

Leadership antecedents of workgroup and organizational identification

Master Thesis

M.Sc. (Cand. merc.) in Strategy, Organisation and Leadership

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Abstract

Background: Psychological variables play an important role in functioning of organizations and should be considered by managers when developing strategies and communicating with employees. Organizational identification, constructed on Social Identity Theory was determined to have positive outcomes for organizations. Although the concept was thoroughly investigated by researchers, the literature describing the leadership antecedents of Organizational Identification is scarce.

Aim: The purpose of this study was to explore the impact of leader prototypicality and superior-subordinate communication on workgroup and organizational identification. The study also verified the influence of workgroup identification on organizational identification.

Sample: Data set used in this study consisted of 50 responses to a questionnaire collected among employees of a medical equipment manufacturer.

Methods: Questionnaire consisted of measures of organizational identification, workgroup identification, perceived leader prototypicality and superior-subordinate communication.

Results: Linear regression models, with least squares personality, revealed that superior-subordinate communication has a positive impact on workgroup identification and that workgroup identification has a positive impact on organizational identification.

Conclusions: The results emphasize the positive influence of superior-subordinate communication on workgroup identification and reconfirm the findings from previous researches which indicated a positive impact of workgroup identification on organizational identification. Managerial implications are discussed.

Keywords: organizational identification, workgroup identification, antecedents of identification, leader prototypicality, leadership

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1. Introduction

In the current highly competitive economy, organizations that want to maintain effectiveness on the markets need to pay increasing attention to some non-operational activates like human resources. Both managers and academic researchers investigate the ways of understanding and predicting attitudes and behaviors of employees in their workplace to increase their efficiency and to decrease operational costs. One of the concepts that has recently gained a recognition in the field of organizational behavior is Organizational Identification (OID), which is based on individuals' tendency to define themselves in terms of belongingness to groups.

People can identify with for example gender, nationality, sports team, or organization that they work for. In result, they tend to favor groups they identify with, over other groups – a phenomenon called ingroup favoritism. The stronger the identification with a group, the more individuals show cooperative behavior towards that group (Haslam, 2004; Tajfel, 1972). Organizational identification is a specific form of group identification, and it explains the psychological attachment of an individual to an organization.

Although the research of OID has started gaining attention only in the last three decades, the first conceptualizations of the notion date back to the 50's of the last century (Foote, 1951). Later the concept gained some attention of the researchers around 1970' (Patchen, 1970; Schneider, Hall, & Nygren, 1971), however, it wasn't until 1989 when Ashforth and Mael (1989) conceptualized OID drawing from Social Identity Theory (Tajfel & Turner, 1979).

Organizational identification is linked to many desirable organizational outcomes e.g. lower absenteeism (e.g. Bartels, Douwes, De Jong, & Pruyn, 2007) increased organizational citizenship behavior (e.g. Bergami & Bagozzi, 2000) and lower turnover and intentions towards leaving the organization (Mael & Ashforth, 1995; Van Dick et al., 2004).

In order to predict those behaviors, a growing academic literature is investigating the antecedents of organizational identification. Antecedents that have been found to influence OID are, for example, organization's attractiveness and prestige (Ashforth & Mael, 1989;

Dutton, Dukerich, & Harquail, 1994) and communication climate (Bartels, Douwes, et al., 2007).

Despite the extensive body of research examining various antecedents of OID, the impact of leadership on identification is still in the development phase. The research has so far proven only a positive influence of three leadership styles on identification: transformational and transactional leadership (Carmeli, Atwater, & Levi, 2011; Epitropaki & Martin, 2005) and ethical leadership (Walumbwa & Hartnell, 2011). The scarce literature suggests that there may exist some unexplored leadership factors that influence OID.

1.0.1. Research question

As leaders have a significant impact on employees' daily work, it is important to understand what are their possibilities to enhance their subordinate's identification. The research in this thesis will attempt to address this gap in the literature and provide managers with understanding on how they can influence identification through their strategic decisions and daily activities. The following research question (RQ) has been formulated:

What is the impact of leadership on identification?

In order to answer the research question, a questionnaire has been conducted in a Danish medical equipment manufacturer. The company's management showed an interest in understanding how identification can be embraced through the actions of its leaders.

1.1. Theoretical framework

According to Tajfel (1972), social identity is "the individual's knowledge that he (or she) belongs to certain groups together with some emotional and value significance to him (or her) of the group membership" (Tajfel, 1972, p. 31). Through social identification with a group individuals adopt the social identity of this group.

This paper follows the research of Ashforth and Mael (1989) and views OID as a specific form of social identification. OID can be defined as "the perception of oneness with

or belongingness to an organization, where the individual defines him or herself in terms of organization(s) in which he or she is a member” (Mael & Ashforth, 1992, p. 104).

Research of OID has found that employees with strong OID demonstrate positive behavior and attitudes toward their organizations. For example better cooperation with colleagues (Dutton et al., 1994), lower absenteeism (Bartels, Peters, Jong, Pruyn, & Molen, 2010) and lower turnover and turnover intentions (Mael & Ashforth, 1995; Van Dick et al., 2004).

As the research progresses with identifying positive organizational outcomes of OID, it has become increasingly important for managers and researchers to determine which factors influence OID. Various studies have identified the antecedents of organizational identification. For example attractiveness, prestige and external image (Ashforth & Mael, 1989; Bartels, Douwes, et al., 2007; Dukerich, Golden, & Shortell, 2002; Dutton et al., 1994; Mael & Ashforth, 1992), organizational tenure (Mael & Ashforth, 1992) and job involvement (Katrinli, Atabay, Gunay, & Guneri, 2009; Riketta & Van Dick, 2005).

Only recently, have the researchers focused on investigating the influence of leadership on identification. Transformational, transactional and ethical leadership styles have been found to positively influence OID (Carmeli et al., 2011; Epitropaki & Martin, 2005; Walumbwa & Hartnell, 2011). The research in this paper will further investigate the leadership variables and their influence on OID.

Various studies have also found that strength of identification differs on various organizational levels (e.g. Ashforth, Harrison, & Corley, 2008; Ashforth & Johnson, 2001; Riketta & Nienaber, 2007). Many of these studies suggest that lower level identities are more strongly correlated with outcomes of identification, than the higher order identities (D. Van Knippenberg & Van Schie, 2000). Similarly, identification with lower organizational levels is better predicted, and more influenced by antecedents on the same organizational level (Reade, 2001).

One of the examples of identification with lower organizational level is workgroup identification (WID). WID had been found to be stronger than OID, be a better predictor of outcomes of identification and to be more closely correlated with some antecedents than

OID (Riketta & Van Dick, 2005). The research in this thesis will focus on organizational and workgroup levels and will verify if identification with lower organizational level (in this case WID) is stronger than identification with more abstract organizational level. Furthermore, this paper will investigate if identification with lower organizational levels influences identification on more abstract levels of organization (in this case OID; Bartels, Douwes, De Jong, & Pruyn, 2006; Van Knippenberg & Van Schie, 2000).

Furthermore, this study will draw from research literature that has found communication climate to be an antecedent of identification (Bartels, Douwes, et al., 2007; Bartels et al., 2010; Smidts, Pruyn, & van Riel, 2001) and studies that have shown that superior-subordinate communication correlates with organizational outcomes and commitment (Schweiger & Denisi, 1991).

Finally, this thesis will verify if there is a relationship between prototypicality of a leader and identification. A prototype can be defined as a 'representative exemplar' of a category (Billing, 1987), in the case of this paper, an exemplar of a workgroup or department. This part of the research will be based on findings that prototypical leaders are more influential and effective than non-prototypical leaders (Platow & van Knippenberg, 2001; B. van Knippenberg & van Knippenberg, 2005) and that leaders are found to influence subordinates' identities (Ellemers, Gilder, & Haslam, 2004; Lord & Brown, 2001; Piccolo & Colquitt, 2006).

This study will apply a modernistic perspective to answer the research questions and thus will use objective quantitative methods, to evaluate identification with workgroup and organization, superior-subordinate communication and perceived leader prototypicality.

2. Literature review

2.1. Historical background

The research of OID has started gaining attention only in the last 30 years. The first conceptualizations of the notion date back to the 50's of the last century. One of the early definitions of OID was formulated by Foote (1951), who described it as a foundation for motivation. A noteworthy element included in the definition was a notion of "self-concept"

(Foote, 1951, p. 17). This idea was elaborated 30 years later by Tajfel & Turner (1979) in the form of Social Identity Theory and will be discussed in the following section. Although the concept gained some interest of the researchers around 1970's (e.g. Brown, 1969; Hall, Schneider, & Nygren, 1970; Patchen, 1970; Schneider et al., 1971) it wasn't until late 1980's when organizational identification has been re-discovered, and its research gained a momentum. The breakthrough moment for the research was the conceptualization of the notion by Ashforth and Mael (1989) who defined OID drawing from Social Identity Theory (Tajfel & Turner, 1979).

2.2. Social Identity Theory

As mentioned, the research in this thesis is based on definitions of OID derived from Social Identity Theory (SIT; Tajfel & Turner, 1979; Tajfel, 1978), which is the most dominant approach in the literature concerning OID (Edwards, 2005). SIT had been developed from a series of minimal group studies carried out by Tajfel (1970). Many earlier studies had shown that people tend to favor their own groups. The purpose of the studies conducted by Tajfel was to find the minimal conditions for the occurrence of in-group favoritism. His studies have shown that simply assigning participants to a group, is enough to cause in-group favoritism (Tajfel, 1982).

This in-group bias is explained by individuals' tendency to maintain a positive social identity (Abrams & Hogg, 1988). According to Tajfel (1978, p. 31), social identity is "the individual's knowledge that he or she belongs to certain social groups together with some emotional and value significance to him of the group membership". One's self-image consists of two components: a personal identity and a number of social identities.

SIT (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987) suggest that individuals are in need of simplifying the social world by categorizing themselves and others into various social categories (e.g. membership in an organization, gender, ethnicity) and incorporating characteristics of these categories into their self-concept. This social classification cognitively segments and organizes the social environment thus providing people with systematic ways of defining others. Furthermore, it allows them to understand their place in the society.

Individuals can feel belongingness to many of such social categories which may differ in salience.

SIT also implies that people have a tendency to compare themselves with others based on their membership in particular groups. Furthermore, by this social comparison, individuals strive to enhance their self-esteem. They do it either through trying to enhance personal identity by favoring their own group or by assigning themselves (consciously or unconsciously) to social categories or groups that are evaluated as a source of positive identity (i.e. enhancing their social identity).

2.3. Self-Categorization Theory

The publication of SIT was followed few years later by the Self-Categorization Theory (SCT) developed by Turner et al. (1987). SCT shifted the focus of small group research from the focus on interpersonal relations (self-identification with other members) as the basis for the development of groups to the focus on self-categorization process as the cognitive basis of group behavior. SCT states that through self-categorization, individuals emphasize the perceived similarities of members of their ingroups and outgroups. Those similarities are cognitive sets of features that describe and prescribe qualities of a group and are referred to as 'prototypes.' In other words, a prototype can be defined as a 'representative exemplar' (Billing, 1987) of a (social) category.

People define social categories using those prototypical characteristics which they abstract from members of ingroups and outgroups (Turner, 1985). Through this stereotyping processes, group members become 'depersonalized' and are no longer perceived as unique individuals but, rather, as personifications of a relevant prototype. The same process influences the self-conception, which becomes depersonalized through a cognitive incorporation of self to the ingroup prototype.

A group prototype defines norms, values, beliefs, attitudes, and behavior and is context-dependent (Hogg, 2001). The prototype of an ingroup is an abstract cognitive representation of members of the ingroup that is based on the ingroup similarities and intergroup differences, but also on group memory and its history (Rosch, 1978; D. van Knippenberg & Hogg, 2003). As group members differ in their characteristics and

prototypical characteristics, some members may be more prototypical than others. The more a group member is prototypical, the more he or she represents standards, values, and norms of the group. Following SIT, the high degree of representativeness of a group member is likely to be reflected in one's self-concept and therefore prototypical group members are more apt to identify with a group (B. van Knippenberg & van Knippenberg, 2005).

2.4. Prototypicality and leadership

Literature also describes the relationship between prototypicality and leadership. It has been found that group members who are prototypical are shown to be more influential than less prototypical members and are more likely to become leaders (van Knippenberg D, van Knippenberg B, & van Dijk E, 2000). Leaders do not only lead groups, but they are also likely to self-categorize as a group member (Turner et al., 1987). Importantly, prototypical group leaders are found to be more influential and effective and are found to receive a stronger acceptance of followers than non-prototypical leaders (Platow & van Knippenberg, 2001; B. van Knippenberg, van Knippenberg, De Cremer, & Hogg, 2005).

2.5. Definitions of Organizational Identification

Multiple pre-SIT conceptualizations were proposed by researchers. As this thesis focuses on the conceptualizations of Organizational Identification, which are drawn from SIT, the following paragraph will only outline the main aspects of the early definitions.

According to (Foote, 1951) OID is a self-construction of an individual as a member of the organization, which motivates them to act on behalf of the organization. Similarly to Foote, Brown (1969) emphasized on the concept of "self" and defined identification as a form of self-defining relationship between an individual and organization. At around the same time another definition of OID was proposed by Patchen (1970). The author defines it as consisting of several different, but interlinked phenomena, which can be described as (1) feelings of solidarity with the organization (with an emphasis on the sense of belongingness to the organization) (2) a support of the organization, which develops into loyalty towards organization and includes defending organizational goals and policies; and (3) a perception of shared characteristics with other members of the organization.

