EffectChangePerc	-29.926442	197.083930	-18.680947	49.953634	50.298466	-248.728641
DescrOrgPerc	48.329619	-18.680947	280.020411	158.829082	-34.049030	-434.449135
StratOrgPerc	-1.145646	49.953634	158.829082	128.057609	-20.772213	-314.922467
CustServPerc	5.477652	50.298466	-34.049030	-20.772213	103.237154	-104.192029
QualServPerc	-56.138990	-248.728641	-434.449135	-314.922467	-104.192029	1158.431262

Province = Noord-Holland, DF = 26						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	18.5719705	-19.5268233	3.5603348	15.3658773	0.0604422	-18.0318015
EffectChangePerc	-19.5268233	85.1663495	-12.6881487	-26.0106227	-6.2739219	-20.6668330
DescrOrgPerc	3.5603348	-12.6881487	73.0746242	-21.9851549	-2.2854511	-39.6762044
StratOrgPerc	15.3658773	-26.0106227	-21.9851549	121.4205308	-5.1254643	-83.6651662
CustServPerc	0.0604422	-6.2739219	-2.2854511	-5.1254643	11.8660543	1.7583408
QualServPerc	-18.0318015	-20.6668330	-39.6762044	-83.6651662	1.7583408	160.2816642

Province = Overijssel, DF = 1						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	118.3431953	65.7462196	-170.9401709	6.5746220	59.1715976	-78.8954635
EffectChangePerc	65.7462196	36.5256776	-94.9667616	3.6525678	32.8731098	-43.8308131
DescrOrgPerc	-170.9401709	-94.9667616	246.9135802	-9.4966762	-85.4700855	113.9601140
StratOrgPerc	6.5746220	3.6525678	-9.4966762	0.3652568	3.2873110	-4.3830813
CustServPerc	59.1715976	32.8731098	-85.4700855	3.2873110	29.5857988	-39.4477318
QualServPerc	-78.8954635	-43.8308131	113.9601140	-4.3830813	-39.4477318	52.5969757

Province = Utrecht, DF = 20						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	12.4330223	2.1166548	16.2176593	-20.0736557	-5.2748767	15.2999150
EffectChangePerc	2.1166548	74.8174628	14.4921578	2.1023002	-15.8840072	-15.0930855
DescrOrgPerc	16.2176593	14.4921578	143.8002980	-4.5282961	-29.7069822	-24.8468531
StratOrgPerc	-20.0736557	2.1023002	-4.5282961	179.2175357	15.4469380	-47.1421791
CustServPerc	-5.2748767	-15.8840072	-29.7069822	15.4469380	41.3481562	32.5319520
QualServPerc	15.2999150	-15.0930855	-24.8468531	-47.1421791	32.5319520	153.2587183

Province = Zuid-Holland, DF = 6						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc						
EffectChangePerc						
DescrOrgPerc						
StratOrgPerc						
CustServPerc						
QualServPerc						

MarketPerc	14.86721653	-0.49215049	-23.04942912	-0.92094636	-0.03329388	9.62860331
EffectChangePerc	-0.49215049	45.30322206	17.52705509	-8.00894728	-22.65094620	-31.67823317
DescrOrgPerc	-	17.52705509	72.36354980	-	9.71570569	-31.80117256
	23.04942912			44.75570889		
StratOrgPerc	-0.92094636	-8.00894728	-44.75570889	87.03992781	-26.35844732	-6.99587795
CustServPerc	-0.03329388	-22.65094620	9.71570569	-	25.01252306	14.31445865
				26.35844732		
QualServPerc	9.62860331	-31.67823317	-31.80117256	-6.99587795	14.31445865	46.53222172

The CANDISC Procedure

Pooled Within-Class Covariance Matrix, DF = 63

Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	18.0696652	-6.3141832	7.4887805	-1.9555713	-4.6200500	-6.0912700
EffectChangePerc	-6.3141832	83.5476717	3.7748285	-17.1425211	-14.2409003	-29.7672820
DescrOrgPerc	7.4887805	3.7748285	114.3447853	-9.4778617	-27.2051797	-52.2815485
StratOrgPerc	-1.9555713	-17.1425211	-9.4778617	139.0110692	7.5364357	-78.2818228
CustServPerc	-4.6200500	-14.2409003	-27.2051797	7.5364357	49.6352326	1.1043602
QualServPerc	-6.0912700	-29.7672820	-52.2815485	-78.2818228	1.1043602	201.5107274

The CANDISC Procedure

Within-Class Correlation Coefficients / Pr > |r|

Province = Drenthe

Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	1.00000	1.00000	-1.00000	-1.00000	1.00000
EffectChangePerc	1.00000	1.00000	1.00000	-1.00000	-1.00000	1.00000
DescrOrgPerc	1.00000	1.00000	1.00000	-1.00000	-1.00000	1.00000
StratOrgPerc	-1.00000	-1.00000	-1.00000	1.00000	1.00000	-1.00000
CustServPerc	-1.00000	-1.00000	-1.00000	1.00000	1.00000	-1.00000
QualServPerc	1.00000	1.00000	1.00000	-1.00000	-1.00000	1.00000

Province = Gelderland

Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	0.78408	0.85488	-0.57673	-0.95759	-0.07461
		0.1165	0.0649	0.3087	0.0104	0.9051
EffectChangePerc	0.78408	1.00000	0.89344	-0.91942	-0.87536	0.15072
	0.1165		0.0411	0.0271	0.0518	0.8088
DescrOrgPerc	0.85488	0.89344	1.00000	-0.66891	-0.94981	-0.20690
	0.0649	0.0411		0.2170	0.0134	0.7385
StratOrgPerc	-0.57673	-0.91942	-0.66891	1.00000	0.68885	-0.50780
	0.3087	0.0271	0.2170		0.1983	0.3824

CustServPerc	-0.95759	-0.87536	-0.94981	0.68885	1.00000	0.03286
	0.0104	0.0518	0.0134	0.1983		0.9582
QualServPerc	-0.07461	0.15072	-0.20690	-0.50780	0.03286	1.00000
	0.9051	0.8088	0.7385	0.3824	0.9582	

Province = Limburg						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc
EffectChangePerc	.	1.00000	-1.00000	-1.00000	.	1.00000
DescrOrgPerc	.	-1.00000	1.00000	1.00000	.	-1.00000
StratOrgPerc	.	-1.00000	1.00000	1.00000	.	-1.00000
CustServPerc
QualServPerc	.	1.00000	-1.00000	-1.00000	.	1.00000

Province = Noord-Brabant						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	-0.36883	0.49971	-0.01752	0.09328	-0.28539
		0.5413	0.3913	0.9777	0.8814	0.6416
EffectChangePerc	-0.36883	1.00000	-0.07952	0.31444	0.35262	-0.52055
	0.5413		0.8989	0.6063	0.5605	0.3685
DescrOrgPerc	0.49971	-0.07952	1.00000	0.83875	-0.20026	-0.76280
	0.3913	0.8989		0.0758	0.7467	0.1336
StratOrgPerc	-0.01752	0.31444	0.83875	1.00000	-0.18066	-0.81765
	0.9777	0.6063	0.0758		0.7712	0.0909
CustServPerc	0.09328	0.35262	-0.20026	-0.18066	1.00000	-0.30129
	0.8814	0.5605	0.7467	0.7712		0.6223
QualServPerc	-0.28539	-0.52055	-0.76280	-0.81765	-0.30129	1.00000
	0.6416	0.3685	0.1336	0.0909	0.6223	

Province = Noord-Holland						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	-0.49099	0.09664	0.32358	0.00407	-0.33050
		0.0093	0.6316	0.0997	0.9839	0.0922
EffectChangePerc	-0.49099	1.00000	-0.16084	-0.25578	-0.19736	-0.17689
	0.0093		0.4229	0.1978	0.3238	0.3774
DescrOrgPerc	0.09664	-0.16084	1.00000	-0.23340	-0.07761	-0.36661
	0.6316	0.4229		0.2413	0.7004	0.0600
StratOrgPerc	0.32358	-0.25578	-0.23340	1.00000	-0.13503	-0.59973
	0.0997	0.1978	0.2413		0.5019	0.0009
CustServPerc	0.00407	-0.19736	-0.07761	-0.13503	1.00000	0.04032
	0.9839	0.3238	0.7004	0.5019		0.8417

