



# Workgroup and Organizational Commitment as Predictors of Discretionary Behavior on the Team-Level

Key words: Discretionary behavior, organizational citizenship behavior, GOCB, commitment, workgroup

## Master Thesis (30 ECTS)

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# Abstract

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**Background:** Today, it is crucial for many organizations to use workgroups for solving complex problems and tasks. In order to make teams perform well, one can investigate what drives participants to engage in discretionary behavior. Commitment is identified as a key antecedent of discretionary behavior and of other employee outcomes in the professional environment. Even though plenty of theory on commitment exists today, it is not clear how commitment focused towards different entities affects discretionary behavior in workgroups.

**Purpose:** The purpose of this paper is to examine and compare how commitment among workgroup members, directed towards the workgroup and organization respectively, influences discretionary work behavior.

**Method:** A deductive and quantitative method is used that was translated into a descriptive cross-sectional study of 138 individuals in 33 different workgroups operating in a professional environment. A survey gauging OCB, as a measurement of discretionary behavior, was sent out to members of work teams in 19 companies across Sweden and Germany. Various statistical methods including regression analysis was used to test the drafted hypotheses.

**Conclusion:** The conclusion of this paper is that, in general, commitment among workgroup participants, both directed towards the organization and workgroup, appears to be positively related to OCB. Also, Commitment directed towards the workgroup is observed to be a stronger predictor of OCB, and in turn discretionary behavior, than commitment focused towards the organization.

**Contribution:** This thesis contributes to existing research by indicating the importance of building attachment towards workgroups. Moreover, it shows that it is more important to build attachment towards the workgroup than building employee commitment that is directed towards the organization. In addition, this thesis provides theoretical contributions on the sub-dimensions of commitment and their respective relationships with discretionary behavior in workgroups.

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Johan Hendrik Viets

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## List of Abbreviations

Throughout this paper, a number of abbreviations will be used. These are outlined below:

Abbreviation	Concept
AC	Affective Commitment
CA	Cronbach's Alpha
CC	Continuance Commitment
CC - HiSac	Continuance Commitment - Perceived High Sacrifice
CC-LoAlt	Continuance Commitment - Lack of Alternatives
ERB	Extra Role Behavior
GAC	Workgroup Affective Commitment
GCC	Workgroup Continuance Commitment
GNC	Workgroup Normative Commitment
GOCB	Group Organizational Citizenship Behavior
MPR	Member Participation Rate
NC	Normative Commitment
OAC	Organizational Affective Commitment
OCB	Organizational Citizenship Behavior
OCC	Organizational Continuance Commitment
ONC	Organizational Normative Commitment
POD	Principled Organizational Dissent
PSOD	ProSocial Organizational Behavior
SME	Small and Medium-Sized Enterprise
TCM	The Three Component Model
WB	Whistle-Blowing

## Clarifications

In this thesis a number of theoretical concepts and terms are used. In this section a clarification of few of them and their use and meaning in this paper is presented.

Concept	Explanation
<b>Discretionary Behavior</b>	Behavior that exceeds formal job descriptions that is driven by individual initiative surpassing the formal demands on the individual in relation to job tasks.
<b>Employee Commitment</b>	In this thesis employee commitment is used to describe all different types of commitments in the workplace. Commitment can be defined as an individual attachment to an entity or course of action. One can be commitment to different things in the professional environment, and organizational commitment, for instance, is one type of commitment that can be found among individuals in the workplace. A more detailed explanation of commitment is presented in the theory section.
<b>Extra-Role Behavior</b>	See discretionary behavior.
<b>Focal Behavior</b>	The opposite of discretionary behavior and is defined as job behavior that is formally defined through job descriptions.
<b>Organizational Citizenship Behavior</b>	This construct is measuring discretionary behavior.
<b>Workgroup</b>	A group of at least 3 individuals working together in a professional environment, operating with common goal, and meeting continuously. Workgroup and team are used interchangeably in this thesis, they are considered to have the same meaning and refer to a group in a professional context. Some researchers distinguish between the terms workgroup and team. According to this separation work groups are striving towards creating shared goals, effectiveness and efficiency, whereas teams have already done this. One can thus say that teams are developed work groups. However, in this thesis, the two terms of workgroup and team are used interchangeably. A more precise description of the workgroups studied in this thesis is provided in the methodology section.

# 1 Introduction

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*In this introductory section, the background of this thesis is presented along with the purpose, research question, delimitation, expected theoretical contribution, and thesis outline. This thesis will examine the group level outcomes of commitment directed towards the organization and the group, respectively. More specifically, group-level outcomes are measured through the concept of OCB in this study*

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## 1.1 Background

Work in modern firms today is increasingly characterized by being of an advanced and non-routine character. Many tasks require a flexible and knowledgeable workforce. This circumstance is based on the fact that modern economies are increasingly advanced. What can be seen today in the developed parts of the world are economies that are dominated by services (Schön, 2007). These economies are characterized by being knowledge-based, and many of the firms that are operating in them have a professionalized workforce (Von Nordenflycht, 2010). This is due to the nature of the work that these firms undertake, which is often advanced. Moreover, the markets in which these organizations operate are increasingly complex (Scott & Tiessen, 1999).

In order to solve many of the complex problems that firms face today, specialized knowledge and competences must be combined. In order to accomplish this, organizations form professional workgroups (Okhuysen & Eisenhardt, 2002). With the increasing organization of work in group constellations, it is relevant to examine what causes groups to perform well and yield desirable outcomes in a professional context. Research in the team context has mainly been focused on the leadership level and less on participants or members (Wheelan, 2013). According to Wheelan, this is a problem since there should be a focus on all the individuals that compose the workgroup. If you look at the individual level, and into what makes individuals perform well, commitment is widely recognized antecedent.

Commitment in the professional environment on the individual and group level, is one of the strongest predictors of both individual and group outcomes (Meyer, Stanley, Herscovitch, & Topolnysky, 2001; Mickan & Rodger, 2000). In line with this, one can see that firms increasingly rely on a committed workforce to stay competitive in the current business climate (Meyer & Parfyonova, 2010).

Commitment is defined as an individual's attachment to an object or a goal, for instance an organization, workgroup, or a supervisor. Thus, commitment exists across several different foci. Interestingly, the most commonly studied commitment in management research is organizational commitment. However, in the recent years more scholars have turned their focus towards different foci of employee commitment, including workgroup commitment (Nielsen, Hrivnak, & Shaw, 2009).

In further detail, commitment has been divided into several different sub-types since an individual can show and feel commitment for different reasons. This has been captured in the three-component model designed by Meyer & Allen (1991), which outlines that individuals can either feel affective, normative or continuance commitment. Basically, individuals can be attached to a course of action, or a unit, either because of an inner drive, expectations by their surrounding environment, or because of a perceived costs associated with abandoning the action or unit.

When examining the performance or outcomes of professional workgroups, one may find that these are difficult to measure from several points of view. For instance, the tasks assigned to a project group can change during the course of the project. Goals can be redefined and unexpected events might affect the outcome. This occurs to a larger extent in certain types of organizations. Work that is the least defined in terms of formal task and job descriptions, is most commonly found in professional service firms (Løwendahl, 2005). However, this does not only hold true for what can be considered as a traditional service firm, but also, as argued above, for most organizations in the modern economy (Von Nordenflycht, 2010). In these organizations, management of employees, and insurance that goals are fulfilled, is to a large extent relying on individuals engaging in behaviors to figure out what needs to be done by their own initiative (Løwendahl, 2005).

One way of capturing these behaviors, is to look at extra-role or discretionary behavior (Organ, 1988). Conducting tasks that are formally defined is described as focal behavior. Discretionary behavior on the other hand is work behavior that is beneficial for the organization, which does not meet the definition of focal behavior. In organizational research, one can find several theories related to discretionary behavior. Grouped, they are generally referred to as extra-role behaviors (ERB). As identified by Van Dyne, Cummings and McLean Parks (1995) there are four different major types extra role behaviors: Organizational Citizenship Behavior (OCB), ProSocial Organizational Behavior (PSOB), Whistle-Blowing (WB), and Principled Organizational Dissent (POD). Among these, OCB is the most predominant in theory (Organ, Podsakoff, & MacKenzie, 2006).

In line with this, many firms are spending vast amount of resources to build discretionary related behaviors, and in many cases these investments are wasted due to poor insights and follow-ups (Tudor, Trumble, & Diaz, 1996). The problem is that there is a lack of understanding of how to create a setting that can foster discretionary behaviors. This is especially true on the group level.

In summary, it is relevant to examine commitment and its component on the group level, in a professional setting, to see what impact it has on the organizational outcome of discretionary behavior. In order to measure organizational behavior, OCB is a suitable construct to use. This is in essence what this thesis will analyze in order to develop a deeper understanding of what causes groups to produce positive outcomes.

## **1.2 Purpose**

Following the argumentation from above, the purpose of this paper is to analyze how different commitments among members of workgroups, affects discretionary behavior on the group level. As part of this, the aim of this study is to understand how different types of commitments affect this relationship. The relationships that are intended to be analyzed are outlined in *Figure 1: Structural Overview*.

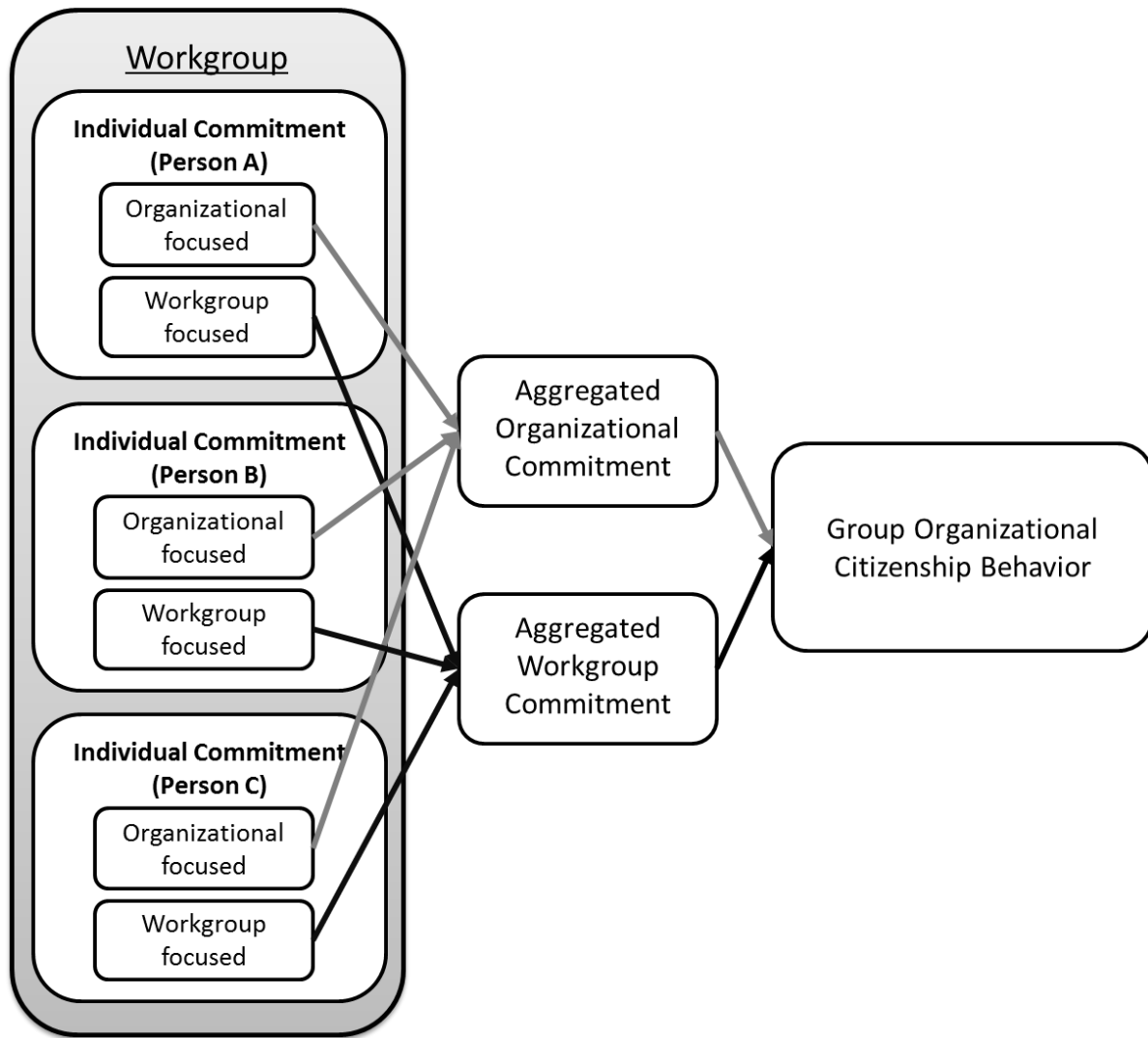


Figure 1: Structural Overview

### 1.3 Research Question

In accordance with the purpose of this study, this thesis aims to look at the different foci of commitment (i.e. workgroup and organization) to compare these with discretionary behavior, as measured by the OCB construct. Consequently, the research question of this paper has been formulated as:

*“What is the relationship between group aggregated employee commitment directed towards the organization and workgroup, respectively, in relation to organizational citizenship behavior?”*

### 1.4 Expected Theoretical Contribution

Based upon the overarching goal of gaining insights into how different dimensions of commitment affect group outcomes, this thesis aims to make the following contributions.

Firstly, it is the intention of this paper to shed light on how the two foci of commitment towards the organization and workgroup affect OCB. Today, no major studies have looked into this relationship, except for Pohl and Paillé (2011). Potential results in this area will contribute to theory as it will give

an indication of which foci of commitment is more relevant to look at in relation to group performance.

Secondly, another contribution will be made through looking into the three-component model of commitment in relation to OCB.

Finally, OCB is in this thesis measured on the group level, giving new insights into how this construct behaves on the consolidated workgroup level.

The practical implications of report could possibly be highly relevant for most firms that operate with workgroups. Moreover, this study is relevant for managers who are concerned with the question on how to focus efforts on creating effective teams. This paper is relevant, as it outlines whether efforts should be directed towards creating organizational or workgroup commitment in order to stimulate favorable outcomes for the organization.

## **1.5 Delimitation**

The ambition of this thesis is to produce valuable insights about teams in general, but specifically about professional workgroups. Taking into account the size of the study, a delimitation was conducted to ensure as reliable and valid data as possible was collected. This has resulted in a delimitation of the objects of study to professional workgroups undertaking advanced tasks. These teams work in a professional environment providing a deliverable to an internal or external client of their respective organizations.

## **1.6 Thesis Outline**

This thesis is structured with an introductory section that motivates why it is interesting to look at commitment and performance on the group level. According to this, a research question is outlined and the foundations of this paper are described. In the next section, theories related to the research topic are discussed and a motivation for the chosen theories and concepts is provided. Next, the chosen methodology is described and discussed. Following this part, a description of the empirical data is provided along with a presentation of the results and statistical calculations. In the empirical findings section, results of the statistical analysis are presented and the hypotheses are reviewed. The discussion section then provides a connection between the empirical findings and the theory section together with an overarching critical review of the thesis. Study limitations and areas of possible improvements, along with interesting findings, are discussed together with suggestions for further research. Finally, the conclusion summarizes the main findings of the paper. An appendix with detailed information that would not fit in the main body of this paper can be found as a compliment to this study.

## 2 Theoretical Review and Hypothesis Generation

*This section provides an overview of the theory that serves as a foundation for the analysis of this study. One can categorize the theory that this thesis builds upon into three major theoretical areas: group theory, commitment theory and OCB theory (as a measurement of discretionary behavior). These three theoretical fields are first separately outlined in relation to the research question and then merged in order to draft the hypotheses of this study.*

### 2.1 Group Theory

While the concept of the workgroup has not been clearly defined in theory, it has its basis in the sociological categorization of a team. Plenty of research has been dedicated towards studying groups both in professional and non-professional environments (Johnson & Johnson, 2013). This has been done through examination of a wide range of different aspects related to both individual and unit level. While the dynamics of groups are not considered to be fully understood, the research area can be considered to be in a mature stage (Hogg & Vaughan, 2011).

Group theory is important to review when conducting research on the group level as concepts that are investigated on the individual level can behave differently on the unit level. Furthermore, the social component of studying groups may affect results when conducting research on the group level that are not present on the individual level (Abrams & Hogg, 2004).

#### 2.1.1 Group Definition

Hogg (2001) points out that there is limited agreement on the social psychological definition of a group. Thus, some researchers have prudently tried to capture the common nominator of most of these definitions. Accordingly, Forsyth (2010) defines a group as “*two or more individuals who are connected by and within social relationships*” (Forsyth, 2010, p. 3). This definition is broad and covers all types of social groups. Some researchers are more specific and defined the characteristics of groups in the professional environment. S. G. Cohen and Bailey (1997) have focused on teams in an organizational context and have reached a more narrow definition:

A team is a collection of individuals who are interdependent in their tasks, who share responsibility for outcomes, who see themselves and who are seen by others as an intact social entity embedded in one or more larger social systems (for example, business unit or the corporation), and who manage their relationships across organizational boundaries. (S.G. Cohen & Bailey, p. 241)

In addition to what is mentioned above, a team set in the professional environment would also consist of individuals that have complementary skills (Yukl, 2010).

#### 2.1.2 Characteristics of Workgroups

A vast amount of literature has been dedicated towards outlining the processes workgroups undertake and the traits they display. These can be characterized into five main features (Forsyth, 2010). Firstly, members in a workgroup interact and communicate in order to create and organize tasks and relationships. Secondly, workgroups have purposes and goals that define what members seek to accomplish. Thirdly, Members in a workgroup have interdependence and influence each other. Fourthly, workgroups are organized units with norms and rule systems and their members take on different roles. Finally, workgroups are cohesive social arrangements that individuals can identify as a unit.

Moreover, different groups can vary significantly in their constellations and they show different degrees of the characteristics that have been defined above. Thus, several different types of groups can be identified.

### **2.1.3 Antecedents of Workgroup Outcomes**

A number of key conditions have been identified in groups that succeed in terms of achieving desired group outcomes. In more detail, a great number of determinants have been identified that relate to the external environment, leadership, individual composition and communication (Hackman, 1987; Northouse, 2013; Yukl, 2010). Furthermore, effective teams are characterized by a high level of coordination and communication among group members, strong social relationships between individuals in the group, systems for providing feedback, as well as effective decision-making and conflict management (Mickan & Rodger, 2000). However, when it comes to smaller groups, one of the most interesting factors to look is cohesiveness (Carron & Brawley, 2012; Hackman, 1987). Moreover, group size should also be considered when examining workgroups, as this can have strong output effects (Hogg & Vaughan, 2011).

#### **2.1.3.1 Group Cohesiveness**

Group cohesiveness defines the solidarity of group members and their tendency to stick together, and thus resembles forces that bind groups together (Tekleab, Quigley, & Tesluk, 2009). Group membership and group cohesiveness develops over time, similarly to a social process. This has been captured in models that divide the developments of workgroups into different stages (Tuckman, 1965; Wheelan, 2013). As the workgroup is reaching higher stages, the efficiency and effectiveness of the unit is improved. It has also been documented that individual commitment towards a workgroup increases over time, until it is fully developed (Levine & Moreland, 1990). In general, group tenure is a predictor for groupness (Katzenbach & Smith, 2005) or group cohesiveness. Thus, the longer time the workgroup has existed, the better it should perform and the higher functionality it should have (Hogg & Vaughan, 2011). As Harrison, Price and Bell (1998) point out, the time that people spend together allows for sharing information between individuals, which in turn can build group cohesiveness. It should be noted however, that group tenure does not equal group development, and many groups can experience setbacks in their groupness (Wheelan, 2013).

Carless and De Paola (2000) have noted that group cohesiveness is closely related to several other constructs, and that researchers are divided in their understanding of the meaning of group cohesiveness and how to measure it. Closely related concepts include job satisfaction, interpersonal attraction, task commitment, and organizational justice (Andrews, Kacmar, Blakely, & Bucklew, 2008; Dobbins & Zaccaro, 1986; Zaccaro & Lowe, 1988; Zaccaro, 1991). This definition of cohesion makes it difficult to separate from commitment (especially affective commitment) towards the workgroup (Hogg, 2001; Vandenberghe, Bentein, & Stinglhamber, 2004). According to Hogg (2001), cohesiveness and group commitment are linked as group members become committed to a group, and vice-versa, the group to its members, on the basis of a bilateral cost-benefit analysis of membership. Individuals compare group membership in a certain group in comparison to other accessible groups. Hence, group cohesiveness in itself can be linked to commitment while accounting for the group as the primary target of the commitment force.

#### **2.1.3.2 Group Size**

Group size has been documented to increase pressure on conformity among members (Giddens & Sutton, 2013). On the other hand, as groups become larger, satisfaction among members generally



decline and cohesiveness declines (O'Reilly III, Caldwell, & Barnett, 1989). Individual effort on group tasks usually diminishes as the size of a workgroup increases. This phenomenon is connected with social loafing and is referred to as the Ringelmann effect (Hogg & Vaughan, 2011, p. 249). Group size is, hence, important to consider when examining group level outcomes.

While most group definitions state that a group is a constellation that consists of at least two individuals, Forsyth (2010) notes that the very small team of a dyad displays several special features (e.g. the group is dissolved if one individual leaves the group) which influences group characteristics, processes and outcomes.

#### **2.1.4 Workgroup Outcomes**

While several outcomes on the group level are similar to individual outputs in an organization, workgroups have a few advantages compared to individuals and are a necessity for achieving both effectiveness and efficiency in many modern organizations (De Dreu & Weingart, 2003; Hoegl, Praveen Parboteeah, & Gemuenden, 2003). For instance, positive effects of innovation and problem solving workgroups can achieve have been documented (Curral, Forrester, Dawson, & West, 2001). For solving complex problems and task of an intricate character, professional workgroups show higher competence than individuals (Forsyth, 2010; Hoegl et al., 2003; Salas, Cooke, & Rosen, 2008).

## **2.2 Organizational Citizenship Behavior**

OCB is a widely recognized ERB construct that accounts for activities that are linked to overall organizational performance (Organ et al., 2006). It has been noted that employees can conduct work that is beneficial for their organization by undertaking actions that are not their main tasks. By engaging in these type activities based on free will, the work environment is improved (Borman & Motowidlo, 1993). OCB is especially related to actions among employees that are of a voluntary nature, in the manner that they exceed formal expectations and are driven by individual ambition. It can include different forms of activities such as doing overtime, contributing to the organization outside of work time, or actively advocating the organization among friends (Meyer & Herscovitch, 2001).

OCB has several documented effects on employee measures such as low absenteeism, low employee turnover and high ratings in several effectiveness measures. OCB has been related to higher work unit efficiency, productivity and profitability. Customer satisfaction has also been related to OCB (P. N. Podsakoff, Whiting, Podsakoff, & Blume, 2009). It is worth mentioning that positive effects are shown on the individual, unit, and organizational level respectively (Nielsen et al., 2009).

### **2.2.1 Definition of OCB**

OCB can be described as discretionary individual behavior and it is defined by Dennis Organ as:

*“individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate, promotes the effective functioning of the organization”* (Organ, 1988, p. 4).

The formulation was later modified into *“performance that supports the social and psychological environment in which task performance takes place”* (Organ, 1997, p. 95). The result of this definition allows a distinction between task performance and OCB, which has been showed to exist in several studies (S. B. MacKenzie, Podsakoff, & Fetter, 1991; Motowidlo & Van Scotter, 1994; Rotundo &

Sackett, 2002). Although the concept is abstract and has been intensely discussed, most predominant researchers in the OCB research area subscribe to the definitions above (LePine, Erez, & Johnson, 2002; Morin et al., 2011; Organ, 1988; N. P. Podsakoff, Podsakoff, MacKenzie, Maynes, & Spoelma, 2014; P. M. Podsakoff, MacKenzie, Paine, & Bachrach, 2000; Schnake, 1991).

### **2.2.2 Antecedents of OCB**

A great deal of research has been dedicated towards understanding the predispositions that cause OCB. These antecedents can be categorized in three major groups related to personality, attitudes, and leadership and group factors (Organ et al., 2006).

#### **2.2.2.1 Personality and OCB**

Numerous studies have investigated the possible connection between personality type and job performance (Hurtz & Donovan, 2000). In accordance to this, several studies have also examined the relationship between personality dimensions and OCB (Organ et al., 2006). The most commonly used model when examining these dimensions is the Big Five framework that consists of Agreeableness, Conscientiousness, Extraversion, Openness, and Neuroticism (McCrae & Costa, 1987).

Among the big five, conscientiousness has shown to be the strongest personality trait antecedent of OCB (Borman et al., 2001; Organ & Ryan, 1995; Organ et al., 2006). Conscientiousness is a well-defined concept in psychological literature and refers to how organized, goal oriented and disciplined an individual is. Individuals that score high in this measure are signified by being dependable, hard-working, ambitious and planning ahead. Individuals that score low in this measure are characterized as lazy, undirected, and unrealistic with low self-discipline (Costa & McCrae, 1992; Eysenck, 1992; Matthews, Deary, & Whiteman, 2003). One should note that the personality trait of conscientiousness is different from the same term being used in the five dimensions of the OCB construct (*see section 2.2.3.3 Conscientiousness*).

There are other personal dispositions, next to conscientiousness, such as negative and positive affectivity, that have been related to OCB. However, it has been indicated that personality measures are in general less significant predictors of OCB than the most relevant attitudinal measures (Organ & Ryan, 1995), which will be explained below.

#### **2.2.2.2 Attitudes and OCB**

Several attitudinal predictors of OCB have been identified. The strongest ones of these include organizational commitment, job satisfaction, and organizational justice (Organ et al., 2006). The justice dimensions analyzed in relation to OCB are commonly denoted as fairness.

##### **2.2.2.2.1 Organizational Commitment and OCB**

Commitment has shown to have strong influence on OCB (Brief & Motowidlo, 1986) and is considered as one of the main predictors of the construct (Meyer et al., 2001). In addition it is also the antecedent that has received most attention in literature (P. M. Podsakoff et al., 2000). Especially affective commitment has been related to OCB (Organ et al., 2006) as an individual's strong belief in an organization's goals and desire to be part of that organization (Jahangir, Akbar, & Haq, 2004). In line with the reasoning of Allen and Meyer (1996), it is sensible that affective commitment is strongly related to OCB as affective commitment consists of a strong internal drive to perform something. The rewards that an individual appreciate when being affectively committed (e.g. succeeding with a task,

working in an interesting environment) are usually not the ones that are found in the formal reward system of the organization, further supporting this rationale.

#### 2.2.2.2.2 Job Satisfaction

Job satisfaction is defined as the level of contentment an individual has with his or her job, including work tasks, environment, co-workers, supervision and a range of other work related aspects (Spector, 1997). People that are satisfied with their work conditions are more likely to engage in OCB. The early OCB research was according to LePine et al. (2002) a response to Organ's (1977) interest in the relationship between job satisfaction and organizational effectiveness extending managers' requirements. Job satisfaction is closely related to OCB and its strong correlation with the construct has been documented in several studies (Organ & Ryan, 1995; Organ et al., 2006; Whitman, Van Rooy, & Viswesvaran, 2010; Williams & Anderson, 1991).

#### 2.2.2.2.3 Fairness

Fairness is a concept composing of individual perceptions of justice in relation to the organization. This construct can be divided into the two components of procedural justice and distributive justice. Procedural justice refers to how well individuals feel that decisions are made with employee input and equitableness (Moorman, 1991). Distributive justice is concerned with the perception among employees that they are fairly rewarded for their efforts, competence, tenure, responsibility and knowledge. When people feel that they are fairly treated, they are more likely to engage in OCB.

#### 2.2.2.2.4 Role Perceptions

Individual perceptions about the role that an employee has at his or her workplace influences OCB. There are two types of role perceptions, role ambiguity and role conflict. Role ambiguity is defined as the lack of necessary information to a given organizational position (Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964). Role conflict occurs when the behaviors of an individual are inconsistent (Rizzo, House, & Lirtzman, 1970). A high degree of ambiguity or conflict causes stress for the individual and will decrease the likelihood than an employee will display OCB. In contrast, clarity and distinction in the role is positivity related to OCB (P. M. Podsakoff et al., 2000).

### 2.2.2.3 *Group and Leadership Factors in Relation to OCB*

Several different theories on leadership have been tested and shown correlation towards OCB. However, it has not been determined that a particular leader style has been connected with OCB (Davoudi, 2012; P. M. Podsakoff, MacKenzie, & Bommer, 1996). However, specific leader behaviors such as supportiveness and consideration and altruistic acts have proved to be beneficial for OCB (Schnake, 1991). In addition to this, facilitation of role clarity, clear communication and motivation building activities have also proven constructive in this aspect. P. M. Podsakoff et al. (2000) argues that it is the quality of the relationship between the leaders and followers that has an association with OCB. Leaders can create good relationships by adjusting their behavior to the needs of their subordinates and focus on building trust and mutual attachment. This is something that LMX theory captures, that also has had a documented impact on OCB (Ilies, Morgeson, & Nahrgang, 2005; Lapierre & Hackett, 2007).

## 2.2.3 The Five Dimensions of OCB

The construct of OCB is multidimensional and thus is composed by several components. The development of the different dimensions of OCB has been conducted incrementally and this started with the introduction of the two dimensions of altruism and general compliance by Smith, Organ and

Near (1983). Organ (1988) later expanded the dimension of general compliance into civic virtue, conscientiousness, courtesy, and sportsmanship.

#### **2.2.3.1 Altruism**

Altruism consists of behaviors that can be characterized as general helpfulness and compliance (Organ, 1988). Examples of behaviors that fall under the definition of altruism are assisting other co-workers when they are in need of help as well as sharing information with other employees (Organ & Ryan, 1995).

#### **2.2.3.2 Civic Virtue**

Activities that employees undertake in order to stay up to date and display interest in what is happening in the organization are described as civic virtue (Organ, 1988). According to Bukhari (2008), this includes participating in activities in relation to the organization that are not mandatory that strengthens the social cohesiveness of the company. Civic virtue can be formulated as the individual employee's involvement and concern for the organization (Borman et al., 2001).

#### **2.2.3.3 Conscientiousness**

As mentioned previously (2.2.2.1 *Personality and OCB*), there is a distinction between the personality trait of conscientiousness and the OCB behavior of the same name. Conscientiousness in the OCB construct refers to actions that are exceeding minimum requirement of the job (Law, Wong, & Chen, 2005). It also includes paying attention to detail and preventing errors (Organ, 1988). Thus, one result of conscientious behavior is that the employee will be more updated of the state of the company and its offers (Yen & Niehoff, 2004). In addition this also indicates how well employees will adhere to rules, regulations and procedures of the organization (N. P. Podsakoff, Whiting, Podsakoff, & Blume, 2009). In OCB research the concept has been slightly redefined throughout various studies (Organ et al., 2006). One commonly used definition of conscientiousness is given by Podsakoff et al. (1990):

*"Discretionary behaviors on the part of the employee that go well beyond the minimum role requirements of the organization in the areas of attendance, obeying rules and regulations, taking breaks, and so forth"* (P. M. Podsakoff et al., 1990, p. 115).

#### **2.2.3.4 Courtesy**

Courtesy is defined by being polite and is according to Organ (1988) a form of OCB that consists of actions that are aimed at preventing problems from occurring. The concept can be summarized as good manners in the workplace. Individuals that are courteous pay attention to their own behavior so that their practices will not complicate or interfere with other peoples' work (Organ et al., 2006). An example of courtesy would be putting items back where they belong in the same condition after usage. A display of courtesy is also, for instance, informing colleagues in advance when one is making a decision or undertaking an action that could complicate other employees' work, such as being out of office with a client and thus not being available.

#### **2.2.3.5 Sportsmanship**

The citizenship behavior of sportsmanship is defined by keeping a positive attitude when encountering setbacks and obstacles as well as sacrificing personal interest for the good of a workgroup (P. M. Podsakoff et al., 2000). In general, it can be formulated as acceptance of situations that are straining, not complaining, and accepting change (Organ, 1988). The presence of good

sportsmanship among employees decreases the need for support and oversight by managers as well as creates a favorable and positive atmosphere in the work place (P. M. Podsakoff & MacKenzie, 1997).

#### **2.2.3.6 Other Dimensions**

The initial five components of OCB were later expanded by Organ (1990) to include another two dimensions. These two were named peacemaking and cheerleading. Peacemaking consists of behavior that is aimed at the prevention of personal conflicts between parties. It consists of mediation, discussion and acts that serve to cool down the persons that are in or about to enter a conflict (Organ et al., 2006). Cheerleading involves the celebration and appreciation of accomplishments achieved by colleagues. It consists of positively reinforcing success in the professional environment (Organ et al., 2006).

While the dimensions mentioned above are the most accepted ones in research (Organ & Ryan, 1995; P. M. Podsakoff et al., 2000) almost 30 different sub-components of OCB were identified by P.M Podsakoff and his colleagues (2000) in their meta-study.

#### **2.2.4 OCB on the Group Level**

Organ (1988) points out that while OCB takes place on the individual level, the effects are shown when it is displayed on a collective level. Thus, OCB displayed by single individuals is negligible; it is when a group of people together display OCB that a significant effect can be found. In line with this, aggregated unit or group analysis of OCB is interesting to measure. Researches have increasingly focused on examining OCB on the group level. In the meta-analysis by P. M. Podsakoff et al. (2000), the authors conclude that more research of OCB on the group level is required. When examining the research that has been conducted since the aforementioned article was written, one can observe that a significant number of studies focused towards examining OCB on the group level (Nielsen et al., 2009).

As OCB research has examined the construct on the workgroup level, measurements for commitment on the consolidated group level have also been designed. Group Organizational Citizenship Behavior (GOCB) is one result of such an ambition, as introduced by Chen et al. (2002). GOCB has been conceptualized to indicate the extent to which the members of a workgroup engage in OCB. It does not measure the group as a unified actor and nor does it compare the unit to other organizational units in terms of citizenship behavior.

While OCB and GOCB are the same in terms of what they intend to capture, Chen and colleagues (2002) argue that some antecedents may differ between the two. Individual OCB should, according to this rationale, be more affected by individual level constructs, while GOCB should be more affected by group level constructs, such as group dynamics. This notion could be partially confirmed by a study by Pearce and Herbig (2004), showing that both individual and group related variables had an impact on GOCB (the comparable measure of team citizenship behavior was used in the study). Interestingly, the most important group level antecedent of GOCB has been identified to be group cohesiveness (X. P. Chen et al., 2002).

In line with what is said above, most of the positive effects related to OCB on the individual and the organizational level can also be found on the group level (N. P. Podsakoff et al., 2014). Also, MacKenzie et al. (2011) points out that group level OCB is a stronger measure as the group

environment and aggregate level of OCB is the strongest influencer of performance outcomes. To mention lastly, several researchers note that both team and organizational outcomes are dependent of GOCB (Euwema, Wendt, & Van Emmerik, 2007).

### **2.2.5 OCB across Different Cultures**

Organ et al. (2006) acknowledges that the vast majority of OCB research has been conducted in the United States. Farh et al. (2002) along with Farh et al. (2004) agrees to this and notes that different cultures can have different effects on OCB. By studying OCB in China, several new dimensions of the construct were identified.

In order to analyze the implication of using the OCB construct in different cultural settings, Organ et al. (2006, p. 26) argues that the framework for understanding culture developed by Hofstede (1984) should be used. The four dimensions in Hofstede's model are Individualism-Collectivism, Power Distance, Uncertainty Avoidance, and Masculinity-Femininity values. Individualism and collectivism was examined by Moorman and Blakely (1995) in terms of how this dimension affected an individual's propensity to engage in OCB. Their results indicated that individuals that hold collectivistic cultural values were more prone to conduct OCB actions than those holding individualistic values. Power distance, which is defined by the level of hierarchy in society, can affect voice behaviors (Van Dyne, Graham, & Dienesch, 1994). Uncertainty Avoidance differs among cultures and may affect how employees engage in risk reducing behaviors whereas Masculinity-Femininity is basically the focus of cooperation or competition, as well as task versus relationship focus in a culture. This is relevant for OCB as the construct focuses on cooperative behavior. Finally, when testing GOCB through an extensive study in the cultural context, Euwema and colleagues (2007) could not find a relationship between the construct and cultural setting, questioning the importance of culture for group level OCB.

### **2.2.6 Discussion of the OCB Construct**

The OCB construct is predominant in the literature of discretionary behavior but has also been criticized from various perspectives, thus a short presentation of the discussion of the construct is needed to address these concerns.

It has been pointed out that several of the behaviors and initiatives that are associated with OCB are expected and required by managers today (Vigoda-Gadot, 2006) and that it thus is not voluntary (Vigoda-Gadot, 2007). While this is a valid point, the nature of OCB is that it is voluntary and cannot by its very definition be forced by managers. This is also accounted for in many of the measurement scales of OCB (Organ et al., 2006).

Dennis Organ's definition of OCB has been questioned by researchers as to whether the concept confidently measures discretionary behavior (LePine et al., 2002; Morrison, 1994). In relation to this, the OCB construct has been criticized for being imprecise and difficult to capture.

Organ (1997) has responded to the criticism directed towards OCB pointing out that in the modern work environment, tasks are ambiguous by nature and are more difficult to clearly define. When the role definition becomes indistinct, it becomes difficult to state what behavior is discretionary and what is not. A vast amount of research in the OCB area has however clarified the concept (Organ et al., 2006) and studies have also shown a relationship with performance and discretionary behavior (Borman & Motowidlo, 1997; Nielsen et al., 2009; P. M. Podsakoff & MacKenzie, 1997).

On the discussion of the ambiguity of the construct, it has been discussed whether OCB can be differentiated from other types of extra role behavior and the fact that concepts overlap (Van Dyne et al., 1995). Van Dyne and his colleagues pointed out that, as a motivation for using ERB, there are definitional overlaps and interrelations among the concepts of OCB, WB, PSOD and OCB. Organ (1997) addressed the critique by Van Dyne by characterizing OCB as comparable to contextual performance. From an overview of the current literature, ERB as a construct does not display the same integrity as OCB. In contrast, the term extra role behavior is predominantly used as an umbrella for different constructs that examine actions related to discretionary behavior. In addition, OCB is not intended to capture behaviors that occur outside the organization nor those that are protesting against it, which POD, WB, and POSD do (Organ et al., 2006).

While several smaller and incremental redefinitions of the construct, its nature, and antecedents have been conducted since the introduction of the term OCB during the early 1980s, the core of the construct remains the same. One could say that there have only been a few new categorizations and additions in regards of the components of OCB (cf. Borman & Motowidlo, 1993; Organ, 1997; Organ, 1988; Van Dyne et al., 1995; Williams & Anderson, 1991). While behaviors and concepts have been added to the OCB construct, the original components have not been altered. Jahangir et al. (2004) notes, according to this reasoning, that the OCB construct is to a certain degree ambiguous but that the definition of OCB as presented by Organ (1988) is generally accepted. Thus, the discourse on the construct is mainly concerned with several interrelated dimensions and the labeling of these. Overall, OCB can be considered to be a relevant and strong construct that has improved over time and today, has a robust definition with documented relation with several organizational outcomes.

## **2.3 Employee Commitment**

Commitment in organizations has caught the interest of many psychology and management scholars for several decades now (Morrow, 2011). Commitment can be described as an individual's psychological attachment towards an entity or course of action (Meyer & Herscovitch, 2001). In similarity to several other attitudinal constructs, commitment is somewhat ambiguously defined in research. Along with this argument, commitment is similar to a number of other concepts including, motivation, and employee engagement (Saks, 2006).

The research field of commitment in the workplace has evolved over time and has now for years been connected to organizational behavior (OB) research (Mathieu & Zajac, 1990). It is a field that is thoroughly based on studies in sociology, psychology and human interaction (S. H. Becker, 1960). Initially, commitment research in the workplace was focused towards commitment to the organization. However, over theory, has acknowledged that employees can be committed towards different entities and objects within the organization (E. T. Becker, 1992).

### **2.3.1 Definition of Commitment**

A suitable definition of commitment has been combined by reviewing the literature and extracting the core of the concept:

*"Commitment is a force that binds an individual to a course of action that is of relevance to a particular target."* (Meyer & Herscovitch, 2001, p. 301)

This very general definition is suitable when discussing commitment in the workplace as theory in the professional setting has moved beyond simply examining commitment with an organizational focus.

Before diving deeper into the topic of commitment, it is essential to understand that commitment theory should not be mistaken for a clone of motivational theory. Although constructs in the two fields might be overlapping, due to similarities in its antecedents, consequences and correlates, commitment should be seen as a concept that goes beyond the borders of motivational theory. Thus, commitment is generally defined as a stabilizing force that binds a person to a course of action while at the same time making it likely to restrict individual's freedom (Meyer & Herscovitch, 2001). It can therefore be differentiated from exchange focused theories of motivation, such as expectancy and equity theory, as commitment can lead to persistence in an individual's course of action even if that person experiences conflicting motives. In contrast to motivation, commitment is a force that can make individuals behave in a way that might seem to be contrary to their own self-interest when assessed by neutral observers.

### **2.3.2 Different Foci of Employee Commitment**

Commitment may be directed towards different constituencies within the organization (E. T. Becker, 1992; Reichers, 1985). This expansion of organizational commitment research has added explanatory value to attachment and outcomes on various levels in organizations. Common foci that have been examined in literature, beyond organizational commitment, include commitment directed towards coworkers, goals, job, supervisor, union, and workgroups (A. Cohen, 2003; Hollenbeck, Williams, & Klein, 1989; Meyer et al., 2001; Riketta & Van Dick, 2005; Vandenberghe et al., 2004).

#### **2.3.2.1 Perspectives on Multiple Foci in Organizations**

When looking at different foci of commitment and OC, some scholars have different understandings of how they relate to each other. There are two main perspectives, the global perspective and the target similarity model (Morin et al., 2011).

The global perspective assumes that all foci of commitment that are related to the organizational context are part of the organizational commitment. This idea is founded upon Reicher's (1985) proposition that organizational commitment is a collection of commitment towards different groups in the organization. The perspective is founded upon the idea that the constituencies within the organization that an employee can be attached to serve the goals of the organization as a whole (Morin et al., 2011).

The target similarity model contrasts the global perspective by arguing that attitudes are more strongly related to behavior or attachments when they refer to similar objects (Lavelle et al., 2009). The strengths of the association between the constructs will be determined by the alignment of the different commitments (Bishop & Scott, 2000). Thus, if an employee is committed towards his or her workgroup, positive behavior specifically related to the workgroup is expected to occur, but not necessarily towards the organization as a whole (Morin et al., 2011). Commitment towards a workgroup does not guarantee commitment towards an organization as a whole, and behavior that benefits a workgroup does not necessarily mean that it will benefit the organization to the same extent. Supporting this notion, Ashforth and Mael (1989) point out that employees within an organization commonly have several and conflicting identities.

Several arguments have been raised against the idea of the global perspective. It has been theorized that individuals should have a higher attachment towards groups and entities that are closer to themselves (Morin et al., 2011; Riketta & Van Dick, 2005). One can find several arguments for this in the literature in line with social psychological theory. This is based on the idea that the level where



social interaction is conducted is the strongest facilitator of commitment (Heffner & Rentsch, 2001; Hogg & Vaughan, 2011). In addition, individuals can be considered to have several memberships in the organization, where each has a separated form of work commitment (Zaccaro & Dobbins, 1989). There are however also several findings supporting the global perspective. For instance, Heffner & Rentsch (2001) found that social interaction with a proximal group (e.g. work unit) can generate commitment both to that entity and a distant one.

### 2.3.3 The Three-Component Model of Commitment

In the early 1990s, Meyer and Allen (1991) developed the three-component model (TCM); a conceptualization of organizational commitment that introduced a multi-mindset approach to commitment (see Figure 2). Their distinction between affective commitment (AC), normative commitment (NC) and continuance commitment (CC) has been popular in consecutive research (Z. X. Chen & Francesco, 2003). In the TCM, this distinction was made in order to account for different antecedents of the three commitment types.

The incorporation of a three-component model paid contribution to the rationale that it does not only matter whether employees are strongly or weakly committed, it is also beneficial to know from what the commitment is derived in order to understand its full force on attitudes and behavior.