In general, above definitions describe OID as a very broad concept and include various psychological phenomena. As all of them approach OID differently, a noticeable common element is a comparison of "self" in relation to the organization. With a conceptualization of SIT in 1979 (Tajfel & Turner) and a re-construction of OID on its basis (Ashforth & Mael, 1989), researchers finally gained a tool that allowed them to approach the concept in a more precise way. In short SIT can be summarized in three general assumptions: (1) people strive to enhance or establish a positive self-esteem; (2) person's social identity is based on their group membership and constitutes a part of one's self-concept; and (3) individuals strive to maintain their positive social identity through a positive differentiation between their ingroup and relevant outgroups (Tajfel & Turner, 1986, p. 16).

Ashforth and Mael (1989), in one of the most cited study in the field, clarified the concept of identification, focusing on its cognitive aspects and differentiating between identification itself and its consequences and antecedents. Ashforth and Mael interpret OID as "a specific form of social identification". In their definition, they use self-categorization as the most important element of social identification i.e. "the perception of oneness with, or belongingness to the organization" (Ashforth & Mael, 1989, p. 22).

In an extensive literature review, Dutton et al. (1994) further refined OID using Social Identity Theory. Their definition extends beyond self-categorization and includes implications of depersonalization. Dutton and his colleagues focus on the superiority of identity of an organizational member over alternative identities and the perception of sharing common characteristics of an organization that defines this organization as a social group. They refer to OID as "The degree to which a member defines him or herself by the same attributes that he or she believes define the organization" (p. 239). "Members (of an organization) become attached to their organizations when they incorporate the characteristics they attribute to their organization into their self-concepts" (Dutton et al., 1994). In this particular definition, self-concept is referred to "the totality of self-descriptions and self-evaluations subjectively available to an individual" (Abrams & Hogg, 1988, p. 25). This conceptualization seems similar to the definition proposed by Patchen (1970) who discussed the perception of shared characteristics with other members of an organization,

but contrary to Patchen (1970), Dutton et al., (1994) focuses on the perception of shared characteristics with an organization itself.

A similar definition was proposed by (Pratt, 1998, p. 172): 'Organizational Identification occurs when an individual's beliefs about his or her organization become self-referential or self-defining.' By this, he implied that OID requires an individual to integrate beliefs about his or her organization into his or her identity ("self-referring") or to change himself or herself "to become more similar" to the organization ("self-defining").

Most of the researchers agree that a strong linkage between an individual and organization is a prerequisite for identification. However, the disagreement arises in defining if the nature of identification should be seen as affective or cognitive. The above definitions strongly emphasize on the fact that identification is cognitive and the supporters of the cognitive conceptualizations see affective aspects solely as outcomes of cognitive identification (Ashforth & Mael, 1989; Bergami & Bagozzi, 2000).

A relatively recent development of OID proposed by (Van Dick et al., 2004) extends the conceptual boundaries of the notion by implying that identification consists of four components: affective (emotional attachment to the group), cognitive (awareness of being a member), evaluative (positive evaluation of the organization) and behavioral/conative ("participation in actions which are relevant for group"). The affective component links back to original conceptualization of SIT (Tajfel, 1972) and the conative component broadens the conceptual boundaries of OID by including the actual behavior and taking the notion beyond a subjective state (Edwards, 2005).

A good summary of OID definitions from the last few decades was presented in meta-analysis by Riketta (2005, p. 360): "Despite their heterogeneity, all these definitions imply that the organizational member has linked his or her organizational membership to his or her self-concept, either cognitively (e.g., feeling a part of the organization; internalizing organizational values), emotionally (pride in membership), or both." Or OID definition proposed by Edwards (2005, p. 227): "a psychological linkage between the individual and the organization, whereby the individual feels a deep, self-defining affective and cognitive bond with the organization as a social entity."

2.6. Outcomes of Organizational Identification

Many studies have found that OID has a significant impact on the functioning of organizations. The literature identifies both positive and adverse consequences of a strong identification.

Strong OID has been shown to improve the cooperation with other members of the organization (Dutton et al., 1994), enhance employees' desire to strive for the organization's goals (Elsbach & Glynn, 1996) and lower absenteeism (Bartels et al., 2010). Many researchers pointed to increase in organizational citizenship behavior among employees with strong identification (Bergami & Bagozzi, 2000; Christ, Van Dick, Wagner, & Stellmacher, 2003). Furthermore, a strong OID is associated with lower turnover and turnover intentions (Mael & Ashforth, 1995; Van Dick et al., 2004). Strong OID is also linked to positive job satisfaction (Van Dick et al., 2004; Van Dick, Ullrich, & Tissington, 2006; D. Van Knippenberg & Van Schie, 2000), better task and job performance (Walumbwa, Avolio, & Zhu, 2008; Weiseke, Ahearne, Lam, & von Dick, 2008) and better performance in virtual teams (Sivunen, 2006). Strongly identifying employees are also more willing to spread a positive image of the organization (Bhattacharya, Hayagreeva, & Glynn, 1995) and improve customer orientation (Thakor & Joshi, 2005).

The literature also identifies negative outcomes of OID. Important outcomes are resistance to organizational change (Bouchikhi & Kimberly, 2003), unethical behavior in favor of organization (Umphress, Bingham, & Mitchell, 2010), lower effectiveness and creativity in research and development settings (Rotondi, 1975).

2.7. Antecedents of Organizational Identification

According to SIT, individuals seek to emphasize their distinctiveness in relation to others (Tajfel & Turner, 1986). This element of SIT was stressed by Ashforth and Mael (1989, p. 24) when conceptualizing OID: "the distinctiveness of the group's values and practices in relation to those of comparable groups increase members' tendency to identify with an organization." This was also confirmed in their later study (Mael & Ashforth, 1992) and by various other researchers (Dutton et al., 1994; Dutton & Dukerich, 1991).

As individuals strive to increase their self-esteem, they tend to identify more with an organization that allows them to enhance it. This leads to a group of factors that contribute to OID that, together with distinctiveness, can be grouped under a label of perceived organizational identity attributes. Those are organizational attractiveness, prestige and external image (Ashforth & Mael, 1989; Bartels, Douwes, et al., 2007; Dukerich et al., 2002; Dutton et al., 1994; Mael & Ashforth, 1992).

Other antecedents that have been associated to correlate with OID are organizational tenure (Mael & Ashforth, 1992), communication climate (Bartels, Douwes, et al., 2007; Bartels et al., 2010; Smidts et al., 2001) and job involvement (Katrinli et al., 2009; Riketta & Van Dick, 2005).

An increasing body of research focuses on more dynamic and interpersonal factors that influence OID. One of them is leadership. As the behavior of leaders is a significant influencer of the day-to-day organization's life, it also influences how employees identify with an organization. The literature has found that leaders can impact identities of their subordinates (Ellemers et al., 2004; Lord & Brown, 2001; Piccolo & Colquitt, 2006). So far the research has focused on examining the impact of leadership styles on OID. Transformational leadership had been found to correlate positively with OID (Carmeli et al., 2011). Epitropaki and Martin (2005) found that both transformational and transactional leadership influence OID. Furthermore, authors of this study have concluded that this positive correlation with transformational leadership may be determined by individual's affective experience with an organization. Walumbwa & Hartnell (2011) have found that that employees' OID is positively related to ethical leadership.

Although the antecedents mentioned in the above paragraph do explore the impact of some leadership styles on identification, there still may exist other antecedents related to actions and behavior of leaders. The research in this thesis will further examine this gap in the literature.

2.8. Organizational Commitment

Despite the detailed and refined conceptualizations of OID, there exists some confusion between the notions of organizational identification and organizational

commitment (OC). In the literature there exist not only similarities in the conceptualization of both terms but also the interchangeable use of both terms (Benkhoff, 1997; Mathieu & Zajac, 1990) or recognition of one as part or an outcome of another (Ashforth & Mael, 1989; Pratt, 1998; Van Dick, 2004). There also exists an overlap on the operational level which will be discussed in a later part of this thesis. Because of those overlaps, it is important to examine and distinguish both concepts.

The research of OC is more than a half of the century old (e.g. Becker, 1960) and throughout the time gained multiple definitions. A relatively recognized definition was proposed by Allen and Meyer (1990). The authors introduced a three-component model in which they distinguished between affective commitment, continuance commitment, and normative commitment. They describe affective commitment (AC) as 'the employee's emotional attachment to, identification with, and involvement in the organization' (Allen & Meyer, 1990, p. 67). This definition indicates a clear overlap between AC and OID, explicitly in the fact that identification is mentioned as the component of AC. However, on contrary to leading OID research, these two definitions do not imply on perceived oneness with the organization: the self-concept and the organization remain separate entities. This means that definition by Allen and Meyer are not established on SIT or SCT, which emphasize on the definition of self through the membership in an organization (Ashforth et al., 2008; Bergami & Bagozzi, 2000; Mael & Ashforth, 1995; Pratt, 1998; Van Dick, 2004). The lack of consensus regarding definitions of OID and affective commitment and the fact that both concepts describe a strong linkage between an individual and organization shows clearly why, over the years, both concepts were confused. This conceptual overlap was confirmed in results of multiple OID and commitment studies that have indicated a strong correlation between both terms (Riketta & Van Dick, 2005; Riketta, 2005). For example, in a recent meta-analysis by Riketta (2005) OID and AC shared a variance of 61%. Despite the significance of overlap, the author proved OID to be distinctive through a significant difference in its correlates. His findings showed weaker correlation with job satisfaction, intent to stay and absenteeism and a much stronger correlation with extra-role behavior and job involvement than AC's results. Finally, the author concluded that OI is a much more

specific construct that AC. Other researchers similarly distinguish OID from “the wider notion of commitment” (Edwards & Peccei, 2007, p. 30).

2.9. Multiple level identities

Earlier I described concepts relating to an organization as a single entity with which an individual can identify (e.g. Ashforth & Mael, 1989; Dutton et al., 1994; Pratt, 1998; Riketta, 2005). However, organizations are highly differentiated bodies with multiple organizational levels (Ashforth & Johnson, 2001). Although the research of multiple level identities is not as refined and elaborate as the concept of OID, it has gained a significant momentum in the recent years.

According to the model presented by Ashforth and Johnson (2001) multiple identities can be nested (embedded) and/or cross-cutting. According to this model, nested identities manifest themselves through levels of the organization and are cross-cut by identities appearing on all organizational levels. Members of an organization can identify with, for example, performed job, workgroup, department, division and finally with an organization. Those nested identities can be cross-cut by, for example, cross-functional team or lunch group identities. Ashforth and Johnson (2001) split the nested identities into lower order (e.g. performed job, workgroup) and higher order identities (e.g. divisions).

It is deeply ingrained in the literature that individuals distinguish between these identity levels (Ashforth et al., 2008; Riketta & Nienaber, 2007; Van Dick et al., 2004; D. Van Knippenberg & Van Schie, 2000). This distinction generates much more statistically significant results. For example, according to D. Van Knippenberg and Van Schie (2000) lower level identities are more strongly correlated with outcomes of identification than in the higher order identities. Authors justify by stating that those identities relate more to daily activities of an individual and therefore to the outcomes. Similarly, (Reade, 2001) found that in a multinational organization context lower level identities are more influenced by antecedents occurring on that organizational level.

Furthermore, researchers have proved that the stronger individual identifies with a particular level of the organization, the stronger is their identification with more abstract organizational levels (Bartels, Douwes, et al., 2007; D. Van Knippenberg & Van Schie, 2000).

Many of the researchers look on a particular level of identification i.e. workgroup. For example, they suggest that identification with a work group is stronger than with the organization as a whole (Bartels, Douwes, et al., 2007; Riketta & Van Dick, 2005) and that "workgroups are more salient social unit" (Riketta & Van Dick, 2005).

2.10. Workgroup identification

As this thesis will investigate identification on workgroup level, it is important to outlay the current research regarding workgroup identification.

Following the definition of OID by Ashforth and Mael (1989) and Mael and Ashforth (1992), workgroup identification may be defined as the perception of oneness or belongingness to the workgroup. D. Van Knippenberg and Van Schie (2000) have shown that employee's closest group, where their daily tasks are performed, is experienced by them as the most important one. Ashforth and Johnson (2001) have stated that the closer is the identity to an individual, the more visible it is. They call it "identity salience."

Workgroup identification (WID) has not only been shown to be stronger than OID (Riketta & Van Dick, 2005) but it was also proved to be a better indicator of attitudes and behavior (D. Van Knippenberg & Van Schie, 2000). A detailed analysis conducted by Riketta and Van Dick (2005), which focused on an analysis of workgroup and organizational attachment (a fusion of identification and commitment), further refined this statement. The two researchers concluded that team-related variables like a perception of communication climate, satisfaction with other colleagues and altruistic behaviors were more closely related to WID than OID and respectively satisfaction with an organization, intention to leave, and extra-role behavior related to an organization indicated more significant correlation with OID than with WID.