QualServPerc	-0.33050	-0.17689	-0.36661	-0.59973	0.04032	1.00000
	0.0922	0.3774	0.0600	0.0009	0.8417	

Province = Overijssel						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	1.00000	-1.00000	1.00000	1.00000	-1.00000

EffectChangePerc	1.00000	1.00000	-1.00000	1.00000	1.00000	-1.00000

DescrOrgPerc	-1.00000	-1.00000	1.00000	-1.00000	-1.00000	1.00000

StratOrgPerc	1.00000	1.00000	-1.00000	1.00000	1.00000	-1.00000

CustServPerc	1.00000	1.00000	-1.00000	1.00000	1.00000	-1.00000

QualServPerc	-1.00000	-1.00000	1.00000	-1.00000	-1.00000	1.00000

Province = Utrecht						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	0.06940	0.38355	-0.42525	-0.23265	0.35050
		0.7650	0.0861	0.0546	0.3102	0.1193
EffectChangePerc	0.06940	1.00000	0.13972	0.01816	-0.28558	-0.14095
	0.7650		0.5458	0.9377	0.2095	0.5422
DescrOrgPerc	0.38355	0.13972	1.00000	-0.02821	-0.38526	-0.16737
	0.0861	0.5458		0.9034	0.0846	0.4684
StratOrgPerc	-0.42525	0.01816	-0.02821	1.00000	0.17944	-0.28445
	0.0546	0.9377	0.9034		0.4364	0.2114
CustServPerc	-0.23265	-0.28558	-0.38526	0.17944	1.00000	0.40867
	0.3102	0.2095	0.0846	0.4364		0.0659
QualServPerc	0.35050	-0.14095	-0.16737	-0.28445	0.40867	1.00000
	0.1193	0.5422	0.4684	0.2114	0.0659	

Province = Zuid-Holland						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	-0.01896	-0.70273	-0.02560	-0.00173	0.36608
		0.9678	0.0782	0.9566	0.9971	0.4193
EffectChangePerc	-0.01896	1.00000	0.30611	-0.12754	-0.67289	-0.68995
	0.9678		0.5043	0.7852	0.0976	0.0863
DescrOrgPerc	-0.70273	0.30611	1.00000	-0.56394	0.22837	-0.54803
	0.0782	0.5043		0.1873	0.6223	0.2028
StratOrgPerc	-0.02560	-0.12754	-0.56394	1.00000	-0.56491	-0.10993
	0.9566	0.7852	0.1873		0.1864	0.8145
CustServPerc	-0.00173	-0.67289	0.22837	-0.56491	1.00000	0.41958
	0.9971	0.0976	0.6223	0.1864		0.3487
QualServPerc	0.36608	-0.68995	-0.54803	-0.10993	0.41958	1.00000
	0.4193	0.0863	0.2028	0.8145	0.3487	

The CANDISC Procedure

Pooled Within-Class Correlation Coefficients / Pr > r						
Variable	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
MarketPerc	1.00000	-0.16251	0.16475	-0.03902	-0.15427	-0.10094
		0.1995	0.1933	0.7595	0.2236	0.4274
EffectChangePerc	-0.16251	1.00000	0.03862	-0.15907	-0.22114	-0.22942
	0.1995		0.7619	0.2093	0.0791	0.0682
DescrOrgPerc	0.16475	0.03862	1.00000	-0.07518	-0.36112	-0.34442
	0.1933	0.7619		0.5549	0.0034	0.0053
StratOrgPerc	-0.03902	-0.15907	-0.07518	1.00000	0.09073	-0.46772
	0.7595	0.2093	0.5549		0.4758	<.0001
CustServPerc	-0.15427	-0.22114	-0.36112	0.09073	1.00000	0.01104
	0.2236	0.0791	0.0034	0.4758		0.9310
QualServPerc	-0.10094	-0.22942	-0.34442	-0.46772	0.01104	1.00000
	0.4274	0.0682	0.0053	<.0001	0.9310	

The CANDISC Procedure

Simple Statistics

Total-Sample					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	71	390.99497	5.50697	18.89946	4.3474
EffectChangePerc	71	965.10403	13.59301	88.98560	9.4332
DescrOrgPerc	71	1459	20.55223	114.01776	10.6779
StratOrgPerc	71	1709	24.07509	145.80690	12.0751
CustServPerc	71	566.89948	7.98450	51.03013	7.1435
QualServPerc	71	1908	26.87975	208.32947	14.4336

Province = Drenthe					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	2	4.76190	2.38095	11.33787	3.3672
EffectChangePerc	2	4.76190	2.38095	11.33787	3.3672
DescrOrgPerc	2	23.80952	11.90476	283.44671	16.8359
StratOrgPerc	2	73.33333	36.66667	22.22222	4.7140
CustServPerc	2	40.00000	20.00000	800.00000	28.2843
QualServPerc	2	53.33333	26.66667	88.88889	9.4281

Province = Gelderland					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	5	31.26259	6.25252	13.58941	3.6864
EffectChangePerc	5	76.65976	15.33195	95.77049	9.7862
DescrOrgPerc	5	75.20826	15.04165	81.92999	9.0515
StratOrgPerc	5	89.68269	17.93654	143.38822	11.9745
CustServPerc	5	57.65030	11.53006	149.73239	12.2365
QualServPerc	5	169.53641	33.90728	40.34009	6.3514

Province = Limburg					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	2	22.22222	11.11111	0	0
EffectChangePerc	2	44.44444	22.22222	61.72840	7.8567
DescrOrgPerc	2	50.00000	25.00000	15.43210	3.9284
StratOrgPerc	2	27.77778	13.88889	385.80247	19.6419
CustServPerc	2	22.22222	11.11111	0	0
QualServPerc	2	33.33333	16.66667	246.91358	15.7135

Province = Noord-Brabant					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	5	16.07306	3.21461	33.40381	5.7796
EffectChangePerc	5	80.06699	16.01340	197.08393	14.0387
DescrOrgPerc	5	89.79512	17.95902	280.02041	16.7338
StratOrgPerc	5	66.06855	13.21371	128.05761	11.3163
CustServPerc	5	41.85052	8.37010	103.23715	10.1606
QualServPerc	5	206.14576	41.22915	1158	34.0357

Province = Noord-Holland					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	27	174.30061	6.45558	18.57197	4.3095
EffectChangePerc	27	381.31279	14.12270	85.16635	9.2286
DescrOrgPerc	27	544.94314	20.18308	73.07462	8.5484
StratOrgPerc	27	705.76138	26.13931	121.42053	11.0191
CustServPerc	27	186.96699	6.92470	11.86605	3.4447
QualServPerc	27	706.71509	26.17463	160.28166	12.6602

Province = Overijssel					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	2	15.38462	7.69231	118.34320	10.8786
EffectChangePerc	2	52.99145	26.49573	36.52568	6.0436
DescrOrgPerc	2	22.22222	11.11111	246.91358	15.7135
StratOrgPerc	2	45.29915	22.64957	0.36526	0.6044
CustServPerc	2	7.69231	3.84615	29.58580	5.4393
QualServPerc	2	56.41026	28.20513	52.59698	7.2524

Province = Utrecht					
Variable	N	Sum	Mean	Variance	Standard Deviation
MarketPerc	21	87.01862	4.14374	12.43302	3.5260
EffectChangePerc	21	262.71623	12.51030	74.81746	8.6497
DescrOrgPerc	21	484.79753	23.08560	143.80030	11.9917
StratOrgPerc	21	525.09510	25.00453	179.21754	13.3872
CustServPerc	21	161.53696	7.69224	41.34816	6.4303
QualServPerc	21	478.83556	22.80169	153.25872	12.3798