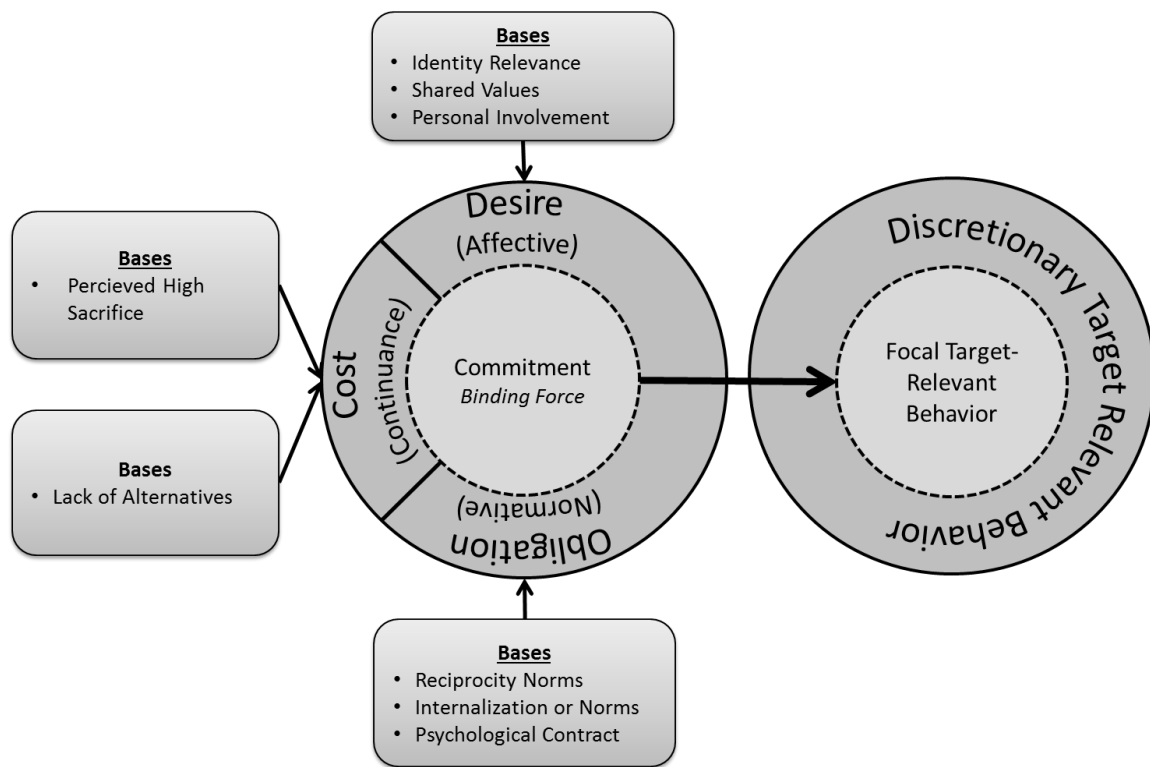


Figure 2: Adaption of Meyer & Herscovitch's Three-Component Model of Commitment.

#### 2.3.3.1 Affective Commitment

AC refers to emotional attachment or identification of an employee to an organization (Meyer & Allen, 1991). It is connected to how employees identify themselves and interact with organizations. This form of commitment derives from research on the form of organizational commitment. AC can be thought of as an inner drive of the individual, intrinsic motivation or personal interest to engage in a specific course of action. AC is arguably the most studied of the three commitment types (Andrews

et al., 2008; Heffner & Rentsch, 2001; Mathieu & Zajac, 1990; Morin et al., 2011; Randall, 1993; Vandenberghe et al., 2004; Zaccaro & Dobbins, 1989), since it is understood to have the strongest effect on driving both effectiveness and efficiency along several other favorable organizational outcomes.

#### **2.3.3.2 Normative Commitment**

NC reflects an obligation to remain in an organization (Meyer & Allen, 1991). This can for example be materialized in an obligation that an employee feels towards a supervisor, such as completing a specific task for her or him, or in an obligation towards a customer to represent his or her interests in an organization. There have been some controversies in past research, whether NC is different from AC (Jaros, 1997). While some find NC redundant, some researchers argue that NC and AC are different and important to distinguish from each other (Z. X. Chen & Francesco, 2003; Meyer & Parfyonova, 2010), as NC is based on a socialization process in the cultural and family environment (e.g. appropriateness, loyalty) while AC is more related to a fair treatment of the employee by the organization (Meyer & Allen, 1991) and recognition of procedural justice (Korsgaard, Schweiger, & Sapienza, 1995).

#### **2.3.3.3 Continuance Commitment**

The final of the three measures captures commitment based on the perceived cost of leaving the organization the employee is engaged in (Meyer & Allen, 1984). The rationale behind it evolved from what Becker (1960) referred to as side-bets, investments that would be lost if one would discontinue a course of action. Due to its nature, other authors have called this type also calculative commitment (Z. X. Chen & Francesco, 2003). A more visual depiction of this commitment form would be an employee, whose deciding factor for staying with an organization would be that he or she was given stock options that would be lost if the organization would be left by him or her prior to a set date that lies in the future.

Over time, several researchers have identified that CC has two subcomponents (Vandenberghe et al., 2007). This notion was introduced by McGee & Ford (1987) and divides commitment into perceived high sacrifice (HiSac) and lack of alternatives (LoAlt). HiSac is attributable to the perceived costs that arise from giving up membership of the organization and LoAlt accounts for the costs based on the perceived lack of employment alternatives. This division is relevant, as HiSac has been positively related to OCB and other outcome variables where LoAlt has shown a negative relationship (Taing, Granger, Groff, Jackson, & Johnson, 2011).

#### **2.3.3.4 Discussion of the Three Component Model**

The three-component model was designed in the context of organizational commitment. However, it can be applied towards different foci (including the subcomponents of CC), which has been done in numerous studies (cf. Andrews et al., 2008; Morin et al., 2011; Wasti & Can, 2008).

In later years, some scholars have experienced difficulty showing that NC adds explanatory value when conducting outcome related studies of commitment, as highlighted by Cohen (2007). The argument presented by Cohen is that NC only captures a propensity for commitment rather than a situation specific commitment type. In this aspect, it could be argued that NC can be seen as an antecedent of AC.

### **2.3.4 Outcomes of Employee Commitment**

Commitment and its relationship with outcomes have generated a noteworthy amount of research and it has been shown to relate to several different positive results in the professional context. These include for instance perceived job alternatives, intention to leave, attendance, lateness, and employee turnover (Cooper-Hakim & Viswesvaran, 2005; Mathieu & Zajac, 1990; Meyer et al., 2001). Commitment has also been shown to influence job performance (E. T. Becker, 1992; E. T. Becker, Billings, Eveleth, & Gilbert, 1996; Z. X. Chen & Francesco, 2003; Meyer et al., 2001) both through focal and discretionary behavior (e.g. OCB) on the individual level (Lavelle et al., 2009; Meyer & Allen, 1991). Studies which are showing that commitment is linked to job performance, usually indicate that AC has the most beneficial effect on it (Jaros, 1997), followed by NC and then CC. Moreover, it has been documented that commitment to the supervisor has a strong impact on performance and that workgroup commitment has an indirect connection to performance through this measure (Stinglhamber, Bentein, & Vandenberghe, 2002).

Before splitting commitment into different foci, researchers had difficulty linking commitment directly to performance. After doing this however, strong links could be identified (E. T. Becker et al., 1996).

The relationship between Organizational Commitment and performance has been widely documented (e.g. Meyer, Paunonen, Gellatly, Goffin, & Jackson, 1989). Furthermore, supervisor, co-worker and workgroup commitment has been shown to correlate with several performance measures (Morin et al., 2011; Riketta & Van Dick, 2005; Stinglhamber et al., 2002).

### **2.3.5 Discussion of Commitment**

Parallel to OCB and group research, the researchers in the commitment area have been struggling with definitions, boundaries and correlations of the construct (Morrow, 2011). However, Morrow argues that the theoretical field can be considered to be in a mature stage and the several important antecedents and outcomes have been identified that makes the commitment area highly relevant in organizational research (Kell & Motowidlo, 2012).

## **2.4 The Relationship between Commitment and OCB on the Group Level**

When building on the work of Meyer and Allen's (1991) TCM, Meyer and Herscovitch (2001) proposed that different types of commitment on the individual level had different implications on work outcomes or performance (*see Figure 3*). The authors also divided the outcomes into focal and discretionary behaviors. As outlined previously, these refer to in-role and extra-role behavior respectively. By dividing the categorizations of AC, NC, and CC into high and low levels among individuals and comparing them with focal and discretionary work outcomes, a number of interesting propositions were presented in Figure 1, to be found below. In general, high presence of any type of commitment should yield positive results on focal behavior and all but CC-LoAlt on discretionary behavior. Pure forms of AC account as the strongest predictor for both enacted focal and discretionary behavior, followed by employee commitments based on NC and CC. Meyer and Herscovitch (2001) noted that the probability that focal or discretionary behavior will occur is higher for all three commitment types when they are strong than when they are weak.

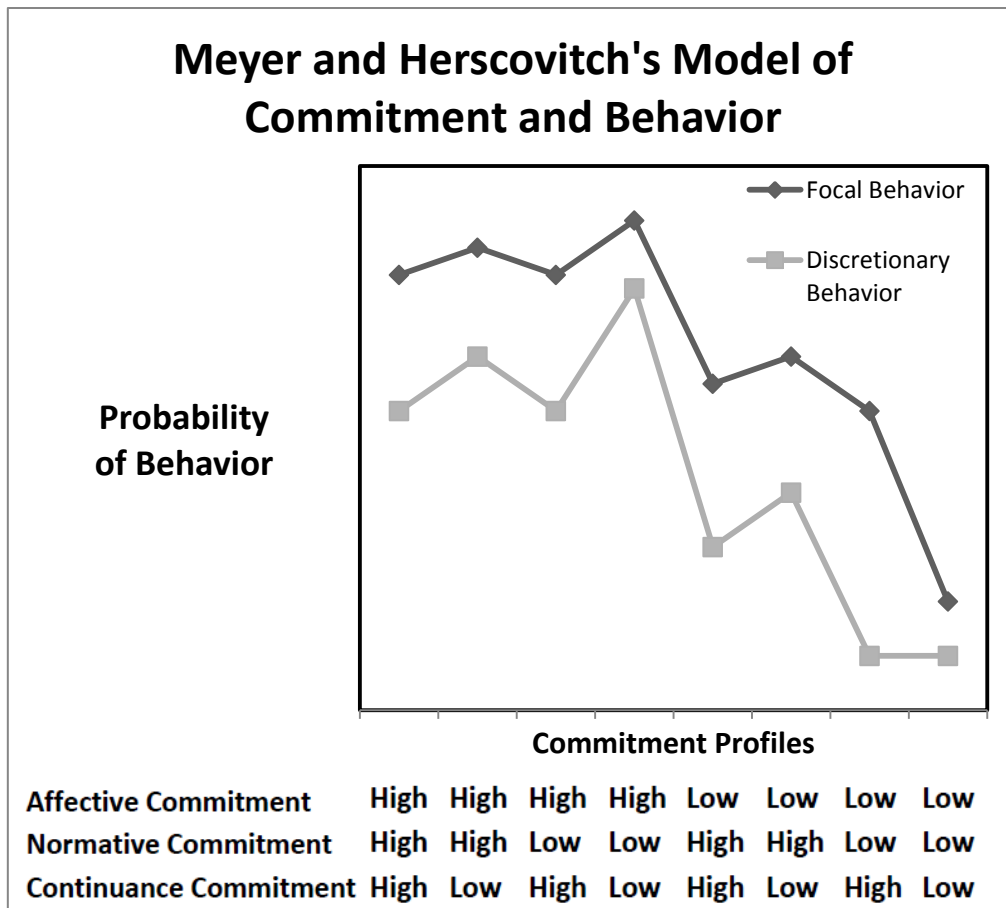


Figure 3: Meyer & Herscovitch's Model of Commitment and Behavior.

Research of OCB in the workgroup setting has indicated that commitment in general has a positive effect on the OCB construct (N. P. Podsakoff et al., 2014). In one of the very few studies conducted on this particular subject, Pearce and Herbig (2004) determined that commitment towards the workgroup has a positive effect on OCB related to the workgroup. Building upon this notion, Vigoda-Gadot and associates (2007) examined the implication of studying GOCB as a measure that goes beyond aggregating individual level data. They found that analyzing OCB as a group collective construct provides insights that individual aggregated data cannot provide.

In terms of different commitment foci and their relationship with OCB, there are only few studies conducted. One example that can be found is Pohl and Paillé's (2011) examination of the relationship between AC and NC on organizational and workgroup level, respectively, in relation to OCB. The study is thus similar to this one with two major exceptions. Firstly, CC was not analyzed. Secondly, OCB was tested instead of GOCB. As established previously OCB and GOCB are measuring the same thing but the first one is an individual level construct and the second one the general level of OCB in the group.

In accordance with OCB research on both the individual and group level, and in line with the research question, the following hypotheses are drafted:

***H1a: Affective Commitment focused towards the workgroup is a predictor of GOCB***

***H1b: Affective Commitment focused towards the organization is a predictor of GOCB***

***H2a: Normative Commitment focused towards the workgroup is a predictor of GOCB***

***H2b: Normative Commitment focused towards the organization is a predictor of GOCB***

Furthermore, Vandenberghe with associates (2007) found, when examining the components of CC (i.e. HiSac and LoAlt) and their relationship with organizational outcomes that HiSac was positively related to outcomes while LoAlt was negatively related. The study thus shows that a distinction between the CC types should be made. In accordance with this, the two types of CC should have different effects on OCB. In line with this reasoning, the following hypotheses concerning CC are formulated below:

***H3a: High Sacrifice Continuance Commitment focused towards the workgroup is a predictor of GOCB***

***H3b: High Sacrifice Continuance Commitment focused towards the organization is a predictor of GOCB***

***H4a: Low Alternatives Continuance Commitment focused towards the workgroup is a predictor of GOCB***

***H4b: Low Alternatives Continuance Commitment focused towards the organization is a predictor of GOCB***

By referring back to the discussion in section 2.3.2.1 (*Perspectives on Multiple Foci in Organizations*, p. 22), it has been established that individuals generally feel more attached to entities and goals that are closer to them. Applying this to the relationship between commitment and OCB on the group level would imply that individuals' commitment to the workgroup should stimulate GOCB more than commitment towards the organization, in line with the target similarity model. Based on this and what have said throughout this section, the following hypotheses are generated:

***H5: Affective Commitment focused towards the workgroup is more strongly related to GOCB than Affective Commitment focused towards the organization***

***H6: Normative Commitment focused towards the workgroup is more strongly related to GOCB than Normative Commitment focused towards the organization***

***H7: High Sacrifice Continuance Commitment focused towards the workgroup is more strongly related to GOCB than High Sacrifice Continuance Commitment focused towards the organization***

***H8: Low Alternatives Continuance Commitment focused towards the workgroup is more strongly related to GOCB than Low Alternatives Continuance Commitment focused towards the organization***

## 2.5 Theoretical Framework

As a framework for this thesis the TCM (complemented by the two sub-dimensions HiSac and LoAlt of commitment) and the GOCB construct are used. In more detail, the three types of commitment are analyzed towards the two different foci of workgroup and organization, to determine the effect on GOCB.

The OCB framework can be categorized and applied in different ways, as outlined above. Organ's five dimensional model of OCB is perhaps the most renowned and therefore, the measurement scale has been adopted will, in particular, capture this type of OCB. However, each of the OCB sub-dimensions will not be analyzed. Furthermore, this thesis will use GOCB as basis for OCB measurement. Thus, a collective construct measuring general OCB in the groups is used, instead of an individual estimate of OCB. Finally, it has been pointed out that OCB is only relevant when a larger amount of people in an organization engages in it, and that when making measurements on the group level, one may observe different, and presumably, more accurate results.

In accordance with the theory that has been presented above, the drafted hypotheses are summarized below:

Summary of Hypotheses	Expected to be Accepted
<b>H1a:</b> <i>Affective Commitment focused towards the workgroup is a predictor of GOCB</i>	Yes
<b>H1b:</b> <i>Affective Commitment focused towards the organization is a predictor of GOCB</i>	Yes
<b>H2a:</b> <i>Normative Commitment focused towards the workgroup is a predictor of GOCB</i>	Yes
<b>H2b:</b> <i>Normative Commitment focused towards the organization is a predictor of GOCB</i>	Yes
<b>H3a:</b> <i>High Sacrifice Continuance Commitment focused towards the workgroup is a predictor of GOCB</i>	Yes
<b>H3b:</b> <i>High Sacrifice Continuance Commitment focused towards the organization is a predictor of GOCB</i>	Yes
<b>H4a:</b> <i>Low Alternatives Continuance Commitment focused towards the workgroup is a predictor of GOCB</i>	No
<b>H4b:</b> <i>Low Alternatives Continuance Commitment focused towards the organization is a predictor of GOCB</i>	No
<b>H5:</b> <i>Affective Commitment focused towards the workgroup is more strongly related to GOCB than Affective Commitment focused towards the organization</i>	Yes
<b>H6:</b> <i>Normative Commitment the workgroup is more strongly related to GOCB than Normative Commitment focused towards the organization</i>	Yes
<b>H7:</b> <i>High Sacrifice Continuance Commitment focused towards the workgroup is more strongly related to GOCB than High Sacrifice-Continuance Commitment focused towards the organization</i>	Yes
<b>H8:</b> <i>Low Alternatives Continuance Commitment focused towards the workgroup is more strongly related to GOCB than Low Alternatives-Continuance Commitment focused towards the organization</i>	No

Table 1: Summary of Hypotheses

### **3 Methodology**

*In this section the research method is described and the choice of scientific approach discussed. The design of the study is presented, along with the undertaken data collection and analysis. This study takes a deductive and quantitative approach and has been performed through a survey. The study has been conducted by analyzing 138 responses from 33 groups in a professional environment through the submission of a questionnaire. For the analysis statistical methods of regressions and ANOVAs have been used. This section ends with a discussion on research quality and ethical considerations.*

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#### **3.1 Scientific Approach**

##### **3.1.1 Deductive Method**

Extensive research has been conducted in the areas of commitment, group dynamics, and performance measurement of groups and individuals in a professional context. Hence, the scientific areas that this study draws upon have solid theoretical foundations, in which theory can be considered to be mature (Edmondson & McManus, 2007). In line with this reasoning a deductive research approach is used, where hypotheses have been deducted from theory and successively tested empirically (Edmondson & McManus, 2007; Patel & Davidson, 2003). This study is testing established theory in a composition, namely the TCM of commitment on the collective group level across two foci. Hypotheses have been generated based on existing literature to be tested in a specific context. The predictions have been derived from theory and tested through a survey. Finally, on the basis of an analysis of the empirical results, contributions to theory are suggested.

##### **3.1.2 Quantitative Study**

A Qualitative method has the purpose of exploring and understanding the overall picture and dimensions of a research area. In contrast to a qualitative method, the quantitative one has the goal of explaining relationships and more specific characters of a research area (Andersen, 1998, p. 31). As the theoretical foundation for this master thesis is well developed, a quantitative study has been undertaken in accordance to this (Edmondson & McManus, 2007). This is based on the assumption that the antecedents and the conditions of commitment on work-related situations, as well as the theoretical foundations, processes and outcomes of professional workgroups, have been fairly well understood by science.

#### **3.2 Research Design**

To investigate the research question in line with what has been stated above a descriptive cross-sectional study design was chosen (Bickman & Rog, 1998).

In order to develop a solid foundation of this paper, a thorough literature review was conducted. Key words such as Commitment, Organizational Commitment, The Three-Component Model of Commitment, Group Commitment, Group Performance, Organizational Citizenship Behavior, Extra-Role Behavior, and Discretionary Behavior were used to find relevant articles through several scientific databases such as JSTOR, WILEY Online Library, Emerald, Business Source Premier, Sage Publications and Google Scholar. In addition, relevant respected journals publishing articles on organizational behavior, psychology, management, personnel, and group research were screened. Finally, books on these topics were also searched for through libraries. In this study, the aim of the

authors has been to refer to well cited and well-described articles based on solid and clear argumentation.

For this study a survey was conducted using a questionnaire that was submitted to employees being part of workgroups. In order to compile the questionnaire, questions were imported from other validated measurement scales. To identify which control variables to include in the questionnaire, an examination of the most cited literature review and meta-studies was conducted.

### 3.2.1 Selection Criteria

This study has targeted workgroups in firms employing professional teams, as characterized by the authors of this paper. These teams face tasks that are of a non-routine and ambiguous character. The rationale behind this is to approach teams in a professional environment where discretionary behavior is relevant as well as of high importance for performing a task well. It was determined that only teams that are assigned tasks of an ambiguous type would be considered. Tasks would be similar in their nature to what teams in professional service firms face, according to the definition set by Von Nordenflycht (2010). This includes groups with a high level of knowledge intensity and professional team members. Thus, the intention was not only to use teams working in PSFs, but teams working under similar conditions as employees in PSFs do.

Additional selection criteria were group interaction frequency and group size. Larger groups in general experience lower marginal individual contribution to performance (Hogg & Vaughan, 2011) and risk having less clear boundaries. Group interaction frequency was used to make sure that the studied groups coordinate their work continuously. Only workgroups that were coordinating at least every second week and that have a team size between three and eleven participants were used in the data set. Even though a group is generally considered to consist of two or more people, two people forming a group have been excluded from the definition of a team in this study because of the considerations presented in the theory section (2.1.3.2 *Group Size*, p.14).

### 3.2.2 Variables and their Measurements

The chosen variables were based on the conducted literature review and are presented below. The scales of measure are also reported in the respective tables. An overview of the main research variables can be found in *Appendix 4: Variable Overview*.

#### 3.2.2.1 Dependent Variable

In this study the dependent variable is GOCB. To measure discretionary behavior the OCB construct was chosen, and in line with this a questionnaire that measures OCB on the group level. The chosen scale, which has been composed by Vigoda-Gadot et al. (2007), is based upon the measurement scales developed by Tepper et al. (2004), Organ (1988), and Williams and Andersson (1991). The scale measures GOCB, hence OCB on the group level. The questions are structured so that the responded evaluates OCB in the whole group rather than for him- or herself. The questions testing for GOCB captures all the five main components of OCB as outlined in the theory section (2.2.3 *The Five Dimensions of OCB*, p.17)

Variable Name	Variable Abbreviation	Interval Scale
Group Organizational Citizenship Behavior	GOCB	✓



### 3.2.2.2 Independent Variables

By applying the TCM (Meyer & Allen, 1991), commitment was measured by its three dimensions of AC, NC, and CC. CC was split up according to the two sub-dimensions of HiSac and LoAlt (Vandenberghe et al., 2007). The questions used for measuring all the commitment types were imported from the questionnaire developed by Vandenberghe et al. (2007). The commitment questions collected information on commitment across two foci: to the organization and to the workgroup. By combining the commitment types and commitment foci, eight independent variables were created as displayed in the chart below:

Variable Name	Variable Abbreviation	Interval Scale
Organizational Affective Commitment	OAC	✓
Workgroup Affective Commitment	GAC	✓
Organizational Normative Commitment	ONC	✓
Workgroup Normative Commitment	GNC	✓
Organizational Perceived High Sacrifice Continuance Commitment	OCC-HiSac	✓
Workgroup Perceived High Sacrifice Continuance Commitment	GCC-HiSac	✓
Organizational Low Alternatives Continuance Commitment	OCC-LoAlt	✓
Workgroup Low Alternatives Continuance Commitment	GCC-LoAlt	✓

Table 2: Overview of Main Research Variables

### 3.2.2.3 Control Variables

The chosen control variables that are presented below, were selected through a literature review and an identification of the strongest antecedents of OCB. Among the group level antecedents of OCB, cohesion was identified as the most important one. Due to the fact that several of the questions found in questionnaires testing for group cohesion were identical to questions for measuring the dependent, independent and other control variables, cohesion was decided not to be included in the study. Due to the same reason of question overlap, role conflict and role ambiguity was decided not to be measured as they intersected with the questions for leader support and job satisfaction.

The chosen antecedents for OCB were leader-follower relationship, job satisfaction, fairness, and conscientiousness. Three questions estimating the leader-follower relationship were imported from Amabile and colleagues' (2004) scale measuring leader support. Job satisfaction was measured in the group context by five questions from a study by Dobbins and Zaccaro (1986). These were in turn selected from the more extensive questionnaire developed by Taylor and Bowers (1972). Fairness was measured through selecting four questions measuring organizational justice from a questionnaire used by Moorman (1991), which includes the dimensions of distributive and procedural justice. Finally, conscientiousness was measured by the two questions measuring this trait from the scale Ten-Item Personality Inventory (Gosling, Rentfrow, & Swann Jr, 2003).

In addition, a few more control variables were included which were considered important for the study. These consisted of team size, firm size, group tenure, meeting frequency and country.

Variable Name	Variable Abbreviation	Nominal Scale	Ordinal Scale	Interval Scale
Leader Support	LSUP	✓	✓	✓
Job Satisfaction	SATIS	✓	✓	✓
Organizational Justice	OJUS	✓	✓	✓

Conscientiousness	CONS	✓	✓	✓
Large Team Size	SIZE_L	✓	✓	✓
Large Corporation	Corp_L	✓	×	×
Low Group Tenure	TNURE_low	✓	✓	×
Low Meeting Frequency	MFREQ_low	✓	✓	×
Country	COUNTRY	✓	×	×

**Table 3: Overview of Control Variables**

### 3.2.3 Questionnaire Design

The developed questionnaire has been based upon previously used questionnaires in order to make sure that only validated questions would be used in the survey. The questionnaire used in this study was crafted in two stages and the questions and formulations were tested through a pre-test. Initially, suitable variables were identified through a literature review and measurement scales were subsequently searched for. Once a set of appropriate questions had been identified from validated surveys, a questionnaire was compiled. This initial questionnaire was used in a pre-test including 16 individuals fitting the selection criteria. The questionnaire was compiled in English for data gathering in Sweden and in German for data gathering in Germany. The English and German questionnaire can be found in *Appendix 1* and *Appendix 2*. The pre-test revealed that some questions would be too sensitive to ask. Due to sensitivity of data and confidentiality concerns among employees, data was not collected on gender or age. Through the pre-test, it was discovered that several respondents were not willing to submit this data even though they were reassured of full data confidentiality by the researchers. After alterations to the questionnaire, improving its clarity, had been conducted, it was sent out as part of the main study.

The questionnaire was designed using the web survey service Qualtrics, to be filled out online by the respondents. All attitudinal questions were measured on a Likert scale ranging from 1-7 with the exception of GOCB, which was measured on a Likert scale ranging from 1-5. All the questions in a block measuring the same item had a randomized order. In total 71 questions were included in the questionnaire. As the length of a questionnaire can influence the quality of the responses negatively (Biemer & Lyberg, 2003), the amount of items tested for in the questionnaire were limited to those considered to be most important.

Nielsen et al. (2009) points out that when conducting research on the group level, questionnaires should be used that have the group level as a focus. This had been taken into account when searching for appropriate measures. In the cases where a group level questionnaire could not be found or used for a survey item, an individually oriented measure was applied.

## 3.3 Data Collection

In total, around 100 organizations were approached, in Sweden and Germany, with the inquiry if they would like to participate in the study. In total, 19 organizations decided to join the study. More details on the groups and organizations participating in the study can be found in *Appendix 3: Overview of Participating Companies*. The data was collected through what is denoted as convenience sampling. While a convenience sample is not an ideal data gathering method, Bryman and Bell (2011) note that it is fairly commonly used in the research area of business and management, and that it is acceptable in certain cases.

Data was collected through self-administered online-questionnaires, delivered to the respondents by an e-mail which included a link to the Qualtrics survey. Of the total amount of 206 individual survey, 156 fully completed the questionnaire. 138 of these responses were included in the data set. In total, 42 workgroups participated in the study of which 33 groups fitted the requirement of having a member participation rate (MPR) above or equal to 50%. This means that for each group's data, that is analyzed in this study, at least half of the total number of group members responded and completed the questionnaire (13 teams, 100% mpr; 1 team, 83% mpr; 7 teams, 80% mpr; 3 teams, 75% mpr; 2 teams, 60% mpr; 1 team, 57% mpr; 6 teams, 50% mpr).

### 3.4 Analytical Method

In order to conduct the data analysis, the statistics program SPSS was used. SPSS is a widely used software package that can be considered to be suitable as it can run a range of statistical analyses with fairly large data sets. It was determined that all desired analyses could be conducted through this program that is commonly used for analyzing survey data.

Next, the SPSS export interface of Qualtrics was utilized to export the data. Subsequently, the program was then used to process the data and to conduct all statistical analyses.

In order to develop a general understanding of the data and to get an overview of the various relationships among and between the dependent, independent and control variables, a bivariate analysis was conducted. The resulting correlation-matrix was used as a first indication in the review of the hypotheses. However, to thoroughly test the effects of the main research variables on GOCB, in depth analysis was done by conducting tests including one-way ANOVA, two-way ANOVA, multiple linear regression, and hierarchical multiple linear regression.

#### 3.4.1.1 One-Way ANOVA

A One-way ANOVA was, hence, conducted to investigate whether high, medium or low levels of the eight commitment variables, respectively, would show a distinctively different effect on GOCB. Given the small overall sample size of  $n=33$  and an underlying normal distribution for most commitment variables, choosing to use a three-category distinction of the data was most apparent. Although this method provided preliminary results for H1a through H4b, a multiple linear regression was required to test the predictive capacity or moderating effect of the main research variables, in light of interactions with dummy and other control variables.

#### 3.4.1.2 Multiple Linear Regression

The proposed regression model below was drafted in line with the identified variables:

$$GOCB_i = \alpha + \beta_i OAC + \beta_i GAC + \beta_i ONC + \beta_i GNC + \beta_i OCC-HiSac + \beta_i GCC-HiSac + \beta_i OCC-LoAlt + \beta_i GCC-LoAlt + \beta_i LSUP + \beta_i CONS + \beta_i SATIS + \beta_i OJUS + \beta_i SIZE\_L + \beta_i Corp\_L + \beta_i TNURE\_low + \beta_i MFREQ\_low + \beta_i COUNTRY + \varepsilon_i$$

Using GOCB as the dependent variable, multiple linear regressions were then conducted to test for and underline the explanatory value that the different commitment variables would exert on GOCB. In addition to dummy variables, all control variables that met the requirement for normality of residuals were entered as independent variables into the computations. On the basis of this regression design, seven multiple regressions for H1b, H2a, H2b, H3a, H3b, H4a, and H4b were

constructed to test for the predictive capacity of GAC, ONC, GNC, OCC-HiSac, GCC-HiSac, OCC-LoAlt and GCC-LoAlt, included as independent variables in the regressions, respectively. Collinearity diagnostics as well as part and partial correlations were used to further investigate the unique predictive capacity of the main research variables.

H1a was excluded from this analysis as the residuals of OAC as underlying independent variable did not follow the requirement of being normally distributed.

#### **3.4.1.3 Hierarchical Multiple Linear Regression**

The concept of hierarchical multiple linear regression was utilized to provide additional evidence for possible interaction effects within the main research variables when predicting GOCB. In particular, a pair of hierarchical multiple linear regressions was constructed for hypotheses H6 through H8, resulting in three 2x2 matrices.

Once again, this analysis could not be conducted for gaining information on H1a as the residuals of OAC as underlying independent variable did not follow the requirement of being normally distributed.

#### **3.4.1.4 Two-Way ANOVA**

In order to finally gain results for H1a, the interaction effect of OAC and GAC was analyzed using a Two-way ANOVA. Incorporating this statistical method required making changes to the ordinal categorization for OAC and GAC that was previously used in the One-way ANOVA, as using the states of high, medium and low as categories in a Two-way ANOVA would require a much bigger sample size to allow for a decent amount of observations per case. Hence, the states were reduced to account for the 16 lower values, respectively 17 higher values, in a high/low categorization.

### **3.5 Quality of Research**

Below, a discussion on the limitations of this study along with reliability and validity will be conducted. For a more detailed quality analysis of the data, please see section 4.1.2 (*Data Quality, p. 37*).

#### **3.5.1 Discussion of Limitations**

The research method chosen in this thesis could be improved by using a simple random sample (Bryman, 2011). While being the best approach to data collection according to theory, it is difficult to undertake in practice. Careful consideration has been given to the selection of groups, basing collection of data in accordance with similar studies, and in line with theory. Given its methodological limitations, this study aims to target an as representative sample as possible, by approaching groups in various organizations and settings that are undertaking different types of tasks.

A possible drawback of this study is that it was conducted in two countries. However, it is not clear whether culture has a strong impact on OCB. This will be further discussed in the discussion part (6.4 *Limitations of Study, p.52*).

Another limitation of this study is the small number of observations on the group level. However, the lower threshold for parametric tests is met as the dataset consists of more than 30 observations. Thus, the central limit theorem can be applied (Newbold, Carlson, & Thorne, 2007). However, a larger data set would have increased the reliability of the data and the generalizability of the study.

In order to ensure reliability, beyond fulfilling the requirements of the central limit theorem, several normality analyses were conducted on the data set.

N. P. Podsakoff et al. (2014) point out that there are advantages and disadvantages with different types of sources of data, such as managers, peers, and employees, in group level research. Ratings by managers are easy to collect and contain information from an individual whose task is to monitor and observe what the group is doing along with its performance. However, having only one person rating, who may have personal attachments to the individuals in the workgroup, is not a particularly reliable measure. Another way of measuring performance is to have individuals (i.e. employees) in a group rate their perception of the group environment and performance. A disadvantage of collecting information from employees is that they may be prone to, intentionally or unconsciously, overestimate their own or their team's performance (Nielsen et al., 2009). The opinions of peers or clients might be more objective than the previous two alternatives since peers generally hold a certain distance to the workgroup and the individuals in it. However, it is also decreasing their level of insight. In addition, it may be difficult to get peers to answer questions related to the workgroup and its performance.

Furthermore, this study is focused towards teams in several industries, that may be dealing with a large variety of tasks, which could be a potential factor influencing the data. However, when analyzing OCB on the group level, it has been found that the relationship between team process and team performance does not vary significantly in relation to the nature of the process in which the team is engaged in (LePine, Piccolo, Jackson, Mathieu, & Saul, 2008).

Finally, another limitation of this study is that data could not be collected on age or gender, due to the high requirements of anonymity demanded by some of the investigated companies. Both gender and age has been related to OCB, where men and women, and old and young, display discretionary behaviors in different ways, and to different extent (Organ et al., 2006).

### **3.5.2 Reliability and Validity**

Below, a general discussion will be provided on the reliability and the validity of this thesis.

#### **3.5.2.1 Reliability**

Reliability refers to whether the results of a study will be the same if the same study would be conducted again (Bryman, 2011). Reliability is evaluated according to its repeatability and internal consistency.

The repeatability, or test retest reliability, of a study is the stability of it, considering it would be conducted on two different occasions, by the same person, under the same conditions (Bryman, 2011). By using validated questionnaires, the repeatability should be high. Also, attitudinal variables that could be considered to vary significantly from day to day, (e.g. positivity and negativity) have been excluded from the questionnaire.

Internal consistency is concerned with to what extent the measurements (i.e. survey questions) of different items of a particular concept gauge the same thing (Bryman, 2011). Cronbach's alpha has been used to evaluate the internal consistency, both in the questionnaires where the questions have been imported from, and in the developed questionnaire. The results of the internal consistency analysis were acceptable and are presented in more detail in the data section (4.1.2.1 *Internal Consistency Reliability Analysis*, p.37).

### **3.5.2.2 Validity**

Validity captures how well a test measures what it is intended to measure (Bryman, 2011). In this thesis, validity has been evaluated by four types of measures, as described below.

Construct validity refers to the extent that the set of questions for one item in a survey measures the construct that it is intended to reflect. A high level of construct validity has been ensured by using questions from instruments that have been tested and validated in prior research.

Face validity is the degree that a test is understood by its participants to measure what it is intended to measure (S. Taylor & Bogdan, 1984). Hence, it refers to whether the questions in a questionnaire make sense to the respondent. The pre-test of the questionnaire was conducted in order to assure that the questions were understood correctly, thus ensuring high face validity.

Internal validity is concerned with causality, as to whether the variation in the variable y can be attributed to a variation in x (Bryman, 2011). Ostensible causation can be caused when variables that are not considered, affect the variable that appears to have a causal relationship. Internal validity has been ensured by examining relationships between variables and by conducting a multiple regression analysis in several stages. In addition, the suggested relationships that are studied in this thesis are deduced from theory, strengthening the assumptions of causality.

External validity refers to how generalizable the results in the study are, and hence, if they can be held true in general (Bryman, 2011). In this study, the sample could be criticized as the size of it ideally would have been larger. Also, a randomized sample should preferably have been used. However, the selection and inclusion of data has been carefully analyzed, by for instance conducting normality analyses, to ensure that the results are generalizable.

A more detailed validity analysis related to the data can be found in the data section (*4.1.2 Data Quality, p. 37*)

## **3.6 Ethical Considerations**

Although this study was not considered to be ethically controversial, ethical considerations were still undertaken, in line with what is recommended by Bryman (2011). These included clear communication of the purpose of the study, as well as the treatment of the information submitted by individuals.

### **3.6.1 Information and Consent**

Participation in the study was voluntary and the respondents were informed about what the survey would test and that the data would only be used for research purposes.

### **3.6.2 Data Confidentiality**

All responses in this study were fully confidential, conserving the identity of both the companies from which the data was collected, as well as the identity of the individuals responding to the questionnaire. The choice of confidentiality was based upon two motives. Firstly, several of the firms, and managers within these, which had been approached, insisted that data would have to stay confidential. Secondly, individual responses were anonymized, due to the delicate nature of some of the questions in the survey. This has the additional benefit of increasing the probability of receiving honest answers, as respondents feel more secure (Bryman, 2011).

## 4 Data

*This section will present the obtained dataset which serves as the basis of analysis in this study. A presentation of the raw data is made, as well as a description of the data quality analysis and basic adjustments to the dataset.*

### 4.1.1 Variable Coding

The variable COUNTRY was created to distinguish between the German (COUNTRY=1) and Swedish (COUNTRY=0) subgroup. Correspondingly, the variable CORP\_L, which distinguishes large corporations from small and medium-sized enterprises, was used to distinguish companies in size. With reference to the definition of the European Commission, total number of employees was used to distinguish between companies with less than 250 employees (Corp\_L=0) and large corporations (Corp\_L=1) (European Commission, 2014). Moreover, teams with five or more members were coded as large teams (SIZE\_L=1), as opposed to small teams that consisted of less than five members (SIZE\_L=0). Average team tenure of less than two years was attributed to low team tenure (TNURE\_low=1) and teams that met less than once every week were said to have a low meeting frequency (MFREQ\_low=1).

### 4.1.2 Data Quality

Before engaging in empirical analyses, statistical tests were conducted to ensure overall reliability and quality of the underlying data. This procedure consisted of an internal consistency reliability analysis, and tests for normality on both the individual and aggregated group-level.

#### 4.1.2.1 Internal Consistency Reliability Analysis

In this study, one of the key questions of data quality and reliability concerns is the presence of two similar questionnaires that have been distributed to participants in an English and German version. As the thirteen interval-level scales used in the English version of this questionnaire have been established and tested in prior research, the main objective of the internal consistency reliability analysis using Cronbach's alpha ( $p > .7$ ) was to show that the inter-item correlations do not deviate too much for both Swedish and German subgroups (inter-version consistency). For the English version, it can be considered informative, but not crucial, to test the internal reliability of the scales, as it can be considered to be outside of the focus of this master thesis to accept or reject the reliability and validity of the selected scales. However, there is still a need to test for the internal consistency and reliability for the German subgroup, since the translated questions for these scales have not been tested in theory yet (inter-item consistency). In the following sections, results for both objectives, inter-version consistency and inter-item consistency, are described.

The delta of Cronbach's alpha (CA) for the Swedish and German subgroup only exceeds the threshold of .1 for four of the thirteen variables (IOAC,  $\Delta CA$  -.11; IGCC-LoAlt,  $\Delta CA$  -.26; ISATIS,  $\Delta CA$  -.18; ILSUP,  $\Delta CA$  -.27). In all of these cases, Cronbach's alpha is above the limit of .7 for the German subgroup. Hence, the internal consistency and reliability for the three variables can be deemed appropriate for the German subgroup, and as a result, inter-version consistency and reliability of the two questionnaire versions can be confirmed.

In terms of inter-item consistency, the variable ICONS shows the lowest CA value within the tested variables that is below .5 for both questionnaire versions. Generally speaking, a CA value below .5 is not acceptable, but previous research on the ICONS scale has proved this rule of thumb for this

variable wrong. A reference can be made to Gosling, Rentfrow and Swann (2003), who have condensed the measure of the big-five personality domains, including conscientiousness, down to ten questions, with two questions for each component. In their study, the two questions measuring conscientiousness also have a very low CA value of .50, but are still considered to be consistent and reliable since the content validity is very high. This argumentation makes sense, since the two questions are capturing different components of conscientiousness. Thusly, it would be rather unexpected that the two scale-items would display high internal consistency reliability, as far as Cronbach's alpha is concerned.

Although the English scales used in the Swedish subgroup have been established in previous research, and can thus, be deemed appropriate for the purpose of this master thesis, the three variables IGCC-LoAlt, ISATIS and ILSUP that fall below .7 for the Swedish subgroup will be analyzed further to ensure sound testing.

With a barely acceptable CA value for ISATIS\_Sweden of .61, and a poor value for both ILSUP\_Sweden of .58 and IGCC-LoAlt of .52, focus has been directed towards the inter-item correlation matrix, to accept or reject the internal consistency and reliability for these two variables (Nunnally & Bernstein, 1994). The respective inter-item correlation of these three variables revealed that for the greater part the inter-item correlations were close to, or exceeded, the limit of .3. Although the consistency for IGCC-LoAlt, ISATIS and ILSUP for the Swedish population is at the lower bound to qualify as a variable for further analysis, it can be deemed appropriate to not reject the variable on top of the support granted by rigorous testing of the corresponding scales provided by existing research (Ferketich, 1991). More details can be found in *Appendix 5: Internal Consistency Reliability Analysis*.



<b>Cronbach's Alpha</b>			
Variable	Germany	Sweden	Delta
1. GOCB	.90	.81	-.09
<u>O-Commitment<sup>a</sup></u>			
2. Affective <sup>1</sup>	.86	.75	-.11
3. Normative <sup>1</sup>	.86	.93	.08
4. CC-HiSac <sup>1</sup>	.83	.78	-.05
5. CC-LoAlt <sup>1</sup>	-	-	-
<u>G-Commitment<sup>b</sup></u>			
6. Affective <sup>1</sup>	.87	.87	.00
7. Normative <sup>1</sup>	.92	.96	.04
8. CC-HiSac <sup>1</sup>	.83	.85	.02
9. CC-LoAlt <sup>1</sup>	.78	.52	-.26
<u>Control variables<sup>c</sup></u>			
10. Satisfaction <sup>2</sup>	.80	.61	-.18
11. Leader support <sup>2</sup>	.85	.58	-.27
12. Conscientious <sup>1</sup>	.48	.41	-.08
13. O-Justice <sup>1</sup>	.87	.86	-.01

<sup>1</sup> German subgroup: n=88; Swedish subgroup: n=50

<sup>2</sup> German subgroup: n=70; Swedish subgroup: n=43

<sup>a</sup> Commitment directed towards the organization:  
Affective Commitment; Normative Commitment;  
Continuance Commitment: -Perceived High Sacrifice /  
-Lack of Alternatives

<sup>b</sup> Commitment directed towards the workgroup:  
Affective Commitment; Normative Commitment;  
Continuance Commitment: -Perceived High Sacrifice /  
-Lack of Alternatives

<sup>c</sup> Control variables: Job Satisfaction; Leader Support;  
Conscientiousness; Organizational Justice

**Table 4: Cronbach's Alpha for the German and Swedish Subgroups**

#### **4.1.2.2 Normality Analysis for Interval Variables**

A normality analysis was conducted in order to determine whether all interval scale variables exhibited the characteristics of the normal distribution. This incorporated a statistical and visual inspection of the data of the interval scales through their respective histograms and box plots.

##### **4.1.2.2.1 Individual-Level Normality Analysis**

In addition to visual inspection of histograms and boxplots, the occurrence of possible outliers was investigated with the guidance of the outlier-labeling rule (Hoaglin, Iglewicz, & Tukey, 1986). Using the 25<sup>th</sup> and 75<sup>th</sup> percentile, and a k value of 2.2 for n=138, to construct the lower and upper demarcation points for outliers (Hoaglin & Iglewicz, 1987), resulted in identifying in total ten outliers in five of the variables (see *Appendix 6: General Individual-Level Analysis of Normality*).

After typographical and measurement errors as well as a contaminated distribution could be ruled out, the concept of winsorizing (Wilcox, 2010) was used to account for outliers. Under this

procedure, the next closest neighboring value that lies within the demarcation limits of the outlier labelling rule is assigned to the respective outlier, thus, altering the data points of all outliers to fit the normal distribution. This lead to a winsorizing factor of 3.6% for the overall data (ICONS: 2.2% winsorized; IOAC: .7% winsorized, IOJUS: .7% winsorized).

#### 4.1.2.2.2 Group-Level Normality Analysis

After the variables had been checked for normality on the individual-level, the variables were aggregated in order to conduct a group-level normality analysis (see *Appendix 7: General Group-Level Analysis of Normality*). This last check for normality incorporated a visual inspection of the respective normal and detrended Q-Q plots as well as a Shapiro-Wilk's test of normality (Razali & Wah, 2011; Shapiro & Wilk, 1965).