Although WID in many cases may positively influence OID, it also bears negative implications for an organization. A strong WID may foster intergroup discrimination which may lead to competition or hostility between different workgroups and unwillingness of an individual to be transferred to different workgroup and in consequence lack of motivation (D. Van Knippenberg & Van Schie, 2000). According to Ashforth and Johnson (2001) WID is likely to render ingroup favoritism if ingroup and outgroup are perceived as distinct and

task and goal independent and if the culture of the ingroup does not discourage ingroup favoritism.

2.11. Measuring identification and problems of its operationalization

As explained before, among researchers, there exists a disagreement between the actual definition of OID. Respectively the OID literature illustrates a presence of uncertainty in measurement methods of the concept. As this thesis aims at measuring and evaluating identification with an organization and a workgroup, it is important to discuss the possibilities of measuring the OID in order to understand the implications of the chosen measurement tool.

According to Edwards (2005), the main problem with the early measures of OID (e.g. Brown, 1969; Cheney, 1983; Hall et al., 1970) was the lack of a strong connection between the conceptualization of OID and its operationalization, poor face validity, and also measuring other related concepts. Thus, results gathered using those scales are affected by contamination.

The problem of measuring OID was approached a decade later by Mael and Ashforth (1992) who were the first researchers to introduce the perspective of SIT into the concept of OID (Ashforth & Mael, 1989). Their conceptualization of OID has separated the cognitive, behavioral, and emotional aspects of identification and has recognized its outcomes and antecedents. In their study, authors emphasized on cognitive component of identification (i.e. self-categorization) and differentiated their conceptualization from previous studies which in their opinion confused OID with affect (Mael & Ashforth, 1992). Throughout the last three decades, their six-item scale (Organizational Identification Scale or OIS) became the most widely used measurement tool (Edwards, 2005; Riketta, 2005) by a large body of researchers (e.g. Bamber & Venkataraman, 2002; Moye & Bartol, 2001; D. Van Knippenberg & Van Schie, 2000).

Despite the widespread use of OIS, the scale subjects to some criticism. Similarly to earlier measures, the main issue was the difference between the conceptualization and operationalization. For example, Bergami and Bagozzi (2000) argue that although OID was defined by Ashforth and Mael (1989) as solely cognitive construct, scale developed by them

measures not only the awareness of one's membership but also includes antecedents, outcomes, and correlates of identification. The authors pointed out that three items of the scale reflect an emotional response of members when their organization is criticized or praised, followed by two items that may measure variables that influence one's identification. Pointing only to one item which could measure self-categorization, but arguably, could also reflect its consequence (Bergami & Bagozzi, 2000). The same issue has been risen by Van Dick (2001, p. 271) who argued that the cognitive component "is totally neglected" in Mael and Ashforth's scale. Other researchers also pointed that the fact that OIS focuses on "public expressions of identification rather than its subjective meaning" (Abrams & de Moura, 2001, p. 137). Edwards (2005) has linked this problem to the origin of OIS, as Mael and Ashforth (1992) derived their scale from Mael and Tetrick's (1992) scale of Identification with Psychological Group, which was designed to measure "perceived shared experiences".

An innovative development in measuring OID has been proposed by Bergami and Bagozzi (2000) who suggested using a single-item graphic scale to measure one's identification with an organization. Their scale is a graphical representation of one's identity merging with identity of an organization that they are members of. This scale is an interesting evolution of the operationalization of OID, however, as it is pointed out by Edwards (2005), it is based on an assumption that an individual knows what identity is and defines it in the same way as the researcher. Therefore, it may cause validity issues. This problem hasn't gone unnoticed by scholars who adopted this scale to their studies. For example, Shamir and Kark (2004) argue that graphic scale is as useful measure as the verbal scales, but is not superior to them.

As it can be concluded from the above, literature offers a few alternatives for the choice of the OID measure, each with its problems. A solution to this issue may be following outcomes of Riketta's (2005) meta-analysis of 96 studies of OID and its correlates. The author observed that the results based on Mael and Ashorth's (1992) scale were on average closer to results obtained in studies that were using other measures. The researcher also concluded that results of OIQ (the second most common OI scale according to Riketta) were

heterogeneous, correlated strongly with results from AOC scales (especially with job satisfaction) and were “not equivalent to results obtained with the Mael scale”.

Riketta (2005) concludes that studies involving Mael and Ashforth (1992) scale were relatively homogenous when comparing to results obtained from other scales and, that OIS, with regard to its empirical outcomes, seems to be the best available OI measure to date. Following the Riketta’s (2005) findings, the research in this thesis will use Ashforth and Mael’s (1992) scale to measure identification with an organization and a modified version of this scale to measure workgroup identification.

2.12. Communication climate

One of the objectives of this thesis is to examine if the perceived quality of communication between superior and subordinate influences identification. It is, therefore, important to discuss the current research regarding these notions.

Once two people start communicating, a climate starts developing (Gibb, 1961). Denis (1974, p. 29) defined communication climate as “A subjectively experienced quality of the internal environment of an organization: the concept embraces a general cluster of inferred predispositions identifiable through reports of members’ perceptions.” A key principal in the communication climate is employee’s subjective and affective perceptions of the quality of communication and relations with other employees in the organization (Goldhaber, 1993). Research identifies three dimensions that constitute communication climate: (1) supportiveness (feeling of being taken seriously); (2) openness and candor; and (3) perceived participative decision making (Dennis, 1974; Redding, 1972; Smidts et al., 2001).

Communication climate has been indicated as a crucial element of creating effective organizations (Redding, 1972). Furthermore, communication climate has been found to correlate positively with organizational identification (Bartels, Douwes, et al., 2007; Bartels et al., 2010; Bartels, Puryn, De Jong, & Joustra, 2007; Smidts et al., 2001) and identification with various organizational levels (Bartels, Douwes, et al., 2007). It may also stimulate employees to meet organizational goals (Smidts et al., 2001).

Communication climate as defined above relates to the general quality of the climate among members of an organization. Many of the communication climate dimensions are

strongly influenced by employees' communication with superiors (Dennis, 1974; Redding, 1972).

Superior-subordinate communication is defined as an exchange of information and influence between members of an organization, where at least one of those members holds a formal authority to direct and evaluate the activities of other members of the organization (Jablin, 1979). Superior-subordinate communication has been linked to organizational outcomes like impact on job satisfaction and organizational commitment (Schweiger & Denisi, 1991). Following those studies, this research explores if the quality of superior-subordinate communication influences employee's identification with organization and workgroup.

2.13.Hypotheses

The research in this thesis analyzes the influence of leaders on identification. As leaders in organizations operate on different organizational levels, it is also important to understand how identification can be constructed on lower organizational levels in order to enhance identification with the whole organization. The purpose of this research is threefold. First, this paper will investigate the the impact of identification with workgroup on organizational identification. Secondly, a hypothesized influence of leader prototypicality on identification will be analyzed. Thirdly, the impact of quality of superior-subordinate communication on workgroup and organizational identification will be explored.

2.13.1. Identification with different organizational levels

This study follows the conclusions of multiple research papers that found organizational members to identify differently with various levels of the organization (e.g. Ashforth & Johnson, 2001; Bartels et al., 2007; Van Dick et al., 2004; D. Van Knippenberg & Van Schie, 2000). According to Ashforth and Johnson (2001), the identities on the lower organizational levels are embedded in the higher level identities. The lower level identities, where the daily tasks of organizational members are performed (e.g. workgroup), are experienced by them as the most important ones (D. Van Knippenberg & Van Schie, 2000). Therefore, employees are also more likely to identify stronger with their workgroup than

with the organization (e.g. Riketta & Van Dick, 2005). Basing on these findings it expected that identification with workgroup will be stronger than identification with an organization as a whole.

Following the findings of Ashforth and Johnson (2001) that lower identities are nested (embedded) in the higher level identities, and that those lower level identities can strengthen identification with more abstract organizational levels (Bartels, Douwes, et al., 2007; D. Van Knippenberg & Van Schie, 2000), this study also predicts that identification with workgroup will influence the identification with an organization. Consequently, following hypotheses were formulated:

H1_A: Employee identification with workgroup is stronger than identification with an organization.

H1_B: Employee identification with workgroup influences identification with an organization.

2.13.2. Leader prototypicality as an antecedent of identification

As discussed in the previous section of this thesis, leaders were found to impact followers' self-concept (Ellemers et al., 2004; Lord & Brown, 2001; Piccolo & Colquitt, 2006). Leaders perceived by their subordinates as "representative exemplars" (Billing, 1987) of the members of the group are referred to as prototypical. Prototypical leaders were found to be more influential, effective, and were found to receive a stronger acceptance of their followers (Platow & van Knippenberg, 2001; B. van Knippenberg et al., 2005). The research literature has also found that, the high representativeness of group members is likely to be reflected in one's self-concept, and therefore prototypical group members are prone to identify with a group (B. van Knippenberg & van Knippenberg, 2005). Following these findings, it is predicted that prototypical leaders, through their higher identification and higher influence and effectiveness, are able to positively impact the identification of their subordinates.

As the phenomenon of leader prototypicality relates to workgroup level of organization, it is expected that it will have a bigger impact on workgroup identification than organizational identification. This prediction is justified by findings of Reade's (2001) who

determined that identification can be predicted best when antecedents are matched on the same organizational level and with the findings of Riketta and Van Dick (2005) who observed that the team-related variables are more closely related to identification with workgroup than with an organization. Hence, the following hypotheses were formulated.

H2_A: The more one's direct supervisor is perceived as prototypical, the stronger the workgroup identification.

H2_B: The more one's direct supervisor is perceived as prototypical, the stronger the organizational identification.

H2_C: The perceived prototypicality of one's immediate supervisor has a greater influence on workgroup identification than on the organizational identification.

2.13.3. Superior-subordinate communication as an antecedent of identification

As presented in previous section, the influence of communication climate on organizational identification is well grounded in the research literature (Bartels, Douwes, et al., 2007; Bartels et al., 2010; Smidts et al., 2001). Superior-subordinate communication is a significant element of communication climate measure (Dennis, 1974; Redding, 1972), and at the same time, it was found to influence concepts closely related to organizational identification like job satisfaction, which was found to be an outcome of OID (Van Dick et al., 2004, 2006; D. Van Knippenberg & Van Schie, 2000), and organizational commitment (Schweiger & Denisi, 1991). Following these findings, it is predicted that the communication between superior and subordinate influences workgroup and organizational identification.

Furthermore, the impact of leaders on their followers' self-concept (Ellemers et al., 2004; Lord & Brown, 2001; Piccolo & Colquitt, 2006) also supports this statement. Following Reade's (2001) finding that identification can be predicted best when its antecedents occur on the same level of organization and the fact that the communication between superior and subordinate is experienced on a workgroup level, it is also expected that superior-subordinate communication will have a bigger impact on workgroup identification than on organizational identification. This was also confirmed in a study by Riketta and Van Dick (2005) who have concluded that team-related variables like the perception of

communication climate are more closely related to WID than OID. Basing on this research, the following hypotheses were formulated:

H3_A: The quality of superior-subordinate communication positively influences identification with a workgroup.

H3_B: The quality of superior-subordinate communication positively influences identification with an organization.

H3_C: Superior-subordinate communication has a greater influence on identification with a workgroup than identification with an organization.

Figure 1 and Figure 2 show the hypothesized research models.

Figure 1 Hypothesized research model 1

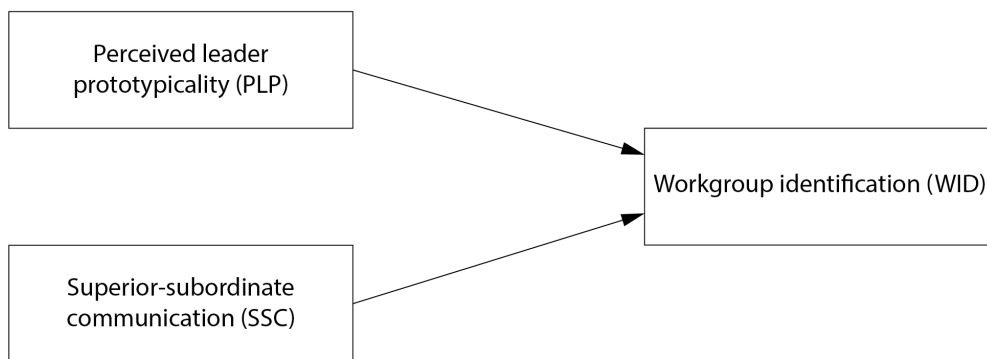
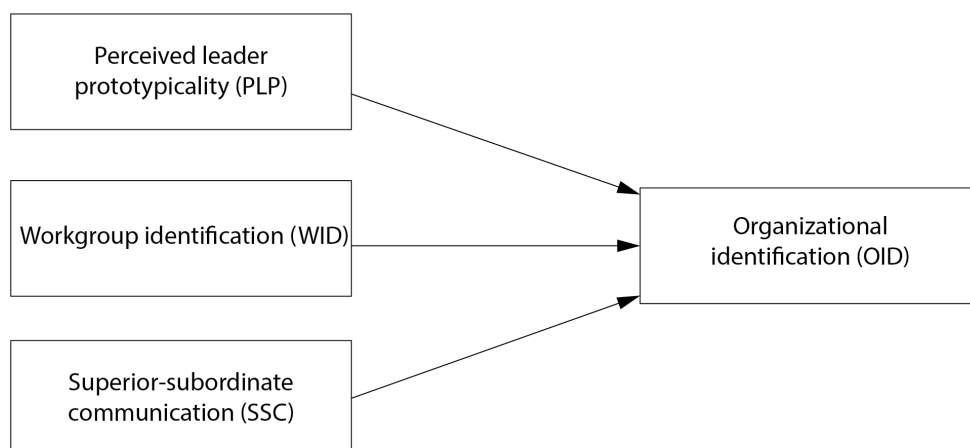


Figure 2 Hypothesized research model 2



3. Methodology

3.1. Sample

To test the hypothesized research models (Figure 1 and Figure 2), a questionnaire study has been conducted among employees of a Danish medical equipment manufacturer. The company positions itself as a provider of expensive and luxurious medical solutions and the organization's mission statement focuses on a high added value for its customers.