Province = Zuid-Holland					
Variable	N	Sum	Mean	Variance	Standard Deviation

MarketPerc	7	39.97135	5.71019	14.86722	3.8558
EffectChangePerc	7	62.15046	8.87864	45.30322	6.7308
DescrOrgPerc	7	168.43228	24.06175	72.36355	8.5067
StratOrgPerc	7	176.31312	25.18759	87.03993	9.3295
CustServPerc	7	48.98018	6.99717	25.01252	5.0013
QualServPerc	7	204.15260	29.16466	46.53222	6.8215

The CANDISC Procedure

Squared Distance to Province								
From Province	Drenthe	Gelderland	Limburg	Noord-Brabant	Noord-Holland	Overijssel	Utrecht	Zuid-Holland
Drenthe	0	5.59790	13.49608	7.32984	5.34106	13.45964	4.50382	4.60395
Gelderland	5.59790	0	3.79682	1.19984	1.16257	3.43119	2.11361	2.11417
Limburg	13.49608	3.79682	0	7.27121	5.02299	5.99666	6.35294	7.12746
Noord-Brabant	7.32984	1.19984	7.27121	0	2.19084	5.24618	2.30161	2.24120
Noord-Holland	5.34106	1.16257	5.02299	2.19084	0	3.29931	0.72119	0.63884
Overijssel	13.45964	3.43119	5.99666	5.24618	3.29931	0	6.01477	6.57401
Utrecht	4.50382	2.11361	6.35294	2.30161	0.72119	6.01477	0	0.56145
Zuid-Holland	4.60395	2.11417	7.12746	2.24120	0.63884	6.57401	0.56145	0

F Statistics, NDF=6, DDF=58 for Squared Distance to Province								
From Province	Drenthe	Gelderland	Limburg	Noord-Brabant	Noord-Holland	Overijssel	Utrecht	Zuid-Holland
Drenthe	0	1.22705	2.07083	1.60669	1.52602	2.06524	1.26194	1.09889
Gelderland	1.22705	0	0.83226	0.46026	0.75256	0.75211	1.30971	0.94616
Limburg	2.07083	0.83226	0	1.59384	1.43514	0.92012	1.78005	1.70121
Noord-Brabant	1.60669	0.46026	1.59384	0	1.41818	1.14996	1.42621	1.00301
Noord-Holland	1.52602	0.75256	1.43514	1.41818	0	0.94266	1.30716	0.54490
Overijssel	2.06524	0.75211	0.92012	1.14996	0.94266	0	1.68530	1.56910
Utrecht	1.26194	1.30971	1.78005	1.42621	1.30716	1.68530	0	0.45228
Zuid-Holland	1.09889	0.94616	1.70121	1.00301	0.54490	1.56910	0.45228	0

Prob > Mahalanobis Distance for Squared Distance to Province								
From Province	Drenthe	Gelderland	Limburg	Noord-Brabant	Noord-Holland	Overijssel	Utrecht	Zuid-Holland
Drenthe	1.0000	0.3058	0.0706	0.1617	0.1859	0.0713	0.2891	0.3741
Gelderland	0.3058	1.0000	0.5499	0.8348	0.6099	0.6103	0.2674	0.4695
Limburg	0.0706	0.5499	1.0000	0.1653	0.2170	0.4873	0.1192	0.1370
Noord-Brabant	0.1617	0.8348	0.1653	1.0000	0.2233	0.3456	0.2203	0.4323
Noord-Holland	0.1859	0.6099	0.2170	0.2233	1.0000	0.4719	0.2686	0.7719
Overijssel	0.0713	0.6103	0.4873	0.3456	0.4719	1.0000	0.1409	0.1726
Utrecht	0.2891	0.2674	0.1192	0.2203	0.2686	0.1409	1.0000	0.8404
Zuid-Holland	0.3741	0.4695	0.1370	0.4323	0.7719	0.1726	0.8404	1.0000

The CANDISC Procedure

Multivariate Statistics and F Approximations					
S=6 M=0 N=28					
Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.45904816	1.18	42	275.5	0.2138
Pillai's Trace	0.70498836	1.20	42	378	0.1934

Hotelling-Lawley Trace	0.86567722	1.17	42	167.57	0.2439
Roy's Greatest Root	0.37508011	3.38	7	63	0.0040
NOTE: F Statistic for Roy's Greatest Root is an upper bound.					

The CANDISC Procedure

	Canonical Correlation	Adjusted Canonical Correlation	Approximate Standard Error	Squared Canonical Correlation	Eigenvalues of $\text{Inv}(E)^*H = \text{CanRsq}/(1-\text{CanRsq})$				Test of H0: The canonical correlations in the current row and all that follow are zero				
					Eigenvalue	Difference	Proportion	Cumulative	Likelihood Ratio	Approximate F Value	Num DF	Den DF	Pr > F
1	0.522274	0.373769	0.086921	0.272770	0.3751	0.1995	0.4333	0.4333	0.45904816	1.18	42	275.5	0.2138
2	0.386504	0.088310	0.101668	0.149385	0.1756	0.0428	0.2029	0.6362	0.63122799	0.97	30	238	0.5201
3	0.342398	.	0.105510	0.117236	0.1328	0.0097	0.1534	0.7896	0.74208460	0.94	20	199.95	0.5362
4	0.331108	.	0.106419	0.109633	0.1231	0.0662	0.1422	0.9318	0.84063773	0.91	12	161.68	0.5347
5	0.232151	.	0.113081	0.053894	0.0570	0.0549	0.0658	0.9976	0.94414699	0.60	6	124	0.7279
6	0.045501	-0.083162	0.119275	0.002070	0.0021		0.0024	1.0000	0.99792970	0.07	2	63	0.9368

The CANDISC Procedure

Total Canonical Structure						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
MarketPerc	0.536216	0.483659	0.241201	-0.019648	0.596000	-0.254492
EffectChangePerc	0.694205	0.061211	-0.221165	0.197673	-0.482902	0.439488
DescrOrgPerc	-0.237432	0.375973	-0.221194	0.639845	0.430245	0.398535
StratOrgPerc	-0.423106	0.568622	0.184032	-0.601105	-0.140288	0.287705
CustServPerc	-0.159778	-0.417336	0.877623	-0.079440	-0.105828	0.112113
QualServPerc	0.143123	-0.801714	-0.293501	-0.307828	0.368651	-0.141303

Between Canonical Structure						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
MarketPerc	0.749769	0.500476	0.221106	-0.017418	0.370430	-0.031001
EffectChangePerc	0.920919	0.060093	-0.192346	0.166246	-0.284751	0.050792
DescrOrgPerc	-0.397298	0.465576	-0.242652	0.678771	0.320012	0.058098
StratOrgPerc	-0.586520	0.583330	0.167247	-0.528270	-0.086443	0.034746
CustServPerc	-0.236403	-0.456961	0.851290	-0.074516	-0.069600	0.014451
QualServPerc	0.207751	-0.861211	-0.279304	-0.283279	0.237861	-0.017869

Pooled Within Canonical Structure						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
MarketPerc	0.492952	0.480877	0.244304	-0.019987	0.624948	-0.274064
EffectChangePerc	0.644014	0.061414	-0.226053	0.202910	-0.510975	0.477604
DescrOrgPerc	-0.213124	0.364990	-0.218753	0.635501	0.440497	0.419058
StratOrgPerc	-0.389518	0.566152	0.186663	-0.612320	-0.147310	0.310271
CustServPerc	-0.145629	-0.411386	0.881307	-0.080116	-0.110019	0.119702
QualServPerc	0.130813	-0.792484	-0.295554	-0.311313	0.384318	-0.151289

The CANDISC Procedure

Total-Sample Standardized Canonical Coefficients						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
MarketPerc	0.7077173587	0.3700995668	0.3611593188	-.1960549496	0.5992789975	-.1065103010
EffectChangePerc	0.8270621696	-.0658148996	-.0472793499	-.1173649754	-.2123078389	0.8544226406
DescrOrgPerc	-.2785973890	-.0323481701	-.0602725909	0.4196839935	0.6734769682	0.8935313375
StratOrgPerc	-.1650394137	0.3154577915	-.0458708670	-.9382690637	0.2269447202	0.8016926627
CustServPerc	0.0505681754	-.4079276687	0.9241986934	0.1086350442	0.1523630761	0.5385518820
QualServPerc	0.2160690205	-.6438570191	-.3276253555	-.6524473335	0.7428086166	0.7082739849