<b>Descriptive Statistics for Interval Scale Variables</b>							
Variable	Mean	Std. Deviation	Skewness	Std. Error	Kurtosis	Std. Error	Shapiro-Wilk p-value
1. GOCB <u>O-Commitment<sup>a</sup></u>	3.95	.35	-.15	.41	-.07	.80	.940
2. Affective	5.20	.84	-1.80	.41	5.24	.80	.001
3. Normative	4.46	.96	-.36	.41	-.59	.80	.345
4. CC-HiSac	4.47	1.04	-.17	.41	.32	.80	.578
5. CC-LoAlt <u>G-Commitment<sup>b</sup></u>	3.72	1.28	.22	.41	-.92	.80	.313
6. Affective	5.36	.63	.08	.41	-.10	.80	.681
7. Normative	4.64	.97	-.60	.41	-.06	.80	.355
8. CC-HiSac	4.54	1.09	-.03	.41	-1.15	.80	.061
9. CC-LoAlt <u>Control variables<sup>c</sup></u>	2.93	.89	.83	.41	.88	.80	.094
10. Satisfaction	5.62	.54	-1.00	.41	.80	.80	.024
11. Leader support	5.78	.73	-.52	.41	-.73	.80	.058
12. Conscientious	6.12	.41	-.04	.41	-.04	.80	.875
13. O-Justice	5.27	.83	-.87	.41	.38	.80	.062

<sup>a</sup> Commitment directed towards the organization: Affective Commitment; Normative Commitment; Continuance Commitment: -Perceived High Sacrifice / -Lack of Alternatives

<sup>b</sup> Commitment directed towards the workgroup: Affective Commitment; Normative Commitment; Continuance Commitment: -Perceived High Sacrifice / -Lack of Alternatives

<sup>c</sup> Control variables: Job Satisfaction; Leader Support; Conscientiousness; Organizational Justice

**Table 5: Descriptive Statistics for Interval Scale Variables**

The Shapiro-Wilk's test ( $p > .05$ ) showed that eight variables were approximately normally distributed with a standard error for all interval scale variables of SE .41 for the skewness and of SE .80 for the kurtosis (GOCB: skewness -.15, kurtosis: -.07; ONC: skewness -.36, kurtosis -.59; OCC-HiSac: skewness -.17, kurtosis .32; OCC-LoAlt: skewness .22, kurtosis -.92; GAC: skewness .08, kurtosis -.10; GNC:

skewness -.60, kurtosis -.06; GCC-LoAlt: skewness .83, kurtosis .88; CONS: skewness -.036, kurtosis -.036).

The null-hypothesis assuming approximate normality was rejected for the variables OAC, with a skewness of -1.80 and a kurtosis of 5.24, as well as SATIS with a skewness of -1.00 and a kurtosis of .80. Moreover, as the Shapiro-Wilk test yielded borderline p-values for the three variables GCC-HiSac, LSUP and OJUS, a visual inspection of the detrended Q-Q plots was conducted. Unfortunately, elements of a one-bended curve were not only apparent for OAC and SATIS, but also for LSUP and OJUS. As a result, these four variables were excluded from all following analysis requiring that the assumption of normality to be met. However, multiple bends were clearly visible for the variable GCC-HiSac. As multiple bends in a detrended normal Q-Q plot is a visual way of testing whether a distribution is normal, the variable GCC-HiSac was not excluded from any further analysis.

For all other variables the detrended Q-Q plot did not show any negative indications except for GNC. Since GNC's corresponding z-values for skewness of -1.45 and for kurtosis of -.07 were within the range of  $\pm 1.92$ , GNC was not excluded from any consequent analyses.

#### **4.1.2.3 ANOVA Specific Normality Analysis for Ordinal Variables**

Due to the fact that the eight commitment variables were used in ANOVAs, through transformation into ordinal variables, another group-level normality test had to be conducted for the three-category, respective two-category, ordinal version of the commitment variables. Thusly, the distributions of GOCB were tested for all three categories (low, medium, high), respective two categories (low, medium), per variable. According to *Appendix 8: One-way ANOVA-specific Tests*, the groups' distributions were found to fit the assumption of normality, with values for skewness and kurtosis within the range of  $\pm 2.0$  and  $\pm 9.0$ , respectively, no matter which category was chosen (Schmider, Ziegler, Danay, Beyer, & Bühner, 2010).

#### **4.1.2.4 ANOVA Specific Analysis of Homogeneity of Variances**

As the ANOVA construct also assumes homogeneity of variances as a requirement for having confidence in provided significance levels, Levene's F Test was conducted for all One-way ANOVAs and the single Two-way ANOVA: The test results found the homogeneity of variances assumptions to uphold, with an underlying  $p \geq .05$  for all tests and variables.

#### **4.1.2.5 Multiple-Linear Regression Specific Inspection of Homoscedasticity**

As the assumption of homoscedasticity is a requirement for having confidence in the estimated standard errors of linear-regressions, scatterplots were constructed for all regressions in order to scan for signs of heteroscedasticity (Breusch & Pagan, 1979).

By plotting the regression standardized predicted value against the regression standardized residual, homoscedastic distributions should yield observations that take shape of a spider net that is symmetrical formed around the x-y-intersect.

Heteroscedasticity should consequently be of no concern for subsequent analyses done in this study, as the ZPRED/ZRESID-plots did not give any indications for violation of the assumption of homoscedasticity, as the plots presented in *Appendix 11: Detailed Regression Results* revealed a clear absence of fan, skew or tilt-trends.

## 5 Empirical Findings

*The following segment will present the empirical findings of the study along with the results of the conducted statistical analyses. The previously presented hypotheses will be examined and tested towards the empirical data. Most of the results turned out as expected. However, there were also a number of unexpected and interesting findings. In general, workgroup commitment is shown to be a stronger predictor of GOCB than organizational commitment.*

### 5.1 Results of the Correlation-Matrix

Table 6 displays the means, standard deviations, and inter-correlations for the main research and control variables. The table provides preliminary support for five of the twelve hypotheses. As expected, the correlation matrix shows that AC and CC-HiSac directed towards the organization and workgroup, respectively, are positively correlated with GOCB (OAC/GOCB,  $r=.42$ ; OCC-HiSac/GOCB,  $r=.53$ ; OCC-LoAlt/GOCB,  $r=.35$ ; GAC/GOCB,  $r=.57$ ; GCC-HiSac/GOCB,  $r=.51$ ). In addition, OCC-LoAlt exhibits a positive correlation with GOCB (OCC-LoAlt/GOCB,  $r=.35$ ). Contrary hereto, GCC-LoAlt as well as NC for both foci fail to achieve significant correlations with GOCB.

Moreover, the four control variables job satisfaction, leader support, conscientiousness and organizational justice all reach high correlation levels with GOCB. Furthermore, it is apparent that high intercorrelations between the control variables and the main research variables exist in this study. While this is very true for the organizational commitment variables concerning all the control variables, intercorrelations are much weaker between control variables and workgroup commitment variables. In fact, a correlation can only be observed for the workgroup commitment variable GAC with the control variables job satisfaction and leader support as well as GCC-HiSac, concerning leader support. This is not surprising, as job satisfaction and leader support are expected to strongly affect workgroup variables in general (2.2.2.3 *Group and Leadership Factors in Relation to OCB*, p. 17).

Unsurprisingly, a strong intercorrelation can be observed for the eight commitment variables across the two foci, which will be analyzed in the tests for hypotheses H5-H8 subsequently. Considering intra-foci correlations next, strong relationships can be observed for the organizational commitment variables. This is not so much true for workgroup commitment variables, where only GCC-HiSac and GNC correlate.

Last, the observed negative correlation between OAC and GCC-LoAlt sticks out. This observation, however, is also in line with expectations. Interestingly, though, workgroup commitment does not show strong intra-foci correlations. In fact, a significant intra-foci correlation on the workgroup level can only be found for GNC and GCC-HiSac.

### Means, Standard Deviations, and Intercorrelations

Variable	1	2	3	4	5	6	7	8	9	10	11	12
1. GOCB	—											
<u>O-Commitment<sup>a</sup></u>												
2. Affective	.42*											
3. Normative	.32	.66**										
4. CC-HiSac	.53**	.56**	.47**									
5. CC-LoAlt	.35*	.33	.33	.66**								
<u>G-Commitment<sup>b</sup></u>												
6. Affective	.57**	.54**	.37*	.19	-.02							
7. Normative	.28	.16	.67**	.35*	.21	.26						
8. CC-HiSac	.51**	.08	.40*	.63**	.39*	.24	.61**					
9. CC-LoAlt	-.14	-.49**	-.29	-.19	.03	-.19	.22	.18				
<u>Control variables<sup>c</sup></u>												
10. Satisfaction	.51**	.64**	.47**	.48**	.35*	.65**	.28	.22	-.15			
11. Leader support	.66**	.52**	.35*	.55**	.38*	.60**	.32	.41*	.05	.84**		
12. Conscientious	.54**	.45**	.39*	.37*	.22	.24	.27	.16	-.24	.36*	.37*	
13. O-Justice	.37*	.59**	.58**	.66**	.67**	.29	.31	.32	-.07	.75**	.68**	.43*
Mean	3.95	5.20	4.46	4.47	3.72	5.36	4.64	4.54	2.93	5.62	5.78	6.12
S.d.	.35	.84	.96	1.04	1.28	.63	.97	1.09	.89	.54	.73	.41

<sup>a</sup> Commitment directed towards the organization: Affective Commitment; Normative Commitment; Continuance Commitment: -Perceived High Sacrifice / -Lack of Alternatives

<sup>b</sup> Commitment directed towards the workgroup: Affective Commitment; Normative Commitment; Continuance Commitment: -Perceived High Sacrifice / -Lack of Alternatives

<sup>c</sup> Control variables: Job Satisfaction; Leader Support; Conscientiousness; Organizational Justice

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

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

**Table 6: Correlation-Matrix**

## 5.2 Results of the One-Way ANOVA

The between-groups One-way ANOVA yields results that are in line with the insights observed in the correlation-matrix, as presented in the previous section. It shows that there is a significant relationship for affective commitment and the continuance commitment sub-dimension of perceived high sacrifices, as far as GOCB as a dependent variable is concerned (OAC/GOCB,  $F=3.43$ ,  $p \leq .05$ ; GAC/GOCB,  $F=4.30$ ,  $p \leq .05$ ; OCC-HiSac,  $F=3.58$ ,  $p \leq .05$ ; GCC-HiSac,  $F=4.29$ ,  $p \leq .05$ ).

In particular, looking at the means plot of GOCB for the three categories of OCC-HiSac and GCC-HiSac, respectively, reveals an almost perfectly flat line, indicating a positive linear relationship between low, medium and high states of the concerned variables and the mean of GOCB. A similar positive trend, although not to the same extent perfectly linear, can be observed for the variables OAC and GAC.

Although this visual inspection of the mean plots should not be confused with a significant method for post-hoc testing of the detailed inter-category difference, such as Fischer's LSD, the null hypothesis of no differences between the group's means was still rejected. Thus, the One-way ANOVA provides preliminary confirmation for the hypotheses H1a, H1b, H3a and H3b, giving substantial support that there is a positive relationship between low, medium and high states of the respective commitment variables and GOCB.

Moreover, the ANOVA gives a positive indication for an effect of ONC on GOCB (ONC/GOCB,  $F=3.36$ ,  $p \leq .05$ ), which is contrary to the absence of a correlation for these two variables as displayed in the bivariate analysis. However, upon further investigation, the means plot reveals a non-linear tendency, with a peak of the highest mean for medium levels of ONC (ONC\_medium,  $\bar{x} = 4.09$ , ONC\_high,  $\bar{x} = 4.01$ , ONC\_low,  $\bar{x} = 3.74$ ). Although it can, therefore, not be assumed that there is a linear effect in light of the fact that no correlation could be found for the interval scale of ONC, the ANOVA shows that ONC has a significant effect on GOCB. Thus, some support for H2a is being provided. This indication should, however, be further tested in a regression analysis.

One-way ANOVA <sup>a</sup>							
Independent variable	Category	Mean	Std. Deviation	F-value	P-value	Levene's F Test p-value	Brown-Forsythe
O-Commitment <sup>b</sup>							
Affective	Low	3.74	.38	3.43	.046	.330	.047
	Medium	4.00	.26				
	High	4.09	.34				
Normative	Low	3.74	.38	3.36	.048	.561	.050
	Medium	4.09	.26				
	High	4.01	.34				
CC-HiSac	Low	3.77	.36	3.58	.040	.981	.041
	Medium	3.92	.31				
	High	4.14	.31				
CC-LoAlt	Low	3.89	.43	.90	.418	.227	.419
	Medium	3.88	.33				
	High	4.06	.29				
G-Commitment <sup>c</sup>							
Affective	Low	3.73	.37	4.30	.023	.918	.023
	Medium	3.98	.29				
	High	4.13	.30				
Normative	Low	3.81	.36	1.28	.292	.262	.294
	Medium	3.98	.24				
	High	4.04	.42				
CC-HiSac	Low	3.74	.31	4.29	.023	.747	.024
	Medium	3.95	.37				
	High	4.14	.28				
CC-LoAlt	Low	3.97	.38	.06	.944	.778	.944
	Medium	3.94	.37				
	High	3.92	.34				

<sup>a</sup> Dependent variable: GOCB

<sup>b</sup> Commitment directed towards the organization: Affective Commitment; Normative Commitment; Continuance Commitment: -Perceived High Sacrifice / -Lack of Alternatives

<sup>c</sup> Commitment directed towards the workgroup: Affective Commitment; Normative Commitment; Continuance Commitment: -Perceived High Sacrifice / -Lack of Alternatives

**Table 7: One-way ANOVA**

### 5.3 Results of the Multiple-Linear Regression

Table 8 presents the results for the multiple-linear regressions. The outcome of regression MLR\_1a (Adjusted  $R^2=.76$ ,  $F=15.31$ ,  $p(F)\leq.001$ ) gives strong support for H1a, showing that workgroup affective commitment is a unique independent predictor for GOCB ( $B=.41$ ,  $p\leq.001$ ). The same is true for the two perceived high sacrifice variables on the organization, respectively workgroup level. However, while the regression for GCC-HiSac yields decent significance levels (MLR\_3a: Adjusted  $R^2=.50$ ,  $F=5.51$ ,  $p(F)\leq.001$ ), the regression for the organizational component is a bit less sound (MLR3\_b: Adjusted  $R^2=.39$ ,  $F=3.94$ ,  $p(F)\leq.01$ ). Still, the regressions MLR\_3a and MLR\_3b, holding respective B values of .24 ( $p\leq.01$ ) for GCC-HiSac and .15 ( $p\leq.05$ ) for OCC-HiSac, are significant, thus giving substantial support for H3a and H3b.

In light of no support for OCC-LoAlt, neither through previous ANOVAs nor through the regressions displayed in this section, hypotheses H4a and H4b have to be rejected. Thus, this study could not show that lack of alternatives is a predictor for GOCB.

A similar observation can be made for NC. Although the ordinal variable of ONC was found to significantly affect GOCB in a One-way ANOVA test, both the bivariate analysis and the regression MLR\_2b provided contrary results. Although there might be a non-linear relationship between ONC and GOCB, the assumption that ONC is a predictor for GOCB cannot be assured with confidence in light of a missing linear relationship, which this study tried to confirm. Hence, this study was not able to confirm hypothesis H2b, but had to reject it.



Multiple Regression & Hierarchical Multiple Regression <sup>a</sup>										
Hierarchical Multiple Regression →	Commitment type									
	AC <sup>b</sup>		Normative		Continuance			Continuance		
					Perceived High Sacrifice			Lack of Alternatives		
	B	B	B	B	B	B	B	B	B	B
			HMLR_6		HMLR_7			HMLR_8		
Multiple- Regression →	MLR_1a	MLR_2a	MLR_2b	MLR_2b	MLR_3a	MLR_3b	MLR_3b	MLR_4a	MLR_4b	MLR_4b
<i>Dummy variables</i>										
Country	.36***	.20	.24*	.24	-.08	.15	-.06	.21	.24	.21
Large corporation	.18*	.12	.12	.12	.26*	.12	.24*	.09	.07	.09
Large team size	.21**	.09	.09	.09	.07	-.05	.03	.01	.07	.01
Low team tenure	.15*	.11	.14	.14	.18	.13	.18	.10	.10	.10
Meeting frequency	.12	.12	.15	.15	.15	.13	.15	.07	.11	.07
<i>Control variable</i>										
Conscientiousness	.22*	.35*	.29	.29	.22	.25	.20	.37*	.39*	.35*
<i>Main research var.</i>										
(1a) GAC	.41***									
(2a) GNC		.07		.01						
(2b) ONC			.09	.09						
(3a) GCC-HiSac					.24**		.20*			
(3b) OCC-HiSac						.15*	.05			
(4a) GCC-LoAlt								.06		.06
(4b) OCC-LoAlt									-.02	-.03
R <sup>2</sup>	.81	.43	.46	.46	.61	.52	.62	.44	.41	.45
Adjusted R <sup>2</sup>	.76	.27	.30	.27	.50	.39	.49	.29	.25	.26
F	15.31***	2.72*	2.98*	2.51*	5.51***	3.94**	4.79***	2.84*	2.51*	2.43*
Δ in R <sup>2</sup>	-	-		.00	-		.09	-		.04
F for Δ in R <sup>2</sup>	-	-		.03	-		5.63*	-		1.50

<sup>a</sup> Dependent variable: GOCB, n=33, \*\*\* p≤.001, \*\* p≤.01, \* p≤.05

<sup>b</sup> AC = Affective Commitment

**Table 8: Multiple Regression & Hierarchical Multiple Regression**

The previously introduced *Table 8* holds additional information about the hierarchical relationship that was tested in order to make a statement for hypothesis H6-H8. Step one of the hierarchical multiple regressions included entering all dummy variables as well as the interval variable conscientiousness and the respective commitment variable on the organizational level. Step 2 consisted of entering the respective workgroup commitment variable that was to be contrasted to the organizational level.

On the grounds of NC and CC-LoAlt not having a predictive capacity for GOCB, hypotheses H6 and H8 are presumed to get no support in a hierarchical multiple regression construct. This is confirmed through the regressions HMLR 6 and HMLR 8. Therefore, H6 and H8 have to be rejected.

Given that OAC could not be analyzed in the context of regressions, *Table 9* and *Table 10* display the results of the Two-way ANOVA that had been catered towards receiving information in order to confirm or reject hypothesis H5.

Table 9: Descriptives of Between-Subjects Two-way ANOVA

Table 10: Between-Subjects Two-way ANOVA

Moreover, GAC's partial eta squared value indicates that 14% of the variance in GOCB can be explained by low or high values of GAC. Last, the Two-way ANOVA yields that no significant interaction effect between GAC and OAC could be observed ( $F=1.20$ ,  $p=.28$ ).

Hence, hypothesis H5, stating that GAC is a stronger predictor for GOCB than GOC, can be confirmed with confidence.

## 5.6 Summary of Findings

In the table below (*Table 11: Summary of Findings*), a summary of the hypotheses is presented. As it can be seen, there are a few interesting and unexpected findings.

Hypothesis No.	Commitment Type	Foci Type	Predictive Capacity for GOCB?	Quality of Empirical Finding?
H1a:	Affective	Workgroup	✓ confirmed	☆☆ highly relevant
H1b:	Affective	Organization	✓ confirmed	☑ expected
H2a:	Normative	Workgroup	✗ rejected	✗ inconclusive
H2b:	Normative	Organization	✗ rejected	✗ inconclusive
H3a:	High Sacrifice	Workgroup	✓ confirmed	☆☆☆ unique finding
H3b:	High Sacrifice	Organization	✓ confirmed	☆☆☆ unique finding
H4a:	Lack Alternatives	Workgroup	✗ rejected	☆ relevant
H4b:	Lack Alternatives	Organization	✗ rejected	☆ relevant
H5:	Affective		✓ confirmed	☆☆☆ unique finding
H6:	Normative		✗ rejected	✗ inconclusive
H7:	High Sacrifice		✓ confirmed	☆☆☆ unique finding
H8:	Lack Alternatives		✗ rejected	☆ relevant

**Table 11: Summary of Findings**

## 6 Discussion

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*The subsequent section will analyze the empirical findings presented in the previous section and connect it to theory. A discussion will be provided on the results and outcomes of the hypothesis tests accompanied by a presentation of possible managerial implications. In addition, drawbacks and possible flaws in the thesis are discussed along with recommendations for future research.*

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### 6.1 The Relationship between Commitment and GOCB

The results of this paper show that commitment in general is positively related to GOCB, which is in line with what one may assume when reviewing the literature on OCB and commitment. However, a relationship could not be established between all dimensions of commitment and OCB. NC and CC-LoAlt across both foci did not show any relationship with GOCB.

In several studies, CC has not shown any relationship or a negative relationship with OCB (e.g. Lambert, Kim, Kelley, & Hogan, 2013; Meyer et al., 1989). When examining the results of the two dimensions of CC and their relation to GOCB, they are in line with Vandenberghe and colleagues' (2007) observations on commitment in relation to other organizational outcomes. This study, hence, gives further support to the idea that one should split CC into the two dimensions of HiSac and LoAlt, especially in a group setting. As HiSac is a somewhat recently adopted dimension in research and has been very limitedly studied on the group level, not that much can be said about it. While it is referring to factors such as compensation and work environment, one should also consider group level implications. One can theorize that this case is extra important as HiSac might be of higher importance in a group focus compared to an organizational focus. This is reasonable, as you have a social component on the group level (Heffner & Rentsch, 2001; Nielsen et al., 2009). Heffner & Rentsch (2001) point out that research has indicated that employees in general will report higher social interaction towards proximal constituencies compared to distant constituencies. HiSac may be more relevant as one might sacrifice relationships that one has with coworkers along with feelings of social belongingness to a group. This can be argued to be more significant on an entity close to the individual (i.e. workgroup) rather than one that is more distant (i.e. organization).

LoAlt on the other side is reasonably the component of CC that is uncorrelated and sometimes negatively correlated with OCB. In this study, it could, as expected, not be shown that LoAlt had an influence on GOCB. Several researchers have identified that CC should be split into these two parts and have also observed that LoAlt has no or a negative effect on organizational outcomes.

NC has previously been shown to relate to OCB (e.g. Vigoda-Gadot et al., 2007). This relationship could however not be shown in this study, for either of the foci, when relating it to GOCB. This was, thus, an unexpected result. However, several researchers have found NC to be problematic and in some cases redundant (A. Cohen, 2007; Meyer et al., 2001; Meyer & Parfyonova, 2010). One suggestion for why the ambiguity of NC exists is that the commitment form captures a propensity to be committed rather than 'real' commitment. It has also been pointed out that NC and AC have several conceptual overlaps (Ko, Price, & Mueller, 1997). The empirical findings on NC may contradict Pohl and Paille's (2011) findings on the same construct in line with the proposition by Vigoda-Gadot et al. (2007) that group level analysis can provide results that analyses on the individual level or aggregated individual level cannot capture.

This could give an explanation for the results of NC in this study. However, since no strong relationships for NC is observed, it is difficult to draw any conclusions. It could be assumed that NC in the group context is different from individual context. On the group level focus, HiSac may capture some of the attachments that may not exist on the individual level. For instance, if taking a social perspective, HiSac and NC could be closely related. If an employee decides to leave a group where he or she has close social ties, leaving is a personal sacrifice, but at the same time, a breach of expectations from the group. Thus, HiSac and NC are in this case two sides of the same coin.

As established earlier, AC is generally viewed to be the most important form of commitment to study in relationship discretionary behavior, both in individual and group level analyses (Wasti & Can, 2008). The results in this thesis could partially support this. Even though this study did not directly test for it, it appears that AC is the strongest predictor of GOCB among the different commitment types in the TCM. When complementing the TCM with the two dimensions of CC, it would appear in contrast to theory on the individual level, that CC in the aspect of HiSac has a stronger relationship with GOCB than NC.

## **6.2 The Importance of Workgroup Commitment**

One of the main intentions of this paper is to show that workgroup commitment is a more important predictor of GOCB than organizationally oriented commitment. The results of this study support this notion as group oriented AC and HiSac, when tested against their organizationally oriented equivalents, showed stronger relationships with GOCB. The results, except for GNC, are in line expectations and with e.g. Morin et al. (2011), who say that commitment across several foci only has a strong relation to locally related OCBs. Nothing can be said about the relationship for NC as those variables did not show any relationship with GOCB. Consequently, the findings in this study give support for the target similarity model rather than the global perspective.

Most of the production or outputs that are produced in organizations are attributable to the workgroups. To put it more clearly, one can argue that it is the workgroup in which the production of the organization is conducted, not on the global organizational level. Thus, it is important to focus on groups in the organizational setting and also on OCB on the group level.

While some OCB actions can be categorized to be directed towards the global organization, most of them are directed towards other individuals. This could be considered to be an argument for looking at OCB on the individual level, however, it has also been noted that OCB is not having any particular effects unless it is conducted by several people (Organ, 1988; Pearce & Herbig, 2004), thus on a group or unit level.

As noted in the empirical findings section (*5.1 Results of the Correlation-Matrix, p. 42*), the control variable of leader support is strongly correlated to both OCB and the different types of commitment. Leader support has been showed to be a strong antecedent of OCB, as outlined in section 2.2.2.3 (*Group and Leadership Factors in Relation to OCB, p. 17*). It is also considered to be one of the most important antecedents for employee commitment (Meyer et al., 2001; Stinglhamber et al., 2002). Thus, it is important not to diminish the influence leadership has both on commitment and on discretionary behavior (e.g. OCB and GOCB).

### **6.3 Managerial Implications**

The findings in this paper have a few managerial implications for managing workgroups in professional organizations. The most important practical finding is that it is important for firms to focus on commitment towards workgroups in the organization.

This study shows the importance on focusing on developing teams. As workgroup commitment appears to be a stronger indicator of OCB than organizational commitment, firms should be more concerned with building group level commitment instead of organizational level commitment. Today, companies allocating large amount of resources to develop OC. The findings indicate that these resources could be put to better use if they were allocated to develop GOC, given that organizational outputs are created in the team.

While engaging in this discussion, it should be pointed out that managers and business leaders should focus on building commitment in general, across several foci. However, workgroup commitment appears to be extra relevant. If employees feel attached to the unit they are close to, this will have the most substantial effect on their discretionary behavior, given that it's a group that creates outcomes. In order to build this attachment to the group, the social interaction is a key factor. Thus, teambuilding exercises, social events and efforts to build good team spirits are important tools to create an environment where employees feel like engaging in discretionary behavior.

When reviewing the findings of HiSac closer, the practical implication for managers would be to orient their efforts towards building this commitment type. This is true in accordance with the fact that CC, in general, is seen as the commitment type that is the easiest for managers to stimulate. The suggestions given above would probably increase HiSac but also individual and group related compensations could also be used to increase HiSac. Managers should try to understand what drives commitment among the individual and adapt the group and organizational benefits for the individual in line with these attachments. The suggestion is that incentives should be tailored for individuals.

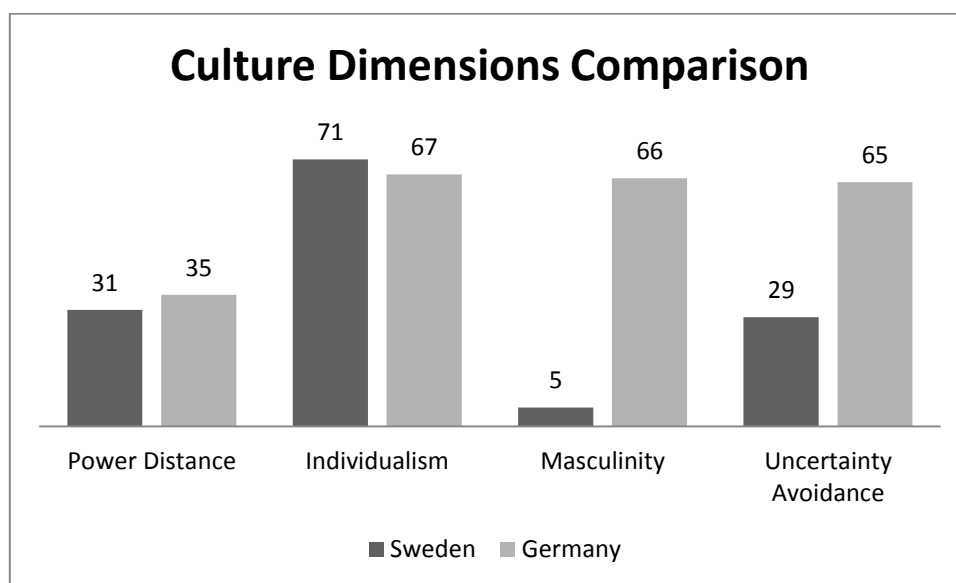
It has been noted that AC is the most difficult commitment form to build for managers. Instead of aiming at building AC among employees, organizations can focus to adapt to, and capture the AC of individuals. This also includes paying extra attention to what ACs individuals have when they enter an organization or workgroup.

### **6.4 Limitations of Study**

This study has examined a specific application of theory that has not been extensively reviewed before. Thus, more studies on the topic of this thesis are needed to strengthen the academic relevance of the findings of this study. The discoveries are based on a limited amount of data meaning that the sample size in this study is a limitation. In order to achieve higher reliability a larger and more diverse data set is required. A higher research quality could be achieved with a larger number of observations together with a fully randomized sample. Thus, it can be questioned, whether the thesis is representative for all professional workgroups in different environment and constellations. It is acknowledged that this limits this thesis at the same time as it should be highlighted that the ambition of this paper has been to give an indication for future research on commitment in the group level context. To compensate the fact that the data set was small, an extensive quality analysis of the data was conducted.

As mentioned by Organ et al. (2006), most empirical evidence indicates and assumes that OCB causes performance to increase, an assumption, which has also been adopted in this study. However, as the aforementioned authors point out, one cannot be completely certain of the direction of causality when discussing OCB and performance. Performance in itself could inspire people to engage in extra-role behaviors as successful groups and individuals will be under less stress and may have higher levels of satisfaction. It could also be argued that OCB can also be influenced not by performance, but by perceived performance. What has been observed by Bachrach et al. (2001) is that groups that received positive feedback on their job performance tended to exhibit higher levels of OCB even though the feedback was not related to the groups' real performance. The general assumption in current and former research, as mentioned previously, is that there is a close connection between OCB and performance, both on individual and group level.

Moreover, including data from two different cultures could be seen as problematic. Although the literature on the cultural effects on workgroups, commitment and OCB is limited, culture could have an effect. It was observed in this study that culture had an effect on the regression. The same drawback could be formulated for including groups from different firms of different sizes and from different industries. In line with this reasoning, the effects on the dependent variable (OCB) can be discussed using the framework developed by Hofstede (1984).



**Figure 4: Culture Dimensions Comparison**

We can see in *Figure 4* that when comparing the cultures of Sweden and Germany, there are relatively small differences in power distance and individualism. However, masculinity and uncertainty avoidance differ. Paine and Organ (2000) argue that power distance and individualism are the most important cultural dimensions of Hofstede's framework to look at for OCB. However, Euwema et al. (2007) drew the conclusion from a large international study that neither of those two culture dimensions had an effect on GOCB. As Sweden and Germany are similar in these two, it does not matter for this study, whether there is a difference or not as the country cultures are similar in this aspect. Organ and his associates (2006, pp. 26-30) have argued that cultural settings have an impact on OCB, but that development of the institutional infrastructure, in addition to the character of market transactions, are the most important predictors of how OCB varies among cultures. It is

acknowledged that there are cultural implications on this study, but it is difficult on the basis of current research to discuss of what nature they are.

## **6.5 Suggestions for Future Research**

For future research, a wide range of areas could be explored based, on the initial findings of this thesis. The theoretical area of workgroups in the professional context especially offers plenty of opportunities for further research. This study has indicated that commitment is interesting to examine on the group level and more studies are needed in this area to give support for the initial findings in this paper.

Going back to the review of the dimensions of CC, future research should study HiSac further, particularly on the group level. On the group level, it should be investigated how HiSac is similar to and differs from NC. It should also be investigated whether organizational and group oriented HiSac is different or similar. It can be argued that material components of HiSac are more closely related to the organizational level focus than social components of HiSac that are more proximate to the focus of the group level.

Another suggestion is to examine further whether OCB is a global or local construct. In this thesis it is argued that most OCB is conducted on the local level, but it can have both local and global benefits. An ambition to separate the OCB construct into organizational and individual oriented behaviors has already been done by a number of researchers (cf. Dalal, 2005; Jahangir, Akbar, & Haq, 2004; Organ, Podsakoff, & MacKenzie, 2006; Podsakoff, Whiting, Podsakoff, & Blume, 2009; Williams & Anderson, 1991), but can be seen to be somewhat problematic and requires further research (N. P. Podsakoff et al., 2014).

As mentioned previously in this paper, OCB has only been studied in a cultural context to a limited extent. While researchers have been looking at specific cases in several different countries and cultures, no comprehensive framework has been developed for culture and OCB. In the future, more research should look into the cultural implications of OCB. The current state of research would benefit from another literature review or meta-study in this particular area.

It could be questioned, whether the findings in this study are true for all types of groups and teams as well as if they are valid in different settings and for different group tasks. While the results might be valid for professional workgroups, they might not be for sports teams or other teams formed under informal circumstances. Further research should be conducted on groups based on different characteristics based on e.g. Hogg & Vaughan (2011, pp. 281-282) or Forsyth (2010, pp. 10-14).

In relation to what has been discussed in the previous paragraph, one could also discuss what performance measures are relevant to use in modern organizations. It has been pointed out previously that the type of measurement is somewhat problematic in attitudinal group research (Nielsen et al., 2009). Measuring the deliverable of a workgroup is one thing; this could be done by examining the satisfaction of the receivers of a project or product. Another measure that might say more about the group's capabilities and performance over time is discretionary behavior. Yet another aspect to take into account is that some groups may have a high performance level in aspect to its deliveries while not having reached its highest possible performance level. Whereas discretionary behavior is a measure that is somewhat related to group development (cf. Wheelan, 2013), regular performance is an absolute measure and does not say anything about the group's



potential. In general it is suggested that research should be aimed at consolidating research methods on the group level. In the future, it would be interesting to test the research question that has been used for this paper with different outcome measures.

One interesting area for future research of commitment on the group level would be to investigate how the distribution of commitment among group members affects group outcomes. Unified commitment among team members is understood to have a positive impact on group outcomes (Larson & LaFasto, 1989; Yukl, 2010). This would imply that not only the type of commitment the individual members of the team must be in line with matters, but also their commitment among different foci. This is in accordance with what has been found for trust between individuals in teams (De Jong & Dirks, 2012). What has been found is that symmetry among the level of trust is important for team performance. Thus, even though the trust level in a team could be high on the aggregate level, another team with a lower trust level but higher trust symmetry is expected to perform better. This would also be interesting to test for commitment in groups.

In addition to what has been stated above, research could be undertaken in a range of areas on the connection between commitment to a group and group outcomes. Some suggestions are group composition and commitment, predominant commitment type in relation to effectiveness and efficiency, culture and commitment in groups, and alignment of the three commitment types and leaders in workgroups, just to mention a few.

## 7 Conclusion

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In this section, the main outtakes of this study are presented and the most important findings are summarized. Lastly, recommendations and implications of the study are highlighted.

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This study has been examining the group level outcomes of employee commitment across the workgroup and organizational foci in relationship with discretionary behavior. The results of this study indicate that while both organizationally directed commitment and workgroup commitment has an effect on GOCB, commitment towards the group is more important. Another finding is that the two sub-dimensions of continuance commitment, perceived high sacrifice and lack of alternatives, are relevant to take into account when examining GOCB

The results have important practical implications since it shows that organizations should be concerned with building commitment in general, and that managers should focus their efforts on building attachment to groups rather than attachment to the organization. Also, in order to build commitment in teams, managers should try to find out how they can increase the perceived sacrifice for individuals of leaving the group, as this is shown to have a strong relationship with GOCB. Even though this study has several limitations, especially concerning sample size, this paper has outlined interesting possible directions for future research on commitment in a group context. However, further research is needed to understand how commitment among individuals in group settings affects group outcomes. The same is true for discretionary behavior in group settings.

## 8 References

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## **9 Appendix**

Overview

Appendix 1: English Questionnaire Version

Appendix 2: German Questionnaire Version

Appendix 3: Overview of Participating Companies

Appendix 4: Variable Overview

Appendix 5: Internal Consistency Reliability Analysis

Appendix 6: General Individual-Level Analysis of Normality

Appendix 7: General Group-Level Analysis of Normality

Appendix 8: One-way ANOVA-specific Tests

Appendix 9: Two-way ANOVA-specific Tests

Appendix 10: Regression Results

## 9.1 Appendix 1: English Questionnaire Version

### Questionnaire – Master thesis Cedermark & Viets

#### Introduction

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This survey is part of a master thesis conducted by Robert Cedermark and Johan Hendrik Viets, two students in Business & Management at the Stockholm School of Economics. The collected data will be used to analyze group dynamics in modern organizations.

All answers to this survey will be collected anonymously and stay confidential. It will not take more than 15 minutes to complete this survey of 71 questions.

Within this survey the word team is used as a synonym for a workgroup within your company that you are a member of.

**Thank you very much for taking this survey.**


#### Block 1

---

Your answers will stay anonymous. But in order to analyse your responses, it is necessary for us to ask the following five questions:

##### #1.1

To which team / workgroup do you belong? In your team, please choose a name for your workgroup that will be used by every member in the field below:

 Individual team name \_\_\_\_\_

##### *Attention:*

*This is a test version of the online survey for presentation purposes only. If your organization should decide to take part in this survey, it is possible to predetermine names for the participating teams that can be selected from an optional list.*

## Questionnaire – Master thesis Cedermark & Viets

### #1.2

How many members does your team / workgroup have?

- ☐ 2 members
- ☐ 3 members
- ☐ 4 members
- ☐ 5 members
- ☐ 6 members
- ☐ 7 members
- ☐ 8 members
- ☐ 9 members
- ☐ 10 members
- ☐ More than 10 members

### #1.3

Are you the formal leader of your team / workgroup?

- ☐ Yes
- ☐ No

### #1.4

How long have you been a member of your team / workgroup?

- ☐ Less than one month
- ☐ 1-3 months
- ☐ 3-6 months
- ☐ 6-12 months
- ☐ Longer than one year but less than two years
- ☐ Longer than two years

### #1.5

On average, how often do you meet as a team / workgroup?

- ☐ Multiple times a week
- ☐ Once every week
- ☐ Once every two weeks
- ☐ Once every three weeks
- ☐ Once every four weeks
- ☐ Less than once a month

## Questionnaire – Master thesis Cedermark & Viets











### Block 2

In the following, my organization / this organization is used as a synonym for the company that you currently work for.

**When answering the questions:**

- **Use what comes directly to your mind after reading the statements.**
- **There are no right or wrong answers.**
- **Do not be surprised if your answers seem to be contrary to you.**





























Please read the statements below. Select the answer that most accurately describes your response to the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<b>#2.1</b> This organization has a great deal of personal meaning for me.							
<b>#2.2</b> I am proud to belong to this organization.							
<b>#2.3</b> I feel like part of the family at my organization.							
<b>#2.4</b> I really feel as if this organization's problems are my own.							



## Questionnaire – Master thesis Cedermark & Viets

Please read the statements below. Select the answer that most accurately describes your response to the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<u>#2.5</u> I think I would be guilty if I left my current organization now.							
<u>#2.6</u> I would violate a trust if I left my current organization now.							
<u>#2.7</u> If I got another offer for a better job elsewhere, I would not feel it was right to leave my organization.							
<u>#2.8</u> I would not leave my organization right now, because I have a sense of obligation to certain people who work there.							

## Questionnaire – Master thesis Cedermark & Viets

Please read the statements below. Select the answer that most accurately describes your response to the statement.




































	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<p><u>#2.9</u> I would not leave this organization because of what I would stand to lose.</p>							
<p><u>#2.10</u> For me personally, the costs of leaving this organization would be far greater than the benefits.</p>							
<p><u>#2.11</u> I continue to work for this organization because I don't believe another organization could offer me the benefits I have here.</p>							
<p><u>#2.12</u> I feel that I have too few options to consider leaving this organization.</p>							

## Questionnaire – Master thesis Cedermark & Viets

### Block 3

In the following, my / this team is used as a synonym for the workgroup / project team within your company that you are currently a member of.

Please read the statements below. Select the answer that most accurately describes your response to the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
#3.1 I really feel that I belong in this team.							
#3.2 Being a member of this team has a great deal of personal meaning for me							
#3.3 I am proud to belong to this team.							
#3.4 I feel like part of the family in my team.							
#3.5 I really feel as if this team's problems are my own.							




































## Questionnaire – Master thesis Cedermark & Viets

Please read the statements below. Select the answer that most accurately describes your response to the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<p><u>#3.6</u> It would not be right to leave my current team now, even if it were to my advantage.</p>							
<p><u>#3.7</u> I think I would be guilty if I left my current team now.</p>							
<p><u>#3.8</u> I would violate a trust if I left my current team now.</p>							
<p><u>#3.9</u> If I got another offer for a better job in a different team, I would not feel it was right to leave my current team.</p>							
<p><u>#3.10</u> I would not leave my current team right now, because I have a sense of obligation to certain team members.</p>							

## Questionnaire – Master thesis Cedermark & Viets

Please read the statements below. Select the answer that most accurately describes your response to the statement.

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<u>#3.11</u> I would not leave this team because of what I would stand to lose.							
<u>#3.12</u> For me personally, the costs of leaving this team would be far greater than the benefits.							
<u>#3.13</u> I continue to work for this team because I don't believe another team could offer me the benefits I have in my current team.							
<u>#3.14</u> I have no choice but to stay in this team.							
<u>#3.15</u> I feel that I have too few options to consider leaving this team.							

## Questionnaire – Master thesis Cedermarck & Viets









































### Block 4

Please read the statements below. Select the answer that most accurately describes your response to the statement.

	Never	Rarely	Sometimes	Most of the Time	Always
<b>#4.1</b> The members of my team help others who have been absent.					
<b>#4.2</b> The members of my team help others who have heavy workloads.					
<b>#4.3</b> The members of my team assist the team leader with his or her work (when not asked).					
<b>#4.4</b> The members of my team take time to listen to co-workers' problems and worries.					
<b>#4.5</b> The members of my team go out of their way to help new employees.					
<b>#4.6</b> The members of my team take a personal interest in other employees.					
<b>#4.7</b> The members of my team pass along information to co-workers.					
<b>#4.8</b> In my team, the attendance of group members at work is above the norm (for example, staying after office hours to help clients).					
<b>#4.9</b> The members of my team help people outside the department.					
<b>#4.10</b> The members of my team cover for co-workers.					


























## Questionnaire – Master thesis Cedermarck & Viets

Please read the statements below. Select the answer that most accurately describes your response to the statement.

	Never	Rarely	Sometimes	Most of the Time	Always
<u>#4.11</u> The members of my team give advance notice when unable to come to work.					
<u>#4.12</u> The members of my team arrive at work on time and do not return late after work breaks.					
<u>#4.13</u> The members of my team spend a great deal of time on personal phone conversations and issues irrelevant to work.					
<u>#4.14</u> The members of my team complain about insignificant things at work.					
<u>#4.15</u> The members of my team conserve and protect organizational property.					
<u>#4.16</u> The members of my team have a strong volunteer orientation.					
<u>#4.17</u> The members of my team make innovative suggestions to improve the department.					
<u>#4.18</u> The members of my team coast toward the end of the day.					

## Questionnaire – Master thesis Cedermark & Viets

Please read the statements below. Select the answer that most accurately describes your response to the statement.


















	Never	Rarely	Sometimes	Most of the Time	Always
<u>#4.19</u> The members of my team complete assigned duties adequately.					
<u>#4.20</u> The members of my team fulfill responsibilities specified in their job description.					
<u>#4.21</u> The members of my team fulfill the team leader's expectations.					
<u>#4.22</u> The members of my team meet the formal performance requirements of the job.					
<u>#4.23</u> The members of my team neglect aspects of the job they are obligated to perform.					



## Questionnaire – Master thesis Cedermark & Viets

### Block 5

Answer the following questions according to what you feel is most correct to you:





























	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neutral	Somewhat Satisfied	Satisfied	Very Satisfied
<u>#5.1</u> All in all, how satisfied are you with the persons in your team?							
<u>#5.2</u> All in all, how satisfied are you with the work you do that is related to the team?							
<u>#5.3</u> All in all, how satisfied are you with this team compared to most teams in your organization ?							
<u>#5.4</u> All in all, how satisfied do you feel with your chances for getting ahead in your organization ?							
<u>#5.5</u> All in all, how satisfied are you with your team leader?							

## Questionnaire – Master thesis Cedermarck & Viets

To what extent does each item describe the work environment of your team?