The company's top management showed interest in understanding how they can enhance their employees' identification with organization and therefore was willing to participate in the study. The identity of the company wasn't revealed on the wish of the management.

The company has one main office location, where 49 employees work. Additionally, the company has three employees who live and work abroad. The author contacted staff employed in the main office and outside of Denmark, which resulted in a sample size of 52. The employees work in workgroups varying from 4 to 10 members.

3.2. Procedure

For the purpose of this research, a questionnaire was developed which included scales described in the following section. The questionnaire was prepared in Danish and English and was sent to the management of the organization for approval. After receiving the approval, employees were informed about the questionnaire via email. Two days later questionnaires were distributed among the employees of the organization. Each questionnaire was placed in an envelope. The front page included a cover letter. Each set of questions was preceded by a short introduction to the purpose and the terms used in the survey. The cover letter asked participants to complete the questionnaire and return it in a sealed envelope. At the same time, it assured the participants, that the data collected is confidential, and their and the company's identity would not be revealed in the thesis. It took six days to ensure that all members of organization completed the questionnaire. Collected data was analyzed using JMP 12 (SAS Institute Inc., Buckinghamshire, UK).

3.3. Measures

The questionnaire (see Appendix 8) consisted of five parts: (1) organizational identification, (2) workgroup identification, (3) superior-subordinate communication, (4) perceived leader prototypicality and (5) control variables. The questionnaire comprised 30 items. All dependent and independent variables were measured using a five-point Likert scale with assigned weights (1 – strongly disagree, 2 – disagree, 3 – neither agree nor disagree, 4 – agree, 5 – strongly agree). For each set of questions, a Cronbach's alpha was calculated to measure the reliability of all scales. The sample was controlled for age, gender and job tenure. Job tenure was selected as a control variable due its proven influence on organizational identification (Mael & Ashforth, 1992).

3.3.1. *Organizational Identification (OID)*

OID was measured using six-item Organizational Identification Scale (OIS) developed by Mael and Ashforth (1992). A sample item is "When someone criticizes [name of the organization], it feels like a personal insult". The scale was chosen over other available organizational identification scales for two main reasons. First, OIS it is the most widely used OID measurement tool (Edwards, 2005; Riketta, 2005). Second, in a meta-analytical study made by Riketta (2005), the researcher concluded that, with regards to its empirical outcomes, the results of OIS are more homogenous when comparing to results obtained from other scales and that it seems to be the best available OID measure to date. The same research reported an average reliability estimate to be .84 (Cronbach's α). For a detailed analysis of the mostly used OID measures see paragraph 2.11 *Measuring identification and problems of its operationalization*.

3.3.2. *Workgroup Identification (WID)*

Following the findings of Riketta (2005), the research in this thesis used a modified six-item Mael and Ashforth's (1992) scale to measure identification with a workgroup. The scale was modified by replacing the name of the organization with "my workgroup". As it is important that the respondents share a common reference frame when responding to questions, a definition of a workgroup (i.e., "workgroup refers to those colleagues with

whom you share a supervisor or a team leader”) was provided in the introduction to this group of questions. The sixth item from Mael and Ashforth’s (1992) scale was modified to fit the organizational context. A sample item is “When someone criticizes my workgroup, it feels like a personal insult”.

3.3.3. Superior-subordinate communication (SSC)

Communication between supervisor and subordinate was measured using 12 items selected from Dennis’s (1974) Communication Climate Survey. The survey included only questions concerning superior-subordinate communication and measured three dimensions: (1) supportiveness, (2) openness and candor and (3) perceived participative decision making. Sample items are “My supervisor makes me feel that things I tell him/her are really important,” “My superior is frank and candid with me,” and “My superior hears and seriously considers my recommendations.”

3.3.4. Perceived leader prototypicality (PLP)

Perceived leader prototypicality was measured using three-item scale based on studies by Platow and D. Van Knippenberg (2001), as well as D. Van Knippenberg and B. Van Knippenberg (2005). The three items were “The leader of my team is a good example of the kind of people that are members of my team,” “The leader of my team represents what is characteristic about my team,” and “The leader of my team has a lot in common with the members of my team.”

4. Results

4.1. Analysis plan

Response rate and demographic data of the sample have been analyzed. Internal questionnaire consistency was determined by obtaining the Cronbach’s alpha coefficient for dependent and independent variables. Variables measured with Likert scale were calculated by obtaining a mean value for each respondent. All variables were controlled for the influence of gender, age and tenure using the graphical output of analysis of variance. Before doing the regression analysis, the variables were tested for normal distribution.

Perceived leader prototypicality (PLP) was identified to have a non-normal distribution. In order to meet prerequisites for linear regression, PLP was transformed using fitted quantiles into a normally distributed data. In order to test the hypotheses, multiple regression models with standard least squares personality were constructed. First of all, a multiple linear regression model was constructed to verify the influence of superior-subordinate communication (SSC) and perceived leader prototypicality (PLP) on workgroup identification (WID). After evaluating the significance of each variable, the model was refined by a stepwise removal of variables. The variables were omitted in the following order: normal quantile PLP, tenure, age. The final model measured the impact of SSC on WID. To test the influence of PLP, SSC and WID on organizational identification (OID) a multiple linear regression model was constructed. After identifying the statistical significance of the variables, the model was refined by removing insignificant variables. The variables were omitted in the following order: tenure, SSC, normal quantile PLP, age. The final model measured the influence of WID on OID. Both final models were tested for heteroscedasticity, multicollinearity, and auto-correlation.

4.2. Sample and questions reliability

4.2.1. Response rate and sample

Of the total 52 questionnaires distributed, 50 useful questionnaires were returned (one questionnaire was returned blank, one questionnaire wasn't returned), which accounted for sample size $n = 50$. This accumulated for a very high response rate of 96%. The high response rate was obtained due to two reasons. First, respondents were informed about the study in advance and the top management communicated the importance of filling in the questionnaire. Second, the questionnaire was on purpose distributed in a paper form (on contrary to electronic survey, which prevails in recent research literature) with complete control of redistributed copies. This method significantly facilitated the collection process and allowed to verify if all redistributed copies were collected. At the same time, participant's privacy was ensured with questioners handed back in sealed envelopes.

The distribution of all measured demographic data is shown in Table 1. Of the respondents, 32 were male, and 18 were female. The most respondents were 50-60 years

old (30%), the second most frequent age group was 40-50 years old (26%). 68% of all respondents were above 40 years old. The majority of respondents were employed in the company for 0-2 years and accumulated for 32% of the total sample. The second most frequent tenure group was "more than 10 years" and represented 24% of the whole sample.

Table 1 Demographic characteristics of sample (n = 50)

Demographic characteristic	n	%
Gender		
Male	32	64%
Female	18	36%
Total	50	100%
Age		
20-30	7	14%
30-40	9	18%
40-50	13	26%
50-60	15	30%
60-70	6	12%
Total	50	100%
Tenure		
0-2 years	16	32%
2-5 years	11	22%
5-10 years	11	22%
more than 10 years	12	24%
Total	50	100%

4.2.2. Internal consistency of measurement tools

The internal consistency of OID, WID, PLP and SSC measurement tools has been evaluated by obtaining Cronbach's alpha. In general, a Cronbach's alpha above .7 is an acceptable reliability coefficient (Nunnally, 1979). All scales were determined to have at least good internal consistency with a high result of Cronbach's alpha for all scales. The Cronbach's alpha for OID scale was $\alpha = .8$, which slightly lower than the average value

obtained in previous studies (Riketta's [2005] meta-analysis of 26 studies using Mael and Ashforth's scale indicated average $\alpha = .84$). The modified Mael and Ashforth's scale, which measured identification with workgroup indicated an excellent internal consistency of $\alpha = .92$. PLP indicated internal consistency $\alpha = .86$, which was slightly lower than values in other studies: $\alpha = .89$, (B. van Knippenberg & van Knippenberg, 2005), $\alpha = .92$ (Pierro, Cicero, Bonaiuto, van Knippenberg, & Kruglanski, 2005). SSC scale showed Cronbach's $\alpha = .86$. It is difficult to compare this result of alpha to other studies as it focused particularly on measuring the quality of communication between superior and subordinate on contrary to general communication climate. Other studies based on Dennis's Communication Climate Survey (1974) found the following internal consistencies of instruments measuring communication climate: $\alpha = .87$ (Bartels, Douwes, et al., 2007), and $\alpha = .74$, $\alpha = .74$, $\alpha = .73$ (Smidts et al., 2001). The summary of Cronbach's alpha values is presented in Table 2.

4.3. Descriptives

Table 2 shows a summary of descriptive statistics: means (M), standard deviation (SD) and Pearson's r correlations between OID, WID, PLP, SSC. Chart 3 to Chart 8 in Appendix 1 illustrate correlations between all variables. Means for all variables are reasonably high. Mean of identification with both workgroup and organization indicates that employees positively identify with the organization and their workgroups ($M_{WID} = 3.79$; $M_{OID} = 3.59$). Identification with workgroup appears to be stronger than identification with the whole organization, which confirms the prediction that WID would be stronger than OID (H1A). SSC and WID have the highest mean scores ($M_{WID} = 3.79$; $M_{SSC} = 3.79$). PLP seems to have the lowest mean of $M_{PLP} = 3.38$.

Table 2 Descriptive statistics, relations between variables and Cronbach's alphas

Variables	M	(SD)	OID	WID	PLP	SSC	Cronbach's α
OID	3.59	(.68)	-				.80
WID	3.79	(.70)	.64*	-			.92
PLP	3.38	(.70)	.39*	.39*	-		.86
SSC	3.79	(.59)	.41*	.48*	.50*	-	.86

* $p < 0,01$

All variables correlate positively with each other on a significant level ($p < .01$). The correlation between organizational identification and workgroup identification seems to be the strongest ($r = .64$). Perceived leader prototypically appears to correlate with the same strength with both WID and OID ($r = .39$). Superior-subordinate communication correlates with both identification variables, however the correlation with WID ($r = .48$) is stronger than with OID ($r = .41$). Surprisingly, SSC appears to correlate the strongest with PLP ($r = .50$).

Independent variables were controlled for age, tenure and gender using the analysis of variance and then analyzed using graphical output (see Chart 9 to Chart 20 in Appendix 2). The p-value for all control variables did not show any significant correlation with WID, OID, PLP and SSC. However, the graphical output of analyses of variances showed some influence of age and tenure on some of the variables. For employees employed in the organization for more than 10 years, OID mean ($M_{>10 \text{ YEARS}} = 3.92$) was higher than for other job tenure groups ($M_{\text{SAMPLE}} = 3.59$; see Chart 13). This aligns with findings that tenure is an antecedent of OID (Mael & Ashforth, 1992). However, its impact was expected to be higher. Age had some influence on PLP ($M_{20-30} = 3.90$; $M_{\text{SAMPLE}} = 3.38$; see Chart 11) and WID ($M_{20-30} = 4.09$; $M_{\text{SAMPLE}} = 3.79$; see Chart 10). The means and variances of variables showed no difference between the two genders and therefore it was concluded that gender has no influence on the variables (see Chart 17 to Chart 20). Due to lack of influence and strictly ordinal nature of variable, it wasn't included in the regression models.

4.4. Distribution of variables

All dependent and independent variables were tested for normal distribution using Shapiro-Wilk W Test. Chart 21 to Chart 25 in Appendix 3 show distributions of the variables. OID indicated a p-value = .1543, which allowed to reject the null hypothesis that data is not normally distributed. The distribution of WID was close to normal ($p = .0257$). PLP indicated a p-value of .0097* (Chart 23), which meant that the data is non-normally distributed. In order to meet prerequisites for the validity of linear regression model, the data was transformed using normal quantile. After transformation, normal quantile of PLP indicated a normal distribution ($p = .9999$). SSC was normally distributed ($p = .1281$).

4.5. Testing the expected models

Nine regression models were constructed. Two initial models were testing the impact of PLP and SSC on WID and PLP, SSC, WID on OID. The two final models were testing the impact of SSC on WID and WID on OID.