Pooled Within-Class Standardized Canonical Coefficients						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
MarketPerc	0.6920065571	0.3618836304	0.3531418492	-.1917026749	0.5859754473	-.1041458511
EffectChangePerc	0.8013928734	-.0637722210	-.0458119540	-.1137223516	-.2057185001	0.8279041651
DescrOrgPerc	-.2789966395	-.0323945274	-.0603589659	0.4202854314	0.6744421099	0.8948118333
StratOrgPerc	-.1611474072	0.3080185759	-.0447891271	-.9161425351	0.2215928451	0.7827869177
CustServPerc	0.0498722536	-.4023137472	0.9114798236	0.1071400031	0.1502662476	0.5311403034
QualServPerc	0.2125035716	-.6332324543	-.3222190670	-.6416810163	0.7305512085	0.6965864478

Raw Canonical Coefficients						
Variable	Can1	Can2	Can3	Can4	Can5	Can6
MarketPerc	0.1627927864	0.0851322057	0.0830757239	-.0450975678	0.1378492369	-.0245000472
EffectChangePerc	0.0876755099	-.0069769300	-.0050120067	-.0124416694	-.0225064073	0.0905759487
DescrOrgPerc	-.0260910039	-.0030294478	-.0056446057	0.0393039460	0.0630719846	0.0836803594
StratOrgPerc	-.0136678005	0.0261247544	-.0037988129	-.0777031018	0.0187945115	0.0663924763
CustServPerc	0.0070788704	-.0571044354	0.1293754964	0.0152074579	0.0213287995	0.0753900839
QualServPerc	0.0149698396	-.0446081364	-.0226987609	-.0452032963	0.0514637677	0.0490711161

Class Means on Canonical Variables						
Province	Can1	Can2	Can3	Can4	Can5	Can6
Drenthe	-1.356528471	-0.509383178	1.356825184	-0.845454384	-0.242026187	0.068801012
Gelderland	0.631808114	-0.608288770	0.406837676	-0.058609323	0.037987570	-0.117291499
Limburg	1.561304369	0.414344494	1.072239121	1.115432247	0.208482276	0.074749472
Noord-Brabant	0.272676995	-1.150054949	-0.422498409	0.172529558	0.008531862	0.070489561
Noord-Holland	0.164226788	0.224080193	-0.050712827	-0.208518693	0.075464501	0.016395005
Overijssel	1.743366506	0.264576670	-0.389898409	-0.642236030	-0.631465521	-0.016497257
Utrecht	-0.458769851	0.106710333	-0.070900081	0.282197014	-0.202404535	-0.013116353
Zuid-Holland	-0.459809536	0.023080060	-0.163125730	-0.017316776	0.472910774	-0.026759783

ANOVA Analysis on the basis of percentages

ANOVA Employee-Categories PERCENTAGES

Program

```
proc glm;
class NEmployees;
model MarketPerc EffectChangePerc DescrOrgPerc StratOrgPerc CustServPerc
QualServPerc = NEmployees;
means NEmployees /deponly;
contrast 'mean Category 1-Category 2' NEmployees -1 1 0 0;
contrast 'mean Category 1-Category 3' NEmployees -1 0 1 0;
contrast 'mean Category 1-Category 4' NEmployees -1 0 0 1;
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contrast 'mean Category 2-Category 3' NEmployees 0 -1 1 0;
contrast 'mean Category 2-Category 3' NEmployees 0 -1 0 1;
contrast 'mean Category 3-Category 4' NEmployees 0 0 -1 1;
contrast 'mean Category 1 vs. other Categories' NEmployees -3 1 1 1;
contrast 'mean Category 2 vs. other Categories' NEmployees 1 -3 1 1;
contrast 'mean Category 3 vs. other Categories' NEmployees 1 1 -3 1;
contrast 'mean Category 4 vs. other Categories' NEmployees 1 1 1 -3;
contrast 'mean Category 1&2 vs. mean Category 3&4' NEmployees -1 -1 1 1;
run;

```

Results

The GLM Procedure

Class Level Information	
Class	Levels Values
NEmployees	4 Category 1 Category 2 Category 3 Category 4
Number of Observations Read 71	
Number of Observations Used 71	

The GLM Procedure

Dependent Variable: MarketPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	112.218393	37.406131	2.07	0.1125
Error	67	1210.743767	18.070802		
Corrected Total	70	1322.962160			

R-Square	Coeff Var	Root MSE	MarketPerc Mean
0.084824	77.19264	4.250977	5.506971

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEmployees	3	112.2183926	37.4061309	2.07	0.1125

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEmployees	3	112.2183926	37.4061309	2.07	0.1125

The GLM Procedure

Dependent Variable: EffectChangePerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	110.748785	36.916262	0.40	0.7504
Error	67	6118.242913	91.317058		
Corrected Total	70	6228.991698			

R-Square	Coeff Var	Root MSE	EffectChangePerc Mean
0.017780	70.30079	9.555996	13.59301

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEmployees	3	110.7487849	36.9162616	0.40	0.7504

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEmployees	3	110.7487849	36.9162616	0.40	0.7504

N Employees	3	110.7487849	36.9162616	0.40	0.7504
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The GLM Procedure

Dependent Variable: DescrOrgPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	322.052524	107.350841	0.94	0.4268
Error	67	7659.190646	114.316278		
Corrected Total	70	7981.243170			

R-Square	Coeff Var	Root MSE	DescrOrgPerc Mean
0.040351	52.02297	10.69188	20.55223

Source	DF	Type I SS	Mean Square	F Value	Pr > F
N Employees	3	322.0525243	107.3508414	0.94	0.4268

Source	DF	Type III SS	Mean Square	F Value	Pr > F
N Employees	3	322.0525243	107.3508414	0.94	0.4268

The GLM Procedure

Dependent Variable: StratOrgPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	241.65084	80.55028	0.54	0.6555
Error	67	9964.83232	148.72884		
Corrected Total	70	10206.48316			

R-Square	Coeff Var	Root MSE	StratOrgPerc Mean
0.023676	50.65587	12.19544	24.07509

Source	DF	Type I SS	Mean Square	F Value	Pr > F
N Employees	3	241.6508432	80.5502811	0.54	0.6555

Source	DF	Type III SS	Mean Square	F Value	Pr > F
N Employees	3	241.6508432	80.5502811	0.54	0.6555

The GLM Procedure

Dependent Variable: CustServPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	48.725372	16.241791	0.31	0.8189
Error	67	3523.383462	52.587813		
Corrected Total	70	3572.108834			

R-Square	Coeff Var	Root MSE	CustServPerc Mean
0.013641	90.82279	7.251746	7.984500

Source	DF	Type I SS	Mean Square	F Value	Pr > F
N Employees	3	48.72537232	16.24179077	0.31	0.8189

Source	DF	Type III SS	Mean Square	F Value	Pr > F
N Employees	3	48.72537232	16.24179077	0.31	0.8189

The GLM Procedure

Dependent Variable: QualServPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	129.79745	43.26582	0.20	0.8956
Error	67	14453.26547	215.72038		
Corrected Total	70	14583.06292			

R-Square	Coeff Var	Root MSE	QualServPerc Mean
0.008901	54.64121	14.68742	26.87975

Source	DF	Type I SS	Mean Square	F Value	Pr > F
NEmployees	3	129.7974528	43.2658176	0.20	0.8956

Source	DF	Type III SS	Mean Square	F Value	Pr > F
NEmployees	3	129.7974528	43.2658176	0.20	0.8956