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<u>#5.6</u> I receive encouragement and support from the team leader.							
<u>#5.7</u> In my team, there are positive interactions between the team and the team leader.							
<u>#5.8</u> In my team, goals for the project are clear.							
<u>#5.9</u> I see myself as dependable / self-disciplined.							
<u>#5.10</u> I see myself as disorganized / careless.							
<u>#5.11</u> I feel that work procedures are designed to hear the concerns of all those affected by the decision.							
<u>#5.12</u> I feel that work procedures are designed to provide useful feedback regarding the decision and its implementation.							

### Questionnaire – Master thesis Cedermark & Viets

	Strongly Disagree	Disagree	Somewhat Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
<u>#5.13</u> The leader of my team treats me with kindness and consideration.							
<u>#5.14</u> The leader of team shows concern for my rights as an employee.							
<u>#5.15</u> I feel fairly rewarded for the work I have done well.							
<u>#5.16</u> I feel fairly rewarded for the stresses and strains of my job.							

## 9.2 Appendix 2: German Questionnaire Version

### Fragebogen – Masterarbeit Cedermark & Viets

#### Einleitung

---

Dieser Fragebogen ist Bestandteil der Masterarbeit von Robert Cedermark und Johan Hendrik Viets, Studenten an der Stockholm School of Economics im Bereich Business & Management, und dient der Analyse gruppenspezifischer Zusammenhänge. Alle Antworten zu diesem Fragebogen bleiben anonym und werden vertraulich behandelt. Die Beantwortung der 71 Fragen sollte nicht länger als 15 Minuten Ihrer Zeit in Anspruch nehmen.

Innerhalb der Fragen wird der Begriff „Team“ zur Beschreibung einer Arbeitsgruppe, zu der Sie innerhalb Ihres Unternehmens gehören, genutzt.

Vielen Dank, dass Sie sich die Zeit zum Ausfüllen dieses Fragebogens nehmen.

#### Fragenblock 1

---






Ihre Daten bleiben anonym, doch zur Auswertung Ihres Fragebogens ist es notwendig, dass wir folgende fünf Angaben kennen:

##### #1.1

Welchem Team gehören Sie an? Wählen Sie ein Team aus den nachfolgenden Möglichkeiten aus.

*Sollte Ihr Team nicht vordefiniert sein, so denken Sie sich bitte in Absprache mit Ihren Teammitgliedern einen Teamnamen aus und tragen den individuellen Teamnamen in das entsprechende Feld ein.*

**ACHTUNG: Dies ist eine Testversion des Fragebogens. Sollten Sie sich dazu entschließen an der Studie teilzunehmen, so müssen die Auswahlmöglichkeiten noch vor dem Versenden des Fragebogens abgestimmt und angepasst werden!**

-  Team 1
-  Team "blau"
-  Vertriebsteam
-  Group Controlling
-  Individueller Teamname \_\_\_\_\_

## Fragebogen – Masterarbeit Cedermark & Viets

### #1.2

Wie viele Mitglieder hat Ihr Team?

- ☐ 2 Mitglieder
- ☐ 3 Mitglieder
- ☐ 4 Mitglieder
- ☐ 5 Mitglieder
- ☐ 6 Mitglieder
- ☐ 7 Mitglieder
- ☐ 8 Mitglieder
- ☐ 9 Mitglieder
- ☐ 10 Mitglieder
- ☐ Mehr als 10 Mitglieder

### #1.3

Sind Sie die formelle Leiterin / der formelle Leiter Ihres Teams?

- ☐ Ja
- ☐ Nein

### #1.4

Wie lange sind Sie schon Mitglied Ihres Teams?

- ☐ Seit weniger als einen Monat
- ☐ Seit 1-3 Monaten
- ☐ Seit 3-6 Monaten
- ☐ Seit 6-12 Monaten
- ☐ Länger als ein Jahr aber weniger als zwei Jahre
- ☐ Länger als zwei Jahre

### #1.5

Wie oft nehmen Sie an Meetings Ihres Teams teil?

- ☐ Mehrmals pro Woche
- ☐ Einmal pro Woche
- ☐ Einmal alle zwei Wochen
- ☐ Einmal alle drei Wochen
- ☐ Einmal alle vier Wochen
- ☐ Weniger als einmal pro Monat

## Fragebogen – Masterarbeit Cedermark & Viets

### Fragenblock 2

Für die nachfolgenden Fragen wird „mein Unternehmen“ als Synonym für das Unternehmen, in welchem Sie tätig sind, genutzt.

**Hinweis: Antworten Sie bitte möglichst spontan. Es gibt keine richtige oder falsche Antwort. Wundern Sie sich nicht, falls Ihnen Ihre Antworten widersprüchlich erscheinen.**

Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Trifft ganz und gar nicht zu	Trifft größtenteils nicht zu	Trifft eher nicht zu	Indifferent	Trifft teilweise zu	Trifft größtenteils zu	Trifft voll und ganz zu
#2.1 Dieses Unternehmen bedeutet mir persönlich sehr viel.							
#2.2 Ich bin stolz zu diesem Unternehmen dazuzugehören.							
#2.3 Ich fühle mich als ein Teil der Familie in meinem Unternehmen.							
#2.4 Ich fühle als wären die Probleme meines Unternehmens auch meine eigenen.							

## Fragebogen – Masterarbeit Cedermark & Viets

Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Trifft ganz und gar nicht zu	Trifft größtenteils nicht zu	Trifft eher nicht zu	Indifferent	Trifft teilweise zu	Trifft größtenteils zu	Trifft voll und ganz zu
<u>#2.5</u> Ich würde denken, dass ich mein Unternehmen im Stich lasse, wenn ich es jetzt verlassen würde.							
<u>#2.6</u> Ich fühle mich meinem Unternehmen verpflichtet.							
<u>#2.7</u> Selbst wenn mir woanders ein Job angeboten wird, würde ich es nicht richtig finden, mein Unternehmen zu verlassen.							
<u>#2.8</u> Ich würde zum jetzigen Zeitpunkt mein Unternehmen nicht verlassen, da ich mich einigen Personen in meinem Unternehmen zu sehr verpflichtet fühle.							

## Fragebogen – Masterarbeit Cedermark & Viets

Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Trifft ganz und gar nicht zu	Trifft größtenteils nicht zu	Trifft eher nicht zu	Indifferent	Trifft teilweise zu	Trifft größtenteils zu	Trifft voll und ganz zu
<u>#2.9</u> Ich würde mein Unternehmen nicht verlassen, weil ich vieles, was mir wichtig ist, verlieren könnte.							
<u>#2.10</u> Ich sehe keinen Grund, weshalb ich mich nach einem anderen Job umsehen sollte.							
<u>#2.11</u> Ich bin sehr zufrieden in meinem jetzigen Unternehmen, weil ich nicht denke, dass es ein anderes Unternehmen gibt, welches mir die gleichen Vorteile bieten würde.							
<u>#2.12</u> In meinem Job gibt es keine wirklich gute Alternative, verglichen mit meinem jetzigen Arbeitgeber.							



## Fragebogen – Masterarbeit Cedermark & Viets

### Fragenblock 3

Für die nachfolgenden Fragen wird „dieses / mein Team“ als Synonym für die Arbeitsgruppe genutzt, der Sie innerhalb Ihres Unternehmens zurzeit angehören.





























**Hinweis: Antworten Sie bitte möglichst spontan. Es gibt keine richtige oder falsche Antwort. Wundern Sie sich nicht, falls Ihnen Ihre Antworten widersprüchlich erscheinen.**

Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Trifft ganz und gar nicht zu	Trifft größtenteils nicht zu	Trifft eher nicht zu	Indifferent	Trifft teilweise zu	Trifft größtenteils zu	Trifft voll und ganz zu
<b>#3.1</b> Ich fühle jeden Tag wieder neu die Zugehörigkeit zu meinem Team.							
<b>#3.2</b> Dieses Team bedeutet mir persönlich sehr viel.							
<b>#3.3</b> Ich bin stolz zu diesem Team dazuzugehören.							
<b>#3.4</b> Ich fühle mich als ein Teil der Familie in meinem Team.							
<b>#3.5</b> Ich fühle als wären die Probleme meines Teams auch meine eigenen.							




































## Fragebogen – Masterarbeit Cedermark & Viets

Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Trifft ganz und gar nicht zu	Trifft größtenteils nicht zu	Trifft eher nicht zu	Indifferent	Trifft teilweise zu	Trifft größtenteils zu	Trifft voll und ganz zu
<u>#3.6</u> Es wäre nicht richtig, mein jetziges Team zu verlassen, auch wenn dies zu meinem Vorteil wäre.							
<u>#3.7</u> Ich würde denken, dass ich mein Team im Stich lasse, wenn ich es jetzt verlassen würde.							
<u>#3.8</u> Ich fühle mich meinem Team verpflichtet.							
<u>#3.9</u> Selbst wenn mir ein besserer Job in einem anderen Team angeboten wird, würde ich es nicht richtig finden, mein jetziges Team zu verlassen.							
<u>#3.10</u> Ich würde zum jetzigen Zeitpunkt mein Team nicht verlassen, da ich mich einigen Personen in meinem Team zu sehr verpflichtet fühle.							

## Fragebogen – Masterarbeit Cedermark & Viets



















































Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Trifft ganz und gar nicht zu	Trifft größten teils nicht zu	Trifft eher nicht zu	Indiffe rent	Trifft teilweise zu	Trifft größtent eils zu	Trifft voll und ganz zu
<u>#3.11</u> Ich würde mein Team nicht verlassen, weil ich vieles, was mir wichtig ist, verlieren könnte.							
<u>#3.12</u> Ich sehe keinen Grund, weshalb ich das Team wechseln sollte.							
<u>#3.13</u> Ich bin sehr zufrieden in meinem jetzigen Team, weil ich nicht denke, dass es ein anderes Team gibt, welches mir die gleichen Vorteile bieten würde.							
<u>#3.14</u> Mir bleibt keine andere Wahl als in diesem Team zu bleiben.							
<u>#3.15</u> Ich habe das Gefühl, dass mir die Möglichkeiten fehlen, um dieses Team zu verlassen.							

## Fragebogen – Masterarbeit Cedermark & Viets

### Fragenblock 4

Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Nie	Selten	Manchmal	Meistens	Immer
<u>#4.1</u> Die Mitglieder meines Teams helfen anderen, die abwesend waren.					
<u>#4.2</u> Die Mitglieder meines Teams helfen anderen, die eine hohe Arbeitsbelastung haben.					
<u>#4.3</u> Die Mitglieder meines Teams helfen der Leiterin / dem Leiter der Gruppe mit ihrer / seiner Arbeit (auch unaufgefordert).					
<u>#4.4</u> Die Mitglieder meines Teams nehmen sich Zeit den Kolleginnen / Kollegen zuzuhören, wenn diese ihre Probleme und Ängste mitteilen.					
<u>#4.5</u> Die Mitglieder meines Teams scheuen keine Mühen neuen Kolleginnen und Kollegen zu helfen.					
<u>#4.6</u> Die Mitglieder meines Teams zeigen ein wohlwollendes Interesse für andere Mitarbeiter.					
<u>#4.7</u> Die Mitglieder meines Teams reichen Informationen an ihre Kolleginnen / Kollegen weiter.					
<u>#4.8</u> In meinem Team ist die Bereitschaft Überstunden zu machen überdurchschnittlich.					
<u>#4.9</u> Die Mitglieder meines Teams helfen Personen außerhalb der eigenen Abteilung.					
<u>#4.10</u> Die Mitglieder meines Teams springen für ihre Kolleginnen / Kollegen ein.					


























## Fragebogen – Masterarbeit Cedermark & Viets

Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Nie	Selten	Manchmal	Meistens	Immer
<b>#4.11</b> Die Mitglieder meines Teams kündigen vorher an, wenn es ihnen nicht möglich ist zur Arbeit zu kommen.					
<b>#4.12</b> Die Mitglieder meines Teams kommen pünktlich zur Arbeit und kommen nach Arbeitspausen nicht verspätet zurück.					
<b>#4.13</b> Die Mitglieder meines Teams verbringen sehr viel Zeit mit privaten Telefongesprächen oder anderen Dingen, die für die Arbeit irrelevant sind.					
<b>#4.14</b> Die Mitglieder meines Teams beschwerten sich über unbedeutende Dinge bei der Arbeit.					
<b>#4.15</b> Die Mitglieder meines Teams gehen behutsam mit Firmeneigentum um.					
<b>#4.16</b> Die Mitglieder meines Teams bieten gerne anderen ihre Hilfe an.					
<b>#4.17</b> Die Mitglieder meines Teams machen innovative Vorschläge zur Verbesserung der Abteilung.					
<b>#4.18</b> Die Mitglieder meines Teams legen großen Wert auf ein pünktliches Ende des Arbeitstages.					

## Fragebogen – Masterarbeit Cedermark & Viets



































Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Nie	Selten	Manchmal	Meistens	Immer
<u>#4.19</u> Die Mitglieder meines Teams schließen ihre Aufgaben erfolgreich ab.					
<u>#4.20</u> Die Mitglieder meines Teams erfüllen alle Verantwortungen, die sie gemäß ihrer Jobbeschreibung haben.					
<u>#4.21</u> Die Mitglieder meines Teams erfüllen die Erwartungen ihres Teamleiters.					
<u>#4.22</u> Die Mitglieder meines Teams erfüllen die formellen Leistungsziele ihres Jobs.					
<u>#4.23</u> Die Mitglieder meines Teams kommen einigen wichtigen Aspekten ihres Jobs nicht nach.					

## Fragebogen – Masterarbeit Cedermark & Viets

### Fragenblock 5

Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Überhaupt nicht zufrieden	Unzufri- eden	Eher unzufri- eden	Weder noch	Eher zufried- en	Zufried- en	Sehr zufried- en
<u>#5.1</u> Wie zufrieden sind Sie generell mit den Personen in Ihrem Team?							
<u>#5.2</u> Wie zufrieden sind Sie generell mit der Arbeit, die Sie persönlich innerhalb Ihres Teams verrichten?							
<u>#5.3</u> Wie zufrieden sind Sie generell mit Ihrem Team im Vergleich zu anderen Teams in Ihrem Unternehmen?							
<u>#5.4</u> Wie zufrieden sind Sie generell mit den Aufstiegs- und Karrieremöglichkeiten, die Ihnen in Ihrem Unternehmen geboten werden?							
<u>#5.5</u> Wie zufrieden sind Sie generell mit dem Leiter Ihres Teams?							

## Fragebogen – Masterarbeit Cedermark & Viets

Bitte lesen Sie die nachfolgenden Aussagen einzeln durch und wählen dabei die zu jeder Aussage für Sie am besten passende Antwortmöglichkeit aus.

	Trifft ganz und gar nicht zu	Trifft größtenteils nicht zu	Trifft eher nicht zu	Indifferent	Trifft teilweise zu	Trifft größtenteils zu	Trifft voll und ganz zu
<u>#5.6</u> Der Leiter meines Teams unterstützt und ermutigt mich.							
<u>#5.7</u> Zwischen den Mitgliedern meines Teams und dem Teamleiter finden positive Interaktionen statt.							
<u>#5.8</u> In meinem Team ist sich jeder über die Ziele des Teams im Klaren.							
<u>#5.9</u> Ich sehe mich selbst als zuverlässig / selbst-diszipliniert.							
<u>#5.10</u> Ich sehe mich selbst als unorganisiert / unvorsichtig.							
<u>#5.11</u> Durch die formellen Abläufe in meinem Unternehmen wird es Personen ermöglicht, sich zu Entscheidungen zu äußern, die Sie betreffen.							



## Fragebogen – Masterarbeit Cedermark & Viets

	Trifft ganz und gar nicht zu	Trifft größtenteils nicht zu	Trifft eher nicht zu	Indifferent	Trifft teilweise zu	Trifft größtenteils zu	Trifft voll und ganz zu
<p><b>#5.12</b> Die formellen Abläufe in meinem Unternehmen stellen sicher, dass konstruktives Feedback zu getroffenen Entscheidungen und ausgeführten Umsetzungen fließt.</p>							
<p><b>#5.13</b> Der Leiter meines Teams behandelt mich freundlich und mit Rücksicht.</p>							
<p><b>#5.14</b> Der Leiter meines Teams berücksichtigt meine Arbeitnehmerrechte.</p>							
<p><b>#5.15</b> Mein Unternehmen würdigt/belohnt mich angemessen für die Arbeit, die ich in meinem Job erfolgreich abschließe.</p>							
<p><b>#5.16</b> Mein Unternehmen würdigt/belohnt mich angemessen für den Stress, den ich in meinem Job ausgesetzt bin.</p>							

## 9.3 Appendix 3: Overview of Participating Companies

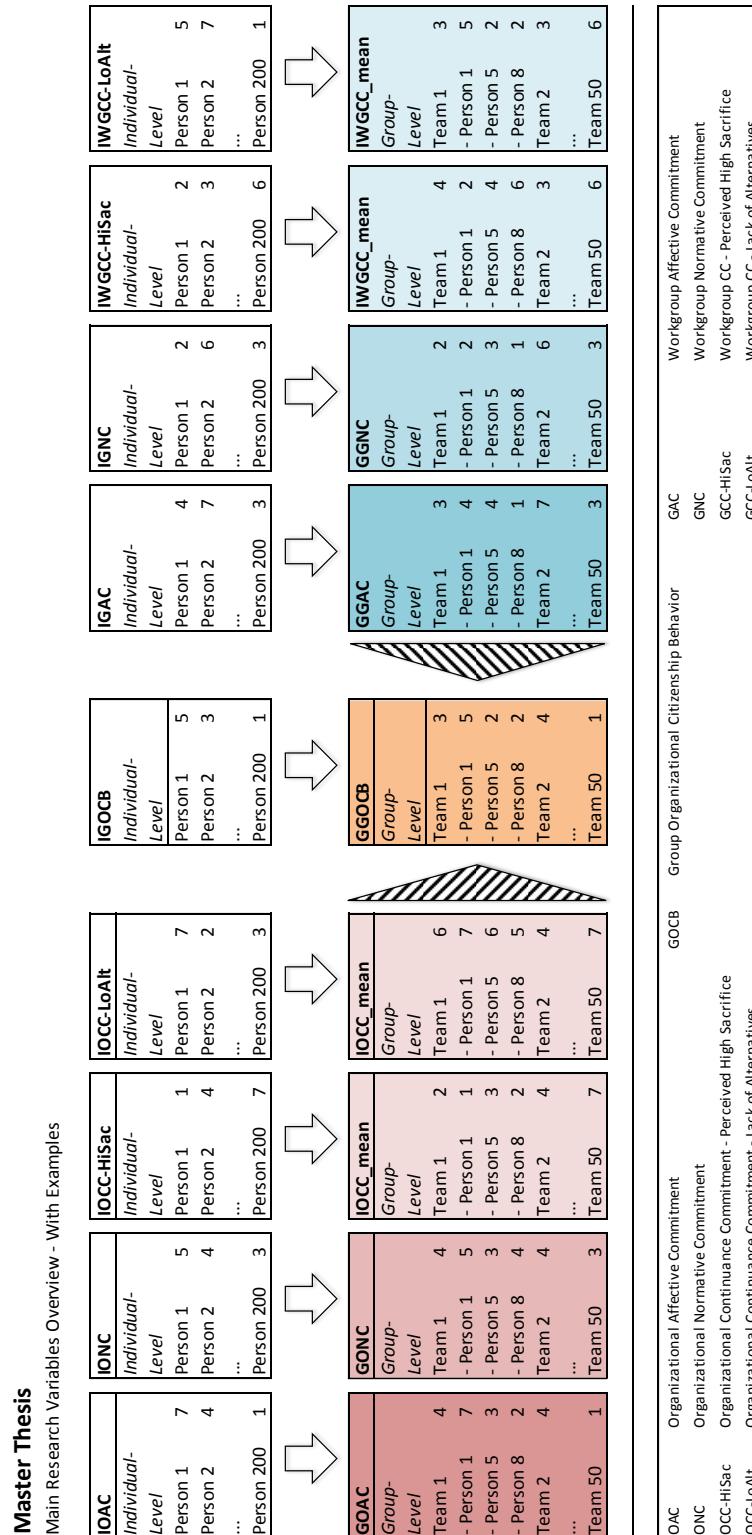
Overview of Participating Companies/Teams							
ID	Country	FTE <sup>1</sup>	SME <sup>2</sup>	Teams participating in the study	Teams used in final study	Surveys started	Surveys completed
				43 Total	33 Total	205 Total	156 Total
<b>Company_A</b>	<b>Germany</b>	<b>370</b>	<b>No</b>	<b>7</b>	<b>7</b>	<b>41</b>	<b>33</b>
Company_A_Team_1		Size: 6		Responses: 3		MPR: <sup>3</sup>	50%
Company_A_Team_2		Size: 5		Responses: 4		MPR: <sup>3</sup>	80%
Company_A_Team_3		Size: 5		Responses: 4		MPR: <sup>3</sup>	80%
Company_A_Team_4		Size: 7		Responses: 4		MPR: <sup>3</sup>	57%
Company_A_Team_5		Size: 5		Responses: 4		MPR: <sup>3</sup>	80%
Company_A_Team_6		Size: 10		Responses: 10		MPR: <sup>3</sup>	100%
Company_A_Team_7		Size: 8		Responses: 4		MPR: <sup>3</sup>	50%
<b>Company_B</b>	<b>Germany</b>	<b>2 000</b>	<b>No</b>	<b>2</b>	<b>1</b>	<b>20</b>	<b>9</b>
Company_B_Team_1		Size: 6		Responses: 5		MPR: <sup>3</sup>	83%
Company_B_Team_2		Size: 6		Responses: 2		MPR: <sup>3</sup>	33%
<b>Company_C</b>	<b>Germany</b>	<b>15</b>	<b>Yes</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>6</b>
Company_C_Team_1		Size: 8		Responses: 6		MPR: <sup>3</sup>	75%
<b>Company_D</b>	<b>Germany</b>	<b>18</b>	<b>Yes</b>	<b>2</b>	<b>1</b>	<b>11</b>	<b>5</b>
Company_D_Team_1		Size: 4		Responses: 4		MPR: <sup>3</sup>	100%
Company_D_Team_2		Size: 5		Responses: 1		MPR: <sup>3</sup>	20%
<b>Company_E</b>	<b>Germany</b>	<b>78</b>	<b>Yes</b>	<b>4</b>	<b>4</b>	<b>12</b>	<b>12</b>
Company_E_Team_1		Size: 3		Responses: 3		MPR: <sup>3</sup>	100%
Company_E_Team_2		Size: 3		Responses: 3		MPR: <sup>3</sup>	100%
Company_E_Team_3		Size: 3		Responses: 3		MPR: <sup>3</sup>	100%
Company_E_Team_4		Size: 4		Responses: 3		MPR: <sup>3</sup>	75%
<b>Company_F</b>	<b>Germany</b>	<b>77</b>	<b>Yes</b>	<b>2</b>	<b>2</b>	<b>11</b>	<b>10</b>
Company_F_Team_1		Size: 5		Responses: 5		MPR: <sup>3</sup>	100%
Company_F_Team_2		Size: 5		Responses: 5		MPR: <sup>3</sup>	100%
<b>Company_G</b>	<b>Germany</b>	<b>6</b>	<b>Yes</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>3</b>
Company_G_Team_1		Size: 3		Responses: 3		MPR: <sup>3</sup>	100%
<b>Company_H</b>	<b>Germany</b>	<b>12</b>	<b>Yes</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>4</b>
Company_H_Team_1		Size: 5		Responses: 4		MPR: <sup>3</sup>	80%
<b>Company_I</b>	<b>Germany</b>		<b>Yes</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>2</b>
Company_I_Team_1		Size: 5		Responses: 2		MPR: <sup>3</sup>	40%
<b>Company_J</b>	<b>Germany</b>	<b>5 000</b>	<b>No</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>3</b>
Company_J_Team_1		Size: 5		Responses: 3		MPR: <sup>3</sup>	60%
<b>Company_K</b>	<b>Germany</b>	<b>16 158</b>	<b>No</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>2</b>
Company_K_Team_1		Size: 4		Responses: 2		MPR: <sup>3</sup>	50%
<b>Company_L</b>	<b>Germany</b>		<b>Yes</b>	<b>1</b>	<b>1</b>	<b>6</b>	<b>3</b>
Company_L_Team_1		Size: 5		Responses: 3		MPR: <sup>3</sup>	60%
<b>Company_M</b>	<b>Germany</b>	<b>90</b>	<b>Yes</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>3</b>
Company_M_Team_1		Size: 3		Responses: 3		MPR: <sup>3</sup>	100%
<b>Company_N</b>	<b>Sweden</b>	<b>34</b>	<b>Yes</b>	<b>1</b>	<b>1</b>	<b>9</b>	<b>6</b>
Company_N_Team_1		Size: 10		Responses: 5		MPR: <sup>3</sup>	50%
<b>Company_O</b>	<b>Sweden</b>	<b>704</b>	<b>No</b>	<b>2</b>	<b>2</b>	<b>8</b>	<b>6</b>
Company_O_Team_1		Size: 4		Responses: 3		MPR: <sup>3</sup>	75%
Company_O_Team_2		Size: 3		Responses: 3		MPR: <sup>3</sup>	100%
<b>Company_P</b>	<b>Sweden</b>	<b>464</b>	<b>No</b>	<b>3</b>	<b>3</b>	<b>17</b>	<b>16</b>
Company_P_Team_1		Size: 10		Responses: 8		MPR: <sup>3</sup>	80%
Company_P_Team_2		Size: 4		Responses: 4		MPR: <sup>3</sup>	100%
Company_P_Team_3		Size: 6		Responses: 3		MPR: <sup>3</sup>	50%
<b>Company_Q</b>	<b>Sweden</b>	<b>25</b>	<b>Yes</b>	<b>5</b>	<b>1</b>	<b>12</b>	<b>10</b>
Company_Q_Team_1		Size: 5		Responses: 1		MPR: <sup>3</sup>	20%
Company_Q_Team_2		Size: 5		Responses: 4		MPR: <sup>3</sup>	80%
Company_Q_Team_3		Size: 5		Responses: 1		MPR: <sup>3</sup>	20%
Company_Q_Team_4		Size: 5		Responses: 1		MPR: <sup>3</sup>	20%
Company_Q_Team_5		Size: 6		Responses: 2		MPR: <sup>3</sup>	33%
<b>Company_R</b>	<b>Sweden</b>	<b>14 897</b>	<b>No</b>	<b>4</b>	<b>2</b>	<b>16</b>	<b>14</b>
Company_R_Team_1		Size: 3		Responses: 3		MPR: <sup>3</sup>	100%
Company_R_Team_2		Size: 10		Responses: 8		MPR: <sup>3</sup>	80%
Company_R_Team_3		Size: 3		Responses: 1		MPR: <sup>3</sup>	33%
Company_R_Team_4		Size: 6		Responses: 2		MPR: <sup>3</sup>	33%
<b>Company_S</b>	<b>Sweden</b>	<b>161</b>	<b>Yes</b>	<b>3</b>	<b>2</b>	<b>12</b>	<b>9</b>
Company_S_Team_1		Size: 3		Responses: 3		MPR: <sup>3</sup>	100%
Company_S_Team_2		Size: 7		Responses: 4		MPR: <sup>3</sup>	57%
Company_S_Team_3		Size: 5		Responses: 2		MPR: <sup>3</sup>	40%
<sup>1</sup> Fulltime Equivalent							
<sup>2</sup> Small and Medium-sized Enterprise							
<sup>3</sup> Member Participation Rate							

Overview of Participating Companies							
ID	Country	FTE <sup>1</sup>	SME <sup>2</sup>	Teams participating in the study	Teams used in final study	Surveys started	Surveys completed
				43 Total	33 Total	205 Total	156 Total
Company_A	Germany	370	No	7	7	41	33
Company_B	Germany	2 000	No	2	1	20	9
Company_C	Germany	15	Yes	1	1	7	6
Company_D	Germany	18	Yes	2	1	11	5
Company_E	Germany	78	Yes	4	4	12	12
Company_F	Germany	77	Yes	2	2	11	10
Company_G	Germany	6	Yes	1	1	3	3
Company_H	Germany	12	Yes	1	1	4	4
Company_I	Germany		Yes	1	0	6	2
Company_J	Germany	5 000	No	1	1	3	3
Company_K	Germany	16 158	No	1	1	4	2
Company_L	Germany		Yes	1	1	6	3
Company_M	Germany	90	Yes	1	1	3	3
Company_N	Sweden	34	Yes	1	1	9	6
Company_O	Sweden	704	No	2	2	8	6
Company_P	Sweden	464	No	3	3	17	16
Company_Q	Sweden	25	Yes	5	1	12	10
Company_R	Sweden	14 897	No	4	2	16	14
Company_S	Sweden	161	Yes	3	2	12	9
<sup>1</sup> Fulltime Equivalent							
<sup>2</sup> Small and Medium-sized Enterprise							

Overview of Participating Teams				
ID	Country	Team size	Responses	Member Participation Rate
Company_A_Team_1	Germany	6	3	50%
Company_A_Team_2	Germany	5	4	80%
Company_A_Team_3	Germany	5	4	80%
Company_A_Team_4	Germany	7	4	57%
Company_A_Team_5	Germany	5	4	80%
Company_A_Team_6	Germany	10	10	100%
Company_A_Team_7	Germany	8	4	50%
Company_B_Team_1	Germany	6	5	83%
Company_B_Team_2	Germany	6	2	33%
Company_C_Team_1	Germany	8	6	75%
Company_D_Team_1	Germany	4	4	100%
Company_D_Team_2	Germany	5	1	20%
Company_E_Team_1	Germany	3	3	100%
Company_E_Team_2	Germany	3	3	100%
Company_E_Team_3	Germany	3	3	100%
Company_E_Team_4	Germany	4	3	75%
Company_F_Team_1	Germany	5	5	100%
Company_F_Team_2	Germany	5	5	100%
Company_G_Team_1	Germany	3	3	100%
Company_H_Team_1	Germany	5	4	80%
Company_I_Team_1	Germany	5	2	40%
Company_J_Team_1	Germany	5	3	60%
Company_K_Team_1	Germany	4	2	50%
Company_L_Team_1	Germany	5	3	60%
Company_M_Team_1	Germany	3	3	100%
Company_N_Team_1	Sweden	10	5	50%
Company_O_Team_1	Sweden	4	3	75%
Company_O_Team_2	Sweden	3	3	100%
Company_P_Team_1	Sweden	10	8	80%
Company_P_Team_2	Sweden	4	4	100%
Company_P_Team_3	Sweden	6	3	50%
Company_Q_Team_1	Sweden	5	1	20%
Company_Q_Team_2	Sweden	5	4	80%
Company_Q_Team_3	Sweden	5	1	20%
Company_Q_Team_4	Sweden	5	1	20%
Company_Q_Team_5	Sweden	6	2	33%
Company_R_Team_1	Sweden	3	3	100%
Company_R_Team_2	Sweden	10	8	80%
Company_R_Team_3	Sweden	3	1	33%
Company_R_Team_4	Sweden	6	2	33%
Company_S_Team_1	Sweden	3	3	100%
Company_S_Team_2	Sweden	7	4	57%
Company_S_Team_3	Sweden	5	2	40%

## 9.4 Appendix 4: Variable Overview

Since data was collected on the individual-level but analyzed on the group-level, the capital letter I in front of the variable name was used to display that the variable's data is on the individual-level, whereas the letter G in front of variables was used to display aggregated group-level analysis, e.g. IGAC (individual-level workgroup affective commitment) vs. GGAC (aggregated group-level workgroup affective commitment). A chart of the main variables is outlined in the image below



## 9.5 Appendix 5: Internal Consistency Reliability Analysis

GOCB

**Case Processing Summary**

COUNTRY			N	%
Sweden	Cases	Valid	50	100,0
		Excluded <sup>a</sup>	0	,0
		Total	50	100,0
Germany	Cases	Valid	88	100,0
		Excluded <sup>a</sup>	0	,0
		Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,809	,809	18
Germany	,898	,904	18

OAC

**Case Processing Summary**

COUNTRY			N	%
Sweden	Cases	Valid	50	100,0
		Excluded <sup>a</sup>	0	,0
		Total	50	100,0
Germany	Cases	Valid	88	100,0
		Excluded <sup>a</sup>	0	,0
		Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,751	,796	4
Germany	,858	,862	4

**Case Processing Summary**

COUNTRY			N	%
Sweden	Cases	Valid	50	100,0
		Excluded <sup>a</sup>	0	,0
		Total	50	100,0
Germany	Cases	Valid	88	100,0
		Excluded <sup>a</sup>	0	,0
		Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,934	,935	4
Germany	,855	,855	4

**Case Processing Summary**

COUNTRY			N	%
Sweden	Cases	Valid	50	100,0
		Excluded <sup>a</sup>	0	,0
		Total	50	100,0
Germany	Cases	Valid	88	100,0
		Excluded <sup>a</sup>	0	,0
		Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,778	,783	3
Germany	,828	,828	3

**Case Processing Summary**

COUNTRY			N	%
Sweden	Cases	Valid	50	100,0
		Excluded <sup>a</sup>	0	,0
		Total	50	100,0
Germany	Cases	Valid	88	100,0
		Excluded <sup>a</sup>	0	,0
		Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,866	,884	5
Germany	,869	,872	5

**Case Processing Summary**

COUNTRY			N	%
Sweden	Cases	Valid	50	100,0
		Excluded <sup>a</sup>	0	,0
		Total	50	100,0
Germany	Cases	Valid	88	100,0
		Excluded <sup>a</sup>	0	,0
		Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,959	,959	5
Germany	,921	,923	5



**Case Processing Summary**

COUNTRY			N	%
Sweden	Cases	Valid	50	100,0
		Excluded <sup>a</sup>	0	,0
		Total	50	100,0
Germany	Cases	Valid	88	100,0
		Excluded <sup>a</sup>	0	,0
		Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,848	,849	3
Germany	,830	,830	3

**Case Processing Summary**

COUNTRY			N	%
Sweden	Cases	Valid	50	100,0
		Excluded <sup>a</sup>	0	,0
		Total	50	100,0
Germany	Cases	Valid	88	100,0
		Excluded <sup>a</sup>	0	,0
		Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

**Reliability Statistics**

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,521	,521	2
Germany	,777	,778	2

### Inter-Item Correlation Matrix

COUNTRY	I have no choice but to stay in this team.	I feel that I have too few options to consider leaving this team.
Sweden I have no choice but to stay in this team.	1,000	,353
I feel that I have too few options to consider leaving this team.	,353	1,000
Germany I have no choice but to stay in this team.	1,000	,636
I feel that I have too few options to consider leaving this team.	,636	1,000

SATIS

### Case Processing Summary

COUNTRY	N	%
Sweden Cases Valid	43	86,0
Excluded <sup>a</sup>	7	14,0
Total	50	100,0
Germany Cases Valid	70	79,5
Excluded <sup>a</sup>	18	20,5
Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,614	,664	5
Germany	,795	,805	5

**Inter-Item Correlation Matrix**

COUNTRY		All in all, how satisfied are you with the persons in your team?	All in all, how satisfied are you with the work you do that is related to the team?	All in all, how satisfied are you with this team compared to most teams in your organization?	All in all, how satisfied do you feel with your chances for getting ahead in your organization?	All in all, how satisfied are you with your team leader?
Sweden	All in all, how satisfied are you with the persons in your team?	1,000	,275	,703	,099	,446
	All in all, how satisfied are you with the work you do that is related to the team?	,275	1,000	,154	,182	,281
	All in all, how satisfied are you with this team compared to most teams in your organization?	,703	,154	1,000	,103	,286
	All in all, how satisfied do you feel with your chances for getting ahead in your organization?	,099	,182	,103	1,000	,299
	All in all, how satisfied are you with your team leader?	,446	,281	,286	,299	1,000

Germany	All in all, how satisfied are you with the persons in your team?	1,000	,178	,745	,334	,582
	All in all, how satisfied are you with the work you do that is related to the team?	,178	1,000	,277	,420	,420
	All in all, how satisfied are you with this team compared to most teams in your organization?	,745	,277	1,000	,378	,586
	All in all, how satisfied do you feel with your chances for getting ahead in your organization?	,334	,420	,378	1,000	,602
	All in all, how satisfied are you with your team leader?	,582	,420	,586	,602	1,000

#### Leader Support

##### Case Processing Summary

COUNTRY			N	%
Sweden	Cases	Valid	43	86,0
		Excluded <sup>a</sup>	7	14,0
		Total	50	100,0
Germany	Cases	Valid	70	79,5
		Excluded <sup>a</sup>	18	20,5
		Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,579	,591	3
Germany	,846	,861	3

### Inter-Item Correlation Matrix

COUNTRY	I receive encouragement and support from the team leader.	In my team, there are positive interactions between the team and the team leader.	In my team, goals for the project are clear.
Sweden I receive encouragement and support from the team leader.	1,000	,481	,299
In my team, there are positive interactions between the team and the team leader.	,481	1,000	,194
In my team, goals for the project are clear.	,299	,194	1,000
Germany I receive encouragement and support from the team leader.	1,000	,734	,602
In my team, there are positive interactions between the team and the team leader.	,734	1,000	,687
In my team, goals for the project are clear.	,602	,687	1,000

Conscientiousness

### Case Processing Summary

COUNTRY		N	%
Sweden	Cases	Valid	50
		Excluded <sup>a</sup>	0
		Total	50
Germany	Cases	Valid	88
		Excluded <sup>a</sup>	0
		Total	88

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,405	,425	2
Germany	,481	,528	2

### Inter-Item Correlation Matrix

COUNTRY	I see myself as dependable / self-disciplined.	I see myself as disorganized / careless.
Sweden I see myself as dependable / self-disciplined.	1,000	,270
I see myself as disorganized / careless.	,270	1,000
Germany I see myself as dependable / self-disciplined.	1,000	,359
I see myself as disorganized / careless.	,359	1,000

### Organizational Justice

### Case Processing Summary

COUNTRY		N	%
Sweden	Cases Valid	43	86,0
	Excluded <sup>a</sup>	7	14,0
	Total	50	100,0
Germany	Cases Valid	70	79,5
	Excluded <sup>a</sup>	18	20,5
	Total	88	100,0

a. Listwise deletion based on all variables in the procedure.