4.5.1. Influence of PLP and SSC on WID

In order to check the hypotheses regarding the influence of PLP and SSC on WID, a multiple regression model was constructed. Table 3 and Table 4 show coefficients and summary of fit for the initial regression model (Model 1). Chart 1 illustrates the regression plot. The initial model was statistically significant ($F = 7.2492$; $p < 0.01$) and explained 33.8% of variance of the dependent variable OID (Adjusted $R^2 = .338$). However, PLP and control variables appeared to be insignificant, therefore, the model was refined by removing variables, one by one, starting from the least significant variable until reaching a model with all variables with an acceptable significance of p-value. Three more models were constructed. The final model (Model 4) measured the influence of SSC on WID. Coefficients and summaries of fit of all models 1 – 4 can be seen in Table 11 and Table 12, in Appendix 4.

At the same time, the results of this regression model did not confirm hypothesized influence of perceived leader prototypicality on workgroup identification ($H2_A$) and the stronger influence of PLP on WID than on organizational identification ($H2_C$). The rejection of hypothesis $H2_C$ confirms the results of the initial of bivariate correlations.

Table 3 Model 1: Coefficients (WID – dependent variable)

Variable	β	Standard error	t	P
Intercept	1.704	.660	2.58	.0131
Normal quantile				
PLP	.212	.143	2.66	.0107
SSC	.429	.161	1.49	.1444
Age	-0.19	.077	-2.49	.0167
Tenure	.201	.080	2.53	.0151

Table 4 Model 1: Summary of fit (WID – dependent variable)

R	R ²	Adjusted R ²	Root Mean Square Error
.626	.392	.338	.573

The final regression model (Model 4) measured the influence of SSC on WID. Table 5 and Table 6 show coefficients and summary of fit for the simple linear regression model. Chart 1 illustrates the main effect plot. The model is statistically significant ($F = 14.696$; $p < 0.01$) and explained 21.8% of variance of the dependent variable OID (Adjusted $R^2 = .218$). SSC had a positive β parameter ($\beta_{SSC} = .484$), which means that it correlates positively with dependent variable OID. The results of the model confirm the initial findings of the bivariate correlations analysis and hypothesized influence of communication between superior and subordinate on identification with workgroup ($H3_A$).

Table 5 Model 4: Coefficients (WID – dependent variable)

Variable	β	Standard error	t	P
Intercept	1.740	.581	2.99	.0043
SSC	.580	.151	3.83	.0004

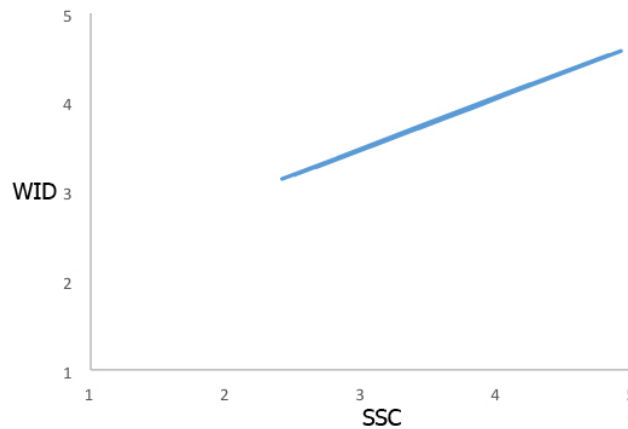
Table 6 Model 4: Summary of fit (WID – dependent variable)

R	R ²	Adjusted R ²	Root Mean Square Error
.484	.218	.218	.622

Using the results of the regression the following model has been constructed:

$$WID = 1.740 + .580*SSC$$

Chart 1 Main effect plot for Model 4



Model 4 was tested for multicollinearity, autocorrelation, and heteroscedasticity. Variance Inflation Factor was very low ($VIF = 1$), which indicated no multicollinearity. Autocorrelation was tested using Durbin-Watson test, the result of 1.36 indicated that there is a slight positive correlation (AutoCorrelation = .3183). The model was tested for heteroscedasticity by plotting the residuals from the model by values predicted with the model (Chart 27 in Appendix 5) and SSC (Chart 26 in Appendix 5). The plots showed no systematic pattern across the residuals which indicated that there is no heteroscedasticity.

4.5.2. Influence of WID, PLP, SSC on OID

In order to verify if OID can be predicted using PLP, SSC and WID a multiple regression analysis was conducted. Table 7 and Table 8 show coefficients and summary of fit for Model 5. The model appeared to be statistically significant ($F = 7.6750$; $p < .0001$). The initial model explained 46.6% of the variance (adjusted $R^2 = .466$) of dependent variable OID. Only WID variable appeared to be significant, therefore, the model was refined by removing variables, one by one, starting from the least significant variable, until reaching a model with all variables with an acceptable significance of p-value. Four more models were constructed. The final model (Model 9) measured the influence of WID on OID. Coefficients and summaries of fit of models 5 – 9 are presented in Table 13 and Table 14 in Appendix 6.

Model 5 confirmed neither, the initial prediction that superior-subordinate communication influences identification with an organization ($H3_B$), nor the prediction that

perceived leader prototypicality influences identification with an organization (H2_B). Both hypotheses were rejected.

Table 7 Model 5: Coefficients (OID – dependent variable)

Variable	β	Standard error	t	p
Intercept	.142	.651	.22	.828
WID	.591	.137	4.31	<.0001
Normal quantile				
PLP	.127	.134	.94	.351
SSC	.107	.107	.67	.505
Age	.110	.075	1.47	.1486
Tenure	-.026	.078	-.33	.744

Table 8 Model 5: Summary of fit (OID – dependent variable)

R	R ²	Adjusted R ²	Root Mean Square Error
.682	.466	.405	.527

Model 9 measured the influence of WID on OID. Table 9 and

Table 10 show coefficients and summary of fit for the final simple linear regression model. Chart 2 illustrates the main effect plot. The model is statistically significant ($F = 33.7529$; $p < 0.001$) and explains 41.3% of variance of the dependent variable OID (Adjusted $R^2 = .413$). WID has a positive β parameter ($\beta_{WID} = .624$), which means that it correlates positively with dependent variable OID. The results of the model are aligned with findings of the initial bivariate correlations analysis. The results of this final regression (Model 9) also confirm hypothesized influence of identification with workgroup on identification with the whole organization (H1_B) and partially confirm predicted greater influence of superior-subordinate communication on workgroup identification than on organizational identification (H3_C), as no statistically significant relation between SSC and OID was found.

Table 9 Model 9: Coefficients (OID – dependent variable)

Variable	β	Standard error	t	p
Intercept	1.128	.430	2.62	.0117
WID	.624	.107	5.81	<.0001

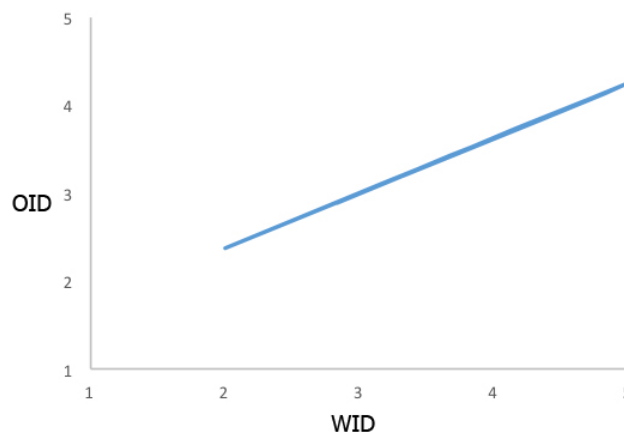
Table 10 Model 9: Summary of fit (OID – dependent variable)

R	R ²	Adjusted R ²	Root Mean Square Error
.484	.413	.401	.529

Using the results of the regression the following model has been constructed:

$$\text{OID} = 1.128 + .624 \cdot \text{WID}$$

Chart 2 Main effect plot for Model 9



Model 9 was tested for multicollinearity, autocorrelation, and heteroscedasticity. Variance Inflation Factor was very low (VIF = 1), which indicated no multicollinearity. Autocorrelation was tested using Durbin-Watson test, the result of 1.78 indicated that there is no autocorrelation. The model was tested for heteroscedasticity by plotting the residuals from the model by values predicted with the model (Chart 31 in Appendix 7) and WID (Chart 30 in Appendix 7). The plots showed no systematic pattern across the residuals which indicated that there is no heteroscedasticity.

5. Discussion

5.1.1. *Identification with different organizational levels*

Previous researches found that organizational members identify stronger with their workgroup than with the whole organization (Bartels, Douwes, et al., 2007; Riketta & Van Dick, 2005). The results of this study confirm those earlier findings. Workgroup identification ($M_{WID} = 3.79$) was significantly stronger than organizational identification ($M_{OID} = 3.59$) which confirmed the hypothesis H1_A. As workgroup is the lowest organizational level, the identity resulting from the identification with this organizational level is also the closest to the employees. Thus, the results of this study also confirm the findings of Ashorth and Johnson (2001) and Riketta and Van Dick (2005) that such close identities are more "salient".

The hypothesis relating to the positive influence of workgroup identification on organizational identification (H1_B) was also confirmed. The results of this study showed a very clear, strong and positive correlation of workgroup identification with organizational identification. This means that the stronger the employees identified with their workgroup, the stronger was their identification with the whole organization. The findings of this research confirm earlier studies which found the same positive impact of identification with lower organizational levels on organizational identification (Bartels, Douwes, et al., 2007; Riketta & Van Dick, 2005; D. Van Knippenberg & Van Schie, 2000).

5.1.2. *Perceived leader prototypicality*

The three hypotheses which assumed the impact of perceived leader prototypicality on identification were rejected (H2_A, H2_B and H2_C). Perceived leader prototypicality did not correlate, on a statistically significant level, neither with workgroup identification nor with organizational identification. Thus, there is no evidence that leader who is perceived as prototypical by their subordinates, who theoretically identifies more with an organization (B. van Knippenberg & D. van Knippenberg, 2005), influences how employees identify with their workgroup and organization.

The tested assumptions of influence of prototypical leaders on identification haven't been previously discussed in a research literature. However, the outcomes of this study may contribute to the discussion of drivers of identification. On contrary to previously identified leadership antecedents of identification, which described actions and practices like leadership styles (Carmeli et al., 2011; Epitropaki & Martin, 2005; Walumbwa & Hartnell, 2011), this study represented a novel approach to research of identification as it focused on a perceived image of a leader as a representative exemplar of members of a workgroup. As discussed in Literature review prototypical leaders were found be more effective, influential, and were found to receive stronger follower's acceptance (B. van Knippenberg & van Knippenberg, 2005). Although prototypicality was found to contribute positively to leaders' performance, this trait was not found to contribute to strengthening employees' identification.

5.1.3. Superior-subordinate communication

The hypothesis regarding the positive influence of supervisor-subordinate communication on workgroup identification was found to be correct (H3_A). The evaluation of superior-subordinate communication consisted of three elements: supportiveness, openness and candor, and perceived participative decision making. This means that the employees who have positively evaluated these three qualities of communication with their supervisor were also identifying more with their workgroup. This finding sheds a new light on the current research literature, which has so far found that a general communication climate among employees of an organization is positively correlated with identification with multiple organizational levels (Bartels, Douwes, et al., 2006; Bartels et al., 2010; Bartels, Pury, et al., 2007; Smidts et al., 2001). This study also further adds to research literature, which studied the influence of leaders, on the identification of their followers, through practicing transactional, transformational and ethical leadership styles (Carmeli et al., 2011; Epitropaki & Martin, 2005; Walumbwa & Hartnell, 2011). This follows the recent trend in OID literature, which focuses on the impact of leaders on identification.

The hypothesis regarding the influence of superior-subordinate communication on organizational identification was rejected (H3_B). Although the initial bivariate correlation

analysis showed a significant correlation between the two measures, it wasn't confirmed in the final research model.

The quality of measured communication focused solely on communication between superior and subordinate, which is an important part of general communication climate (Dennis, 1974; Redding, 1972). As the communication climate was found to positively influence the identification with organization (Bartels, Douwes, De Jong, & Pruyn, 2006; Bartels, Douwes, et al., 2007; Bartels, Puryn, et al., 2007; Smidts et al., 2001) the rejection of this hypothesis may suggest that the scale used in this study indeed measured a phenomenon occurring on the workgroup level. It is an important element that adds to the validity of the scale composed of items selected from Communication Climate Survey (Dennis, 1974).

The lack of the influence of the measured quality of communication between superior and subordinate is also aligned with Reade's (2001) findings that lower level identities are more influenced by antecedents matched on that particular organizational level.

The last hypothesis which predicted a stronger influence of superior-subordinate communication on workgroup identification, than on organizational identification, was rejected (H3_C). The initial bivariate correlation analysis showed a stronger correlation between superior-subordinate communication and workgroup identification than with organizational identification. However, after constructing the final model, its positive influence on organizational identification appeared to be statistically insignificant. Thus, superior-subordinate communication was excluded from the final model and H3_C hypothesis was rejected.

As discussed in the first section of this chapter a significant positive impact of workgroup identification on organizational identification is well grounded in the research literature (Bartels et al., 2006; Riketta & Van Dick, 2005) and was also re-confirmed in the results of this study. This study also found that there may exist a positive influence of quality of superior-subordinate communication on workgroup identification. This may lead to a conclusion that identification with an organization can be strengthened indirectly, through improving the quality of communication between leaders and their followers.