The GLM Procedure

Level of NEmployees	N	MarketPerc		EffectChangePerc		DescrOrgPerc		StratOrgPerc		CustServPerc		QualServPerc	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Category 1	2	3.7715	5.2233	13.077	11.465	17.470	12.815	23.556	15.408	9.0287	10.688	28.548	19.266
	2	8195	1660	8339	7024	8854	4461	6407	1821	1285	8707	8906	8377
Category 2	1	5.7458	3.3664	16.468	14.576	22.685	10.217	20.305	10.155	6.9828	3.9102	27.812	12.676
	1	9492	6100	6682	7790	1629	9065	1706	4263	3587	508	2675	1637
Category 3	2	6.0119	4.1273	13.277	6.0669	22.137	10.729	25.765	9.6284	7.2792	4.4591	25.528	12.289
	4	3526	2171	1357	654	3998	5495	6953	852	9294	193	5410	6029
Category 4	1	7.1806	3.1945	12.684	5.4499	21.001	6.3145	24.953	11.817	8.3395	6.2871	25.840	11.014
	4	3410	7911	6482	366	0149	214	6745	7643	4052	397	4877	6498

The GLM Procedure

Dependent Variable: MarketPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	28.58468584	28.58468584	1.58	0.2129
mean Category 1-Category 3	1	57.61149133	57.61149133	3.19	0.0787
mean Category 1-Category 4	1	99.42955731	99.42955731	5.50	0.0220
mean Category 2-Category 3	1	0.53386429	0.53386429	0.03	0.8640
mean Category 2-Category 3	1	12.68021534	12.68021534	0.70	0.4052
mean Category 3-Category 4	1	12.07705119	12.07705119	0.67	0.4165
mean Category 1 vs. other Categories	1	94.79943591	94.79943591	5.25	0.0252
mean Category 2 vs. other Categories	1	0.07660298	0.07660298	0.00	0.9483
mean Category 3 vs. other Categories	1	3.07043811	3.07043811	0.17	0.6815
mean Category 4 vs. other Categories	1	44.03775237	44.03775237	2.44	0.1232
mean Category 1&2 vs. mean Category 3&4	1	54.14241064	54.14241064	3.00	0.0881

The GLM Procedure

Dependent Variable: EffectChangePerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	84.3168865	84.3168865	0.92	0.3401
mean Category 1-Category 3	1	0.4559305	0.4559305	0.00	0.9439
mean Category 1-Category 4	1	1.3226459	1.3226459	0.01	0.9046
mean Category 2-Category 3	1	76.8306338	76.8306338	0.84	0.3623
mean Category 2-Category 3	1	88.2038522	88.2038522	0.97	0.3292
mean Category 3-Category 4	1	3.1039454	3.1039454	0.03	0.8543
mean Category 1 vs. other Categories	1	16.6703175	16.6703175	0.18	0.6706
mean Category 2 vs. other Categories	1	110.0220100	110.0220100	1.20	0.2763
mean Category 3 vs. other Categories	1	9.8813385	9.8813385	0.11	0.7432
mean Category 4 vs. other Categories	1	27.7138759	27.7138759	0.30	0.5835
mean Category 1&2 vs. mean Category 3&4	1	51.5123151	51.5123151	0.56	0.4552

The GLM Procedure

Dependent Variable: DescrOrgPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	199.3837261	199.3837261	1.74	0.1911
mean Category 1-Category 3	1	249.9547074	249.9547074	2.19	0.1439
mean Category 1-Category 4	1	106.6177475	106.6177475	0.93	0.3376
mean Category 2-Category 3	1	2.2631918	2.2631918	0.02	0.8885
mean Category 2-Category 3	1	17.4719427	17.4719427	0.15	0.6971
mean Category 3-Category 4	1	11.4184351	11.4184351	0.10	0.7530
mean Category 1 vs. other Categories	1	293.3521653	293.3521653	2.57	0.1139
mean Category 2 vs. other Categories	1	56.7665912	56.7665912	0.50	0.4835
mean Category 3 vs. other Categories	1	47.3864561	47.3864561	0.41	0.5219
mean Category 4 vs. other Categories	1	0.6133940	0.6133940	0.01	0.9418
mean Category 1&2 vs. mean Category 3&4	1	35.6552153	35.6552153	0.31	0.5784

The GLM Procedure

Dependent Variable: StratOrgPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	77.5284253	77.5284253	0.52	0.4728
mean Category 1-Category 3	1	56.0130165	56.0130165	0.38	0.5415
mean Category 1-Category 4	1	16.6979054	16.6979054	0.11	0.7386
mean Category 2-Category 3	1	224.9078566	224.9078566	1.51	0.2231
mean Category 2-Category 3	1	133.1089026	133.1089026	0.89	0.3475
mean Category 3-Category 4	1	5.8302877	5.8302877	0.04	0.8437
mean Category 1 vs. other Categories	1	0.2051133	0.2051133	0.00	0.9705
mean Category 2 vs. other Categories	1	182.7553480	182.7553480	1.23	0.2716
mean Category 3 vs. other Categories	1	123.4359985	123.4359985	0.83	0.3656
mean Category 4 vs. other Categories	1	33.3659603	33.3659603	0.22	0.6373
mean Category 1&2 vs. mean Category 3&4	1	188.5124633	188.5124633	1.27	0.2643

The GLM Procedure

Dependent Variable: CustServPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	30.69449246	30.69449246	0.58	0.4476
mean Category 1-Category 3	1	35.12887302	35.12887302	0.67	0.4166
mean Category 1-Category 4	1	4.06353375	4.06353375	0.08	0.7819
mean Category 2-Category 3	1	0.66291755	0.66291755	0.01	0.9109
mean Category 2-Category 3	1	11.33838873	11.33838873	0.22	0.6439
mean Category 3-Category 4	1	9.93963098	9.93963098	0.19	0.6651
mean Category 1 vs. other Categories	1	32.80153358	32.80153358	0.62	0.4324
mean Category 2 vs. other Categories	1	14.00885088	14.00885088	0.27	0.6075
mean Category 3 vs. other Categories	1	10.83787064	10.83787064	0.21	0.6513
mean Category 4 vs. other Categories	1	3.63658068	3.63658068	0.07	0.7934
mean Category 1&2 vs. mean Category 3&4	1	0.61823925	0.61823925	0.01	0.9140

The GLM Procedure

Dependent Variable: QualServPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Category 1-Category 2	1	3.9791666	3.9791666	0.02	0.8924
mean Category 1-Category 3	1	104.7105738	104.7105738	0.49	0.4884
mean Category 1-Category 4	1	62.7588174	62.7588174	0.29	0.5914
mean Category 2-Category 3	1	39.3390693	39.3390693	0.18	0.6707
mean Category 2-Category 3	1	23.9495590	23.9495590	0.11	0.7400
mean Category 3-Category 4	1	0.8604323	0.8604323	0.00	0.9498
mean Category 1 vs. other Categories	1	68.1804067	68.1804067	0.32	0.5759
mean Category 2 vs. other Categories	1	12.6775245	12.6775245	0.06	0.8092
mean Category 3 vs. other Categories	1	54.1182840	54.1182840	0.25	0.6181
mean Category 4 vs. other Categories	1	23.2449463	23.2449463	0.11	0.7437
mean Category 1&2 vs. mean Category 3&4	1	99.9016622	99.9016622	0.46	0.4985

Error	63	5263.503316	83.547672		
Corrected Total	70	6228.991698			

R-Square	Coeff Var	Root MSE	EffectChangePerc Mean
0.154999	67.24367	9.140442	13.59301

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	965.4883821	137.9269117	1.65	0.1377

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	965.4883821	137.9269117	1.65	0.1377

The GLM Procedure

Dependent Variable: DescrOrgPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	777.521695	111.074528	0.97	0.4599
Error	63	7203.721475	114.344785		
Corrected Total	70	7981.243170			

R-Square	Coeff Var	Root MSE	DescrOrgPerc Mean
0.097419	52.02946	10.69321	20.55223

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	777.5216954	111.0745279	0.97	0.4599

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	777.5216954	111.0745279	0.97	0.4599

The GLM Procedure

Dependent Variable: StratOrgPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	1448.78581	206.96940	1.49	0.1875
Error	63	8757.69736	139.01107		
Corrected Total	70	10206.48316			

R-Square	Coeff Var	Root MSE	StratOrgPerc Mean
0.141948	48.97302	11.79030	24.07509

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	1448.785806	206.969401	1.49	0.1875