### Reliability Statistics

COUNTRY	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Sweden	,860	,865	6
Germany	,865	,863	6

## 9.6 Appendix 6: General Individual-Level Analysis of Normality

Percentiles							
	5	10	25	50	75	90	95
IGOCB			3,64		4,25		
IOAC	2,74	3,50	4,50	5,50	6,00	6,75	6,76
IONC	1,50	2,25	3,44	4,50	5,50	6,50	7,00
IOCC_HiSac	2,00	2,33	3,67	4,67	5,67	6,67	7,00
IOCC_LoAlt	1,00	1,00	2,00	4,00	6,00	6,10	7,00
IGAC	2,99	3,78	4,75	5,50	6,20	6,80	7,00
IGNC	1,60	2,00	3,80	4,60	5,85	6,60	6,81
IGCC_HiSac	1,67	2,00	3,33	4,67	6,00	6,67	7,00
IGCC_LoAlt	1,00	1,00	2,00	2,75	4,00	5,00	6,00
ISATIS	3,80	4,59	5,20	5,80	6,20	6,60	7,00
ILSUP	4,13	4,33	5,33	6,00	6,67	7,00	7,00
ICONS	4,00	4,50	6,00	6,00	7,00	7,00	7,00
IOJUS	3,20	3,75	4,96	5,67	6,00	6,33	6,67

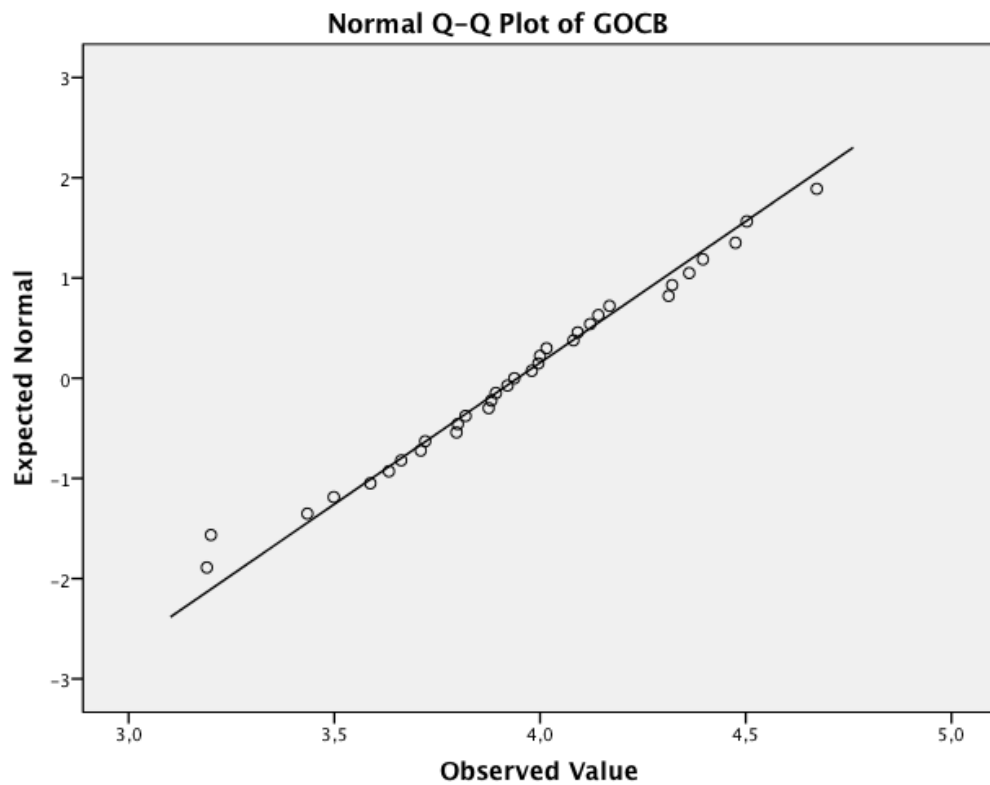
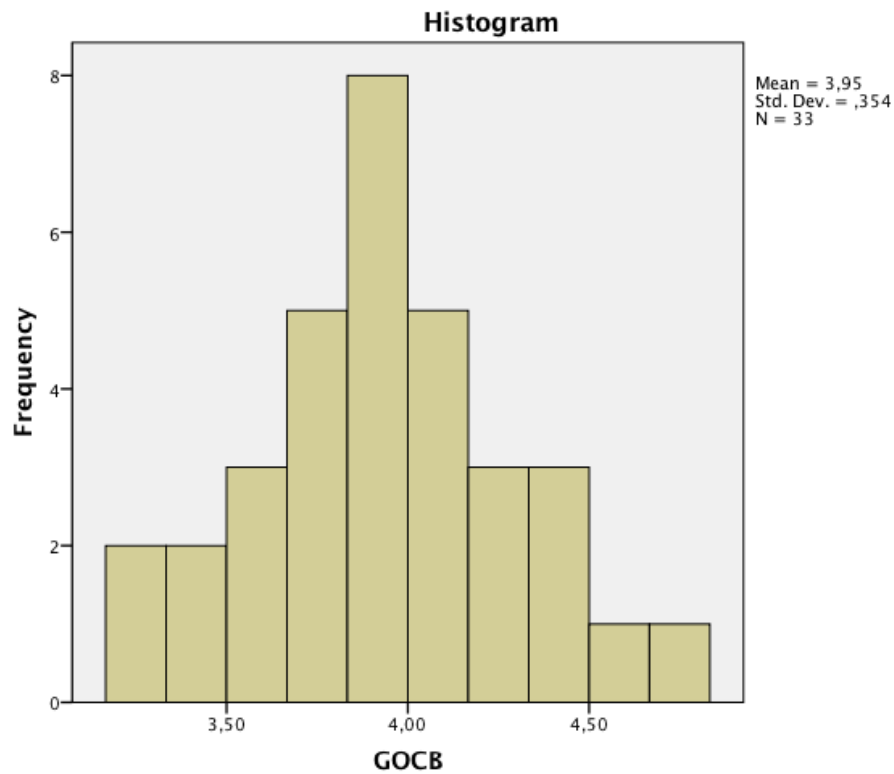
### Identified and Winsorized Outliers

	Outlier Labeling Rule <sup>a</sup>		Winsorizing				
	Lower Limit	Upper Limit	Outlier Cases			Winsorized to Value	Winsorizing Factor
IGOCB	2,28	5,61	-	-	-	-	-
IOAC	1,20	9,30	C92 (1,00)	-	-	-> 1,50	0,7%
IONC	-1,10	10,04	-	-	-	-	-
IOCC_HiSac	-0,73	10,07	-	-	-	-	-
IOCC_LoAlt	-6,80	14,80	-	-	-	-	-
IGAC	1,56	9,39	-	-	-	-	-
IGNC	-0,71	10,36	-	-	-	-	-
IGCC_HiSac	-2,53	11,87	-	-	-	-	-
IGCC_LoAlt	-2,40	8,40	-	-	-	-	-
ISATIS	3,00	8,40	-	-	-	-	-
ILSUP	2,40	9,60	-	-	-	-	-
ICONS	3,80	9,20	C13 (3,00)	C116 (3,50)	C120 (3,50)	-> 4,00	2,2%
IOJUS	2,00	8,75	C68 (2,50)	-	-	-> 2,83	0,7%
						Overall	3,6%

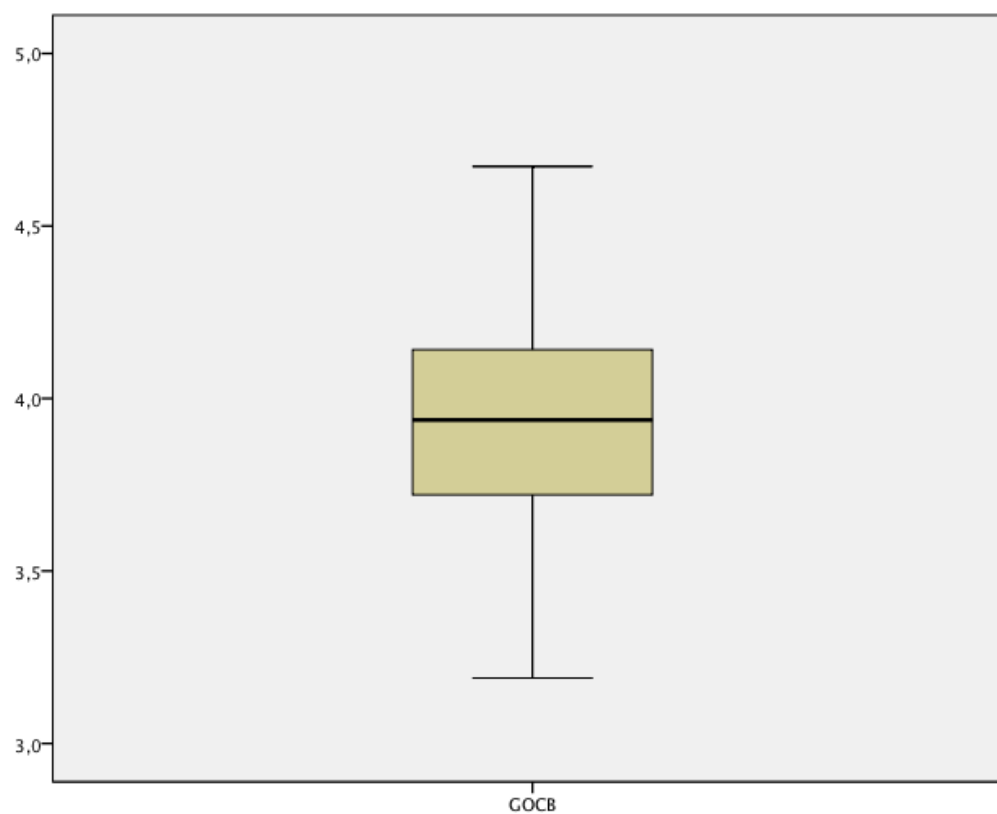
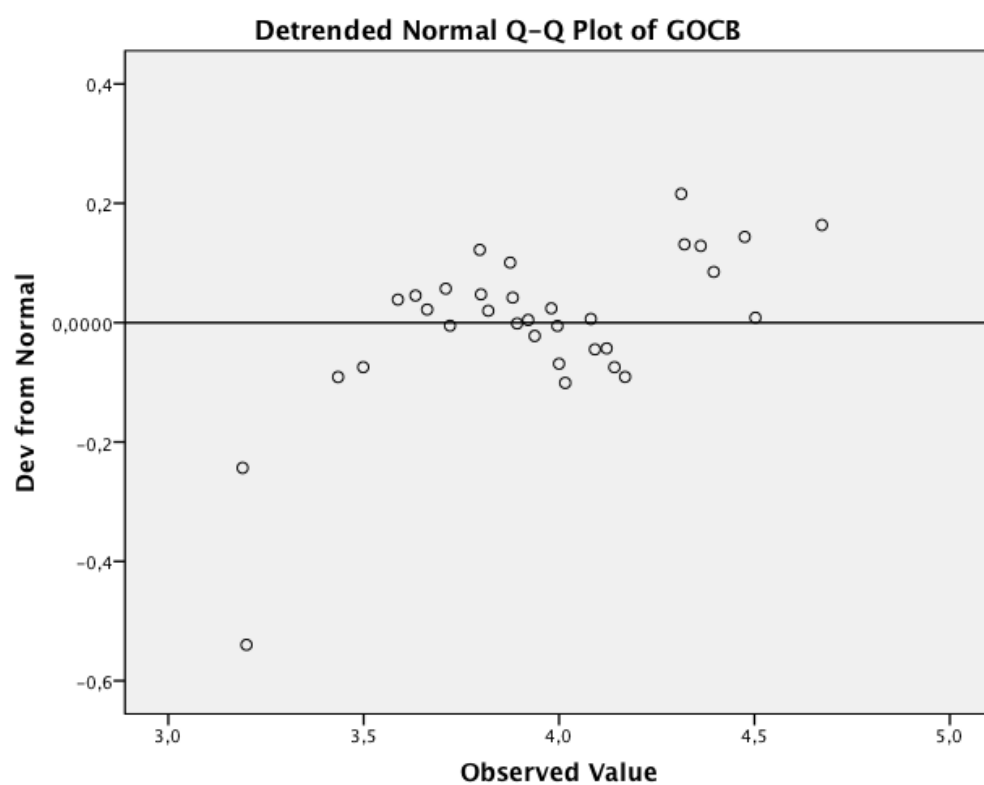
<sup>a</sup>g=2.2

## 9.7 Appendix 7: General Group-Level Analysis of Normality

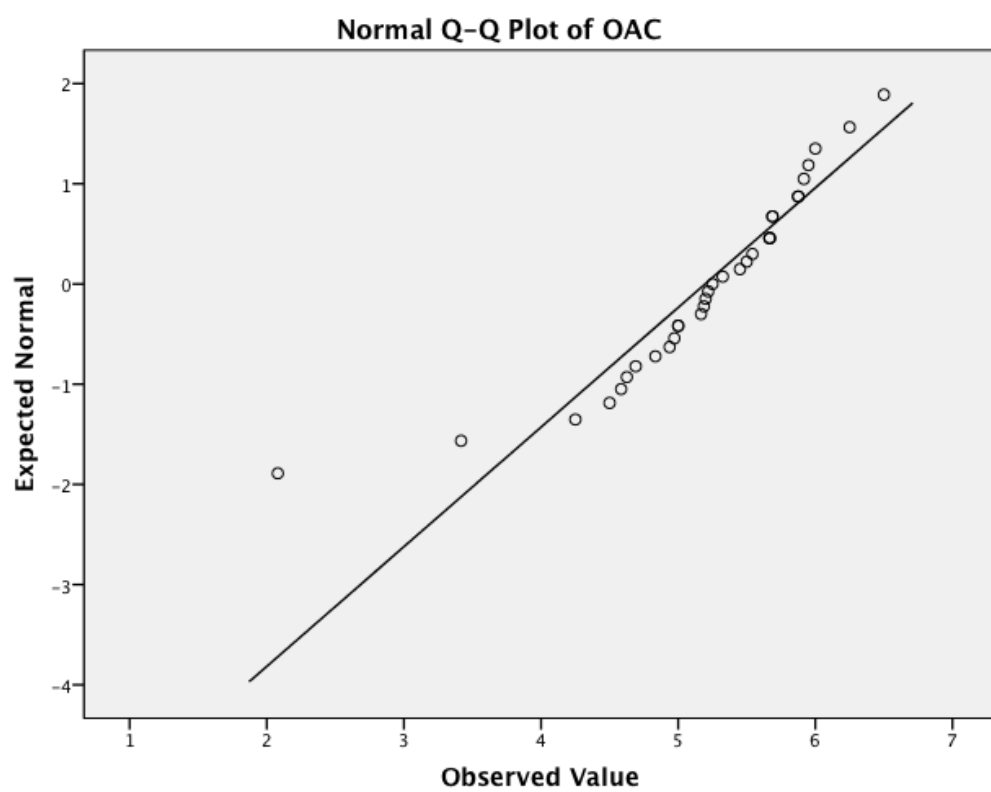
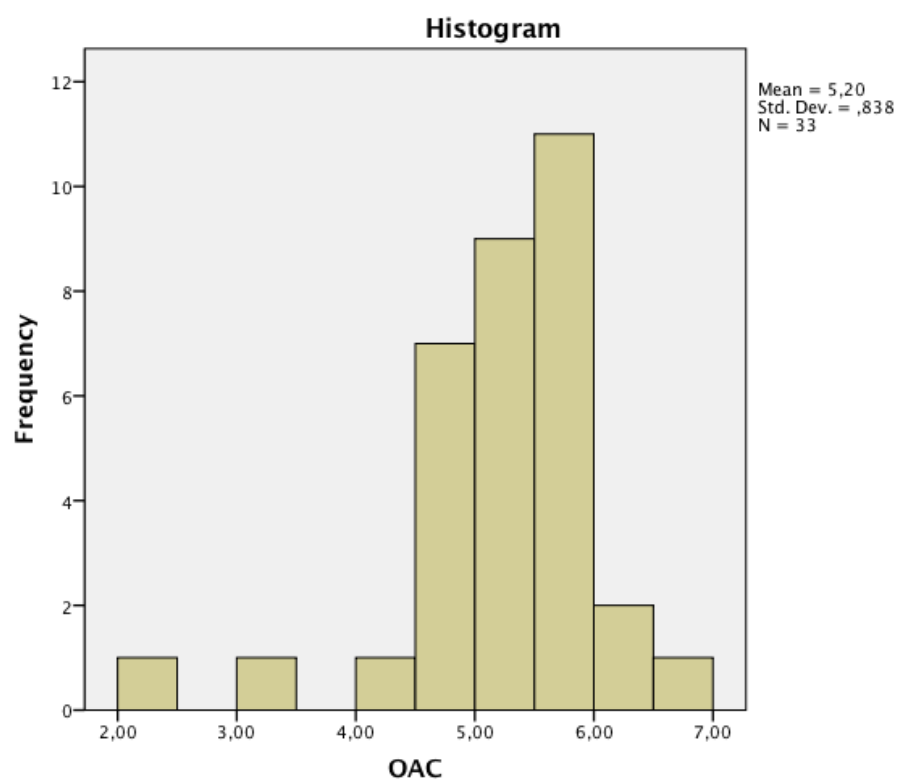
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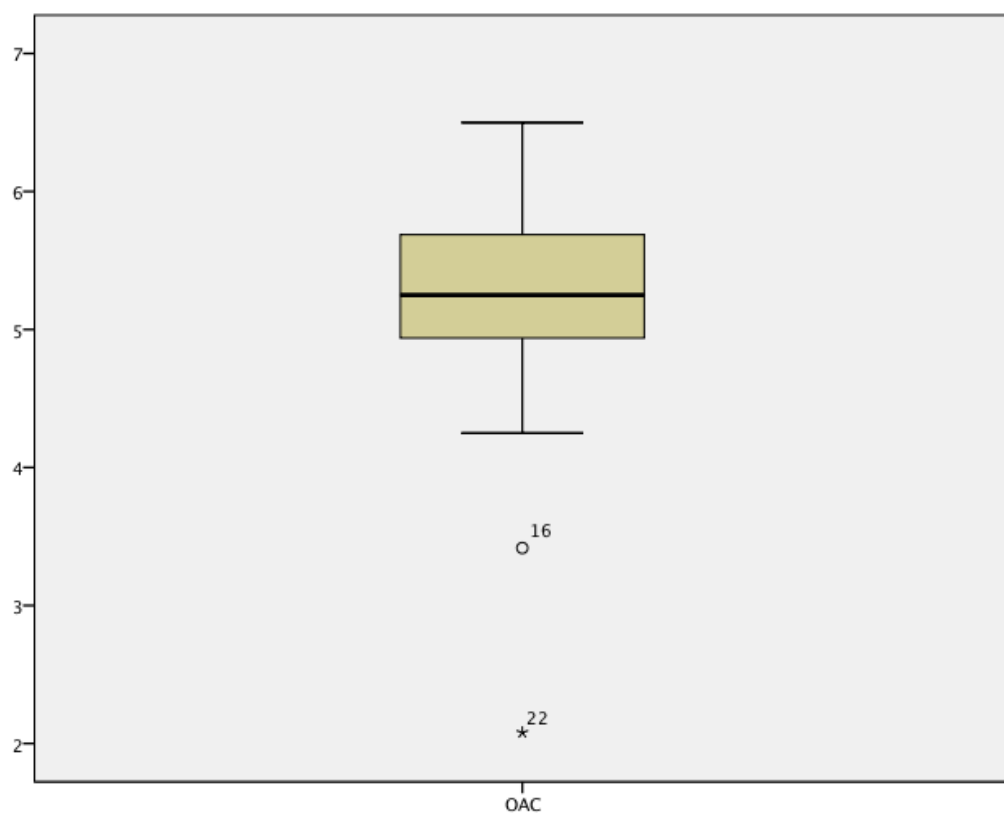
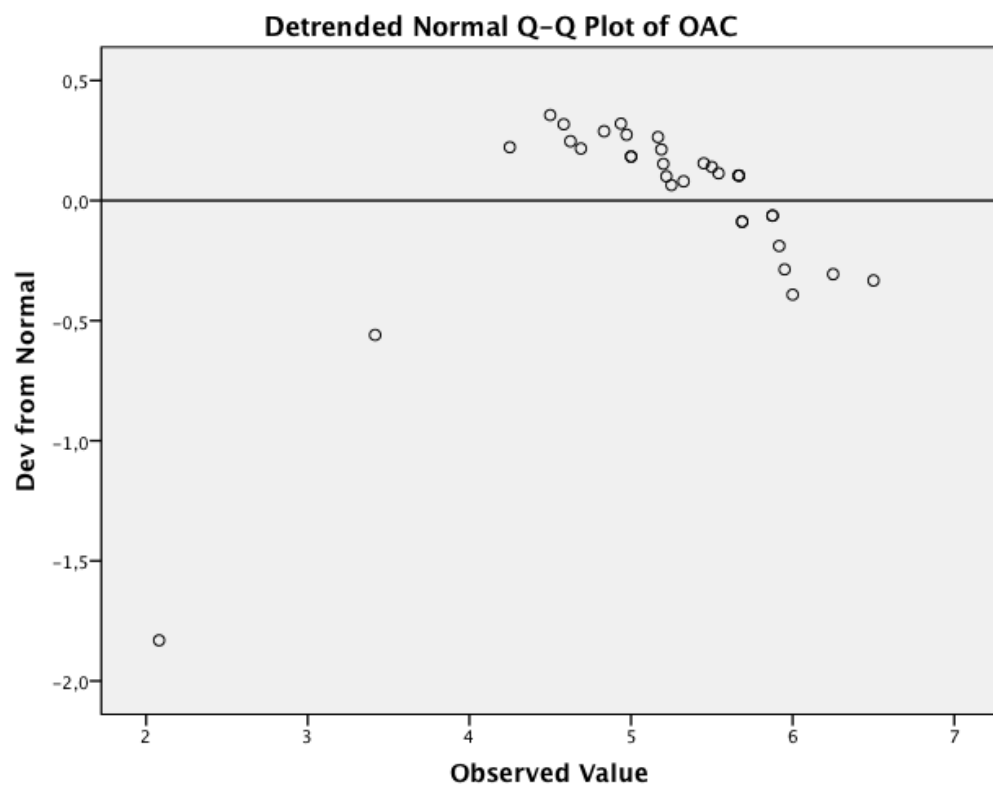




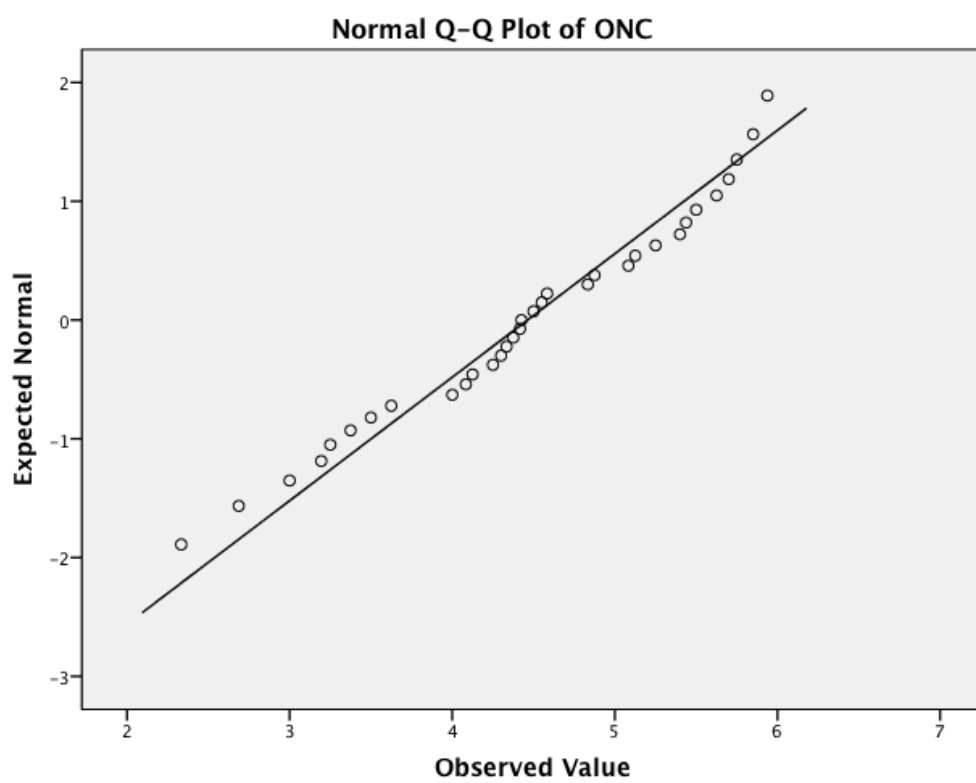
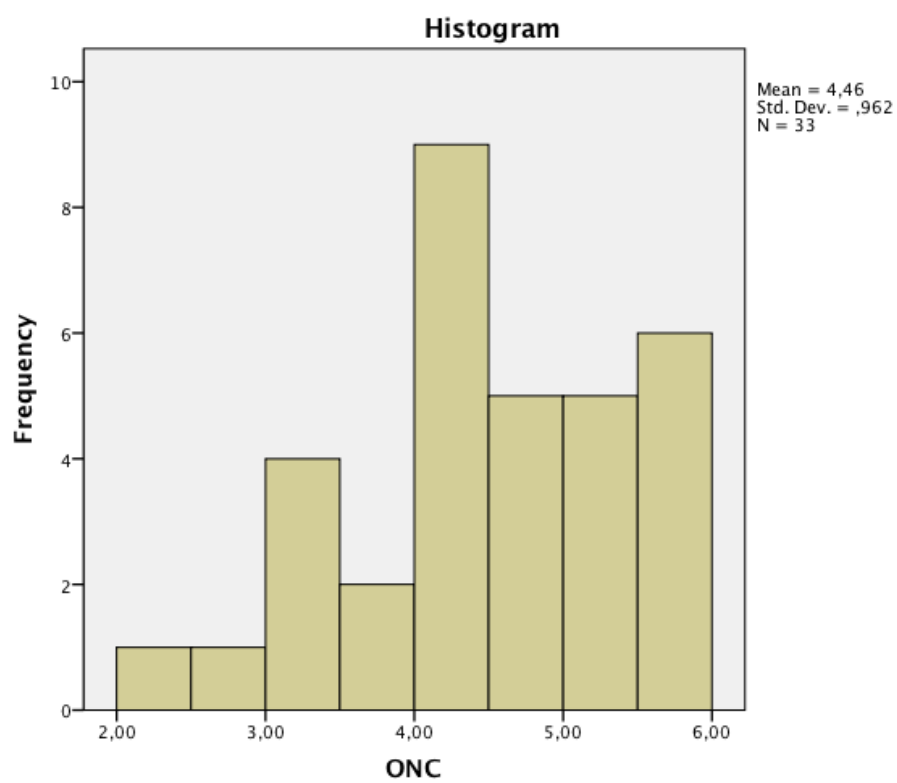


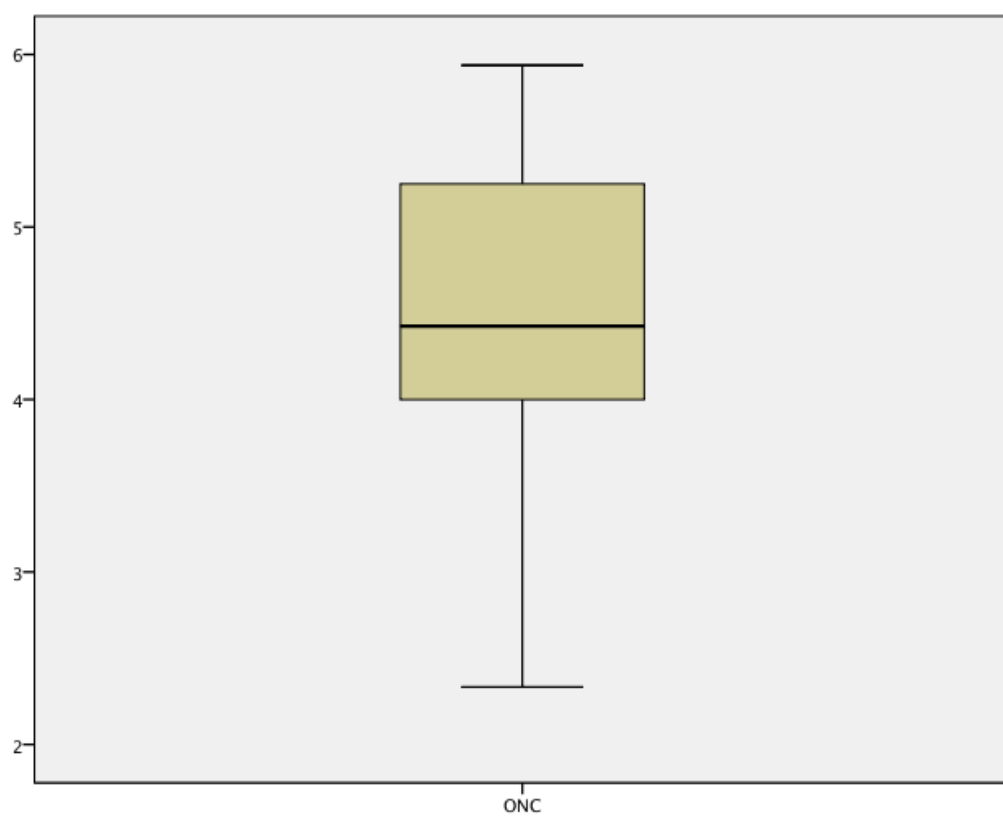
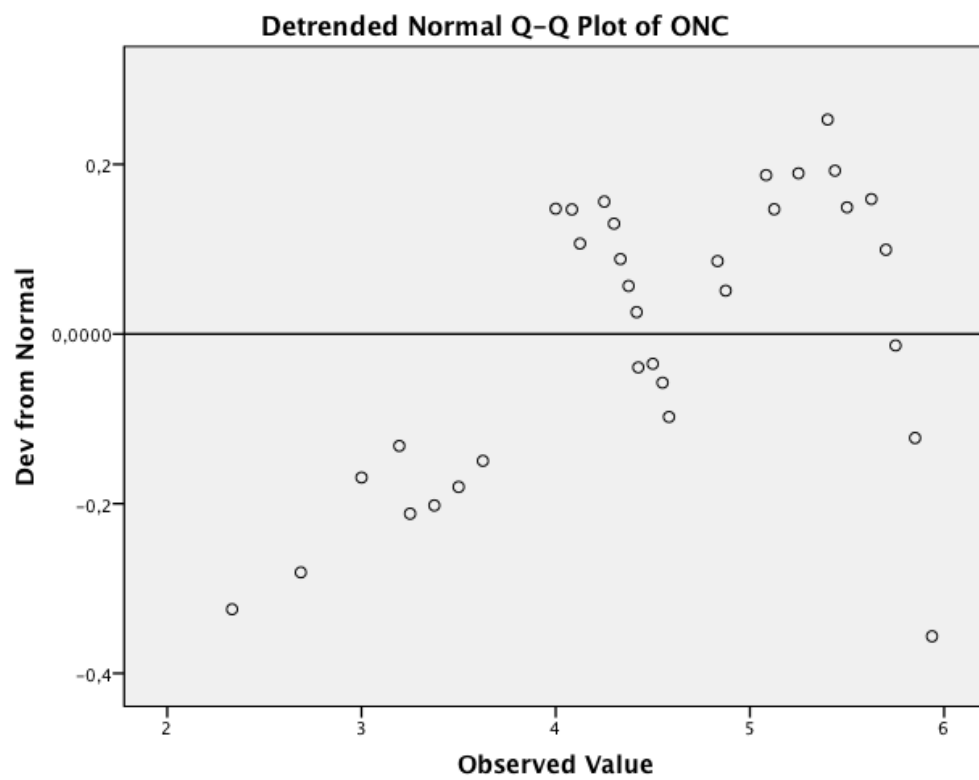
# OAC



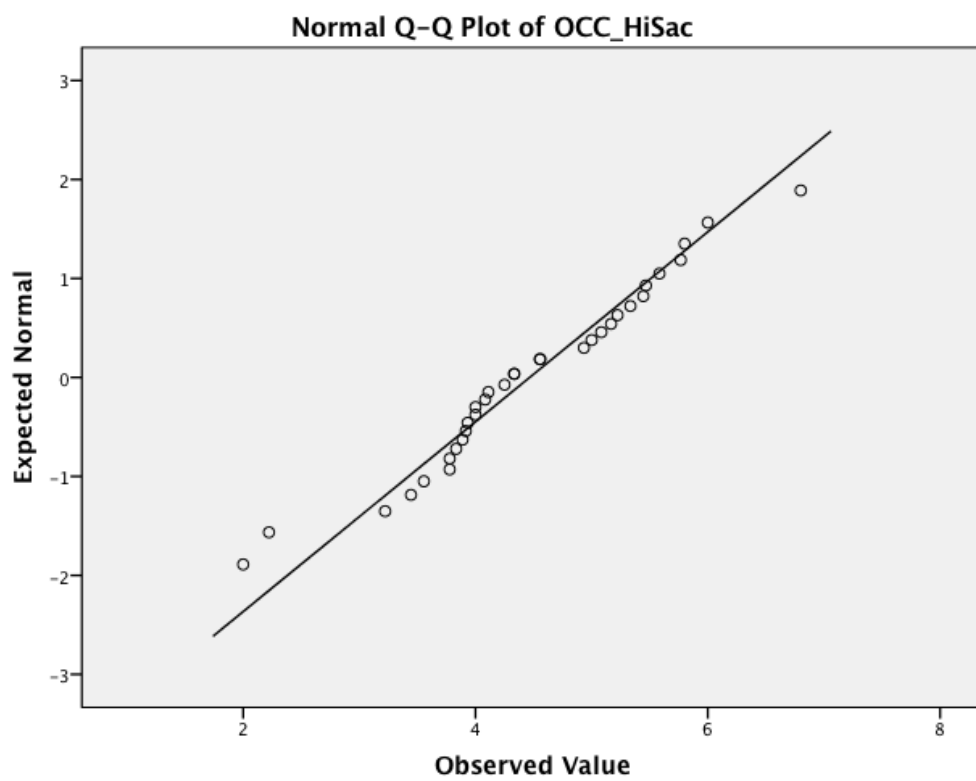
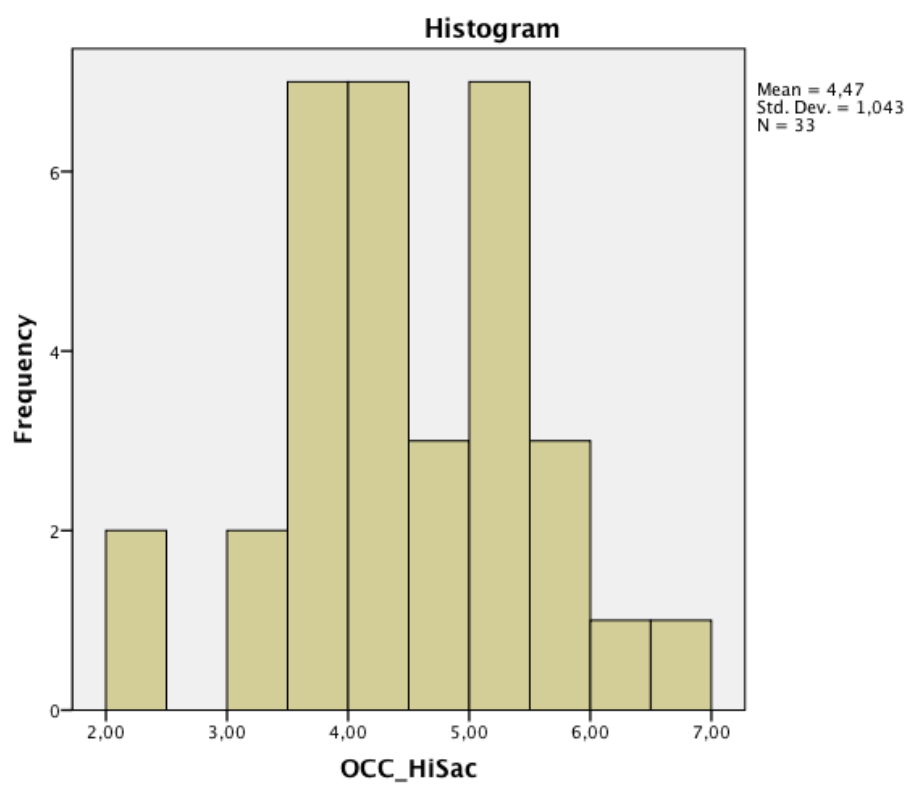


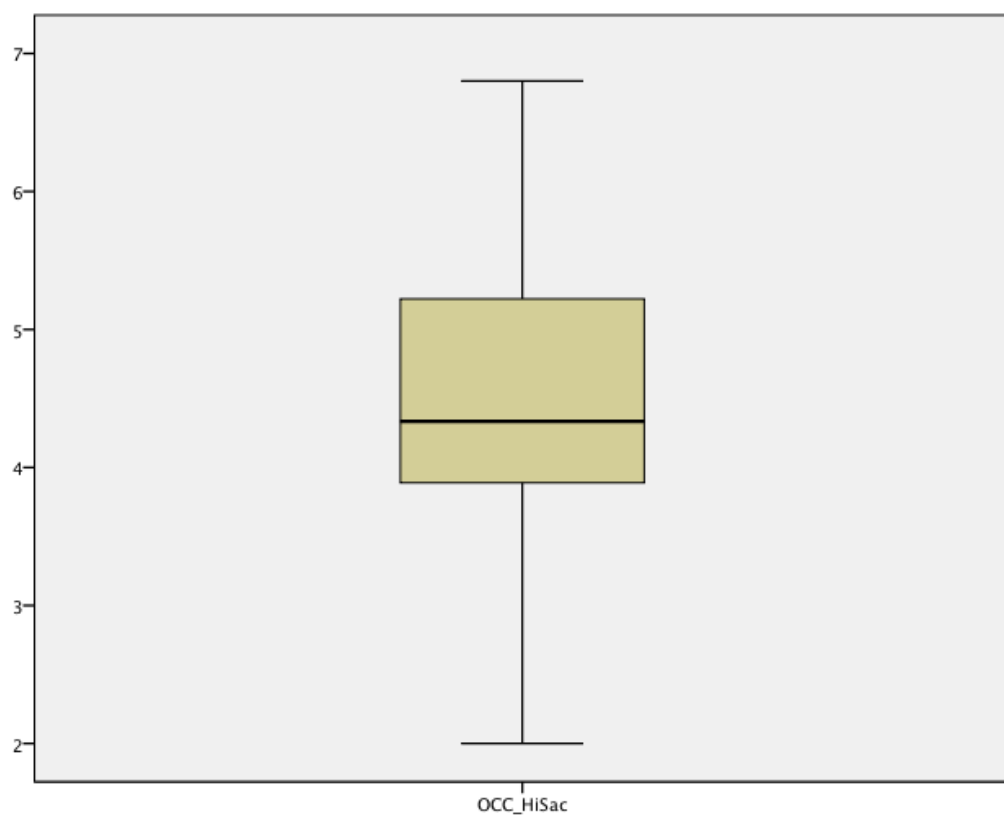
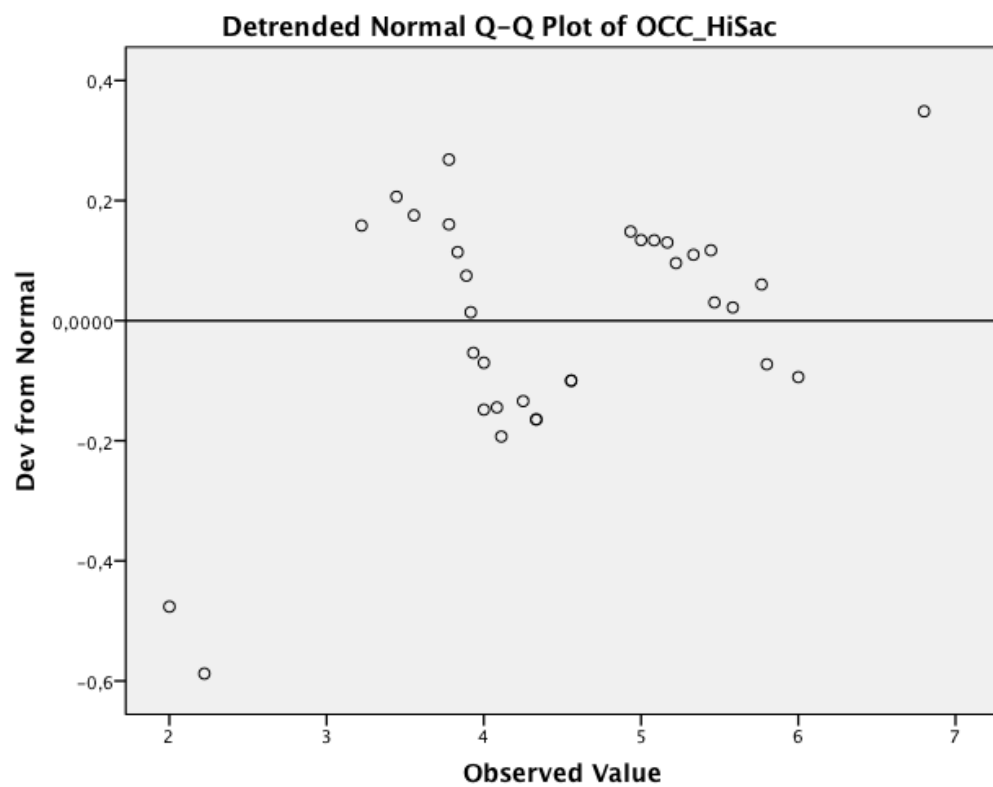
# ONC



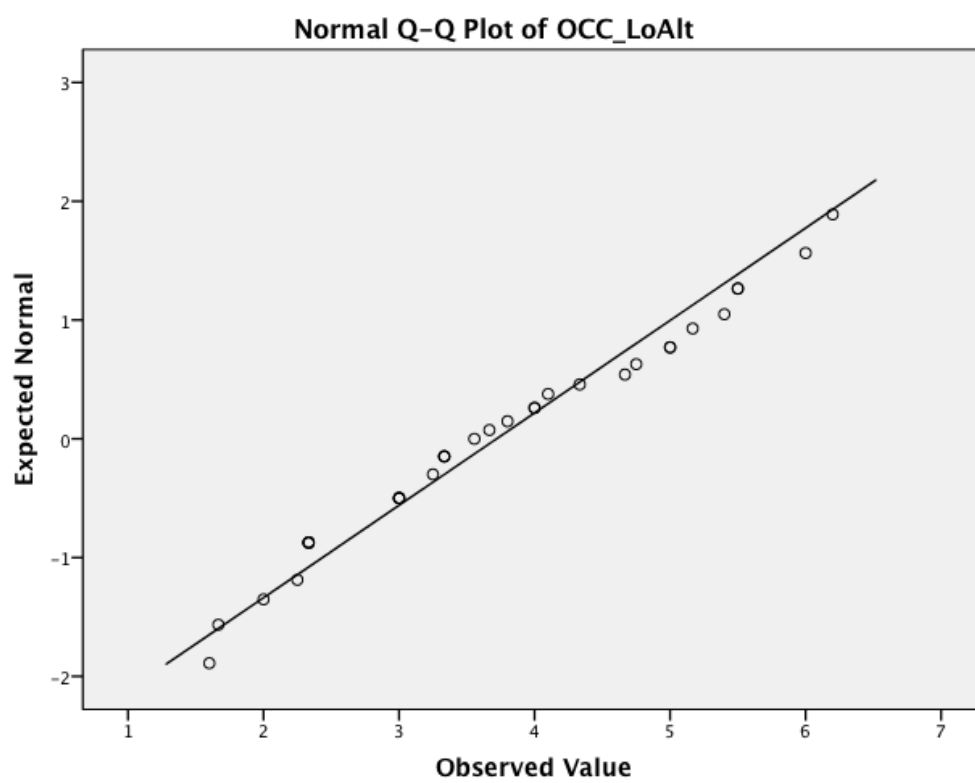
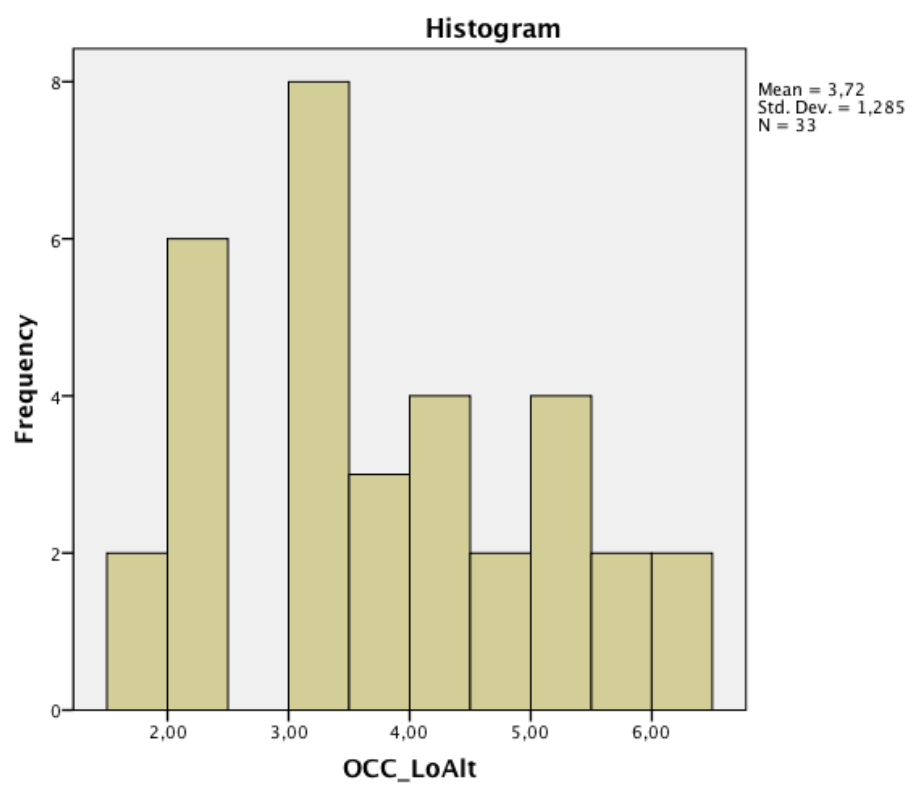


## OCC\_HiSac

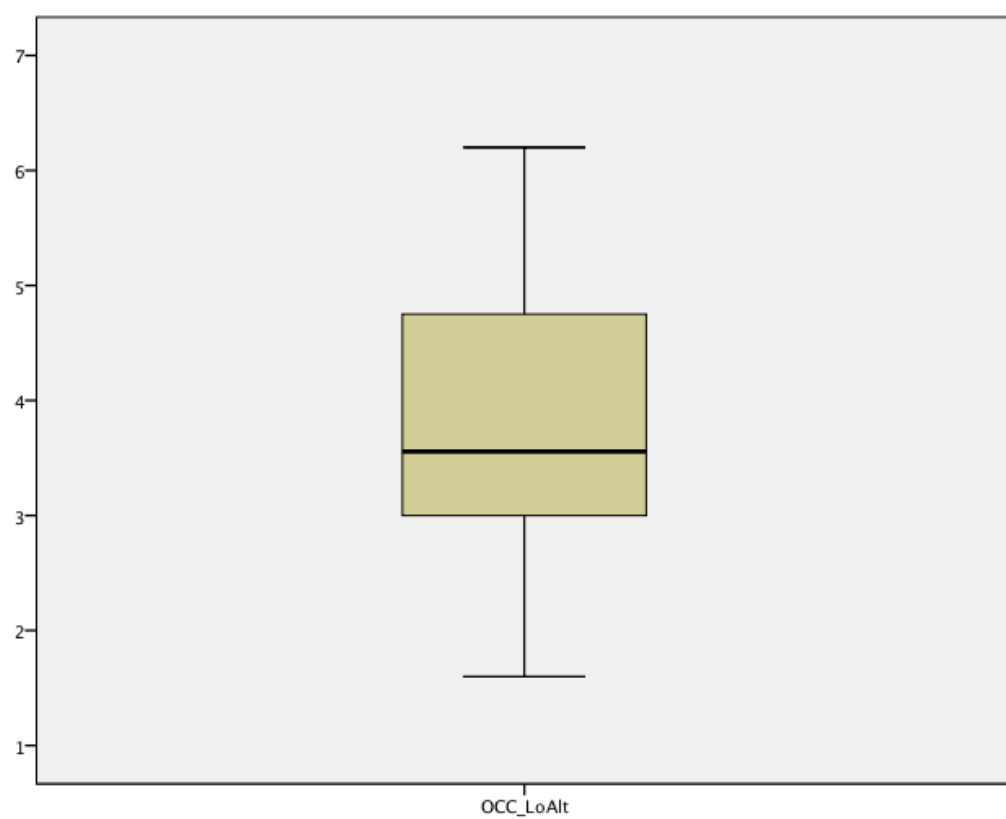
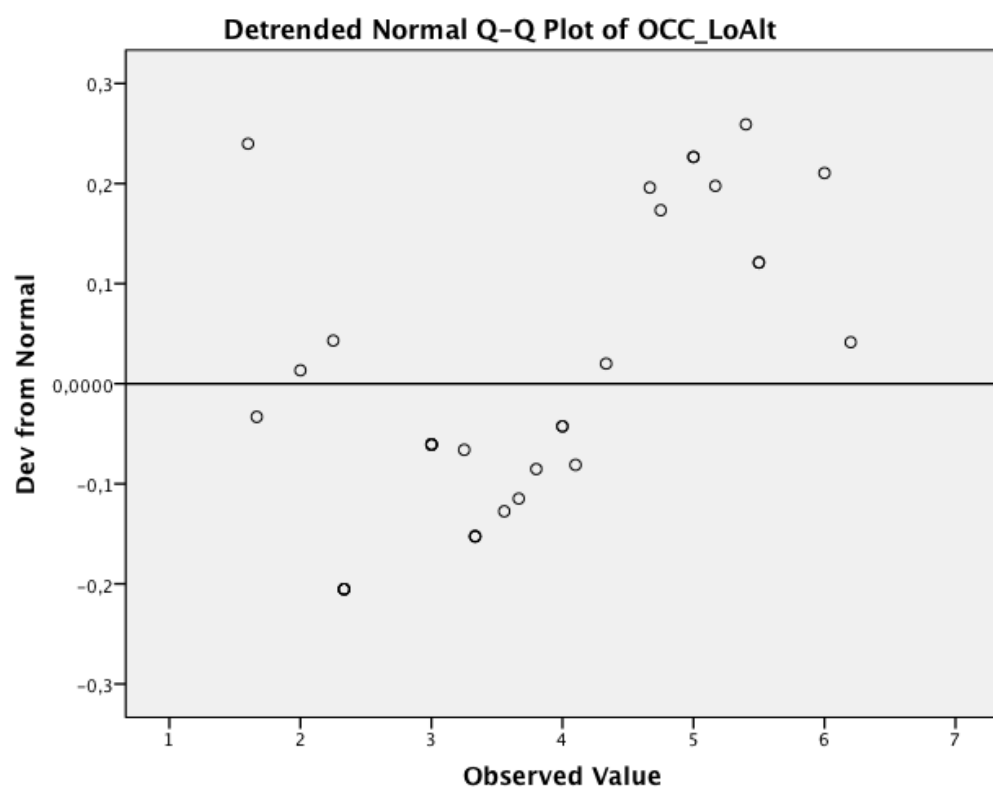