5.2. Managerial implications

The major implication of this thesis is the finding that leaders are able to influence the identification of their followers through their communication. This study found that the perceived quality of the superior-subordinate communication, was a predictor of their identification with their workgroup. Superior-subordinate communication measured the quality of communication in three areas: supportiveness, openness and candor, and participative decision making. Those three elements provide specific insight for leaders who want to increase their followers' identification with a workgroup. First, members of a workgroup have to feel that their supervisor supports them and recognizes their daily tasks and struggles. Second, the supervisor needs to be open and frank with their subordinates and hear and respect their voice. Third, the employees should be involved in the decision making process. The focus on those three elements will improve the quality of communication perceived by the workgroup members and enhance their identification with a workgroup.

The findings also confirmed earlier research that workgroup identification appears to positively influence organizational identification. Therefore, the second important implication of this thesis is that identification with an organization may be improved through strengthening workgroup identification.

5.3. Limitations and future research

The main limitation of the present study is the low number of respondents. The sample size equaled to $n = 50$ which is lower than most of the sample sizes of the studies concerning organizational identification. However, the sample was higher than 30, which according to the central limit theorem, is a minimum size for a normal distribution of variables. A low sample may lead to less precise variable estimates in the regression models.

Another limitation in this research is treating the responses from questions measured with five-item Likert scale, as continuous. Integers from 1 to 5 theoretically cannot be treated as the continuous because they represent a set of ordered categories. A continuous variable should have an infinite number of possible values. For example, if values can be 1

and 2, they should also take any value between 1 and 2. This did not apply to underlying study as responses were measured on interval levels ranging from 1 to 5. The research in this study approached to decrease the negative impact of this issues in few ways. First, by using at least three items for the construction of each scale and then calculating mean scores for them. In this way, variables adopted more continuous properties. Second, claims made in the analysis and discussion were built only on results that showed a strong statistical significance of p-values close to, or lower than .01. Third, the data was tested for normal distributions, heteroscedasticity, multicollinearity, and autocorrelation. Both models met most of the requirements of ordinary least squares regression. However, the model estimating the influence of superior-subordinate communication on workgroup identification indicated some degree of autocorrelation.

There are two main consequences of the presence of autocorrelation in the Model 4. First, standard errors may be estimated wrongly, which frequently results in a lower value of standard errors. Second, the estimators of the model may be overestimated (higher than actual). The presence of autocorrelation undermines the validity of the Model 4 and findings that superior-subordinate communication influences identification with a workgroup. Consequently, the actual influence of superior-subordinate on workgroup identification may be lower or may be statistically insignificant. The reason for this problem may be directly linked to a low sample size ($n = 50$). Thus, it is recommended that the future research, verifying if superior-subordinate communication is indeed an antecedent of workgroup identification, is performed on a much bigger sample or using different modeling techniques.

When responding to the questionnaire participants indicated their level of disagreement or agreement with each item measured with Likert scale. In this way the questionnaire aimed at capturing the intensity of respondents' feelings for a given item. For each response, a numerical value from 1 ("strongly disagree") to 5 ("strongly agree") was assigned, which was later used to construct regression models. The problem with this way of treating the responses, is that humans' feelings do not have numerical values. In other words, Likert scale does not have an objective numerical basis. This research approached this issue by assigning weights to responses already in the questionnaire and it this way it

conveyed the numerical significance of a given answer and indicated that the intervals between the points on the scale are approximately equal.

Similarly, the scales used to measure workgroup and organizational identification, perceived leader prototypicality and superior-subordinate communication were measuring psychological phenomena. It has to be noted that, as all other self-reported measures, they are subject to limitations like disclosure, perception, and interpretation (Stone, Bachrach, Jobe, Kurtzman, & Cain, 2009).

Finally, it is important to note that this study was performed in a context of a single organization. The results relating to the positive influence of superior-subordinate communication on identification lack external validity. The same limitation applies to the scale used to measure superior-subordinate communication. Although the scale was developed basing on previous research (Bartels et al., 2006; Dennis, 1974; Smidts et al., 2001), the scale's reliability cannot be established on outcomes of a single study. In order to prove the findings of this study and to be able to generalize about the positive influence of superior-subordinate on identification, it is recommended that the future studies are replicated on bigger samples and in different organizations.

5.4. Conclusions

Drawing from the research within social identity theory, self-categorization theory, organizational identification, and communication climate, this study built and tested a theoretical model which measured the influence of leader prototypicality and superior-subordinate communication on workgroup and organizational identification. Furthermore, the study evaluated the impact of identification with workgroup on identification with the whole organization. The study proposes that the quality of communication between superiors and their subordinates positively influences workgroup identification. The research in this paper confirms the earlier findings, that identification with workgroup positively influences organizational identification.

In addition to deepening the theoretical understanding of the impact of leaders on identification, this study also helps managers identify ways of strengthening their followers' identification with workgroup and organization.

The research in this thesis subjects to some limitations. In order to validate the results, it is recommended that a similar research, with bigger size of samples and in a context of different populations, is conducted.

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Appendices

Appendix 1: Correlations between variables

Chart 3 OID by WID; $R^2 = .412$

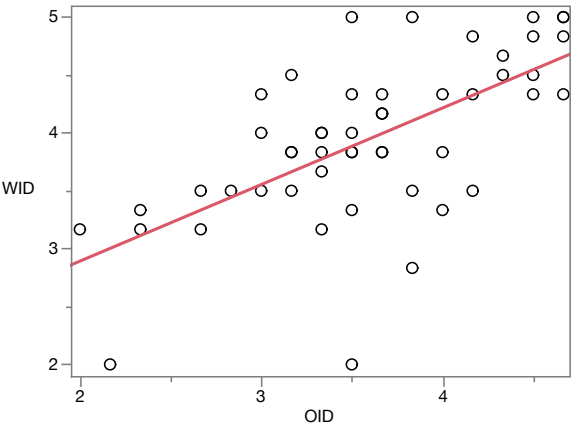


Chart 4 PLP by OID; $R^2 = .151$

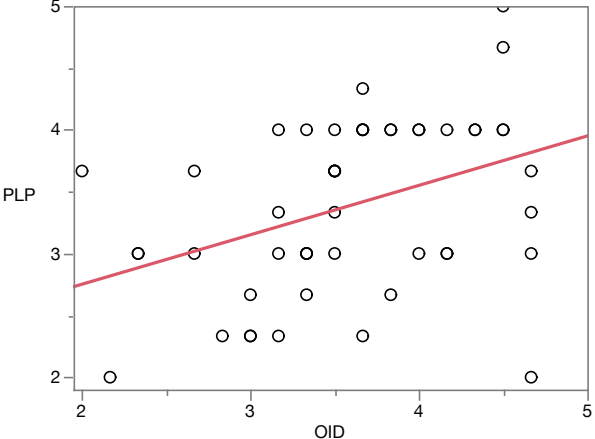


Chart 5 SSC by OID; $R^2 = .170$

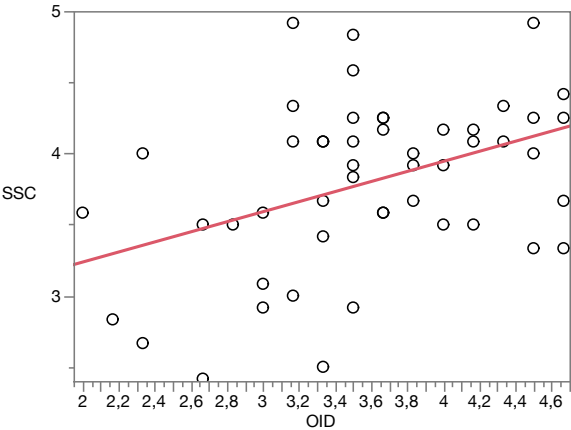


Chart 6 PLP by WID; $R^2 = .152$

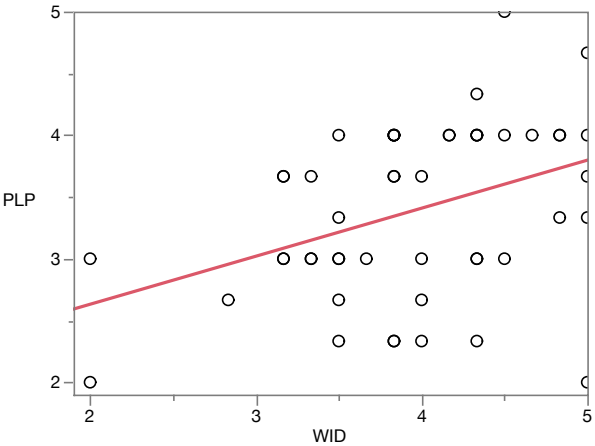


Chart 7 SSC by WID; $R^2 = .234$

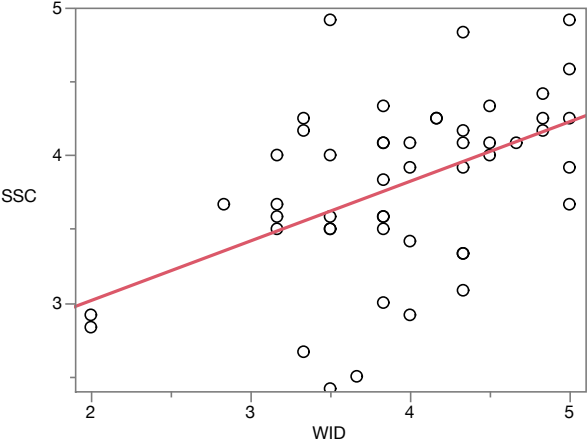
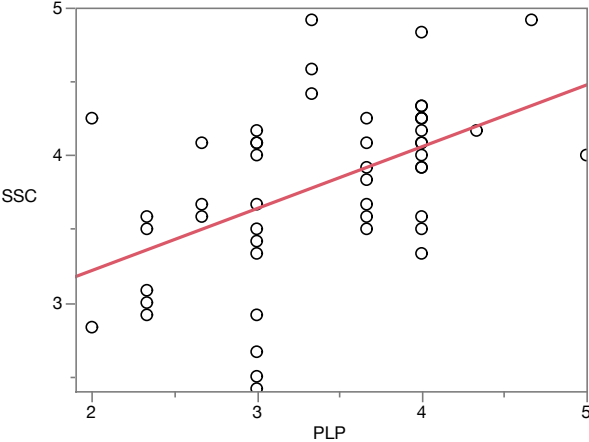