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	1448.785806	206.969401	1.49	0.1875

The GLM Procedure

Dependent Variable: CustServPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	445.089182	63.584169	1.28	0.2742
Error	63	3127.019652	49.635233		

Corrected Total	70	3572.108834			
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R-Square	Coeff Var	Root MSE	CustServPerc Mean
0.124601	88.23631	7.045228	7.984500

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	445.0891818	63.5841688	1.28	0.2742

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	445.0891818	63.5841688	1.28	0.2742

The GLM Procedure

Dependent Variable: QualServPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	7	1887.88709	269.69816	1.34	0.2475
Error	63	12695.17583	201.51073		
Corrected Total	70	14583.06292			

R-Square	Coeff Var	Root MSE	QualServPerc Mean
0.129458	52.81093	14.19545	26.87975

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Province	7	1887.887092	269.698156	1.34	0.2475

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Province	7	1887.887092	269.698156	1.34	0.2475

The GLM Procedure

Level of Province	N	MarketPerc		EffectChangePerc		DescrOrgPerc		StratOrgPerc		CustServPerc		QualServPerc	
		Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
Drenthe	2	2.3809 524	3.3671 751	2.3809 524	3.3671 751	11.904 7619	16.835 8757	36.666 6667	4.7140 452	20.000 0000	28.284 2712	26.666 6667	9.4280 904
Gelderland	5	6.2525 173	3.6863 816	15.331 9514	9.7862 401	15.041 6517	9.0515 185	17.936 5380	11.974 4822	11.530 0591	12.236 5188	33.907 2825	6.3513 851
Limburg	2	11.111 1111	0.0000 000	22.222 2222	7.8567 420	25.000 0000	3.9283 710	13.888 8889	19.641 8550	11.111 1111	0.0000 000	16.666 6667	15.713 4840
Noord-Brabant	5	3.2146 119	5.7796 027	16.013 3982	14.038 6584	17.959 0243	16.733 8104	13.213 7106	11.316 2542	8.3701 033	10.160 5686	41.229 1516	34.035 7351
Noord-Holland	2	6.4555 782	4.3095 209	14.122 6960	9.2285 616	20.183 0791	8.5483 697	26.139 3103	11.019 0985	6.9247 034	3.4447 140	26.174 6329	12.660 2395
Overijssel	2	7.6923 077	10.878 5659	26.495 7265	6.0436 477	11.111 1111	15.713 4840	22.649 5726	0.6043 648	3.8461 538	5.4392 829	28.205 1282	7.2523 772
Utrecht	2	4.1437 438	3.5260 491	12.510 2966	8.6497 088	23.085 5968	11.991 6762	25.004 5286	13.387 2154	7.6922 360	6.4302 532	22.801 6935	12.379 7705
Zuid-Holland	7	5.7101 929	3.8558 030	8.8786 371	6.7307 668	24.061 7544	8.5066 768	25.187 5889	9.3295 192	6.9971 692	5.0012 521	29.164 6574	6.8214 531

The GLM Procedure

Dependent Variable: MarketPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	29.82134901	29.82134901	1.65	0.2036
mean Gelderland vs. Other Provinces	1	0.79797255	0.79797255	0.04	0.8342
mean Limburg vs. Other Provinces	1	67.28334870	67.28334870	3.72	0.0582
mean Noord-Brabant vs. Other Provinces	1	38.48323510	38.48323510	2.13	0.1494
mean Noord-Holland vs. Other Provinces	1	5.61704834	5.61704834	0.31	0.5791
mean Overijssel vs. Other Provinces	1	8.13326308	8.13326308	0.45	0.5047
mean Utrecht vs. Other Provinces	1	43.22131883	43.22131883	2.39	0.1270
mean Zuid-Holland vs. Other Provinces	1	0.18220491	0.18220491	0.01	0.9203

The GLM Procedure

Dependent Variable: EffectChangePerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	374.4269146	374.4269146	4.48	0.0382
mean Gelderland vs. Other Provinces	1	1.8833892	1.8833892	0.02	0.8811
mean Limburg vs. Other Provinces	1	136.9690018	136.9690018	1.64	0.2051
mean Noord-Brabant vs. Other Provinces	1	8.7869439	8.7869439	0.11	0.7468
mean Noord-Holland vs. Other Provinces	1	6.3359643	6.3359643	0.08	0.7839
mean Overijssel vs. Other Provinces	1	338.2590282	338.2590282	4.05	0.0485
mean Utrecht vs. Other Provinces	1	72.3874490	72.3874490	0.87	0.3555
mean Zuid-Holland vs. Other Provinces	1	245.0981991	245.0981991	2.93	0.0917

The GLM Procedure

Dependent Variable: DescrOrgPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	107.9533878	107.9533878	0.94	0.3349
mean Gelderland vs. Other Provinces	1	66.9170894	66.9170894	0.59	0.4471
mean Limburg vs. Other Provinces	1	102.1159007	102.1159007	0.89	0.3483
mean Noord-Brabant vs. Other Provinces	1	1.8634484	1.8634484	0.02	0.8988
mean Noord-Holland vs. Other Provinces	1	44.0614627	44.0614627	0.39	0.5370
mean Overijssel vs. Other Provinces	1	135.3081131	135.3081131	1.18	0.2808
mean Utrecht vs. Other Provinces	1	299.1994682	299.1994682	2.62	0.1107
mean Zuid-Holland vs. Other Provinces	1	216.9212200	216.9212200	1.90	0.1733

The GLM Procedure

Dependent Variable: StratOrgPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	485.6658306	485.6658306	3.49	0.0663
mean Gelderland vs. Other Provinces	1	117.9645555	117.9645555	0.85	0.3605
mean Limburg vs. Other Provinces	1	185.2750813	185.2750813	1.33	0.2527
mean Noord-Brabant vs. Other Provinces	1	479.3487198	479.3487198	3.45	0.0680
mean Noord-Holland vs. Other Provinces	1	206.9328163	206.9328163	1.49	0.2270

mean Overijssel vs. Other Provinces	1	0.0099463	0.0099463	0.00	0.9933
mean Utrecht vs. Other Provinces	1	84.8359182	84.8359182	0.61	0.4376
mean Zuid-Holland vs. Other Provinces	1	48.2176186	48.2176186	0.35	0.5580

The GLM Procedure

Dependent Variable: CustServPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	267.0366764	267.0366764	5.38	0.0236
mean Gelderland vs. Other Provinces	1	21.2030763	21.2030763	0.43	0.5158
mean Limburg vs. Other Provinces	1	5.9014668	5.9014668	0.12	0.7314
mean Noord-Brabant vs. Other Provinces	1	7.7129387	7.7129387	0.16	0.6948
mean Noord-Holland vs. Other Provinces	1	113.7199818	113.7199818	2.29	0.1351
mean Overijssel vs. Other Provinces	1	79.9425757	79.9425757	1.61	0.2091
mean Utrecht vs. Other Provinces	1	50.5330487	50.5330487	1.02	0.3168
mean Zuid-Holland vs. Other Provinces	1	46.7476445	46.7476445	0.94	0.3355

The GLM Procedure

Dependent Variable: QualServPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean Drenthe vs. Other Provinces	1	5.0463611	5.0463611	0.03	0.8748
mean Gelderland vs. Other Provinces	1	183.9174813	183.9174813	0.91	0.3431
mean Limburg vs. Other Provinces	1	320.3158366	320.3158366	1.59	0.2120
mean Noord-Brabant vs. Other Provinces	1	940.4074123	940.4074123	4.67	0.0346
mean Noord-Holland vs. Other Provinces	1	60.8763575	60.8763575	0.30	0.5845
mean Overijssel vs. Other Provinces	1	0.0260594	0.0260594	0.00	0.9910
mean Utrecht vs. Other Provinces	1	407.4019979	407.4019979	2.02	0.1600
mean Zuid-Holland vs. Other Provinces	1	8.0440984	8.0440984	0.04	0.8423