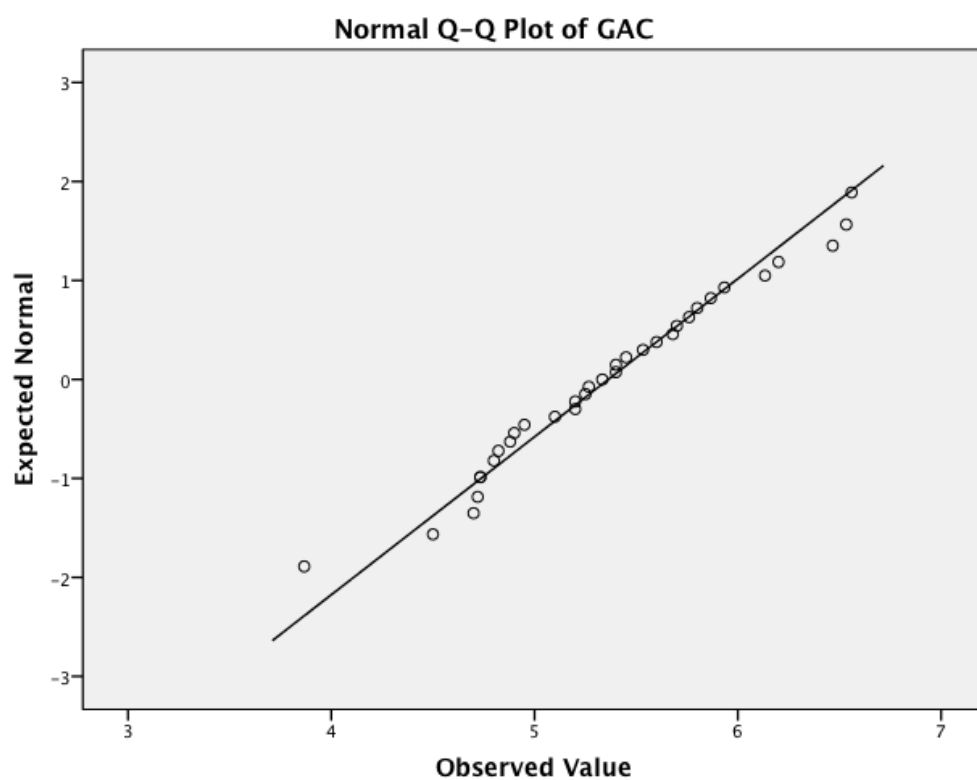
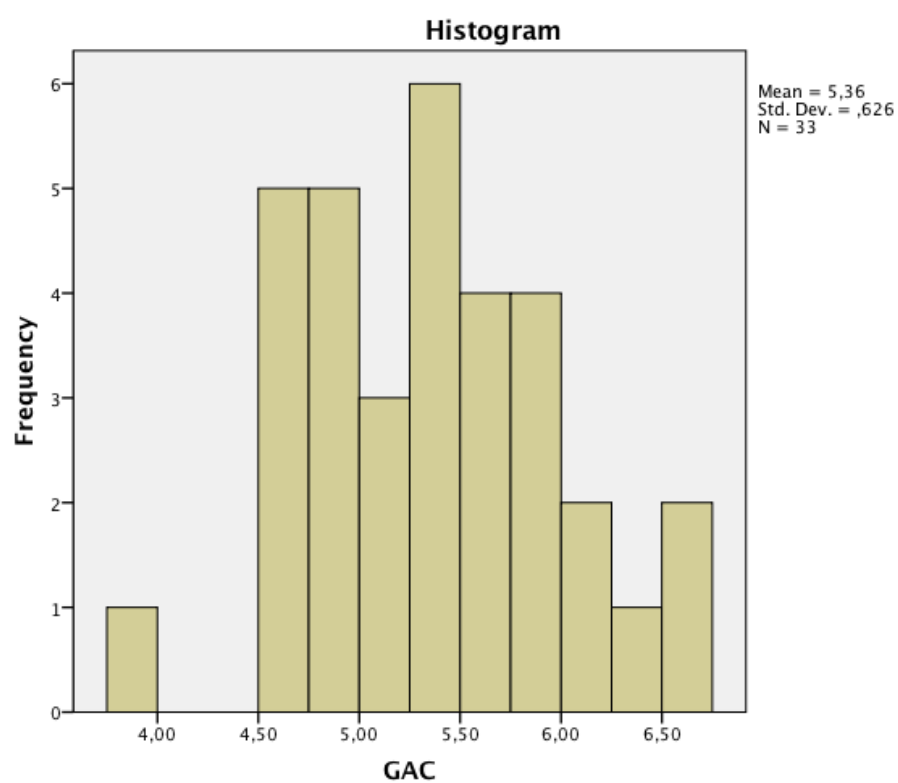
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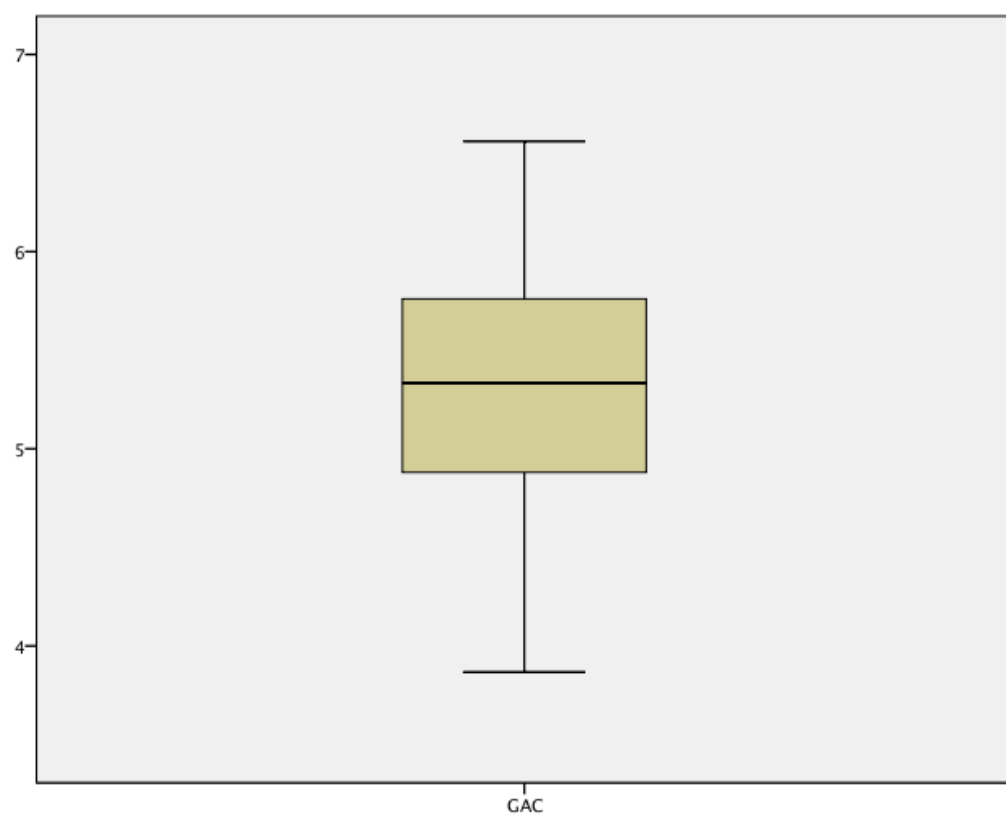
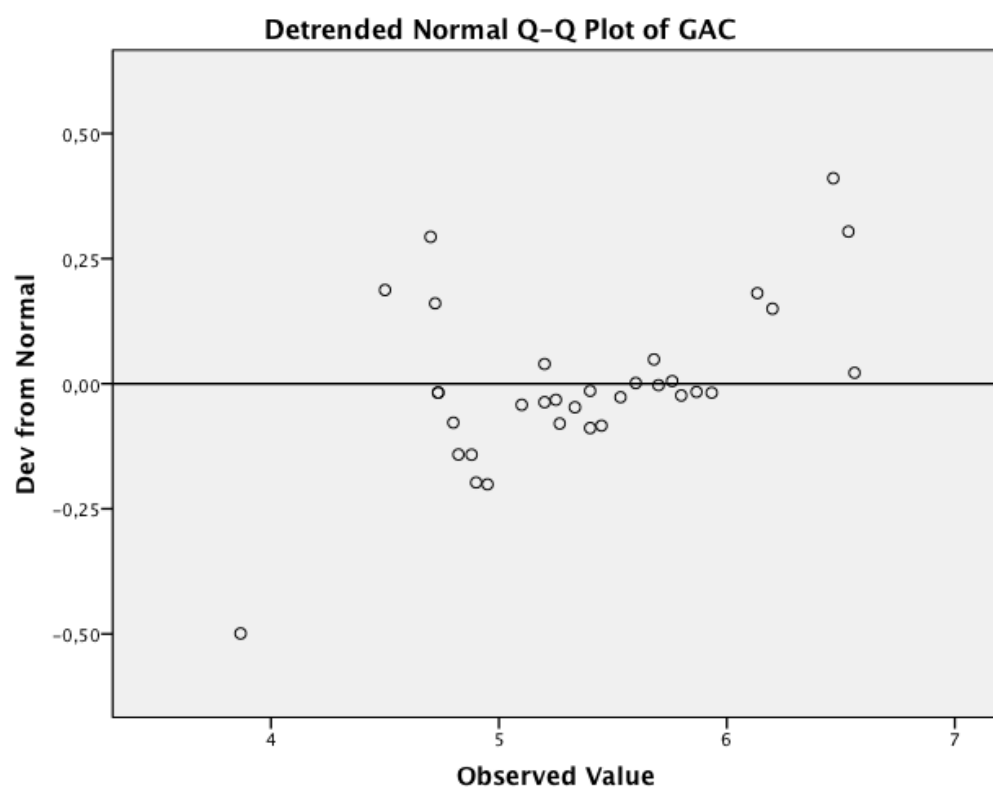




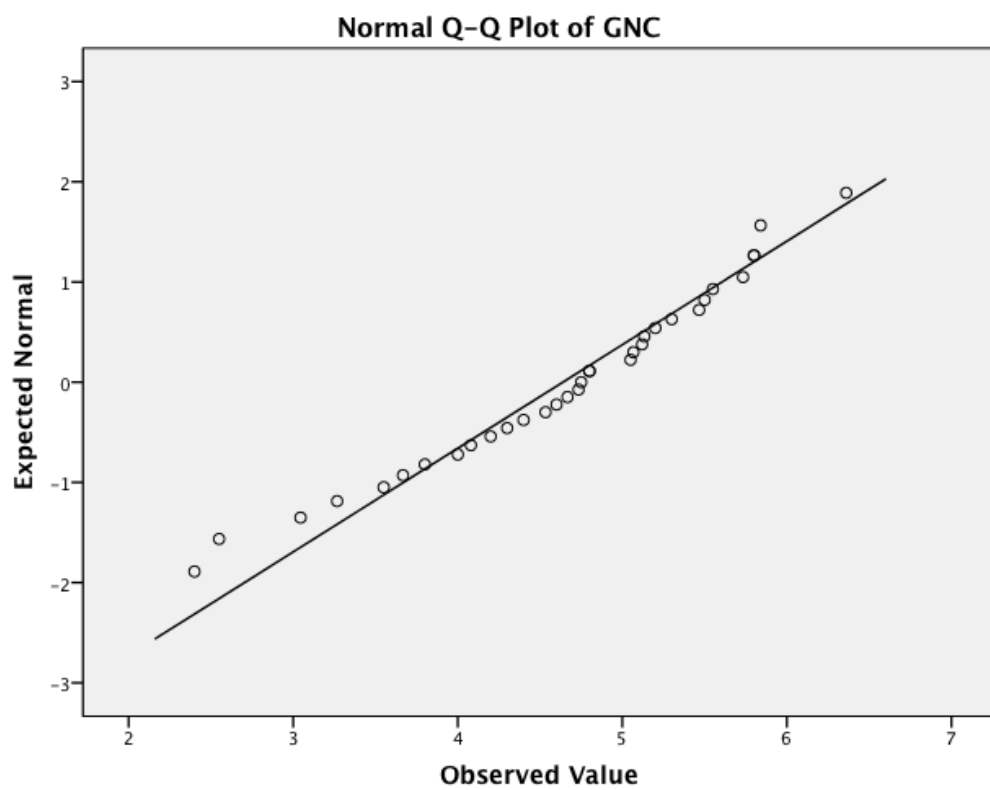
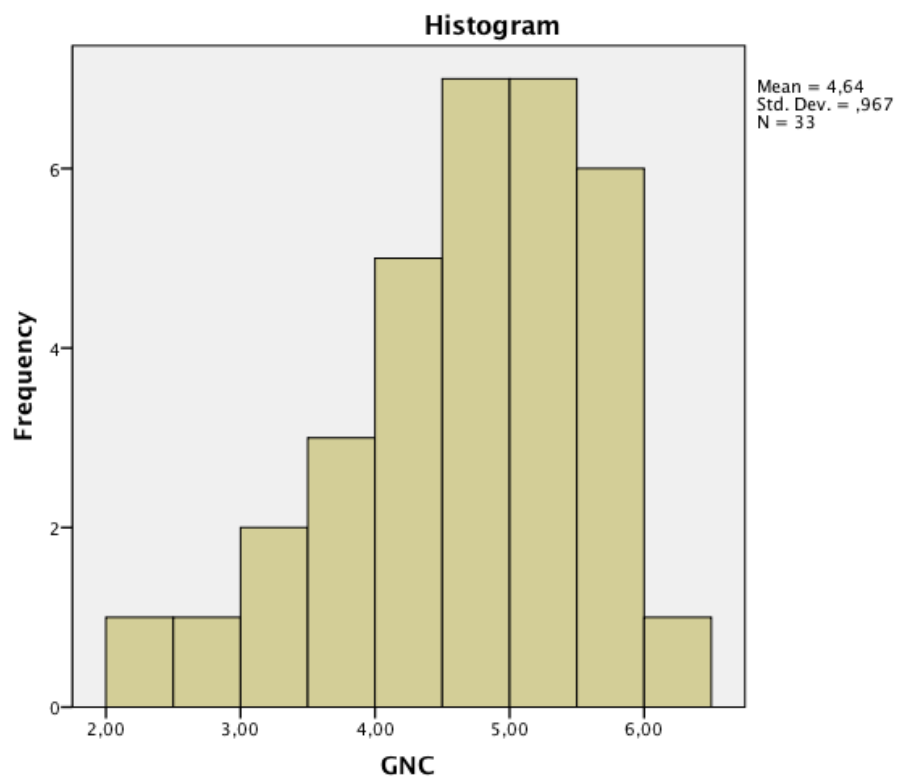


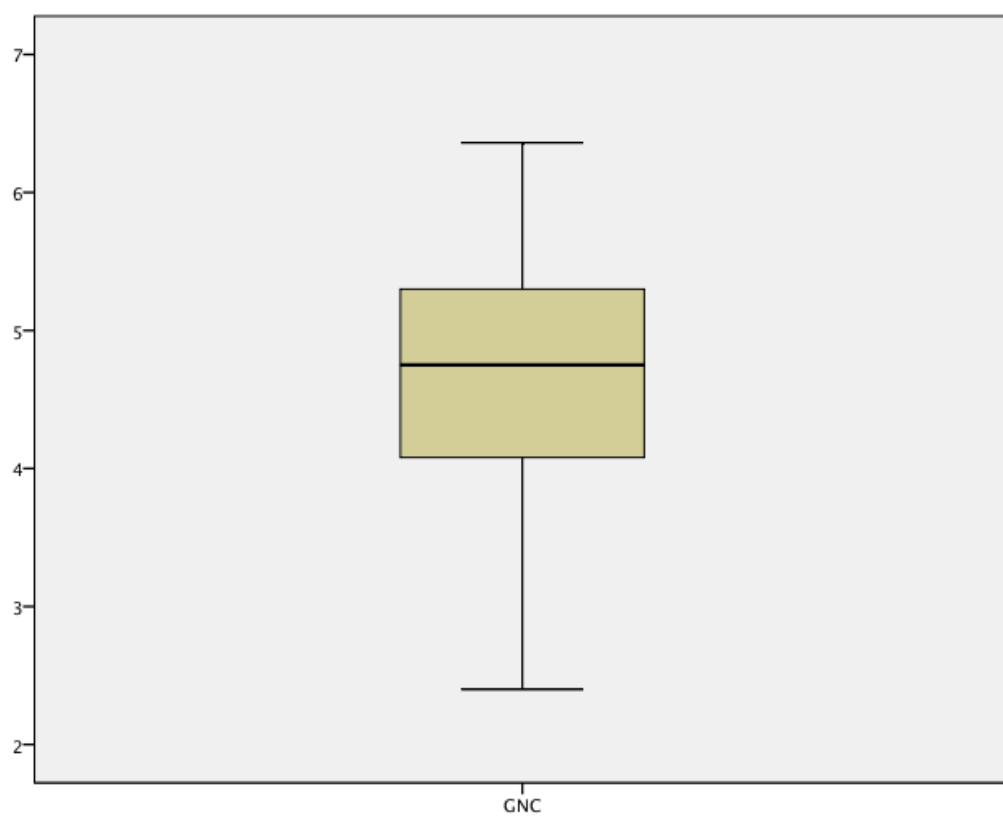
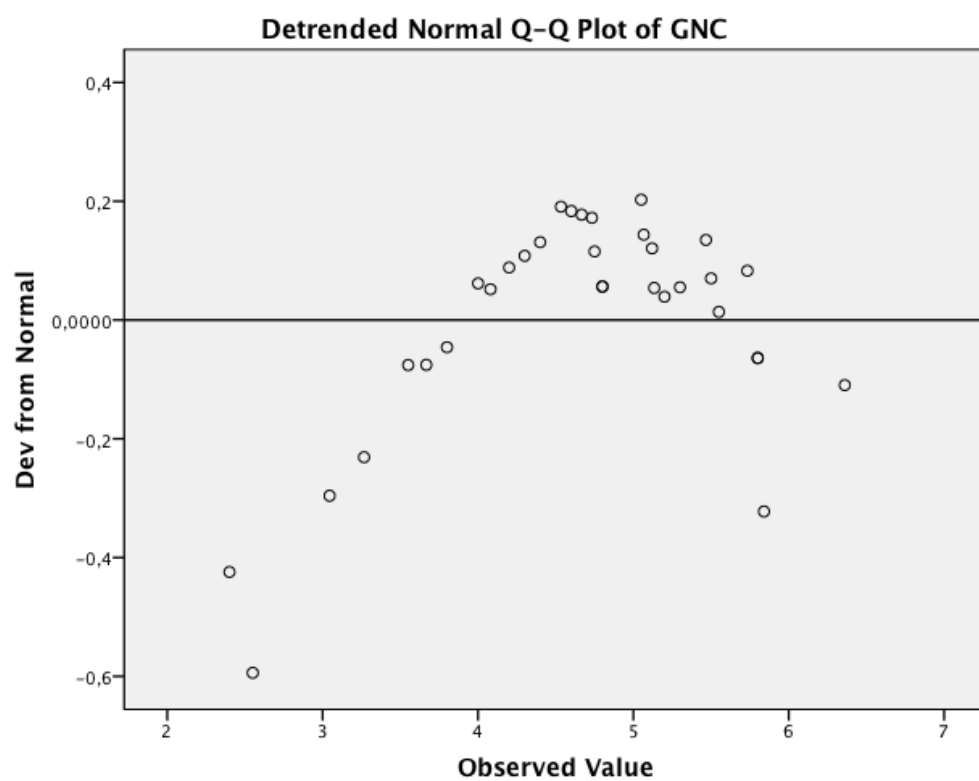
## GAC



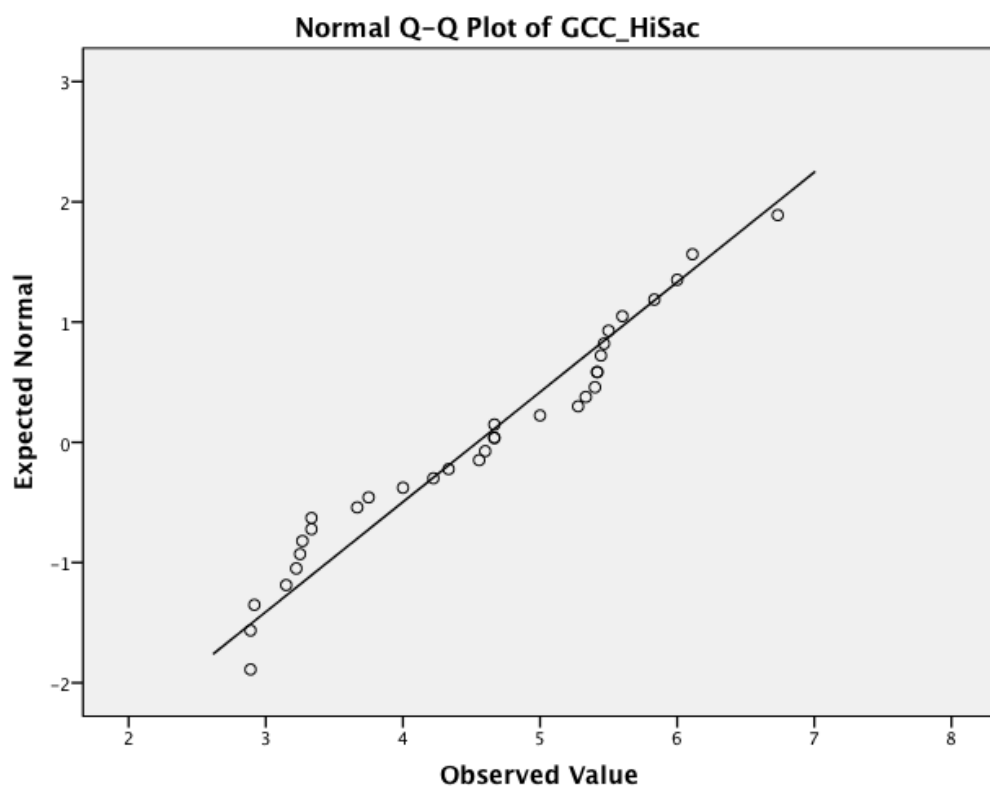
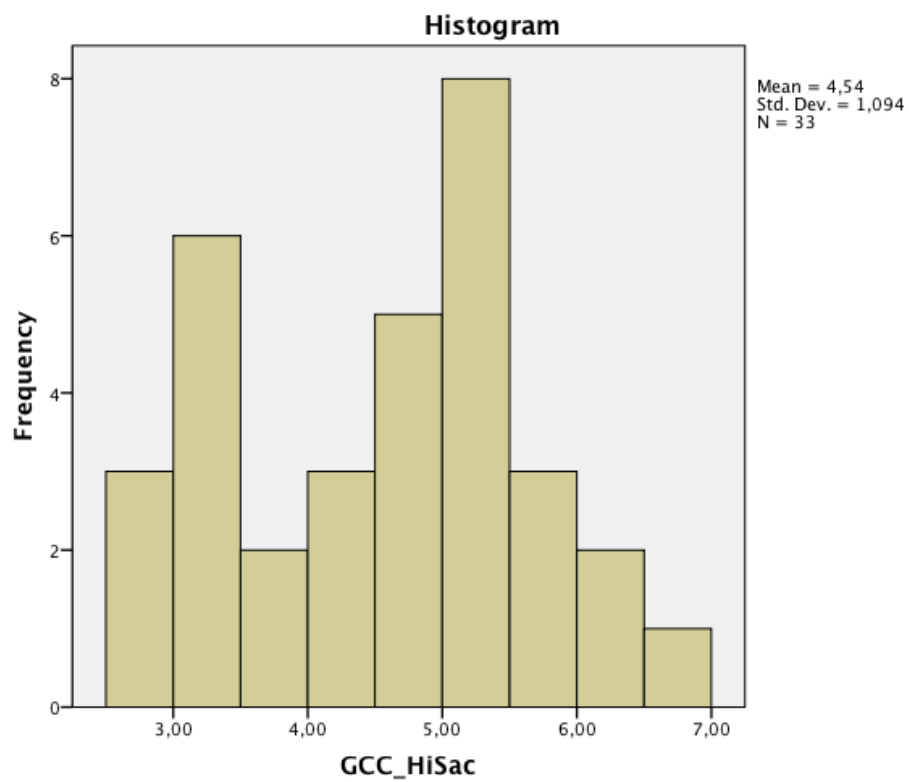


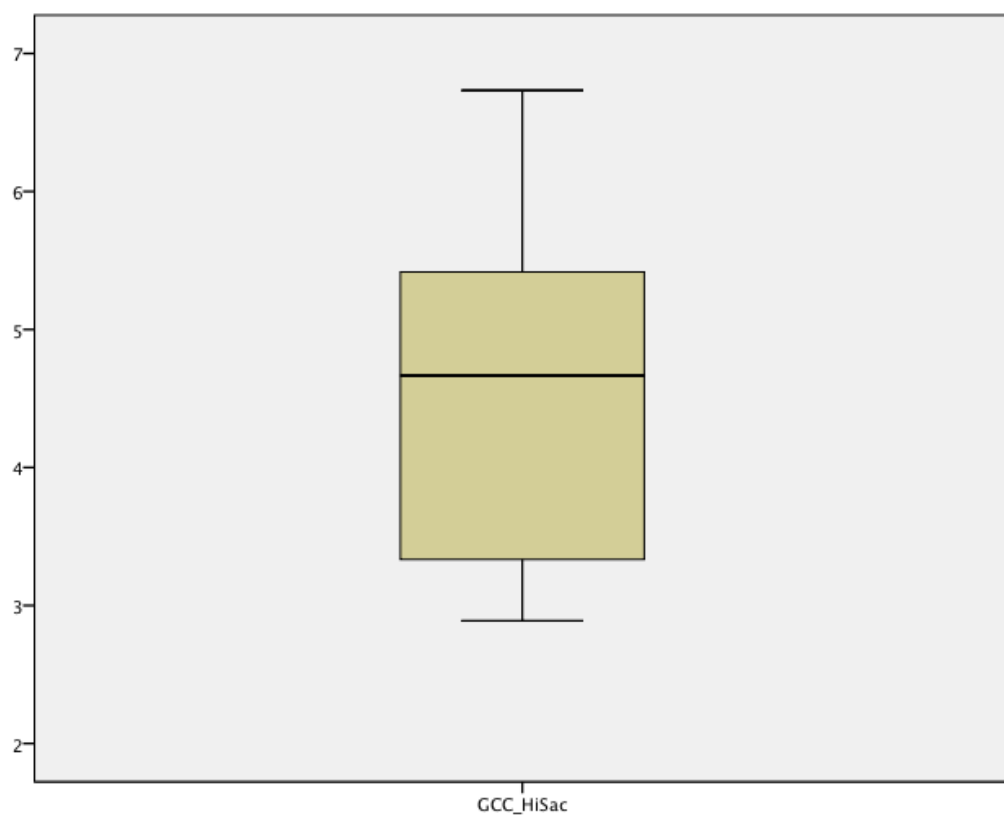
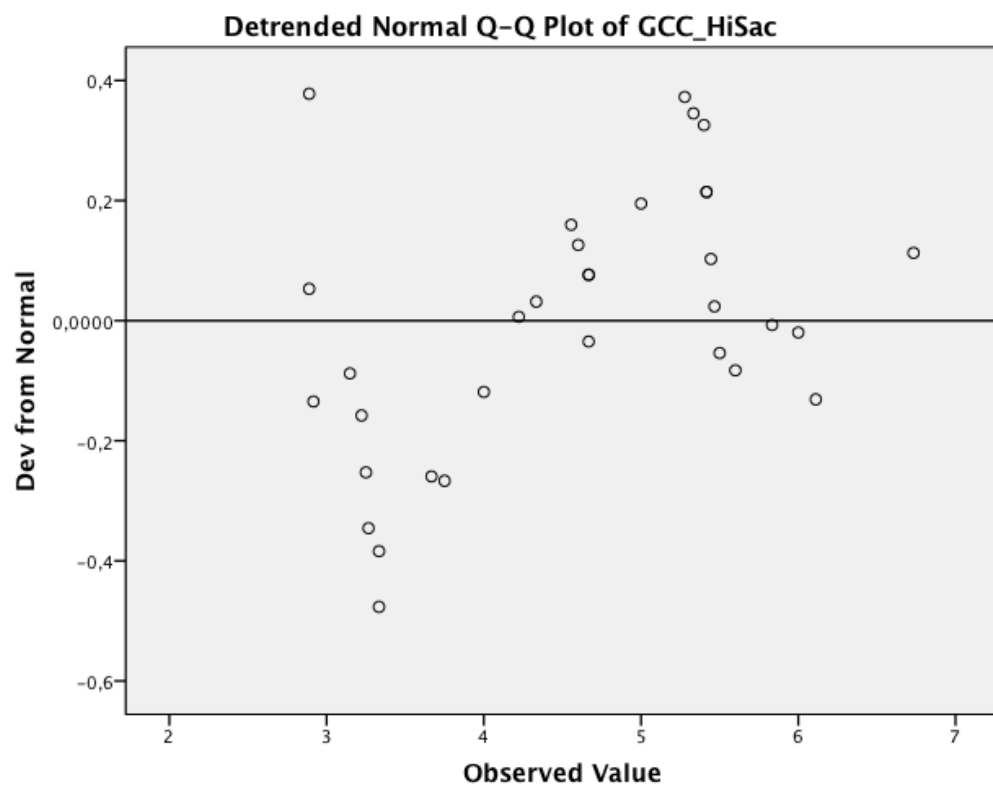
# GNC



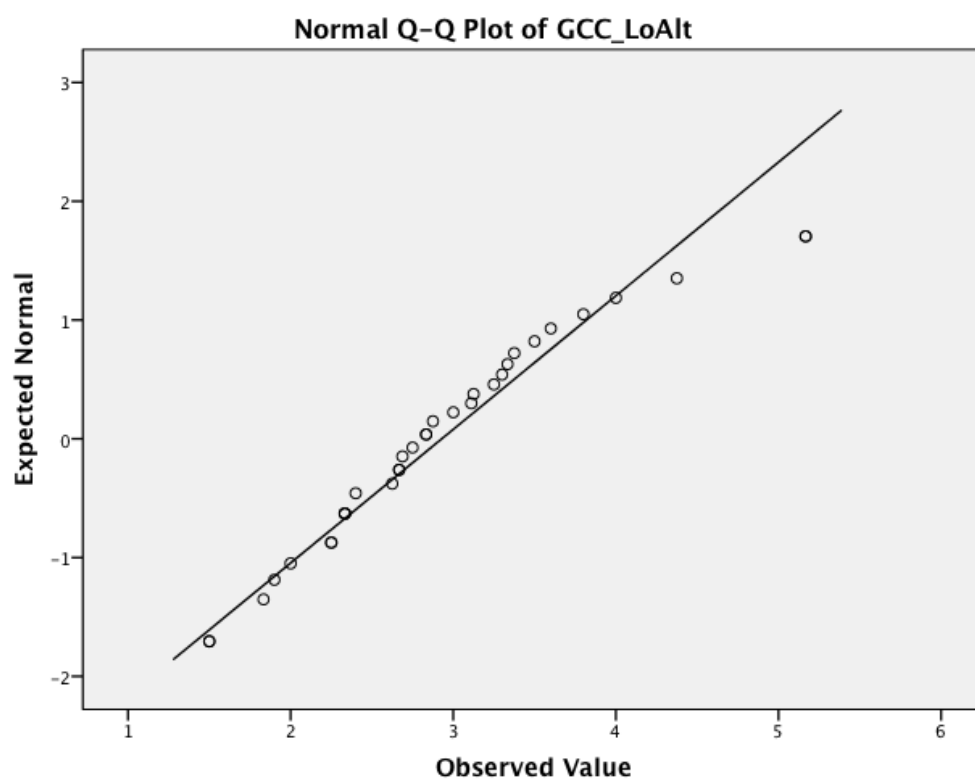
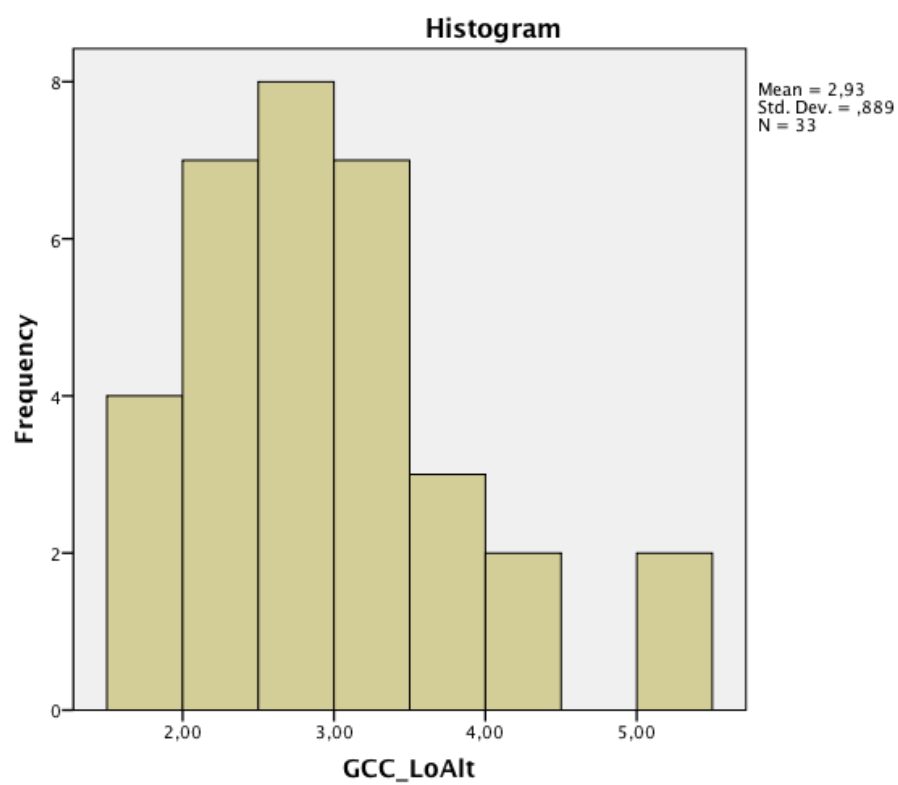


## GCC\_HiSac

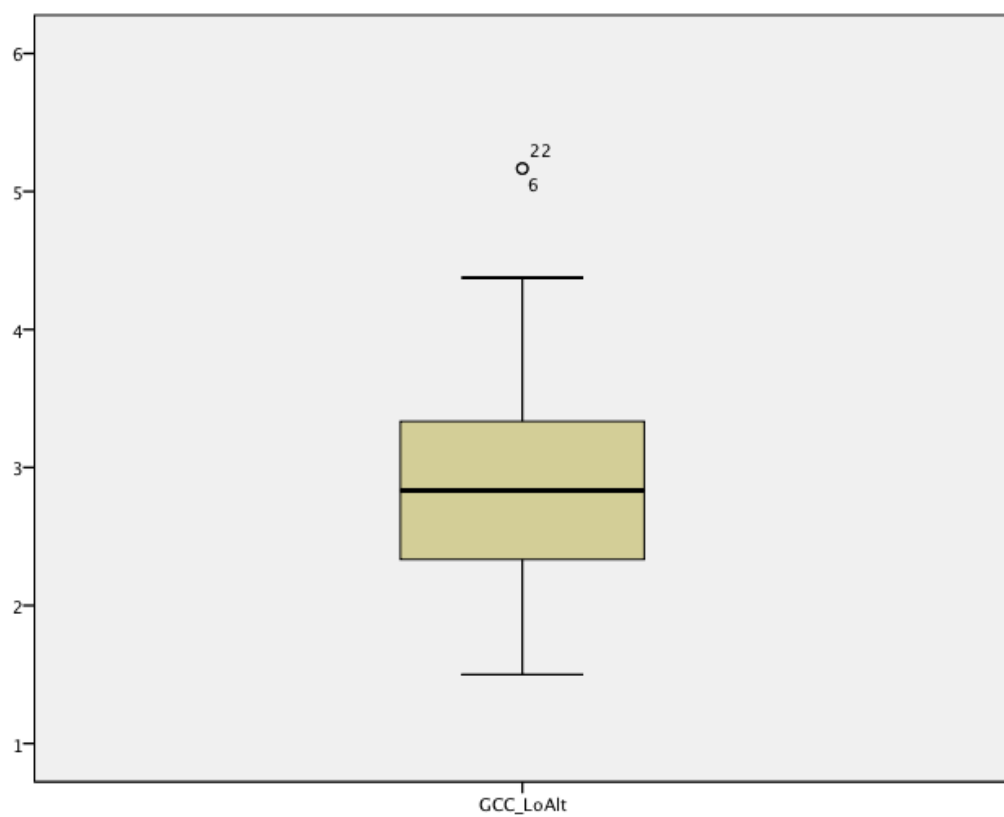
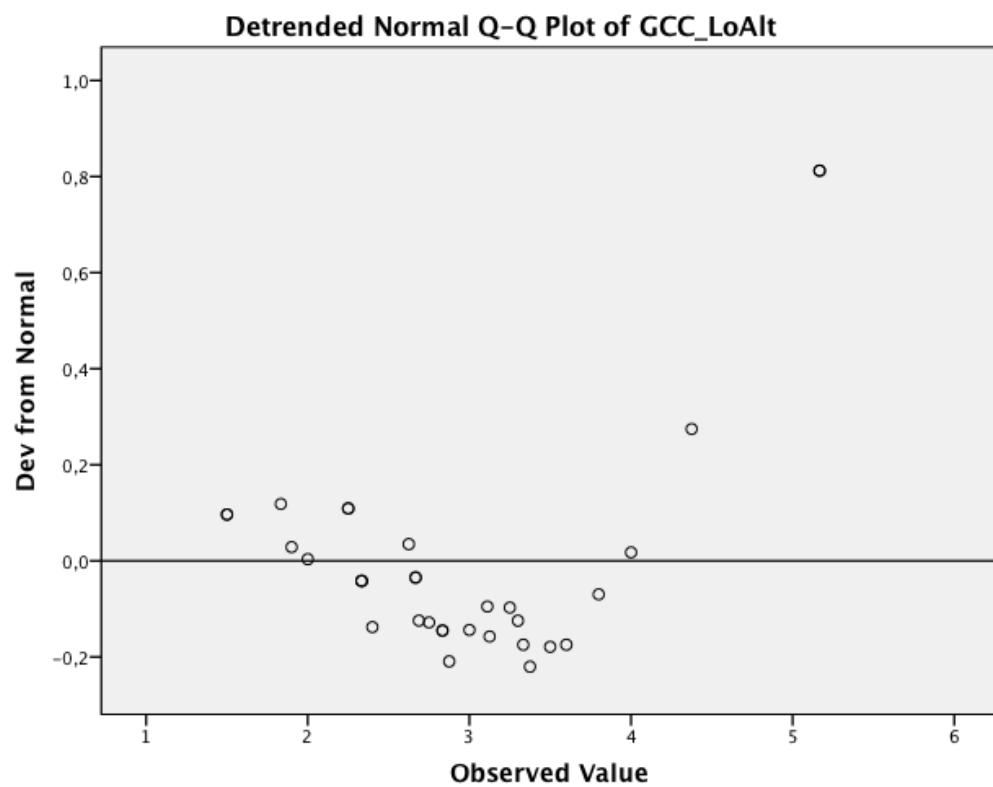




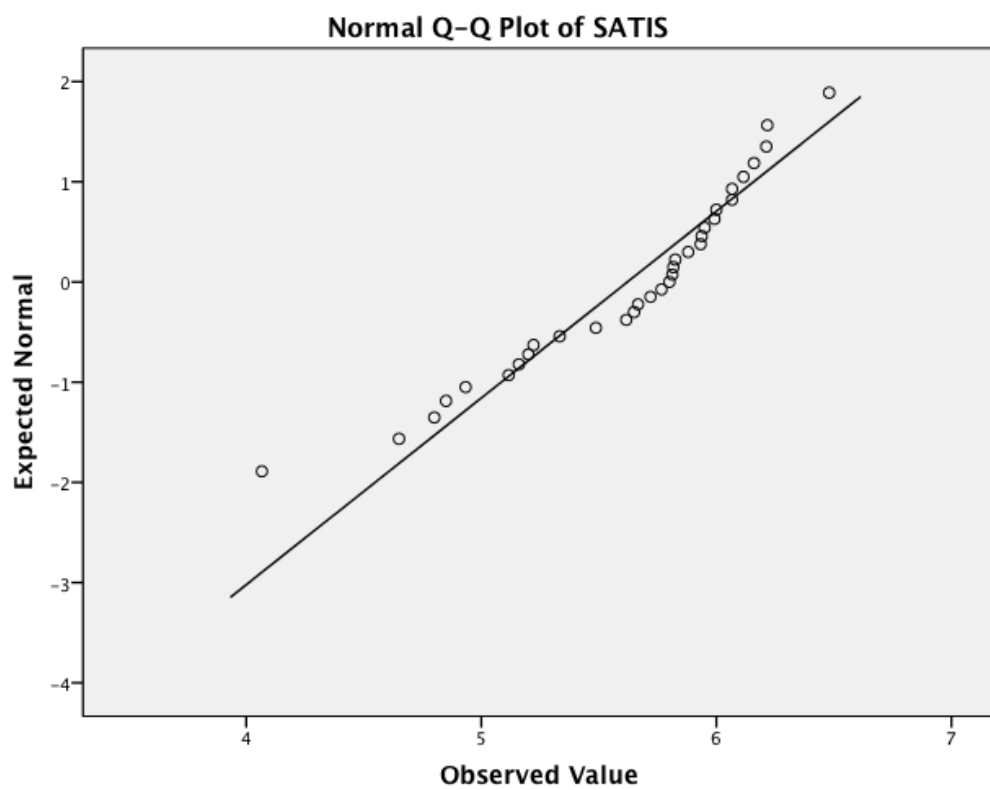
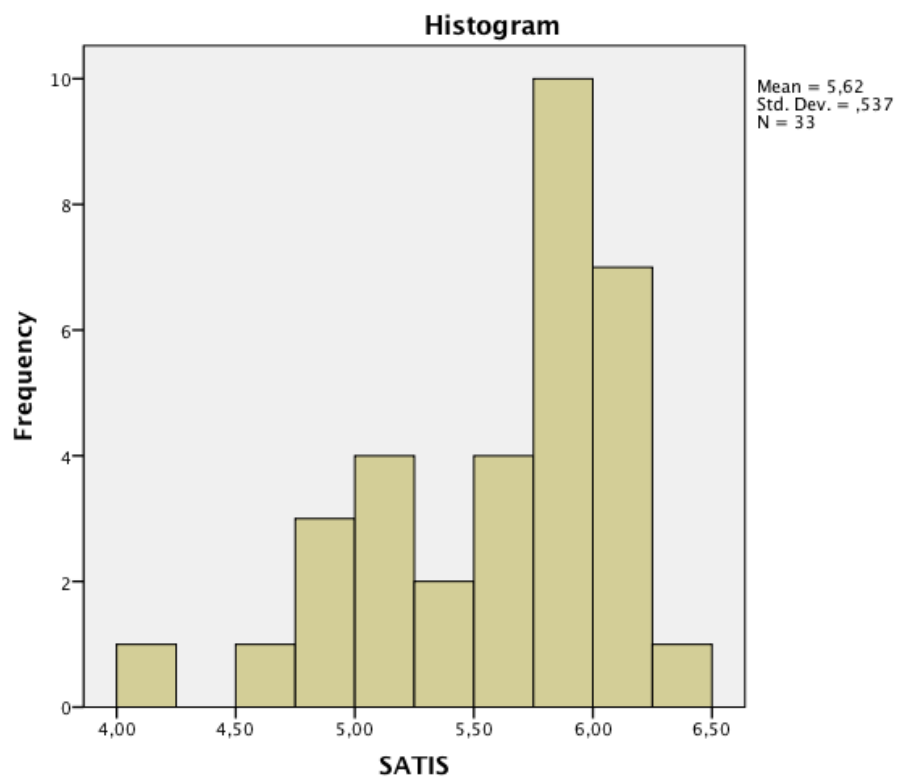
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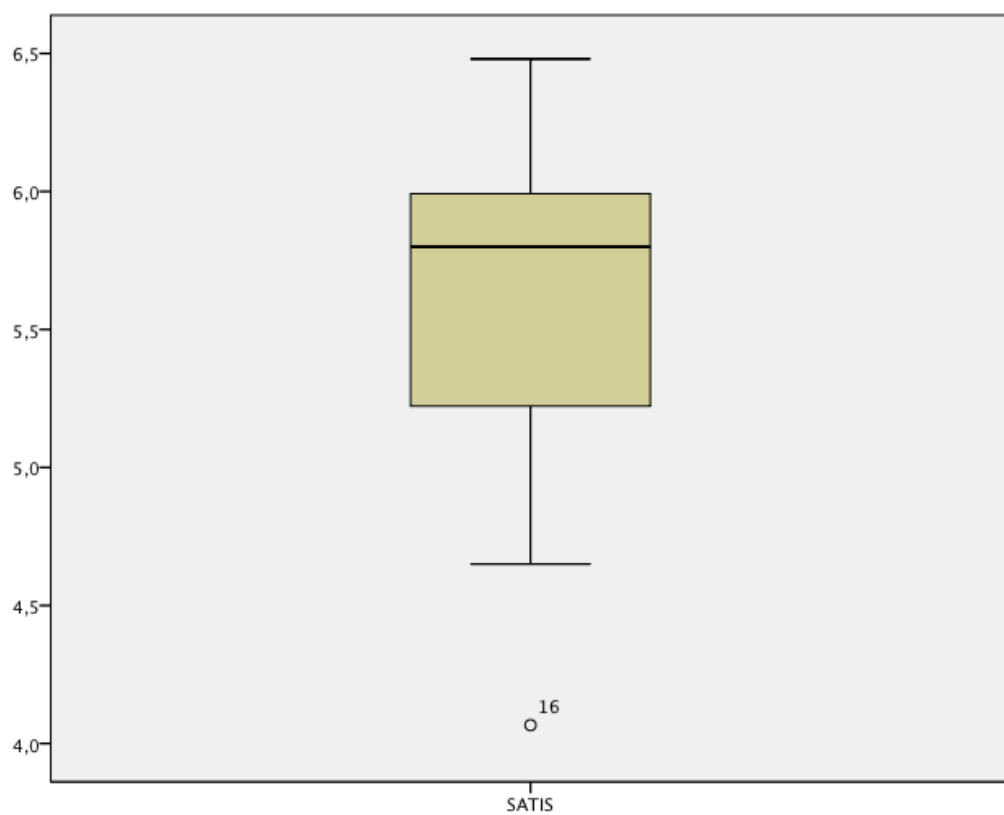
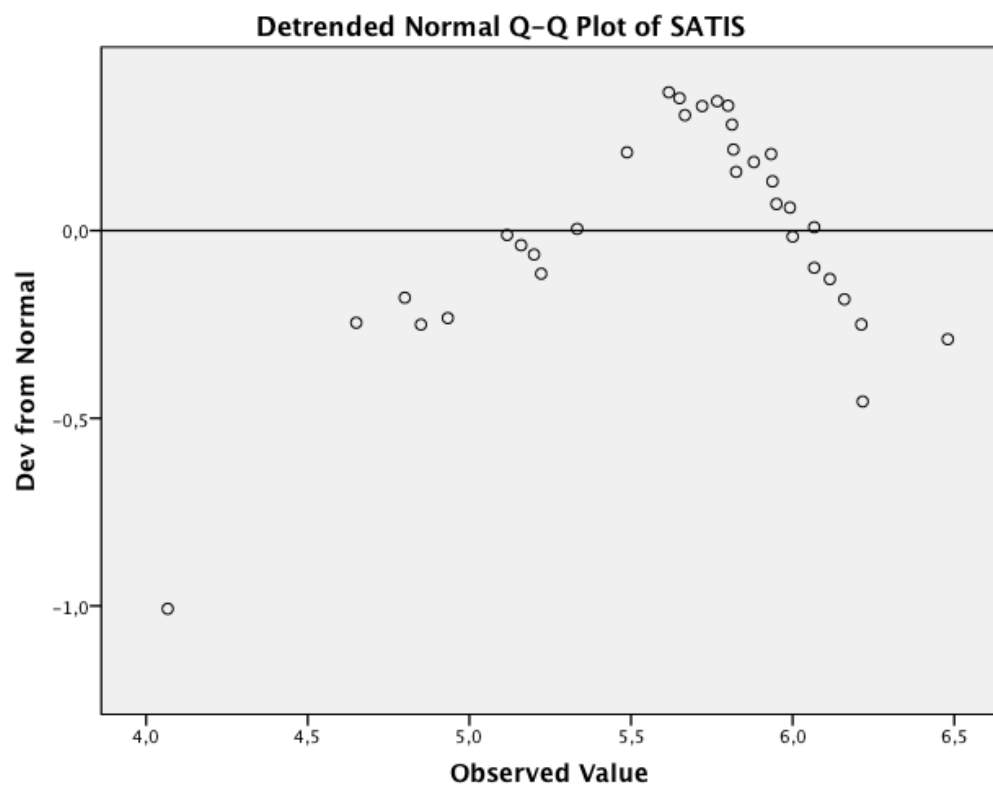