Chart 8 SSC by PLP; $R^2 = .251$



Appendix 2: Distribution of means and variances

Chart 9 Distribution of means and variances of OID by age

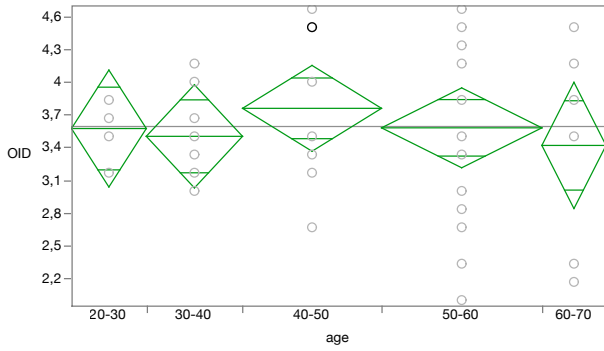


Chart 10 Distribution of means and variances of WID by age

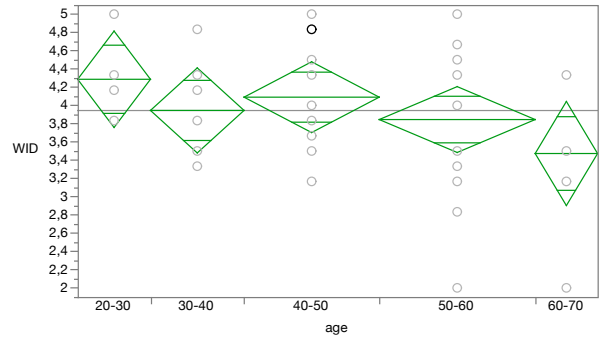


Chart 11 Distribution of means and variances of PLP by age

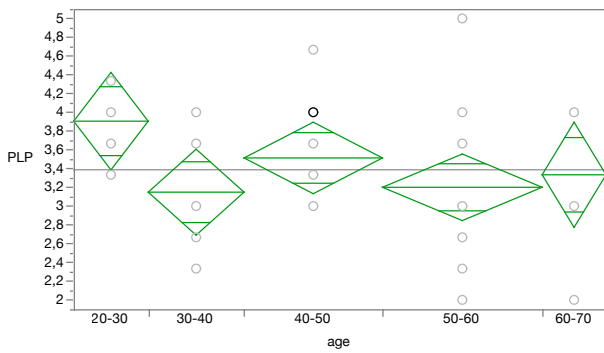


Chart 12 Distribution of means and variances of SSC by age

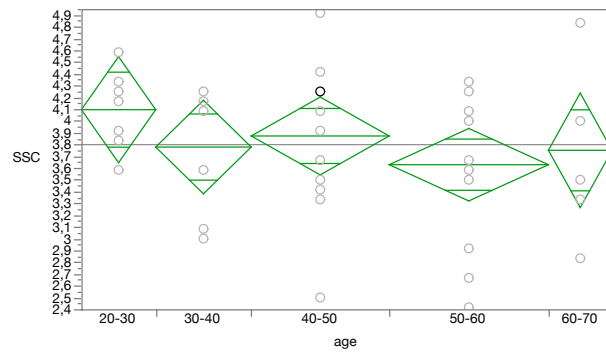


Chart 13 Distribution of means and variances of OID by tenure

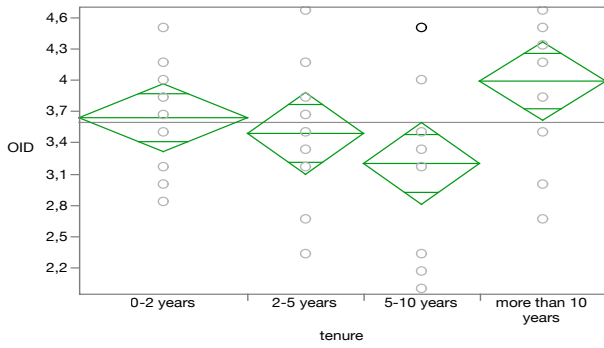


Chart 14 Distribution of means and variances of WID by tenure

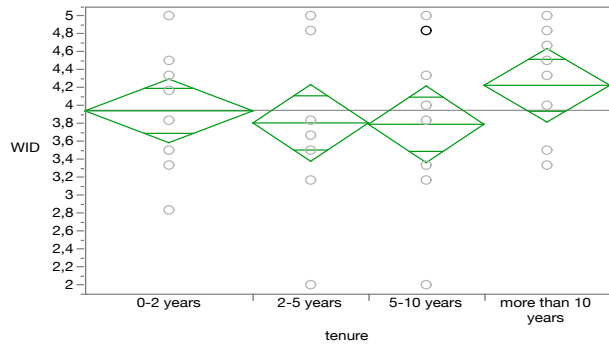


Chart 15 Distribution of means and variances of PLP by tenure

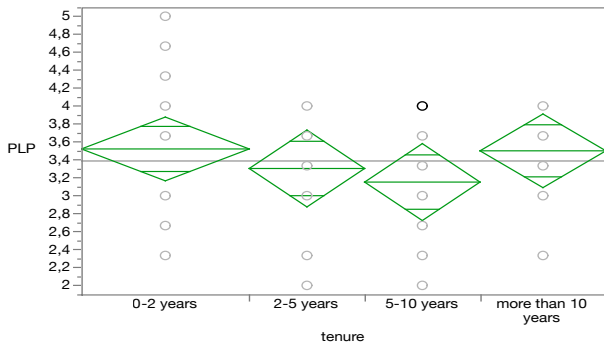


Chart 16 Distribution of means and variances of SSC by tenure

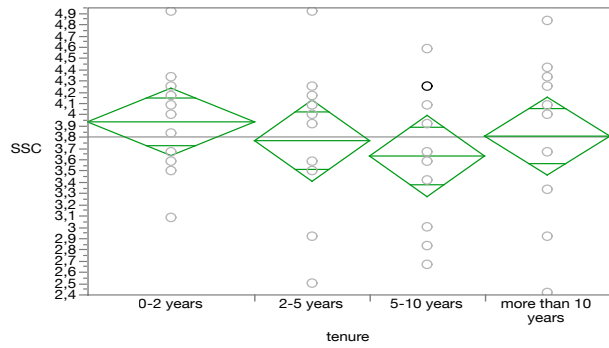


Chart 17 Distribution of means and variances of OID by gender

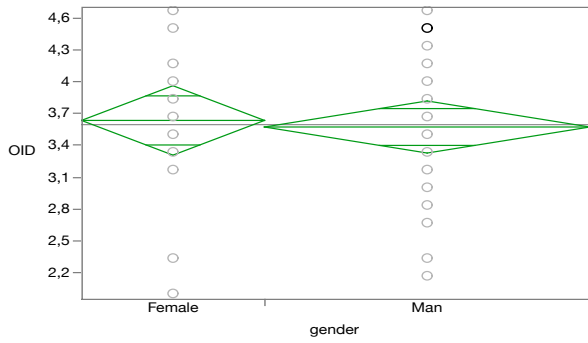


Chart 18 Distribution of means and variances of WID by gender

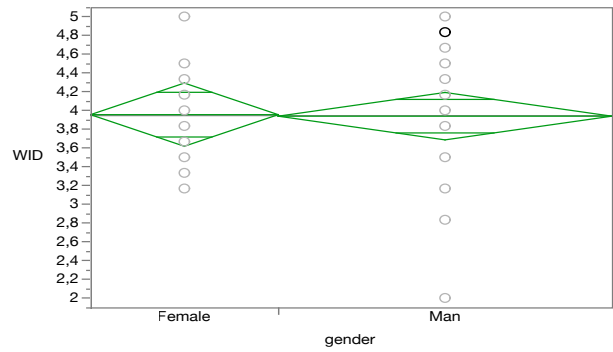


Chart 19 Distribution of means and variances of PLP by gender

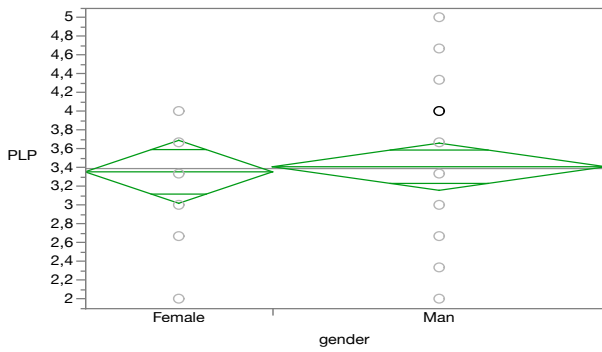
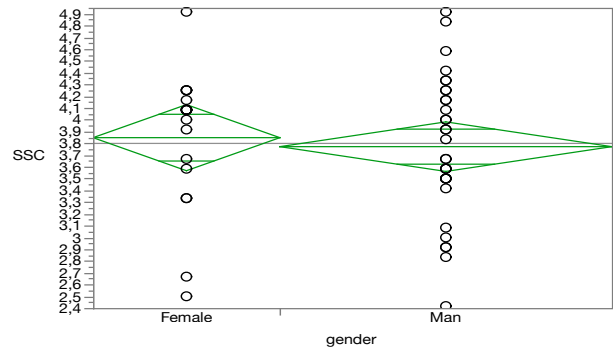
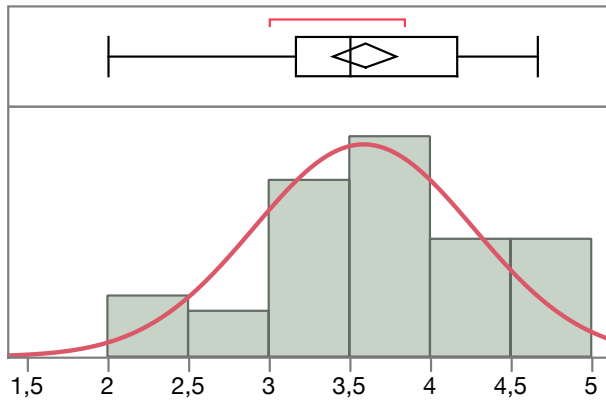


Chart 20 Distribution of means and variances of SSC by gender



Appendix 3: Distribution of independent and dependent variables

Chart 21 Distribution of OID



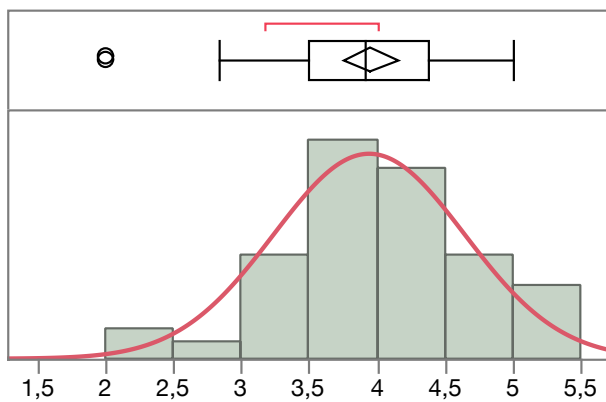
Goodness-of-Fit

Shapiro-Wilk W Test

W	Prob<W
0,965723	0,1543

H_0 = The data is from the Normal distribution. Small p-values reject H_0 .

Chart 22 Distribution of WID



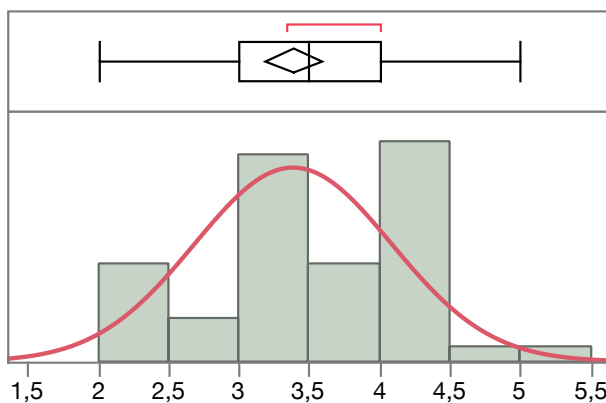
Goodness-of-Fit

Shapiro-Wilk W Test results

W	Prob<W
0,946990	0,0257*

H_0 = The data is from the Normal distribution. Small p-values reject H_0 .

Chart 23 Distribution of PLP



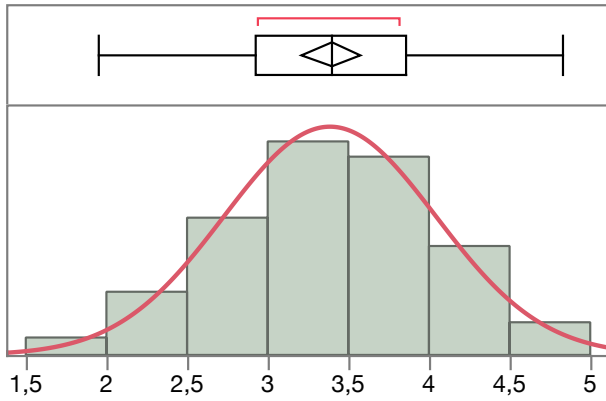
Goodness-of-Fit

Shapiro-Wilk W Test results

W	Prob<W
0,936307	0,0097*

Note: H_0 = The data is from the Normal distribution. Small p-values reject H_0 .

Chart 24 Distribution of Normal Quantile PLP



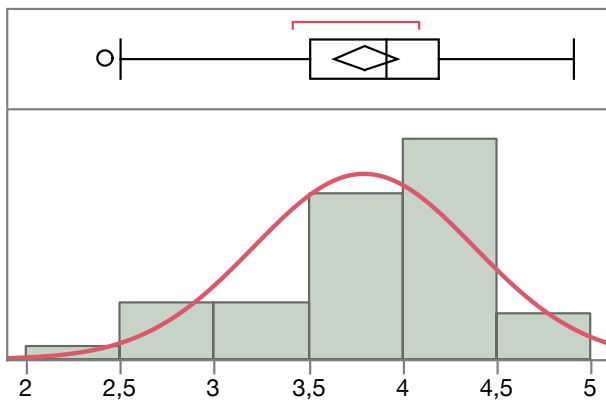
Goodness-of-Fit

Shapiro-Wilk W Test results

W	Prob<W
0,996108	0,9999

H_0 = The data is from the Normal distribution. Small p-values reject H_0 .

Chart 25 Distribution of SSC



Goodness-of-Fit

Shapiro-Wilk W Test results

W	Prob<W
0,963790	0,1281

H_0 = The data is from the Normal distribution. Small p-values reject H_0 .