ANOVA Specialization-Categories PERCENTAGES

Program

```

proc glm;
class Specialization;
model MarketPerc EffectChangePerc DescrOrgPerc StratOrgPerc CustServPerc
QualServPerc = Specialization;
means Specialization /deonly;
contrast 'mean HR Consulting - Other Categories' Specialization -5 1 1 1 1 1;
contrast 'mean IT Consulting - Other Categories' Specialization 1 -5 1 1 1 1;
contrast 'mean Innovation - Other Categories' Specialization 1 1 -5 1 1 1;
contrast 'mean Management Consulting - Other Categories' Specialization 1 1 1
-5 1 1;
contrast 'mean Operations & Process Consulting - Other Categories'
Specialization 1 1 1 1 -5 1;
contrast 'mean Strategy Consulting - Other Categories' Specialization 1 1 1 1
1 -5;
run;

```

Results

The GLM Procedure

Class Level Information		
Class	Levels	Values
Specialization	6	HR Consulting IT Consulting Innovation Management Consulting Operations & Process Consulting Strategy Consulting

Number of Observations Read	71
Number of Observations Used	71

The GLM Procedure

Dependent Variable: MarketPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	74.907452	14.981490	0.78	0.5676
Error	65	1248.054708	19.200842		
Corrected Total	70	1322.962160			

R-Square	Coeff Var	Root MSE	MarketPerc Mean
0.056621	79.56962	4.381876	5.506971

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	74.90745187	14.98149037	0.78	0.5676

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	74.90745187	14.98149037	0.78	0.5676

The GLM Procedure

Dependent Variable: EffectChangePerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	169.795751	33.959150	0.36	0.8712
Error	65	6059.195947	93.218399		
Corrected Total	70	6228.991698			

R-Square	Coeff Var	Root MSE	EffectChangePerc Mean
0.027259	71.02889	9.654968	13.59301

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	169.7957512	33.9591502	0.36	0.8712

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	169.7957512	33.9591502	0.36	0.8712

The GLM Procedure

Dependent Variable: DescrOrgPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	2093.860738	418.772148	4.62	0.0011
Error	65	5887.382433	90.575114		
Corrected Total	70	7981.243170			

R-Square	Coeff Var	Root MSE	DescrOrgPerc Mean
0.262348	46.30689	9.517096	20.55223

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	2093.860738	418.772148	4.62	0.0011

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	2093.860738	418.772148	4.62	0.0011

The GLM Procedure

Dependent Variable: StratOrgPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	893.24854	178.64971	1.25	0.2977
Error	65	9313.23462	143.28053		
Corrected Total	70	10206.48316			

R-Square	Coeff Var	Root MSE	StratOrgPerc Mean
0.087518	49.71938	11.96998	24.07509

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	893.2485398	178.6497080	1.25	0.2977

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	893.2485398	178.6497080	1.25	0.2977

The GLM Procedure

Dependent Variable: CustServPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
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Model	5	86.660192	17.332038	0.32	0.8973
Error	65	3485.448642	53.622287		
Corrected Total	70	3572.108834			

R-Square	Coeff Var	Root MSE	CustServPerc Mean
0.024260	91.71175	7.322724	7.984500

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	86.66019159	17.33203832	0.32	0.8973

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	86.66019159	17.33203832	0.32	0.8973

The GLM Procedure

Dependent Variable: QualServPerc

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	5	744.56825	148.91365	0.70	0.6258
Error	65	13838.49467	212.89992		
Corrected Total	70	14583.06292			

R-Square	Coeff Var	Root MSE	QualServPerc Mean
0.051057	54.28283	14.59109	26.87975

Source	DF	Type I SS	Mean Square	F Value	Pr > F
Specialization	5	744.5682528	148.9136506	0.70	0.6258

Source	DF	Type III SS	Mean Square	F Value	Pr > F
Specialization	5	744.5682528	148.9136506	0.70	0.6258

The GLM Procedure

Level of Specialization	MarketPerc		EffectChange Perc		DescrOrgPer c		StratOrgPerc		CustServPer c		QualServPer c		
	N	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev
HR Consulting	6	6.0959 9940	4.2803 0866	11.212 8870	6.2058 701	29.030 4787	11.229 6028	22.343 6703	8.0948 566	6.4270 9896	2.2376 944	24.889 8657	5.5337 429
IT Consulting	13	6.1863 7645	4.0887 0952	13.212 2798	5.4222 186	19.225 6264	8.1793 545	25.444 7012	9.2734 082	9.7705 7761	6.4791 396	26.160 4386	10.895 1683
Innovation	15	3.6428 5564	5.3076 1869	12.937 0046	12.853 5939	15.730 5101	13.793 9422	20.919 6909	15.397 6069	8.8342 8552	12.138 0957	31.268 9867	21.960 4304
Management Consulting	20	6.1395 1373	3.7514 7762	15.784 6064	7.0818 819	23.107 0835	4.0512 652	21.489 6421	11.717 0302	7.3584 8726	3.9580 430	26.120 6669	11.272 7524
Operations & Process Consulting	27	4.0277 7778	3.7319 5246	9.8611 111	7.6603 235	42.361 1111	18.659 7623	23.750 0000	11.588 6945	7.5000 0000	1.1785 113	12.500 0000	1.9641 855
Strategy Consulting	15	5.9004 9439	4.4731 0975	13.106 5100	12.504 9407	16.818 0344	8.9848 750	30.226 6506	11.624 0353	7.1090 2296	6.5189 244	26.839 2877	14.858 8543

The GLM Procedure

Dependent Variable: MarketPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	4.26304536	4.26304536	0.22	0.6391
mean IT Consulting - Other Categories	1	9.47254586	9.47254586	0.49	0.4849
mean Innovation - Other Categories	1	40.65661355	40.65661355	2.12	0.1504
mean Management Consulting - Other Categories	1	11.03235284	11.03235284	0.57	0.4512
mean Operations & Process Consulting - Other Categories	1	4.73830975	4.73830975	0.25	0.6210
mean Strategy Consulting - Other Categories	1	4.60154562	4.60154562	0.24	0.6261

The GLM Procedure

Dependent Variable: EffectChangePerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	15.8504466	15.8504466	0.17	0.6814
mean IT Consulting - Other Categories	1	3.5992691	3.5992691	0.04	0.8448
mean Innovation - Other Categories	1	0.8994907	0.8994907	0.01	0.9221
mean Management Consulting - Other Categories	1	162.5392864	162.5392864	1.74	0.1913
mean Operations & Process Consulting - Other Categories	1	22.2191800	22.2191800	0.24	0.6270
mean Strategy Consulting - Other Categories	1	2.5224015	2.5224015	0.03	0.8699

The GLM Procedure

Dependent Variable: DescrOrgPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	158.104695	158.104695	1.75	0.1911
mean IT Consulting - Other Categories	1	344.739763	344.739763	3.81	0.0554
mean Innovation - Other Categories	1	1065.544765	1065.544765	11.76	0.0011
mean Management Consulting - Other Categories	1	27.373878	27.373878	0.30	0.5844
mean Operations & Process Consulting - Other Categories	1	900.529605	900.529605	9.94	0.0024
mean Strategy Consulting - Other Categories	1	814.409588	814.409588	8.99	0.0038

The GLM Procedure

Dependent Variable: StratOrgPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	20.7552024	20.7552024	0.14	0.7047
mean IT Consulting - Other Categories	1	26.0164159	26.0164159	0.18	0.6714
mean Innovation - Other Categories	1	137.7383311	137.7383311	0.96	0.3305
mean Management Consulting - Other Categories	1	109.1487529	109.1487529	0.76	0.3860
mean Operations & Process Consulting - Other Categories	1	0.2168702	0.2168702	0.00	0.9691
mean Strategy Consulting - Other Categories	1	547.2129441	547.2129441	3.82	0.0550

The GLM Procedure

Dependent Variable: CustServPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	14.44733728	14.44733728	0.27	0.6055
mean IT Consulting - Other Categories	1	48.72465690	48.72465690	0.91	0.3440
mean Innovation - Other Categories	1	14.27622739	14.27622739	0.27	0.6076
mean Management Consulting - Other Categories	1	3.81500862	3.81500862	0.07	0.7905
mean Operations & Process Consulting - Other Categories	1	0.30926846	0.30926846	0.01	0.9397
mean Strategy Consulting - Other Categories	1	7.47230204	7.47230204	0.14	0.7101