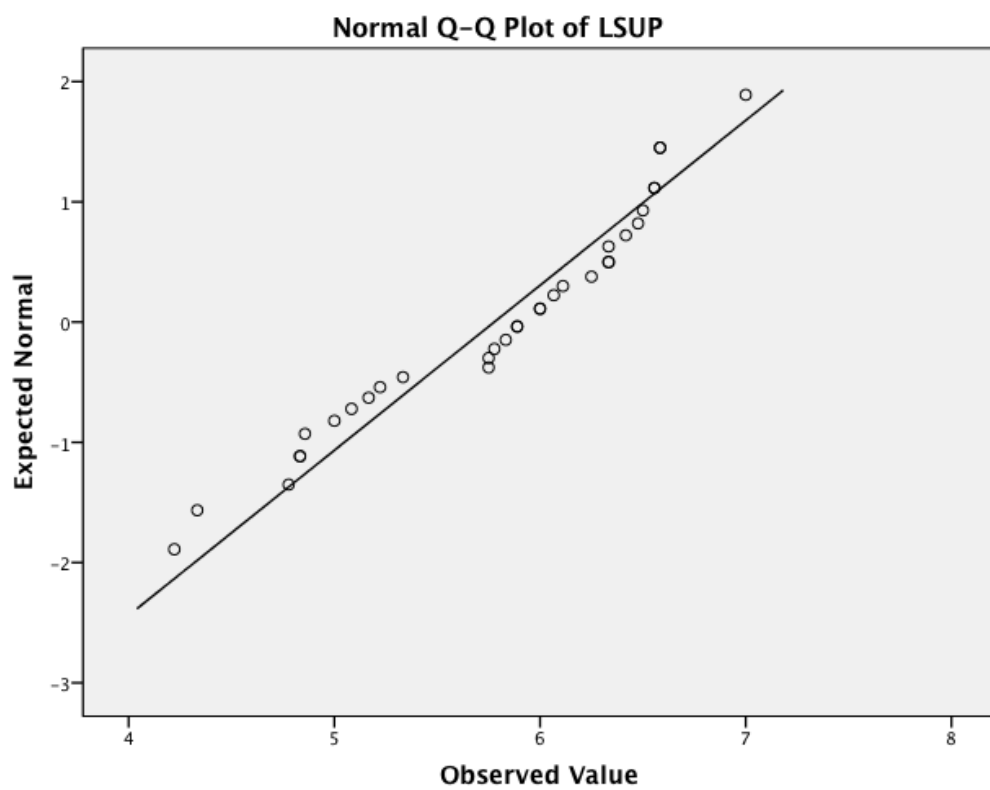
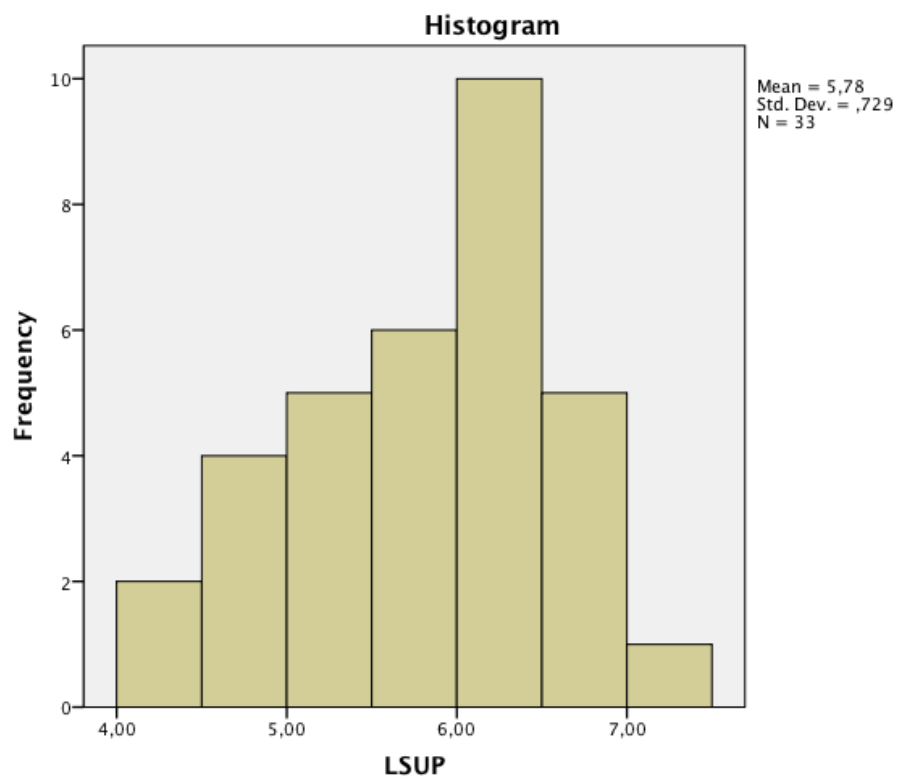


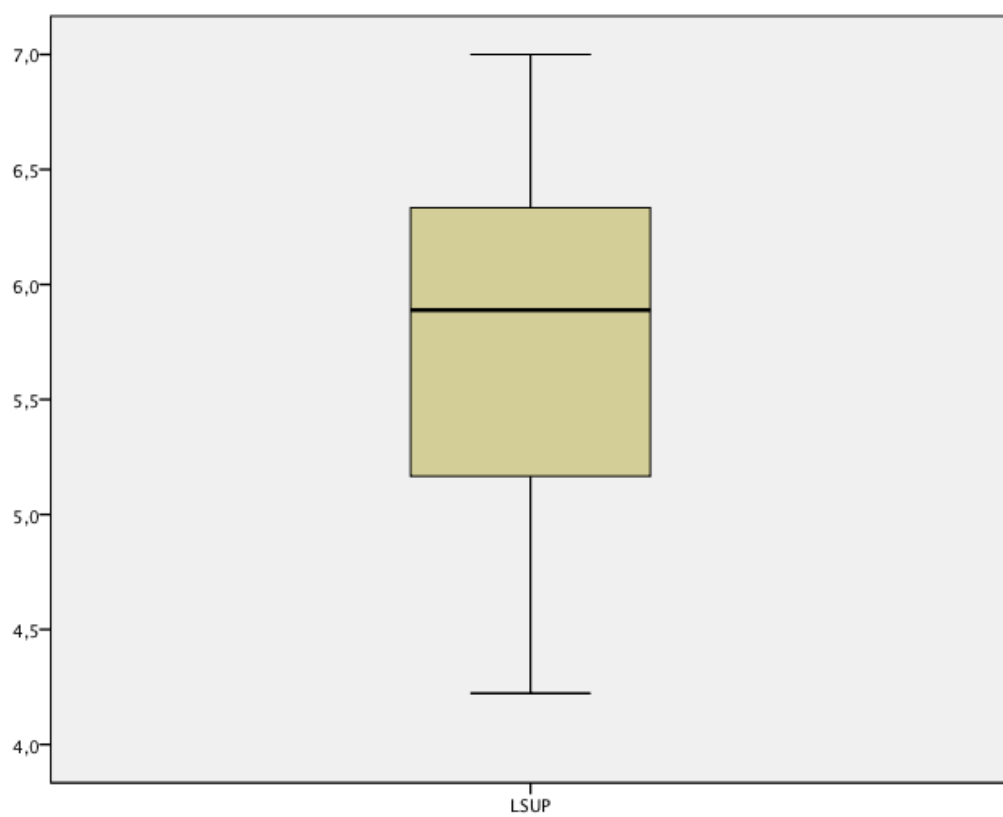
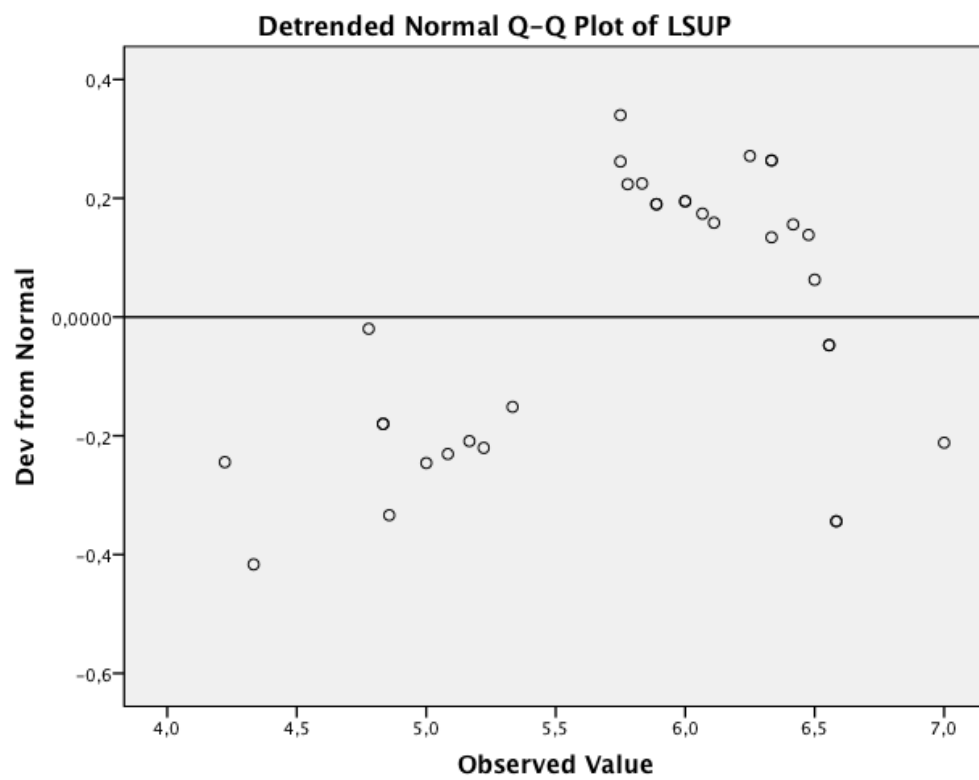
# SATIS



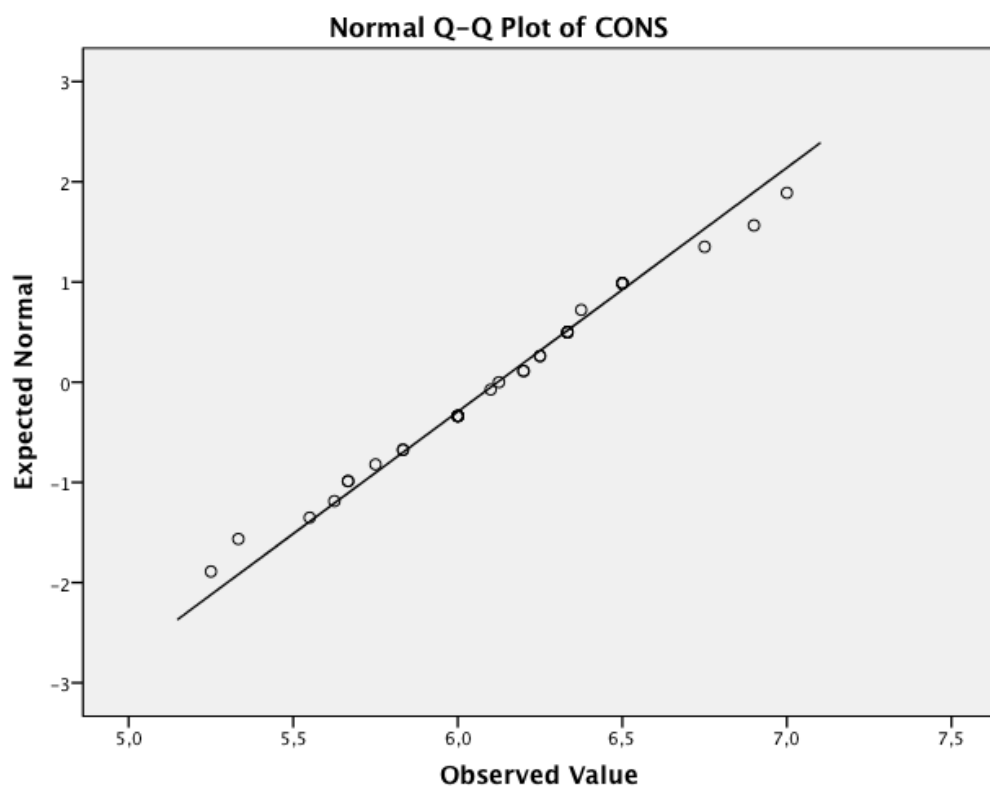
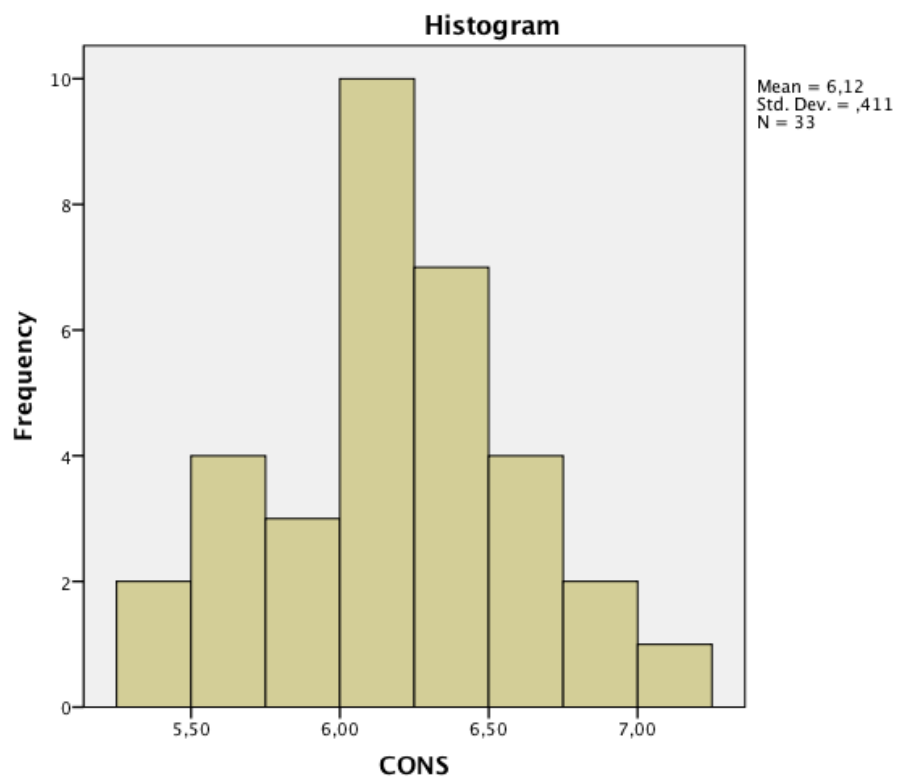


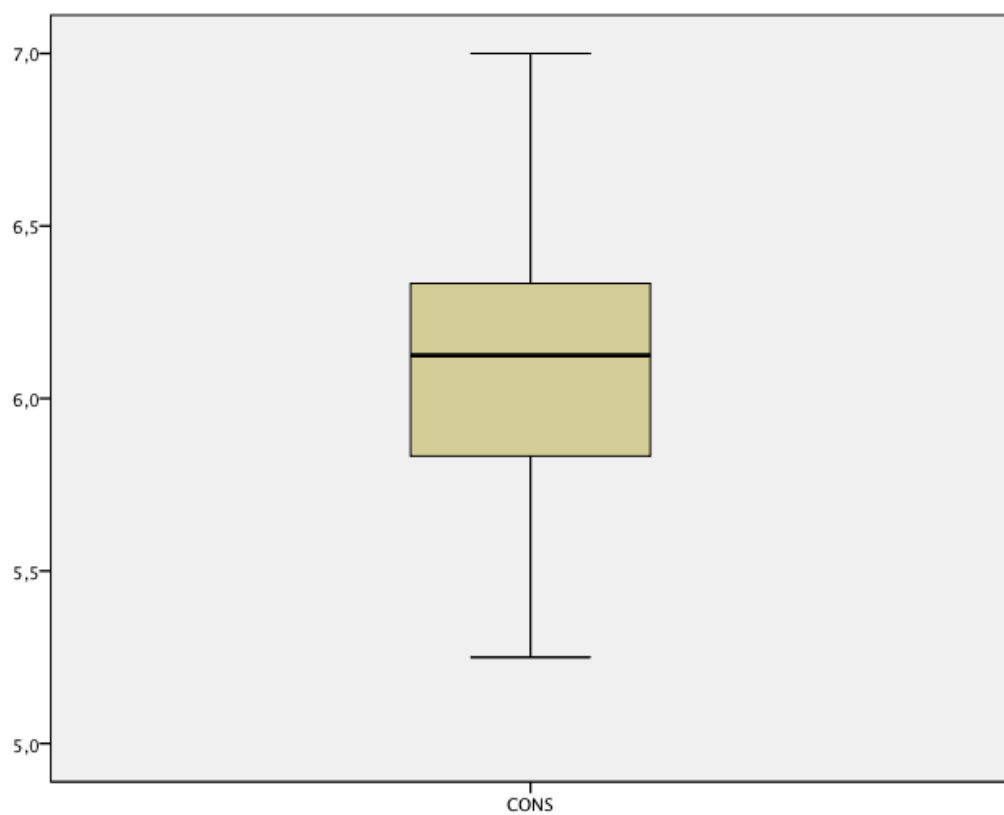
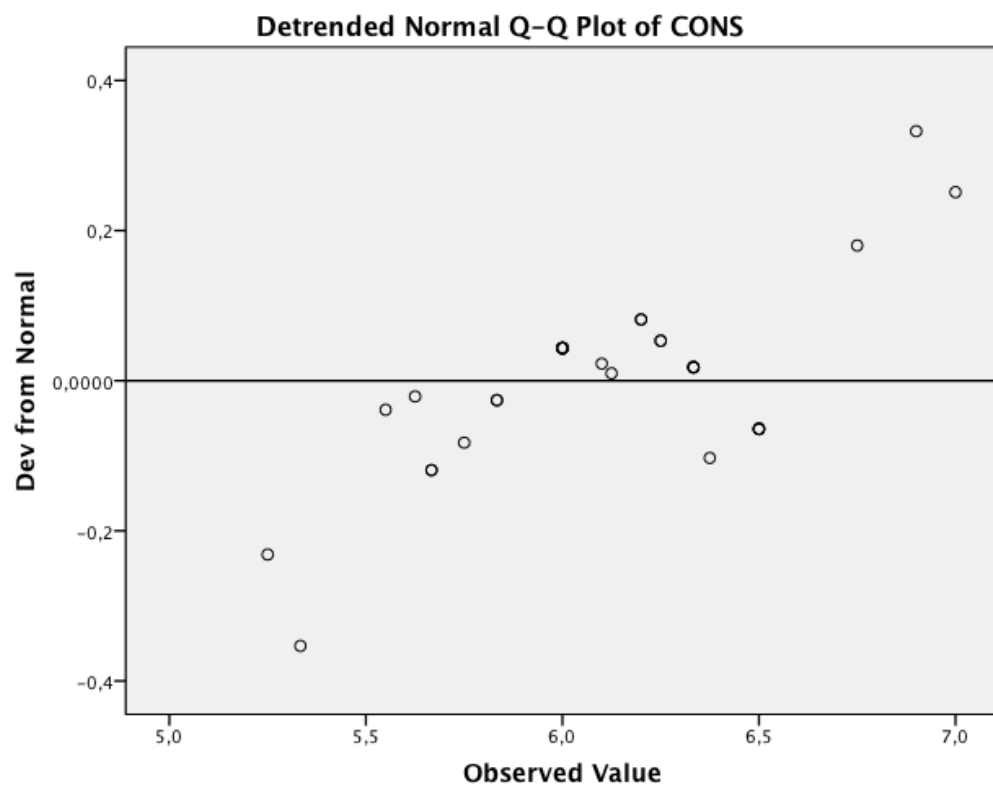
# LSUP



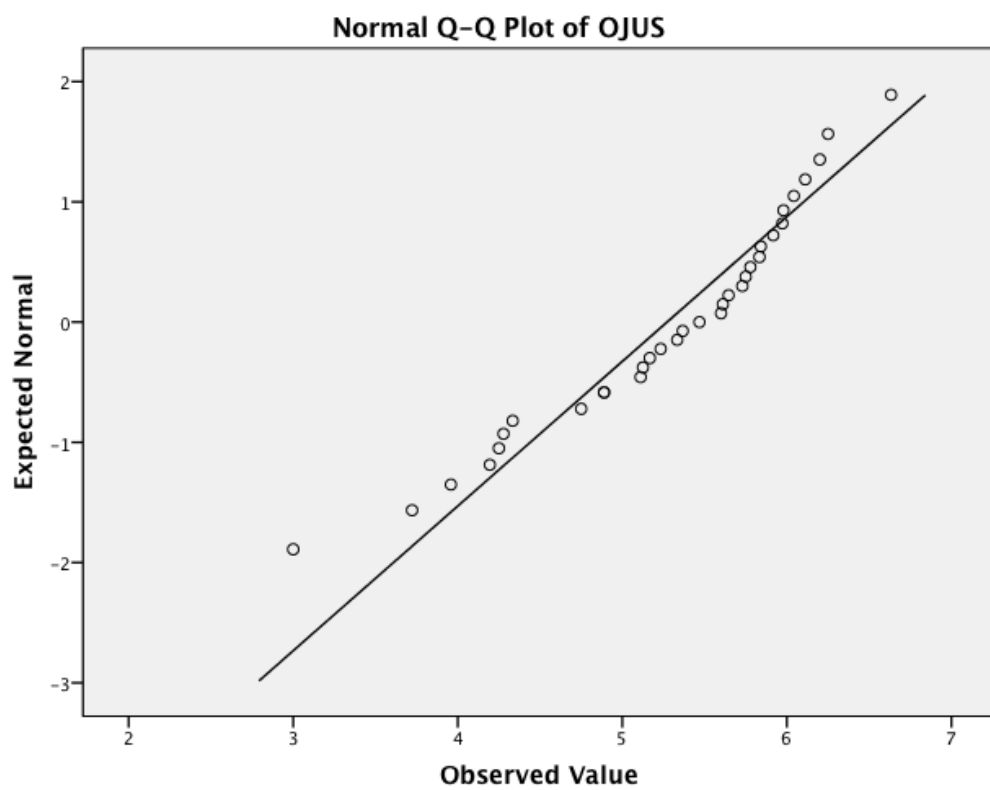
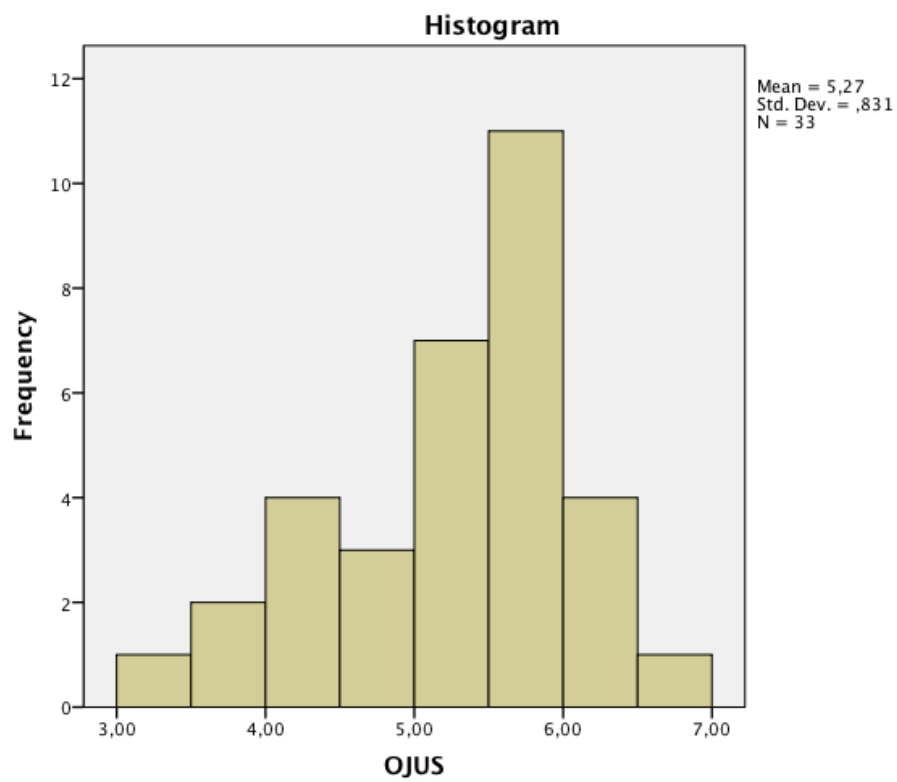


# CONS

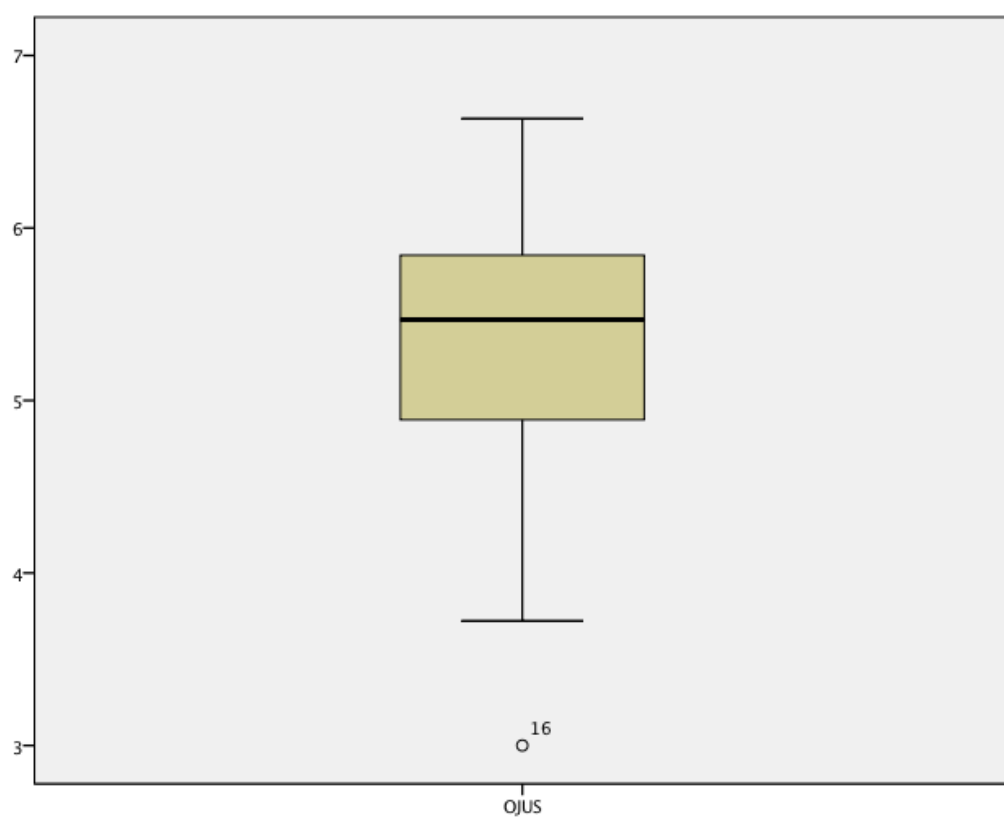
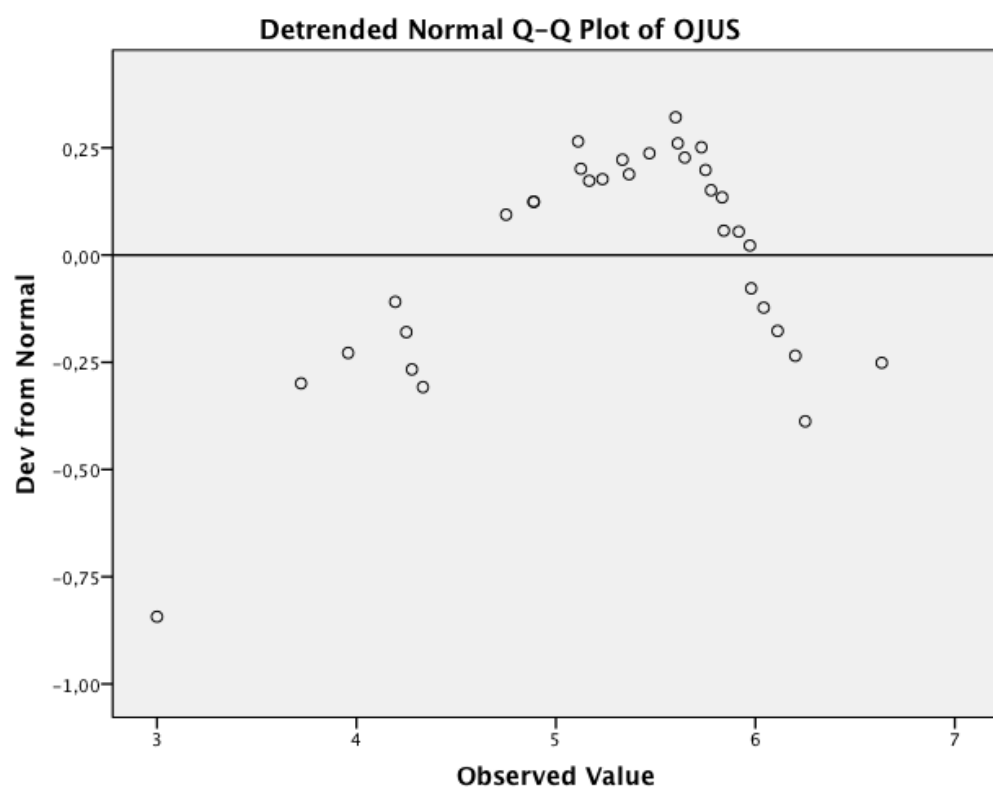




# OJUS







## 9.8 Appendix 8: One-way ANOVA-specific Tests

### OAC\_cat

Case Processing Summary

		Cases					
		Valid		Missing		Total	
	OAC_cat	N	Percent	N	Percent	N	Percent
GOCB	OAC_low	11	100,0%	0	0,0%	11	100,0%
	OAC_medium	11	100,0%	0	0,0%	11	100,0%
	OAC_high	11	100,0%	0	0,0%	11	100,0%

Descriptives

		OAC_cat		Statistic	Std. Error
GOCB	OAC_low	Mean		3,7394	,11469
		95% Confidence	Lower Bound	3,4839	
		Interval for Mean	Upper Bound	3,9949	
		5% Trimmed Mean		3,7335	
		Median		3,8000	
		Variance		,145	
		Std. Deviation		,38038	
		Minimum		3,19	
		Maximum		4,40	
		Range		1,21	
		Interquartile Range		,58	
		Skewness		,007	,661
		Kurtosis		-,644	1,279
	OAC_medium	Mean		4,0026	,07706
		95% Confidence	Lower Bound	3,8309	
		Interval for Mean	Upper Bound	4,1743	
		5% Trimmed Mean		3,9953	
		Median		3,9958	
		Variance		,065	
		Std. Deviation		,25558	
		Minimum		3,63	
		Maximum		4,50	
		Range		,87	
		Interquartile Range		,34	
		Skewness		,523	,661
		Kurtosis		,140	1,279

OAC_high	Mean		4,0942	,10302
	95% Confidence	Lower Bound	3,8646	
	Interval for Mean	Upper Bound	4,3237	
	5% Trimmed Mean		4,0902	
	Median		4,0917	
	Variance		,117	
	Std. Deviation		,34169	
	Minimum		3,59	
	Maximum		4,67	
	Range		1,09	
	Interquartile Range		,48	
	Skewness		,142	,661
	Kurtosis		-,858	1,279

#### Tests of Normality

	OAC_cat	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GOCB	OAC_low	,117	11	,200 <sup>*</sup>	,966	11	,839
	OAC_medium	,140	11	,200 <sup>*</sup>	,970	11	,882
	OAC_high	,149	11	,200 <sup>*</sup>	,970	11	,890

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## ONC\_cat

#### Case Processing Summary

	ONC_cat	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
GOCB	ONC_low	11	100,0%	0	0,0%	11	100,0%
	ONC_medium	11	100,0%	0	0,0%	11	100,0%
	ONC_high	11	100,0%	0	0,0%	11	100,0%

#### Descriptives

	ONC_cat	Statistic	Std. Error
GOCB	ONC_low	Mean	3,7394
		95% Confidence Lower Bound	,11454

	Interval for Mean	Upper Bound	3,9946	
	5% Trimmed Mean		3,7335	
	Median		3,7969	
	Variance		,144	
	Std. Deviation		,37988	
	Minimum		3,19	
	Maximum		4,40	
	Range		1,21	
	Interquartile Range		,58	
	Skewness		-,007	,661
	Kurtosis		-,667	1,279
	ONC_medium	Mean	4,0876	,07720
	95% Confidence	Lower Bound	3,9156	
	Interval for Mean	Upper Bound	4,2596	
	5% Trimmed Mean		4,0855	
	Median		3,9958	
	Variance		,066	
	Std. Deviation		,25604	
	Minimum		3,71	
	Maximum		4,50	
	Range		,79	
	Interquartile Range		,44	
	Skewness		,211	,661
	Kurtosis		-1,225	1,279
	ONC_high	Mean	4,0091	,10363
	95% Confidence	Lower Bound	3,7783	
	Interval for Mean	Upper Bound	4,2400	
	5% Trimmed Mean		3,9957	
	Median		3,9208	
	Variance		,118	
	Std. Deviation		,34369	
	Minimum		3,59	
	Maximum		4,67	
	Range		1,09	
	Interquartile Range		,51	
	Skewness		,675	,661
	Kurtosis		-,116	1,279

### Tests of Normality

	ONC_cat	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GOCB	ONC_low	,117	11	,200 <sup>*</sup>	,959	11	,754
	ONC_medium	,185	11	,200 <sup>*</sup>	,948	11	,621
	ONC_high	,147	11	,200 <sup>*</sup>	,934	11	,457

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## OCC\_HiSac\_cat

### Case Processing Summary

	OCC_HiSac_cat	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
GOCB	OCC_S_low	11	100,0%	0	0,0%	11	100,0%
	OCC_S_medium	11	100,0%	0	0,0%	11	100,0%
	OCC_S_high	11	100,0%	0	0,0%	11	100,0%

### Descriptives

	OCC_HiSac_cat		Statistic	Std. Error
GOCB	OCC_S_low	Mean	3,7720	,10915
		95% Confidence Interval for Mean	Lower Bound 3,5288	
			Upper Bound 4,0152	
		5% Trimmed Mean	3,7697	
		Median	3,7969	
		Variance	,131	
		Std. Deviation	,36201	
		Minimum	3,19	
		Maximum	4,40	
		Range	1,21	
		Interquartile Range	,45	
		Skewness	-,207	,661
		Kurtosis	,038	1,279
	OCC_S_medium	Mean	3,9196	,09477
		95% Confidence Interval for Mean	Lower Bound 3,7085	
			Upper Bound 4,1308	
		5% Trimmed Mean	3,9220	
		Median	3,9375	

OCC_S_high	Variance			,099	
	Std. Deviation			,31433	
	Minimum			3,43	
	Maximum			4,36	
	Range			,93	
	Interquartile Range			,55	
	Skewness			-,218	,661
	Kurtosis			-1,018	1,279
	Mean			4,1445	,09251
	95% Confidence	Lower Bound		3,9383	
	Interval for Mean	Upper Bound		4,3506	
	5% Trimmed Mean			4,1393	
	Median			4,0156	
	Variance			,094	
	Std. Deviation			,30684	
	Minimum			3,71	
	Maximum			4,67	
	Range			,96	
	Interquartile Range			,59	
	Skewness			,442	,661
	Kurtosis			-,979	1,279

#### Tests of Normality

	OCC_HiSac_cat	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GOCB	OCC_S_low	,168	11	,200 <sup>*</sup>	,948	11	,623
	OCC_S_medium	,127	11	,200 <sup>*</sup>	,949	11	,636
	OCC_S_high	,208	11	,199	,940	11	,525

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

# OCC\_LoAlt\_cat

## Case Processing Summary

		Cases					
		Valid		Missing		Total	
	OCC_LoAlt_cat	N	Percent	N	Percent	N	Percent
GOCB	OCC_L_low	11	100,0%	0	0,0%	11	100,0%
	OCC_L_medium	11	100,0%	0	0,0%	11	100,0%
	OCC_L_high	11	100,0%	0	0,0%	11	100,0%

## Descriptives

		OCC_LoAlt_cat	Statistic	Std. Error
GOCB	OCC_L_low	Mean	3,8924	,12943
		95% Confidence Interval for Mean	Lower Bound 3,6041	
			Upper Bound 4,1808	
		5% Trimmed Mean	3,8985	
		Median	3,8000	
		Variance	,184	
		Std. Deviation	,42926	
		Minimum	3,20	
		Maximum	4,48	
		Range	1,27	
		Interquartile Range	,73	
		Skewness	-,003	,661
		Kurtosis	-1,293	1,279
	OCC_L_medium	Mean	3,8812	,09936
		95% Confidence Interval for Mean	Lower Bound 3,6598	
			Upper Bound 4,1026	
		5% Trimmed Mean	3,8929	
		Median	3,9800	
		Variance	,109	
		Std. Deviation	,32953	
		Minimum	3,19	
		Maximum	4,36	
		Range	1,17	
		Interquartile Range	,43	
		Skewness	-,848	,661
		Kurtosis	,717	1,279
	OCC_L_high	Mean	4,0625	,08834
		95% Confidence Interval for Mean	Lower Bound 3,8656	

Interval for Mean	Upper Bound	4,2593	
5% Trimmed Mean		4,0482	
Median		4,0000	
Variance		,086	
Std. Deviation		,29298	
Minimum		3,71	
Maximum		4,67	
Range		,96	
Interquartile Range		,29	
Skewness		1,165	,661
Kurtosis		,756	1,279

#### Tests of Normality

	OCC_LoAlt_cat	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GOCB	OCC_L_low	,200	11	,200 <sup>*</sup>	,933	11	,440
	OCC_L_medium	,163	11	,200 <sup>*</sup>	,948	11	,622
	OCC_L_high	,200	11	,200 <sup>*</sup>	,888	11	,132

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## GAC\_cat

#### Case Processing Summary

	GAC_cat	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
GOCB	WGAC_low	11	100,0%	0	0,0%	11	100,0%
	WGAC_medium	11	100,0%	0	0,0%	11	100,0%
	WGAC_high	11	100,0%	0	0,0%	11	100,0%

#### Descriptives

	GAC_cat		Statistic	Std. Error
GOCB	WGAC_low	Mean	3,7273	,11188
		95% Confidence Interval for Mean	Lower Bound 3,4780	
		Upper Bound	3,9766	
		5% Trimmed Mean	3,7141	
		Median	3,7208	
		Variance	,138	
		Std. Deviation	,37106	
		Minimum	3,19	



		Maximum		4,50	
		Range		1,31	
		Interquartile Range		,38	
		Skewness		,433	,661
		Kurtosis		,987	1,279
	WGAC_medium	Mean		3,9838	,08665
		95% Confidence	Lower Bound	3,7907	
		Interval for Mean	Upper Bound	4,1769	
		5% Trimmed Mean		3,9933	
		Median		4,0813	
		Variance		,083	
		Std. Deviation		,28740	
		Minimum		3,43	
		Maximum		4,36	
		Range		,93	
		Interquartile Range		,37	
		Skewness		-,617	,661
		Kurtosis		-,324	1,279
	WGAC_high	Mean		4,1250	,09128
		95% Confidence	Lower Bound	3,9216	
		Interval for Mean	Upper Bound	4,3284	
		5% Trimmed Mean		4,1203	
		Median		3,9958	
		Variance		,092	
		Std. Deviation		,30273	
		Minimum		3,66	
		Maximum		4,67	
		Range		1,01	
		Interquartile Range		,48	
		Skewness		,452	,661
		Kurtosis		-,585	1,279

#### Tests of Normality

	GAC_cat	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GOCB	WGAC_low	,157	11	,200*	,945	11	,581
	WGAC_medium	,178	11	,200*	,947	11	,610
	WGAC_high	,211	11	,187	,946	11	,588

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## GNC\_cat

### Case Processing Summary

	GNC_cat	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
GOCB	WGNC_low	11	100,0%	0	0,0%	11	100,0%
	WGNC_medium	11	100,0%	0	0,0%	11	100,0%
	WGNC_high	11	100,0%	0	0,0%	11	100,0%