Appendix 4: Regression models 1 - 4

Table 11 Coefficients of Model 1, Model 2, Model 3 and Model 4

Appendix 2: Variable	β	Standard error	t	P
Model 1				
Intercept	1.704	.660	2.58	.0131
Normal quantile PLP	.212	.143	2.66	.0107
SSC	.429	.161	1.49	.1444
Age	-0.19	.077	-2.49	.0167
Tenure	.201	.080	2.53	.0151
Model 2				
Intercept	2.009	.635	3.16	.0028
SSC	.542	.144	3.77	.0005
Age	-.202	.077	-2.61	.0120
Tenure	.208	.080	2.59	.0128
Model 3				
Intercept	1.387	.624	2.22	.0312
SSC	.605	.151	4.02	.0002
Tenure	.109	.075	1.45	.1533
Model 4				
Intercept	1.740	.581	2.99	.0043
SSC	.580	.151	3.83	.0004

Table 12 Summaries of fit for Model 1, Model 2, Model 3 and Model 4

R	R ²	Adjusted R ²	Root Mean Square Error
Model 1 (F = 7.2492; p < 0.01)			
.626	.392	.338	.573
Model 2 (F = 8.7017, p < .001)			
.602	.362	.320	.580
Model 3 (F = 4.4023, p < .05)			
.517	.267	.236	.615
Model 4 (F = 14.6961, p < .001)			
.484	.218	.218	.622

Chart 29 Residuals for Model 1

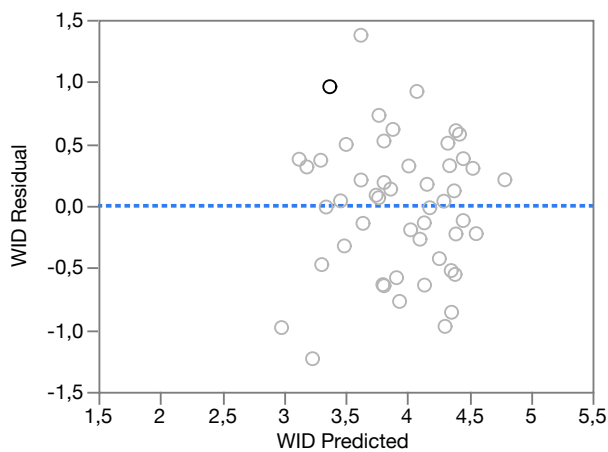
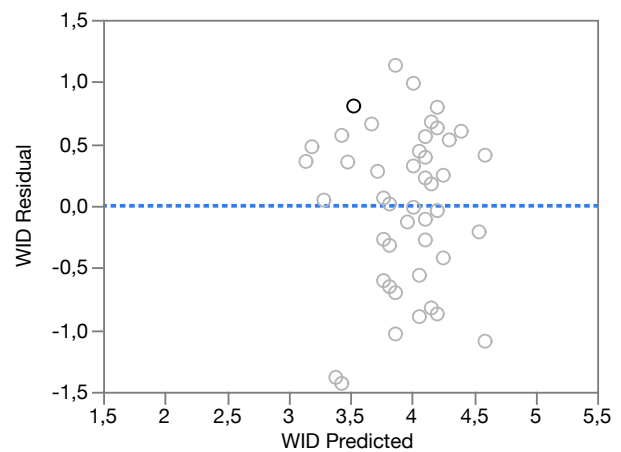


Chart 30 Residuals for Model 4



Appendix 5: Testing for heteroscedasticity (Model 4)

Chart 26 Residuals from Model 4 by SSC

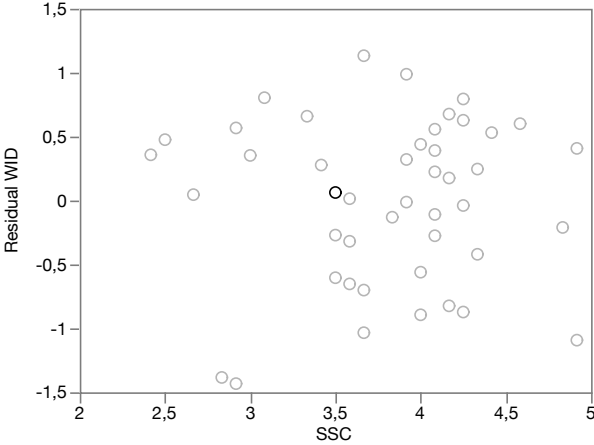
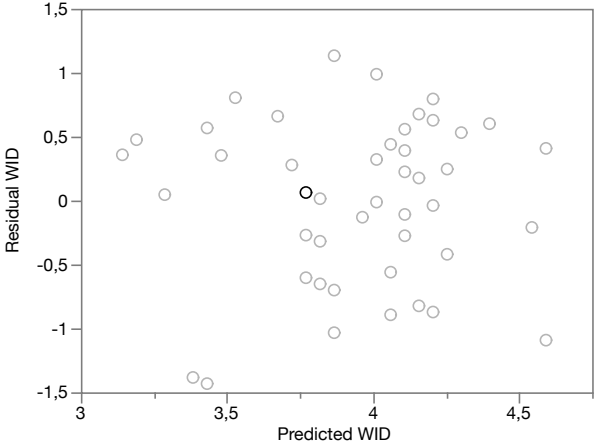


Chart 27 Residuals from Model 4 by values predicted with the model



Appendix 6: Regression models 5 - 9

Table 13 Coefficients of Model 5, Model 6, Model 7, Model 8 and Model 9

Variable	β	Standard error	t	P
Model 5				
Intercept	.142	.651	.22	.828
WID	.591	.137	4.31	<.0001
Normal quantile				
PLP	.127	.134	.94	.351
SSC	.107	.107	.67	.505
Age	.110	.075	1.47	.1486
Tenure	-.026	.078	-.33	.744
Model 6				
Intercept	.324	.590	.55	.5849
WID	.625	.127	4.93	<.0001
Normal quantile				
PLP	.158	.127	1.26	.2128
Age	.112	.075	1.51	.1382
Tenure	-.035	.077	-.45	.6524
Model 7				
Intercept	.353	.580	.61	.5464
WID	.607	.119	5.09	<.0001
Normal quantile				
PLP	.163	.124	1.32	.1937
Age	.094	.062	1.52	.1365

Model 8

Intercept	.678	.529	1.28	.2068
WID	.668	.111	6.04	<.0001
age	.089	.063	1.43	.1589

Model 9

Intercept	1.128	.430	2.62	.0117
WID	.624	.107	5.81	<.0001

Table 14 Summaries of fit for Model 5, Model 6, Model 7, Model 8 and Model 9

R	R ²	Adjusted R ²	Root Mean Square Error
Model 5 (F = 7.6750; p < .001)			
.682	.466	.405	.527
Model 6 (F = 9.5973; p < .001)			
.678	.460	.412	.524
Model 7 (F = 12.9515; p < .001)			
.677	.458	.423	.5195
Model 8 (F = 18.2695; p < .001)			
.661	.437	.413	.524
Model 9 (F = 33.7529; p < .001)			
.643	.413	.401	.529

Chart 28 Residuals for Model 9

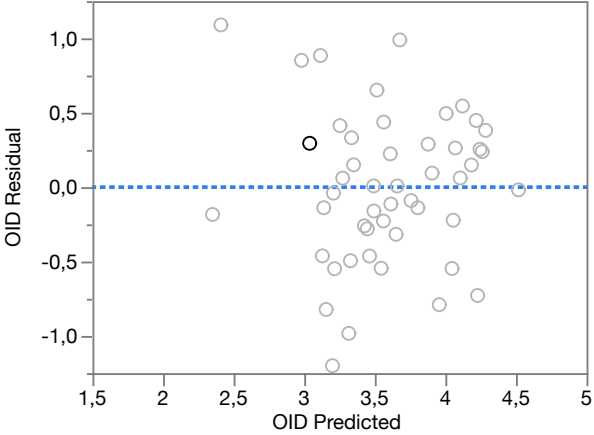
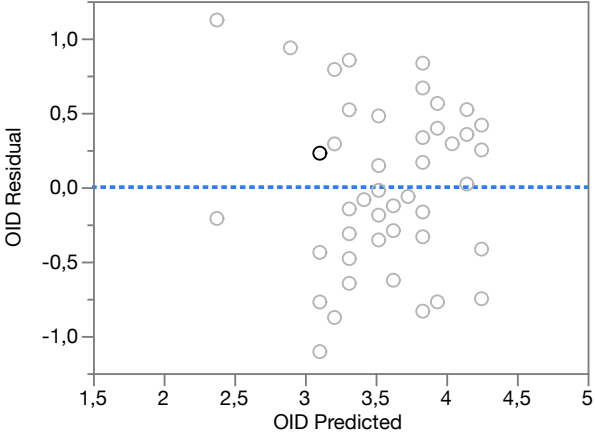


Chart 29 Residuals for Model 9



Appendix 7: Testing for heteroscedasticity (Model 9)

Chart 30 Residuals from Model 9 by WID

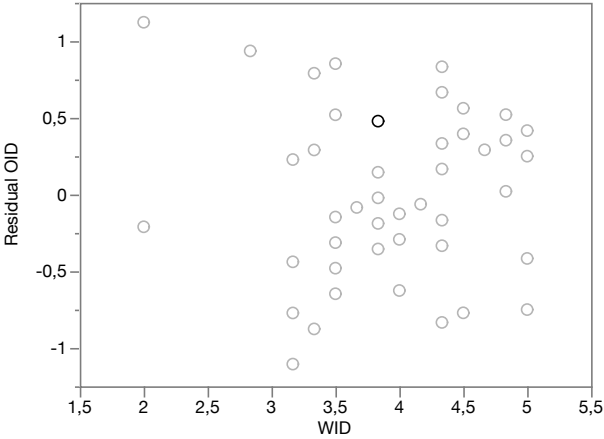
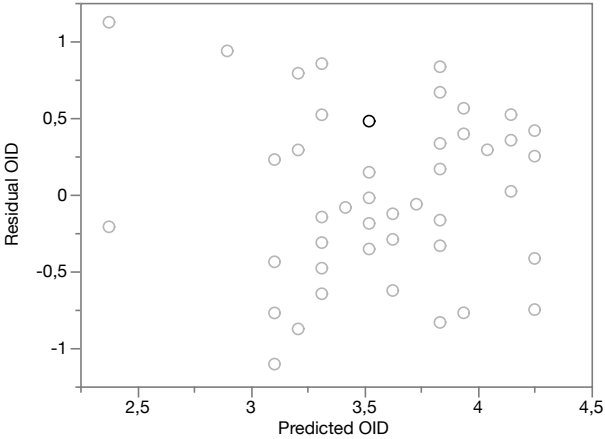


Chart 31 Residuals from Model 9 by values predicted with the model



Appendix 8: Questionnaire

Questionnaire

Dear colleague,

As you were already informed in an email, I am on the final stage of my education at Copenhagen Business School – writing a master thesis. I was working hard the last few years to come to this moment and I hope that you can help me to complete this final task. This survey is one of the most important elements that I will use during writing of my thesis. I would like to ask you to help me by filling the below questionnaire. Your responses are of the highest value to me and I really appreciate the time that you will spend filling the survey. I will greatly appreciate that you will complete the survey on Wednesday the 4th of May at the latest.

The survey consists of 30 questions (4 pages), and it should take you no more than 10 minutes to complete.

The survey is completely anonymous. Neither your or company's identity will be revealed in the master thesis. The results from this questionnaire will be used to measure a computed result (not individual answers).

How to fill the survey:

Question 1 – 3: select only one answer.

Questions 4 – 30: On a scale from 1 to 5 mark only one answer which signifies how much do you disagree or agree with a statement: 1 – strongly disagree, 5 – strongly agree.

It is recommended that you choose the first response that comes to your mind.

Please note that questionnaire is printed on both sides of the paper

After completing the questionnaire, put it back into an envelope and seal it.

I will collect the envelopes on 2nd and 4th of May.

Thank you for your time!

Background questions

Please indicate your age:

20-30 30-40 40-50 50-60 60-70

Please indicate how many years you have been employed at [name of organization]:

0-2 years 2-5 years 5-10 years more than 10 years

Please indicate your gender:

Male Female

Identification with [name of organization]

This part measures how strongly do you identify with [name of organization] as a company.

	1 strongly disagree	2 disagree	3 neither disagree or agree	4 agree	5 strongly agree
When someone criticizes [name of organization], it feels like a personal insult.	()	()	()	()	()
I am very interested in what others think about [name of organization].	()	()	()	()	()
When I talk about [name of organization], I usually say 'we' rather than 'they'.	()	()	()	()	()
[name of organization]'s successes are my successes.	()	()	()	()	()
When someone praises [name of organization], it feels like a personal compliment.	()	()	()	()	()
If a story in the media criticized [name of organization], I would feel embarrassed.	()	()	()	()	()

Identification with your workgroup

This part measures how strongly do you identify with your workgroup. *Workgroup* refers to those colleagues with whom you share a supervisor or team leader.

	1 strongly disagree	2 disagree	3 neither disagree or agree	4 agree	5 strongly agree
When someone criticizes my workgroup, it feels like a personal insult.	()	()	()	()	()
I am very interested in what others think about my workgroup.	()	()	()	()	()
When I talk about my workgroup, I usually say 'we' rather than 'they'.	()	()	()	()	()
My workgroup's successes are my successes.	()	()	()	()	()
When someone praises my workgroup, it feels like a personal compliment.	()	()	()	()	()
When someone criticizes my workgroup, I feel embarrassed.	()	()	()	()	()

Characteristics of your manager

This part will measure your perception of your manager's characteristics.

	1 strongly disagree	2 disagree	3 neither disagree or agree	4 agree	5 strongly agree
The manager of my workgroup is a good example of the kind of people that are members of my workgroup.	()	()	()	()	()
The manager of my workgroup represents what is characteristic about my workgroup.	()	()	()	()	()
The manager of my workgroup has a lot in common with the members of my workgroup.	()	()	()	()	()

Questions continue on the next page.

Communication between you and your manager

This questionnaire will ask you questions concerning communication, both informal and formal, between you and your manager.

	1 strongly disagree	2 disagree	3 neither disagree or agree	4 agree	5 strongly agree
My superior makes me feel free to talk with him/her.	()	()	()	()	()
My superior really understands my job problems.	()	()	()	()	()
My superior encourages me to let him/her know when things are going wrong on the job.	()	()	()	()	()
My superior makes it easy for me to do my best work.	()	()	()	()	()
My supervisor makes me feel that things I tell him/her are really important.	()	()	()	()	()
My superior is willing to tolerate arguments and to give a fair hearing to all points of view.	()	()	()	()	()
My superior listens to me when I tell him/her about things that are bothering me.	()	()	()	()	()
I believe that my superior really understands me.	()	()	()	()	()
My superior is frank and candid with me.	()	()	()	()	()
I am free to tell my superior that I disagree with him/her.	()	()	()	()	()
My superior encourages me to bring new information to his/her attention, even when that new information may be bad news.	()	()	()	()	()
My superior hears and seriously considers my recommendations.	()	()	()	()	()