The GLM Procedure

Dependent Variable: QualServPerc

Contrast	DF	Contrast SS	Mean Square	F Value	Pr > F
mean HR Consulting - Other Categories	1	0.4939065	0.4939065	0.00	0.9617
mean IT Consulting - Other Categories	1	30.4119144	30.4119144	0.14	0.7067
mean Innovation - Other Categories	1	627.9578942	627.9578942	2.95	0.0907
mean Management Consulting - Other Categories	1	37.6170908	37.6170908	0.18	0.6756
mean Operations & Process Consulting - Other Categories	1	409.7509159	409.7509159	1.92	0.1701
mean Strategy Consulting - Other Categories	1	69.5447670	69.5447670	0.33	0.5696

Correlation Table

Program

```
proc corr;
var NRows Market EffectChange DescrOrg StratOrg CustServ QualServ TMethaphors
MarketPerc EffectChangePerc DescrOrgPerc StratOrgPerc CustServPerc
QualServPerc;
run;
```

Results

The CORR Procedure

14 Variable s:	NRows Market EffectChange DescrOrg StratOrg CustServ QualServ TMethaphors MarketPerc EffectChangePerc DescrOrgPerc StratOrgPerc CustServPerc QualServPerc
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Simple Statistics						
Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
NRows	71	361.81690	441.22988	25689	15.00000	2799
Market	71	4.19718	6.95418	298.00000	0	46.00000
EffectChange	71	9.47887	12.86730	673.00000	0	62.00000
DescrOrg	71	14.53521	19.35815	1032	0	124.00000
StratOrg	71	16.59155	23.30701	1178	0	126.00000
CustServ	71	4.66197	6.76956	331.00000	0	48.00000
QualServ	71	14.23944	15.54759	1011	0	97.00000

TMethaphors	71	63.70423	78.24730	4523	0	500.00000
MarketPerc	71	5.50697	4.34735	390.99497	0	15.38462
EffectChangePerc	71	13.59301	9.43322	965.10403	0	54.38596
DescrOrgPerc	71	20.55223	10.67791	1459	0	55.55556
StratOrgPerc	71	24.07509	12.07505	1709	0	50.00000
CustServPerc	71	7.98450	7.14354	566.89948	0	40.00000
QualServPerc	71	26.87975	14.43362	1908	0	100.00000

Pearson Correlation Coefficients, N = 71														
Prob > r under H0: Rho=0														
	NRows	Market	EffectChange	DescrOrg	StratOrg	CustServ	QualServ	TMethaphors	MarketPerc	EffectChangePerc	DescrOrgPerc	StratOrgPerc	CustServPerc	QualServPerc
NRows	1.00000	0.86881	0.83377	0.91979	0.80826	0.86401	0.93393	0.94295	0.21554	0.09566	0.19783	0.02620	-	-
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.0710	0.4274	0.0982	0.8283	0.05192	0.19222
													0.6672	0.1083
Market	0.86881	1.00000	0.70985	0.88816	0.88868	0.82198	0.81848	0.92379	0.40883	-0.00910	0.12673	0.12988	-	-
			<.0001	<.0001	<.0001	<.0001	<.0001	<.0001	0.0004	0.9399	0.2923	0.2803	0.07595	0.22227
													0.5290	0.0625
EffectChange	0.83377	0.70985	1.00000	0.80476	0.76106	0.71005	0.79984	0.87368	0.07731	0.42296	0.09808	0.03062	-	-
		<.0001		<.0001	<.0001	<.0001	<.0001	<.0001	0.5216	0.0002	0.4158	0.7999	0.12357	0.26382
													0.3046	0.0262
DescrOrg	0.91979	0.88816	0.80476	1.00000	0.86939	0.83589	0.85940	0.96071	0.18675	0.05843	0.34822	0.07595	-	-
		<.0001	<.0001		<.0001	<.0001	<.0001	<.0001	0.1189	0.6284	0.0029	0.5290	0.11042	0.28662
													0.3593	0.0154
StratOrg	0.80826	0.88868	0.76106	0.86939	1.00000	0.79073	0.75685	0.93587	0.20452	0.03398	0.10778	0.34641	-	-
		<.0001	<.0001	<.0001		<.0001	<.0001	<.0001	0.0871	0.7785	0.3710	0.0031	0.09222	0.33725
													0.4443	0.0040
CustServ	0.86401	0.82198	0.71005	0.83589	0.79073	1.00000	0.82914	0.88341	0.14197	0.01772	0.07280	0.06328	0.19018	-
		<.0001	<.0001	<.0001	<.0001		<.0001	<.0001	0.2376	0.8834	0.5463	0.6001	0.1122	0.18710
													0.1182	
QualServ	0.93393	0.81848	0.79984	0.85940	0.75685	0.82914	1.00000	0.91275	0.18618	0.08940	0.11666	-	-	-
		<.0001	<.0001	<.0001	<.0001	<.0001		<.0001	0.1201	0.4585	0.3326	0.04696	0.05850	0.04191
												0.6974	0.6279	0.7285
TMethaphors	0.94295	0.92379	0.87368	0.96071	0.93393	0.88341	0.91275	1.00000	0.20544	0.11262	0.17512	0.13469	-	-
		<.0001	<.0001	<.0001	<.0001	<.0001	<.0001		0.0857	0.3498	0.1441	0.2628	0.07703	0.25902
													0.5232	0.0292
MarketPerc	0.21554	0.40883	0.07731	0.18675	0.20452	0.14197	0.18618	0.20544	1.00000	-0.05504	0.14361	-	-	-
		0.0710	0.5216	0.1189	0.0871	0.2376	0.1201	0.0857		0.6485	0.2322	0.05249	0.16588	0.12008
												0.6638	0.1668	0.3185
EffectChangePerc	0.09566	-	0.42296	0.05843	0.03398	0.01772	0.08940	0.11262	-	1.00000	0.00097	-	-	-
		0.00910	0.0002	0.6284	0.7785	0.8834	0.4585	0.3498	0.05504		0.9936	0.22425	0.24589	0.18578
		0.4274	0.9399	0.5216	0.7785	0.8834	0.4585	0.3498	0.6485			0.0601	0.0387	0.1209
DescrOrgPerc	0.19783	0.12673	0.09808	0.34822	0.10778	0.07280	0.11666	0.17512	0.14361	0.00097	1.00000	-	-	-
		0.2923	0.4158	0.0029	0.3710	0.5463	0.3326	0.1441	0.2322	0.9936		0.05677	0.36478	0.36515
												0.6382	0.0018	0.0017

StratOrgPerc	0.02620	0.12988	0.03062	0.07595	0.34641	0.06328	-0.04696	0.13469	-0.05249	-0.22425	-0.05677	1.00000	0.08666	-0.47778
	0.8283	0.2803	0.7999	0.5290	0.0031	0.6001	0.6974	0.2628	0.6638	0.0601	0.6382		0.4724	<.0001
CustServPerc	-0.05192	-0.07595	-0.12357	-0.11042	-0.09222	0.19018	-0.05850	-0.07703	-0.16588	-0.24589	-0.36478	0.08666	1.00000	0.02373
	0.6672	0.5290	0.3046	0.3593	0.4443	0.1122	0.6279	0.5232	0.1668	0.0387	0.0018	0.4724		0.8443
QualServPerc	-0.19222	-0.22227	-0.26382	-0.28662	-0.33725	-0.18710	-0.04191	-0.25902	-0.12008	-0.18578	-0.36515	-0.47778	0.02373	1.00000
	0.1083	0.0625	0.0262	0.0154	0.0040	0.1182	0.7285	0.0292	0.3185	0.1209	0.0017	<.0001	0.8443	

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Software:

- Ucto - Unicode Tokenizer - version 0.4.7, (c) ILK 2009 - 2011, Induction of Linguistic Knowledge Research Group, Tilburg University. Licensed under the GNU General Public License v3
- The data analysis for this paper was generated using SAS software.