### Descriptives

	GNC_cat		Statistic	Std. Error
GOCB	WGNC_low	Mean	3,8119	,10966
		95% Confidence Interval for Mean	3,5676	
		Lower Bound	4,0562	
		Upper Bound		
		5% Trimmed Mean	3,8159	
		Median	3,7969	
		Variance	,132	
		Std. Deviation	,36369	
		Minimum	3,19	
		Maximum	4,36	
		Range	1,17	
		Interquartile Range	,58	
		Skewness	,000	,661
		Kurtosis	-,544	1,279
	WGNC_medium	Mean	3,9803	,07262
		95% Confidence Interval for Mean	3,8185	
		Lower Bound	4,1421	
		Upper Bound		
		5% Trimmed Mean	3,9721	
		Median	3,9800	
		Variance	,058	
		Std. Deviation	,24084	
		Minimum	3,63	
		Maximum	4,48	
		Range	,84	
		Interquartile Range	,32	
		Skewness	,470	,661
		Kurtosis	,608	1,279

WGNC_high	Mean		4,0439	,12774
	95% Confidence	Lower Bound	3,7593	
	Interval for Mean	Upper Bound	4,3285	
	5% Trimmed Mean		4,0559	
	Median		3,9958	
	Variance		,179	
	Std. Deviation		,42366	
	Minimum		3,20	
	Maximum		4,67	
	Range		1,47	
	Interquartile Range		,51	
	Skewness		-,478	,661
	Kurtosis		,233	1,279

#### Tests of Normality

	GNC_cat	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GOCB	WGNC_low	,149	11	,200 <sup>*</sup>	,968	11	,865
	WGNC_medium	,126	11	,200 <sup>*</sup>	,965	11	,828
	WGNC_high	,169	11	,200 <sup>*</sup>	,969	11	,871

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## GCC\_HiSac\_cat

#### Case Processing Summary

	GCC_HiSac_cat	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
GOCB	WGCC_sack_low	11	100,0%	0	0,0%	11	100,0%
	WGCC_sack_medium	11	100,0%	0	0,0%	11	100,0%
	WGCC_sack_high	11	100,0%	0	0,0%	11	100,0%

#### Descriptives

	WGCC_sack_low	GCC_HiSac_cat		Statistic	Std. Error
		Mean		3,7400	,09448
		95% Confidence	Lower Bound	3,5295	
		Interval for Mean	Upper Bound	3,9505	

	5% Trimmed Mean		3,7383	
	Median		3,7208	
	Variance		,098	
	Std. Deviation		,31334	
	Minimum		3,19	
	Maximum		4,32	
	Range		1,13	
	Interquartile Range		,42	
	Skewness		,135	,661
	Kurtosis		,258	1,279
WGCC_sack_medium	Mean		3,9534	,11155
	95% Confidence	Lower Bound	3,7049	
	Interval for Mean	Upper Bound	4,2020	
	5% Trimmed Mean		3,9648	
	Median		3,9375	
	Variance		,137	
	Std. Deviation		,36996	
	Minimum		3,20	
	Maximum		4,50	
	Range		1,30	
	Interquartile Range		,51	
	Skewness		-,483	,661
	Kurtosis		,501	1,279
WGCC_sack_high	Mean		4,1427	,08368
	95% Confidence	Lower Bound	3,9562	
	Interval for Mean	Upper Bound	4,3291	
	5% Trimmed Mean		4,1373	
	Median		4,1219	
	Variance		,077	
	Std. Deviation		,27755	
	Minimum		3,71	
	Maximum		4,67	
	Range		,96	
	Interquartile Range		,42	
	Skewness		,546	,661
	Kurtosis		,019	1,279

### Tests of Normality

	GCC_HiSac_cat	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GOCB	WGCC_sack_low	,100	11	,200 <sup>*</sup>	,995	11	1,000
	WGCC_sack_medium	,157	11	,200 <sup>*</sup>	,966	11	,847
	WGCC_sack_high	,190	11	,200 <sup>*</sup>	,959	11	,764

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## GCC\_LoAlt\_cat

### Case Processing Summary

	GCC_LoAlt_cat	Cases					
		Valid		Missing		Total	
		N	Percent	N	Percent	N	Percent
GOCB	WGCC_lack_low	11	100,0%	0	0,0%	11	100,0%
	WGCC_lack_medium	11	100,0%	0	0,0%	11	100,0%
	WGCC_lack_high	11	100,0%	0	0,0%	11	100,0%

### Descriptives

GCC_LoAlt_cat		Statistic		Std. Error	
GOCB	WGCC_lack_low	Mean	3,9720	,11407	
		95% Confidence Interval for Mean	Lower Bound	3,7178	
			Upper Bound	4,2261	
		5% Trimmed Mean	3,9629		
		Median	3,9208		
		Variance	,143		
		Std. Deviation	,37834		
		Minimum	3,43		
		Maximum	4,67		
		Range	1,24		
		Interquartile Range	,69		
		Skewness	,418	,661	
		Kurtosis	-,559	1,279	
	WGCC_lack_medium	Mean	3,9449	,11197	
		95% Confidence Interval for Mean	Lower Bound	3,6954	
			Upper Bound	4,1944	
		5% Trimmed Mean	3,9574		

WGCC_lack_high	Median		4,0813	
	Variance		,138	
	Std. Deviation		,37138	
	Minimum		3,19	
	Maximum		4,48	
	Range		1,28	
	Interquartile Range		,48	
	Skewness		-,774	,661
	Kurtosis		,376	1,279
	Mean		3,9193	,10392
	95% Confidence	Lower Bound	3,6877	
	Interval for Mean	Upper Bound	4,1508	
	5% Trimmed Mean		3,9268	
	Median		3,8925	
	Variance		,119	
	Std. Deviation		,34466	
	Minimum		3,20	
	Maximum		4,50	
	Range		1,30	
	Interquartile Range		,22	
	Skewness		-,232	,661
	Kurtosis		1,518	1,279

#### Tests of Normality

	GCC_LoAlt_cat	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
GOCB	WGCC_lack_low	,111	11	,200*	,970	11	,889
	WGCC_lack_mediu m	,189	11	,200*	,947	11	,608
	WGCC_lack_high	,208	11	,200	,921	11	,329

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## 9.9 Appendix 9: Two-way ANOVA-specific Tests

OAC\_H

Descriptives				
OAC_H			Statistic	Std. Error
,00	GOCB	Mean	3,8186	,09056
		95% Confidence Interval for Mean	Lower Bound 3,6256	
			Upper Bound 4,0117	
		5% Trimmed Mean	3,8215	
		Median	3,8094	
		Variance	,131	
		Std. Deviation	,36224	
		Minimum	3,19	
		Maximum	4,40	
		Range	1,21	
		Interquartile Range	,58	
		Skewness	-,289	,564
		Kurtosis	-,627	1,091
1,00	GOCB	Mean	4,0647	,07541
		95% Confidence Interval for Mean	Lower Bound 3,9048	
			Upper Bound 4,2245	
		5% Trimmed Mean	4,0574	
		Median	3,9958	
		Variance	,097	
		Std. Deviation	,31091	
		Minimum	3,59	
		Maximum	4,67	
		Range	1,09	
		Interquartile Range	,46	
		Skewness	,428	,550
		Kurtosis	-,621	1,063

Tests of Normality						
OAC_H		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk	
		Statistic	df	Sig.	Statistic	df
,00	GOCB	,101	16	,200*	,965	16
1,00	GOCB	,171	17	,200*	,956	17

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

## Descriptives

GAC_H			Statistic	Std. Error
,00	GOCB	Mean	3,7941	,09459
		95% Confidence Interval for Mean	3,5925	
		Lower Bound	3,9958	
		Upper Bound		
		5% Trimmed Mean	3,7884	
		Median	3,7984	
		Variance	,143	
		Std. Deviation	,37835	
		Minimum	3,19	
		Maximum	4,50	
		Range	1,31	
		Interquartile Range	,46	
		Skewness	,250	,564
		Kurtosis	-,233	1,091
1,00	GOCB	Mean	4,0877	,06520
		95% Confidence Interval for Mean	3,9495	
		Lower Bound	4,2259	
		Upper Bound		
		5% Trimmed Mean	4,0805	
		Median	4,0813	
		Variance	,072	
		Std. Deviation	,26882	
		Minimum	3,63	
		Maximum	4,67	
		Range	1,04	
		Interquartile Range	,32	
		Skewness	,406	,550
		Kurtosis	,356	1,063

## Tests of Normality

GAC_H		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
,00	GOCB	,159	16	,200 <sup>*</sup>	,956	16	,588
1,00	GOCB	,146	17	,200 <sup>*</sup>	,964	17	,701

\*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction



## 9.10 Appendix 10: Detailed Two-Way ANOVA Results

### Levene's Test of Equality of Error Variances<sup>a</sup>

Dependent Variable: GOCB

F	df1	df2	Sig.
,655	3	29	,586

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

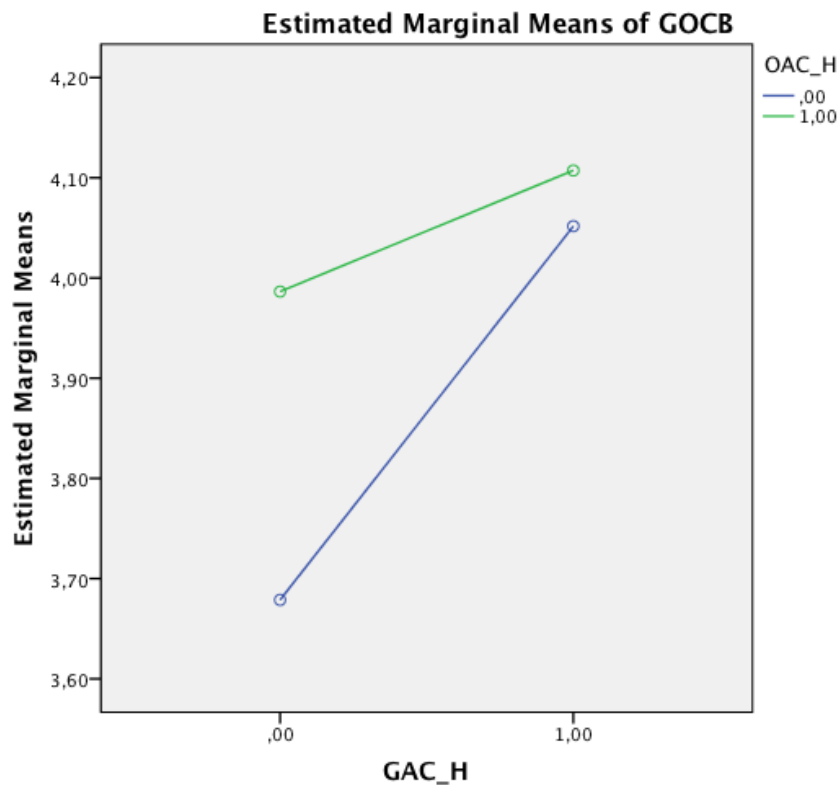
a. Design: Intercept + GAC\_H + OAC\_H + GAC\_H \* OAC\_H

### Tests of Between-Subjects Effects

Dependent Variable: GOCB

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1,077 <sup>a</sup>	3	,359	3,547	,027	,268
Intercept	477,658	1	477,658	4717,280	,000	,994
GAC_H	,465	1	,465	4,595	,041	,137
OAC_H	,252	1	,252	2,486	,126	,079
GAC_H *	,121	1	,121	1,198	,283	,040
OAC_H						
Error	2,936	29	,101			
Total	517,691	33				
Corrected Total	4,014	32				

a. R Squared = ,268 (Adjusted R Squared = ,193)



## 9.11 Appendix 11: Detailed Regression Results

GAC

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	GAC, TNURE_low, COUNTRY, CORP_large, MFREQ_low, TEAM_large, CONS <sup>b</sup>		Enter

a. Dependent Variable: GOCB

b. All requested variables entered.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,900 <sup>a</sup>	,811	,758	,17427	,811	15,309	7	25	,000	1,759

a. Predictors: (Constant), GAC, TNURE\_low, COUNTRY, CORP\_large, MFREQ\_low, TEAM\_large, CONS

b. Dependent Variable: GOCB

**ANOVA<sup>a</sup>**

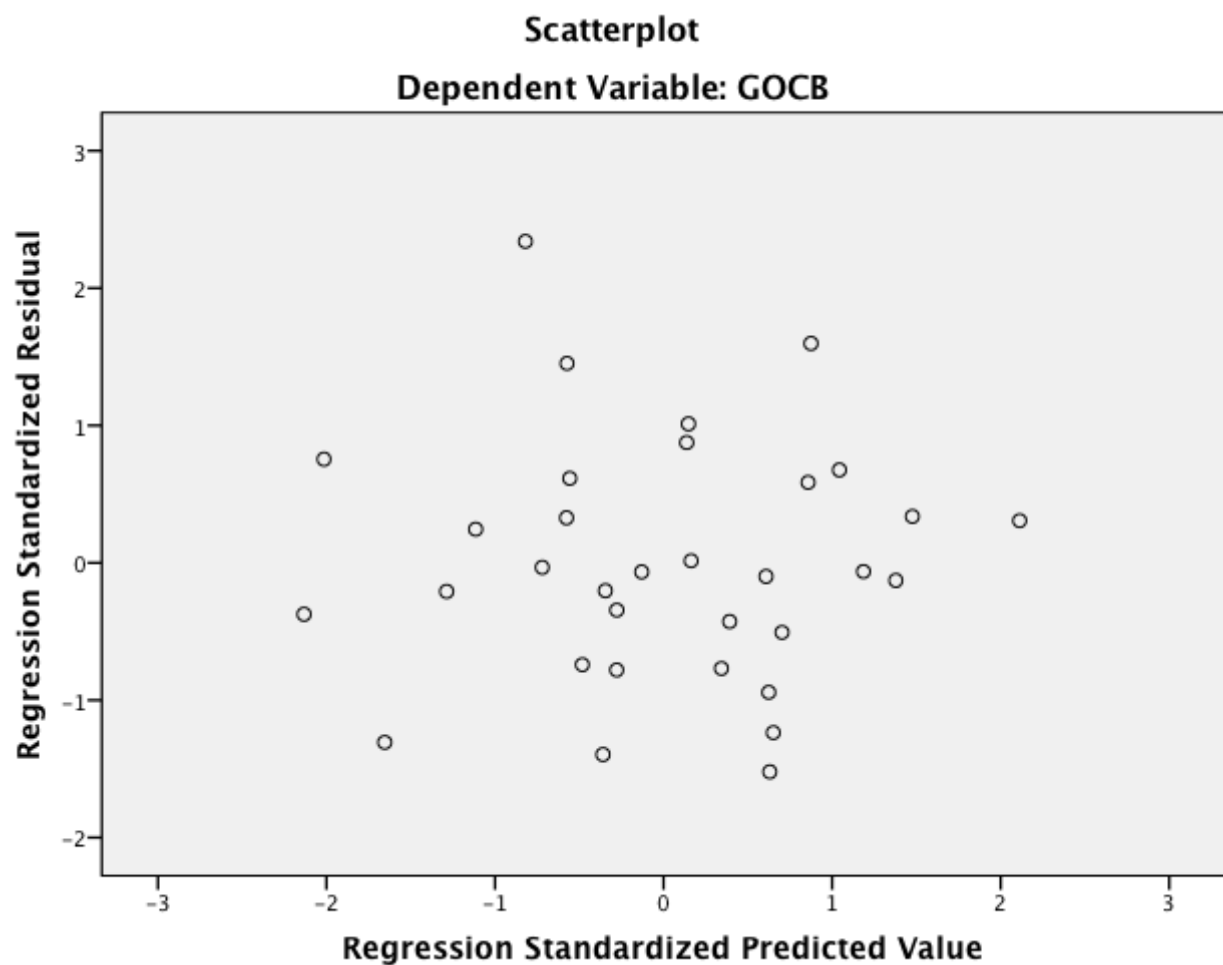
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3,255	7	,465	15,309	,000 <sup>b</sup>
	Residual	,759	25	,030		
	Total	4,014	32			

a. Dependent Variable: GOCB

b. Predictors: (Constant), GAC, TNURE\_low, COUNTRY, CORP\_large, MFREQ\_low, TEAM\_large, CONS

Coefficients <sup>a</sup>										
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	-,133	,541		-,245	,809					
COUNTRY	,359	,071	,495	5,091	,000	,329	,713	,443	,800	1,250
CORP_large	,180	,068	,258	2,656	,014	,225	,469	,231	,799	1,251
TEAM_large	,205	,071	,287	2,891	,008	,048	,500	,251	,769	1,300
TNURE_low	,146	,066	,209	2,219	,036	,016	,406	,193	,857	1,167
MFREQ_low	,117	,084	,144	1,394	,176	,184	,268	,121	,707	1,415
CONS	,220	,088	,255	2,499	,019	,540	,447	,217	,728	1,373
GAC	,407	,056	,720	7,272	,000	,567	,824	,633	,771	1,297

a. Dependent Variable: GOCB



**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	ONC, MFREQ_low, TEAM_large, COUNTRY, CORP_large, TNURE_low, CONS <sup>b</sup>		. Enter
2	GNC <sup>b</sup>		. Enter

a. Dependent Variable: GOCB

b. All requested variables entered.

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,675 <sup>a</sup>	,455	,303	,29578	,455	2,983	7	25	,020	
2	,675 <sup>b</sup>	,456	,274	,30172	,001	,026	1	24	,874	1,558

a. Predictors: (Constant), ONC, MFREQ\_low, TEAM\_large, COUNTRY, CORP\_large, TNURE\_low, CONS

b. Predictors: (Constant), ONC, MFREQ\_low, TEAM\_large, COUNTRY, CORP\_large, TNURE\_low, CONS, GNC

c. Dependent Variable: GOCB

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,827	7	,261	2,983	,020 <sup>b</sup>
	Residual	2,187	25	,087		
	Total	4,014	32			
2	Regression	1,829	8	,229	2,511	,039 <sup>c</sup>
	Residual	2,185	24	,091		
	Total	4,014	32			

a. Dependent Variable: GOCB

b. Predictors: (Constant), ONC, MFREQ\_low, TEAM\_large, COUNTRY, CORP\_large, TNURE\_low, CONS

c. Predictors: (Constant), ONC, MFREQ\_low, TEAM\_large, COUNTRY, CORP\_large, TNURE\_low, CONS, GNC

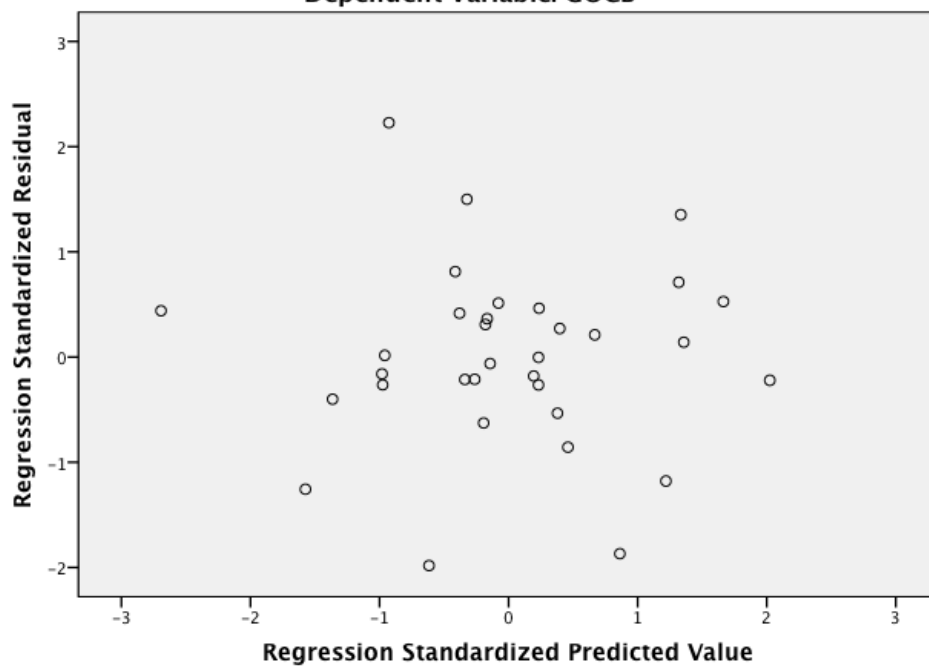
Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	1,376	,873		1,576	,128					
COUNTRY	,244	,116	,337	2,099	,046	,329	,387	,310	,847	1,180
CORP_large	,118	,117	,170	1,014	,320	,225	,199	,150	,779	1,283
TEAM_large	,087	,117	,122	,749	,461	,048	,148	,111	,817	1,224
TNURE_low	,136	,114	,194	1,185	,247	,016	,231	,175	,811	1,234
MFREQ_low	,151	,147	,185	1,029	,313	,184	,202	,152	,672	1,488
CONS	,290	,162	,337	1,790	,086	,540	,337	,264	,616	1,623
ONC	,093	,065	,253	1,427	,166	,321	,274	,211	,691	1,447
2 (Constant)	1,358	,898		1,513	,143					
COUNTRY	,237	,127	,327	1,863	,075	,329	,355	,281	,738	1,356
CORP_large	,123	,123	,176	1,004	,325	,225	,201	,151	,736	1,359
TEAM_large	,089	,120	,125	,748	,462	,048	,151	,113	,807	1,240
TNURE_low	,135	,117	,193	1,153	,260	,016	,229	,174	,809	1,236
MFREQ_low	,150	,150	,184	1,002	,326	,184	,200	,151	,671	1,491
CONS	,289	,166	,335	1,747	,093	,540	,336	,263	,615	1,625
ONC	,085	,084	,231	1,020	,318	,321	,204	,154	,441	2,269
GNC	,013	,084	,037	,161	,874	,279	,033	,024	,434	2,304

a. Dependent Variable: GOCB

Scatterplot

Dependent Variable: GOCB



**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	GNC, TNURE_low, MFREQ_low, TEAM_large, COUNTRY, CORP_large, CONS <sup>b</sup>	.	Enter
2	ONC <sup>b</sup>	.	Enter

a. Dependent Variable: GOCB

b. All requested variables entered.

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,657 <sup>a</sup>	,432	,273	,30197	,432	2,717	7	25	,031	
2	,675 <sup>b</sup>	,456	,274	,30172	,024	1,041	1	24	,318	1,558

a. Predictors: (Constant), GNC, TNURE\_low, MFREQ\_low, TEAM\_large, COUNTRY, CORP\_large, CONS

b. Predictors: (Constant), GNC, TNURE\_low, MFREQ\_low, TEAM\_large, COUNTRY, CORP\_large, CONS, ONC

c. Dependent Variable: GOCB

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,734	7	,248	2,717	,031 <sup>b</sup>
	Residual	2,280	25	,091		
	Total	4,014	32			
2	Regression	1,829	8	,229	2,511	,039 <sup>c</sup>
	Residual	2,185	24	,091		
	Total	4,014	32			

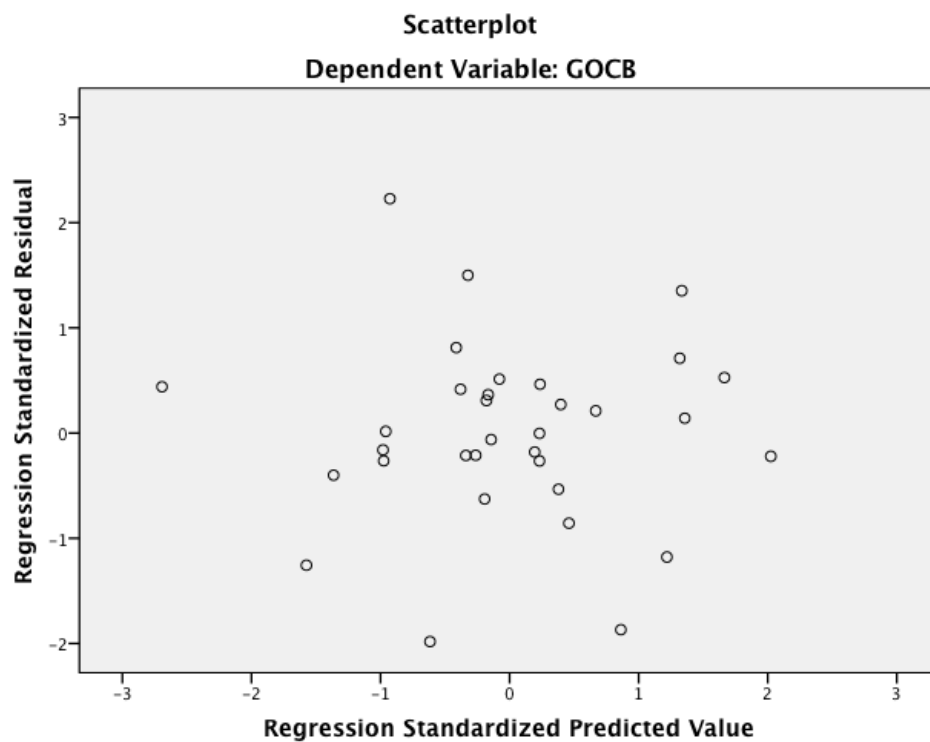
a. Dependent Variable: GOCB

b. Predictors: (Constant), GNC, TNURE\_low, MFREQ\_low, TEAM\_large, COUNTRY, CORP\_large, CONS

c. Predictors: (Constant), GNC, TNURE\_low, MFREQ\_low, TEAM\_large, COUNTRY, CORP\_large, CONS, ONC

Coefficients <sup>a</sup>										
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	1,186	,883		1,343	,191					
COUNTRY	,203	,123	,280	1,653	,111	,329	,314	,249	,791	1,265
CORP_large	,115	,122	,165	,941	,356	,225	,185	,142	,739	1,354
TEAM_large	,089	,120	,125	,743	,465	,048	,147	,112	,807	1,239
TNURE_low	,107	,114	,154	,944	,354	,016	,185	,142	,854	1,171
MFREQ_low	,119	,147	,146	,812	,424	,184	,160	,122	,699	1,430
CONS	,348	,155	,404	2,244	,034	,540	,409	,338	,701	1,426
GNC	,065	,067	,177	,969	,342	,279	,190	,146	,680	1,470
2 (Constant)	1,358	,898		1,513	,143					
COUNTRY	,237	,127	,327	1,863	,075	,329	,355	,281	,738	1,356
CORP_large	,123	,123	,176	1,004	,325	,225	,201	,151	,736	1,359
TEAM_large	,089	,120	,125	,748	,462	,048	,151	,113	,807	1,240
TNURE_low	,135	,117	,193	1,153	,260	,016	,229	,174	,809	1,236
MFREQ_low	,150	,150	,184	1,002	,326	,184	,200	,151	,671	1,491
CONS	,289	,166	,335	1,747	,093	,540	,336	,263	,615	1,625
GNC	,013	,084	,037	,161	,874	,279	,033	,024	,434	2,304
ONC	,085	,084	,231	1,020	,318	,321	,204	,154	,441	2,269

a. Dependent Variable: GOCB



**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	OCC_HiSac, CORP_large, MFREQ_low, TNURE_low, COUNTRY, TEAM_large, CONS <sup>b</sup>		. Enter
2	GCC_HiSac <sup>b</sup>		. Enter

a. Dependent Variable: GOCB

b. All requested variables entered.

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,724 <sup>a</sup>	,524	,391	,27631	,524	3,939	7	25	,005	
2	,784 <sup>b</sup>	,615	,486	,25381	,090	5,628	1	24	,026	1,463

a. Predictors: (Constant), OCC\_HiSac, CORP\_large, MFREQ\_low, TNURE\_low, COUNTRY, TEAM\_large, CONS

b. Predictors: (Constant), OCC\_HiSac, CORP\_large, MFREQ\_low, TNURE\_low, COUNTRY, TEAM\_large, CONS, GCC\_HiSac

c. Dependent Variable: GOCB

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,105	7	,301	3,939	,005 <sup>b</sup>
	Residual	1,909	25	,076		
	Total	4,014	32			
2	Regression	2,468	8	,308	4,788	,001 <sup>c</sup>
	Residual	1,546	24	,064		
	Total	4,014	32			

a. Dependent Variable: GOCB

b. Predictors: (Constant), OCC\_HiSac, CORP\_large, MFREQ\_low, TNURE\_low, COUNTRY, TEAM\_large, CONS

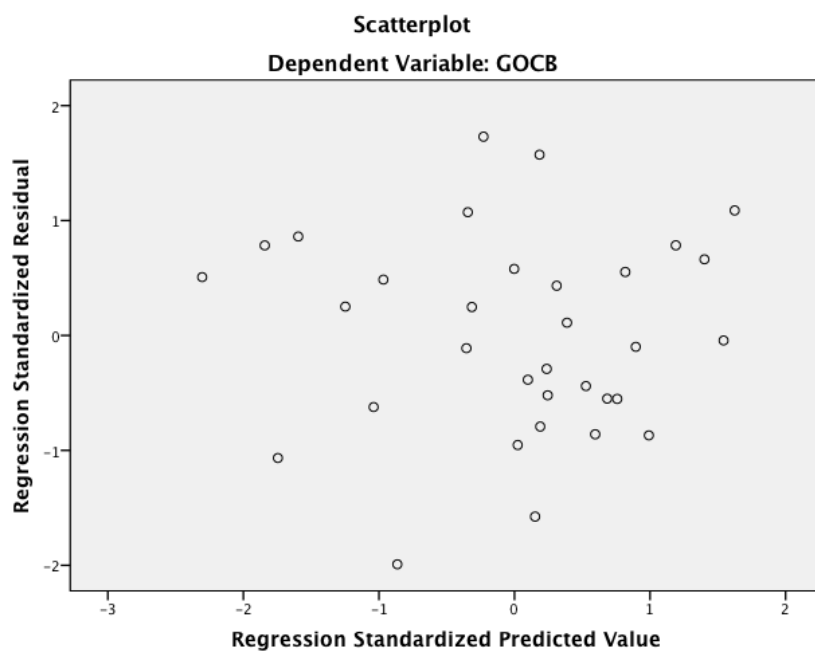
c. Predictors: (Constant), OCC\_HiSac, CORP\_large, MFREQ\_low, TNURE\_low, COUNTRY, TEAM\_large, CONS, GCC\_HiSac



Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std.	Beta			Zero-order	Partial	Part	Tolerance	VIF
		Error								
1 (Constant)	1,543	,820		1,882	,072					
COUNTRY	,150	,114	,207	1,321	,198	,329	,255	,182	,772	1,295
CORP_large	,118	,107	,169	1,103	,281	,225	,215	,152	,815	1,227
TEAM_large	-,050	,120	-,070	-,419	,679	,048	-,084	- ,058	,678	1,474
TNURE_low	,132	,105	,190	1,265	,218	,016	,245	,174	,848	1,180
MFREQ_low	,126	,134	,154	,939	,357	,184	,185	,129	,704	1,421
CONS	,246	,148	,285	1,665	,108	,540	,316	,230	,649	1,542
OCC_HiSac	,151	,062	,443	2,446	,022	,533	,439	,337	,579	1,727
2 (Constant)	1,353	,757		1,787	,087					
COUNTRY	-,058	,137	-,080	-,425	,674	,329	-,086	- ,054	,452	2,210
CORP_large	,244	,111	,349	2,187	,039	,225	,408	,277	,630	1,589
TEAM_large	,033	,115	,047	,288	,776	,048	,059	,036	,615	1,625
TNURE_low	,177	,098	,254	1,810	,083	,016	,347	,229	,816	1,226
MFREQ_low	,153	,123	,188	1,240	,227	,184	,245	,157	,698	1,433
CONS	,199	,137	,230	1,449	,160	,540	,284	,184	,635	1,575
OCC_HiSac	,050	,071	,147	,705	,487	,533	,142	,089	,370	2,700
GCC_HiSac	,202	,085	,623	2,372	,026	,512	,436	,301	,233	4,294

a. Dependent Variable: GOCB



**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	GCC_HiSac, TEAM_large, CONS, TNURE_low, MFREQ_low, CORP_large, COUNTRY <sup>b</sup>		. Enter
2	OCC_HiSac <sup>b</sup>		. Enter

a. Dependent Variable: GOCB

b. All requested variables entered.

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,779 <sup>a</sup>	,607	,497	,25125	,607	5,512	7	25	,001	
2	,784 <sup>b</sup>	,615	,486	,25381	,008	,497	1	24	,487	1,463

a. Predictors: (Constant), GCC\_HiSac, TEAM\_large, CONS, TNURE\_low, MFREQ\_low, CORP\_large, COUNTRY

b. Predictors: (Constant), GCC\_HiSac, TEAM\_large, CONS, TNURE\_low, MFREQ\_low, CORP\_large, COUNTRY, OCC\_HiSac

c. Dependent Variable: GOCB

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2,436	7	,348	5,512	,001 <sup>b</sup>
	Residual	1,578	25	,063		
	Total	4,014	32			
2	Regression	2,468	8	,308	4,788	,001 <sup>c</sup>
	Residual	1,546	24	,064		
	Total	4,014	32			

a. Dependent Variable: GOCB

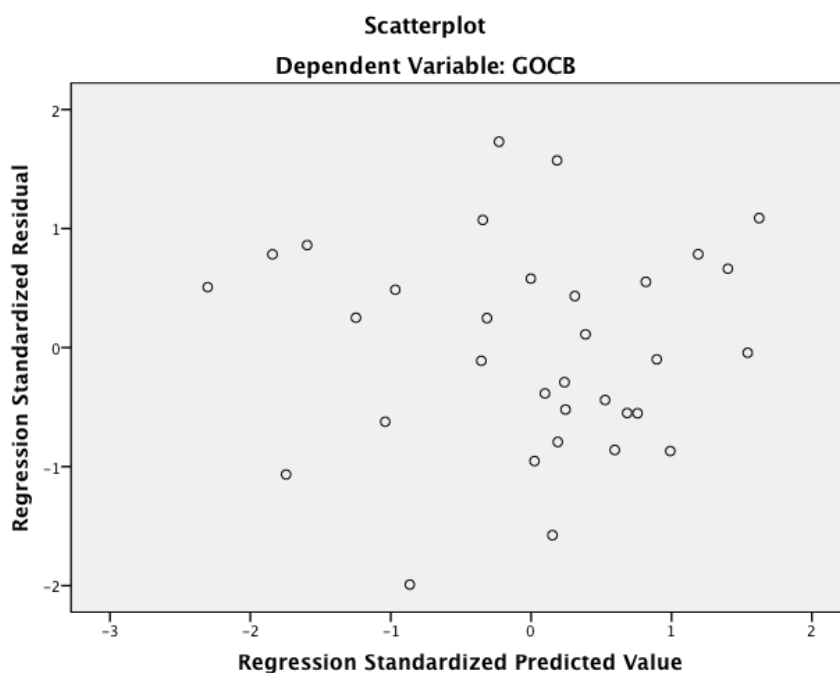
b. Predictors: (Constant), GCC\_HiSac, TEAM\_large, CONS, TNURE\_low, MFREQ\_low, CORP\_large, COUNTRY

c. Predictors: (Constant), GCC\_HiSac, TEAM\_large, CONS, TNURE\_low, MFREQ\_low, CORP\_large, COUNTRY, OCC\_HiSac

Coefficients<sup>a</sup>

		Unstandardized		Standardized	t	Sig.	Correlations			Collinearity	
		Coefficients		Coefficients			Statistics				
			Std.				Zero-	Partial	Part		
Model		B	Error	Beta			order			Tolerance	VIF
1	(Constant)	1,246	,734		1,697	,102					
	COUNTRY	-,077	,132	-,107	-,585	,564	,329	-,116	-,073	,471	2,121
	CORP_large	,257	,109	,368	2,364	,026	,225	,427	,296	,648	1,543
	TEAM_large	,074	,099	,104	,751	,460	,048	,148	,094	,823	1,215
	TNURE_low	,177	,097	,254	1,827	,080	,016	,343	,229	,816	1,226
	MFREQ_low	,153	,122	,189	1,256	,221	,184	,244	,157	,698	1,433
	CONS	,223	,132	,258	1,694	,103	,540	,321	,212	,677	1,478
	GCC_HiSac	,238	,067	,734	3,531	,002	,512	,577	,443	,364	2,747
2	(Constant)	1,353	,757		1,787	,087					
	COUNTRY	-,058	,137	-,080	-,425	,674	,329	-,086	-,054	,452	2,210
	CORP_large	,244	,111	,349	2,187	,039	,225	,408	,277	,630	1,589
	TEAM_large	,033	,115	,047	,288	,776	,048	,059	,036	,615	1,625
	TNURE_low	,177	,098	,254	1,810	,083	,016	,347	,229	,816	1,226
	MFREQ_low	,153	,123	,188	1,240	,227	,184	,245	,157	,698	1,433
	CONS	,199	,137	,230	1,449	,160	,540	,284	,184	,635	1,575
	GCC_HiSac	,202	,085	,623	2,372	,026	,512	,436	,301	,233	4,294
	OCC_HiSac	,050	,071	,147	,705	,487	,533	,142	,089	,370	2,700

a. Dependent Variable: GOCB



**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	OCC_LoAlt, CORP_large, COUNTRY, TNURE_low, CONS, TEAM_large, MFREQ_low <sup>b</sup>		. Enter
2	GCC_LoAlt <sup>b</sup>		. Enter

a. Dependent Variable: GOCB

b. All requested variables entered.

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,666 <sup>a</sup>	,443	,287	,29899	,443	2,843	7	25	,025	
2	,669 <sup>b</sup>	,447	,263	,30408	,004	,171	1	24	,683	1,416

a. Predictors: (Constant), OCC\_LoAlt, CORP\_large, COUNTRY, TNURE\_low, CONS, TEAM\_large, MFREQ\_low

b. Predictors: (Constant), OCC\_LoAlt, CORP\_large, COUNTRY, TNURE\_low, CONS, TEAM\_large, MFREQ\_low, GCC\_LoAlt

c. Dependent Variable: GOCB

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,779	7	,254	2,843	,025 <sup>b</sup>
	Residual	2,235	25	,089		
	Total	4,014	32			
2	Regression	1,795	8	,224	2,426	,044 <sup>c</sup>
	Residual	2,219	24	,092		
	Total	4,014	32			

a. Dependent Variable: GOCB

b. Predictors: (Constant), OCC\_LoAlt, CORP\_large, COUNTRY, TNURE\_low, CONS, TEAM\_large, MFREQ\_low

c. Predictors: (Constant), OCC\_LoAlt, CORP\_large, COUNTRY, TNURE\_low, CONS, TEAM\_large, MFREQ\_low, GCC\_LoAlt

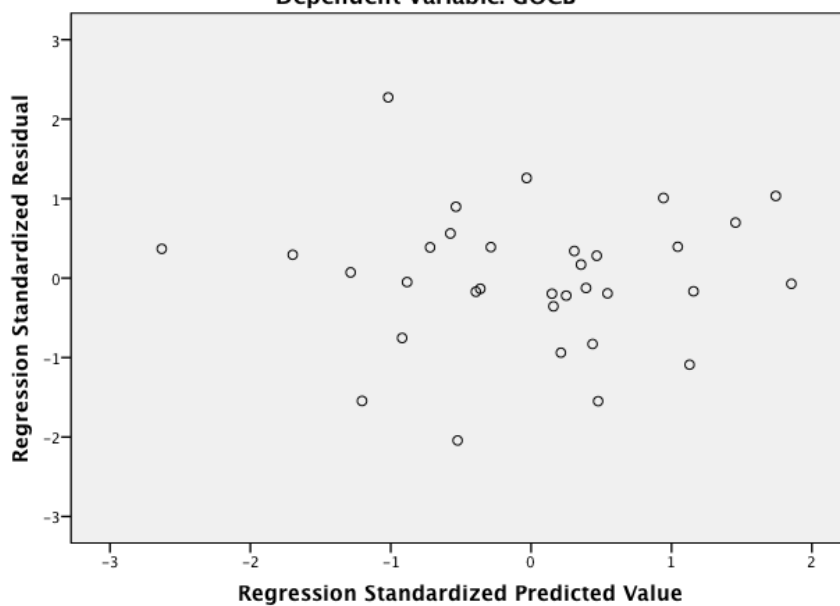
Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std.	Beta			Zero-order	Partial	Part	Tolerance	VIF
		Error								
1 (Constant)	1,234	,874		1,412	,170					
COUNTRY	,206	,120	,284	1,718	,098	,329	,325	,256	,816	1,225
CORP_large	,090	,115	,129	,789	,438	,225	,156	,118	,827	1,210
TEAM_large	,011	,128	,015	,082	,935	,048	,016	,012	,691	1,447
TNURE_low	,099	,112	,141	,880	,387	,016	,173	,131	,866	1,155
MFREQ_low	,071	,147	,087	,482	,634	,184	,096	,072	,682	1,466
CONS	,367	,147	,425	2,492	,020	,540	,446	,372	,765	1,308
OCC_LoAlt	,057	,048	,208	1,207	,239	,346	,235	,180	,748	1,336
2 (Constant)	1,397	,972		1,436	,164					
COUNTRY	,211	,122	,291	1,722	,098	,329	,332	,261	,808	1,237
CORP_large	,087	,117	,124	,741	,466	,225	,150	,112	,821	1,217
TEAM_large	,005	,131	,008	,042	,967	,048	,008	,006	,685	1,460
TNURE_low	,102	,114	,146	,895	,380	,016	,180	,136	,861	1,162
MFREQ_low	,074	,150	,091	,494	,626	,184	,100	,075	,680	1,470
CONS	,351	,154	,407	2,278	,032	,540	,422	,346	,720	1,389
OCC_LoAlt	,060	,049	,217	1,227	,232	,346	,243	,186	,738	1,354
GCC_LoAlt	-,026	,064	-,066	-,413	,683	-,139	-,084	-,063	,895	1,117

a. Dependent Variable: GOCB

Scatterplot

Dependent Variable: GOCB



**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	GCC_LoAlt, MFREQ_low, TEAM_large, COUNTRY, TNURE_low, CORP_large, CONS <sup>b</sup>	.	Enter
2	OCC_LoAlt <sup>b</sup>	.	Enter

a. Dependent Variable: GOCB

b. All requested variables entered.

**Model Summary<sup>c</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,642 <sup>a</sup>	,412	,248	,30713	,412	2,507	7	25	,043	
2	,669 <sup>b</sup>	,447	,263	,30408	,035	1,504	1	24	,232	1,416

a. Predictors: (Constant), GCC\_LoAlt, MFREQ\_low, TEAM\_large, COUNTRY, TNURE\_low, CORP\_large, CONS

b. Predictors: (Constant), GCC\_LoAlt, MFREQ\_low, TEAM\_large, COUNTRY, TNURE\_low, CORP\_large, CONS, OCC\_LoAlt

c. Dependent Variable: GOCB

**ANOVA<sup>a</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1,656	7	,237	2,507	,043 <sup>b</sup>
	Residual	2,358	25	,094		
	Total	4,014	32			
2	Regression	1,795	8	,224	2,426	,044 <sup>c</sup>
	Residual	2,219	24	,092		
	Total	4,014	32			

a. Dependent Variable: GOCB

b. Predictors: (Constant), GCC\_LoAlt, MFREQ\_low, TEAM\_large, COUNTRY, TNURE\_low, CORP\_large, CONS

c. Predictors: (Constant), GCC\_LoAlt, MFREQ\_low, TEAM\_large, COUNTRY, TNURE\_low, CORP\_large, CONS, OCC\_LoAlt

Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	1,305	,979		1,332	,195					
COUNTRY	,239	,121	,329	1,965	,061	,329	,366	,301	,837	1,195
CORP_large	,071	,117	,102	,609	,548	,225	,121	,093	,831	1,204
TEAM_large	,071	,121	,099	,586	,563	,048	,116	,090	,821	1,218
TNURE_low	,096	,115	,138	,835	,411	,016	,165	,128	,862	1,160
MFREQ_low	,107	,149	,132	,721	,478	,184	,143	,110	,703	1,422
CONS	,390	,153	,452	2,552	,017	,540	,455	,391	,750	1,333
GCC_LoAlt	-,017	,064	-,044	-,272	,788	-,139	-,054	-,042	,907	1,103
2 (Constant)	1,397	,972		1,436	,164					
COUNTRY	,211	,122	,291	1,722	,098	,329	,332	,261	,808	1,237
CORP_large	,087	,117	,124	,741	,466	,225	,150	,112	,821	1,217
TEAM_large	,005	,131	,008	,042	,967	,048	,008	,006	,685	1,460
TNURE_low	,102	,114	,146	,895	,380	,016	,180	,136	,861	1,162
MFREQ_low	,074	,150	,091	,494	,626	,184	,100	,075	,680	1,470
CONS	,351	,154	,407	2,278	,032	,540	,422	,346	,720	1,389
GCC_LoAlt	-,026	,064	-,066	-,413	,683	-,139	-,084	-,063	,895	1,117
OCC_LoAlt	,060	,049	,217	1,227	,232	,346	,243	,186	,738	1,354

a. Dependent Variable: GOCB

