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The balancing of leadership between project managers and team members in the consulting industry: The role of empowerment and social-normative motivation to lead.

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Abstract

This master thesis examines the nature of the relationship between a vertical leader's empowerment of a team member and the empowered team member's social-normative motivation to lead (SN-MTL) in project teams within the consulting industry. Furthermore, it investigates whether level of self-efficacy (SE) and team psychological safety (TPS) have moderating effects on the hypothesized relationship between empowerment and SN-MTL.

Data was collected using a quantitative self-reporting questionnaire on *N*=83 respondents who worked as consultants in project teams located in Scandinavia. Multivariate regression analysis was conducted in IBM SPSS to analyze data. The results of the analyses revealed no significant relationship between empowerment and SN-MTL. Consequently, no support was found for any moderating effects from SE or TPS. However, a supplementary finding revealed a relationship between two of the subfactors of SN-MTL and SE. The thesis contributes to the existing literature on balanced leadership by emphasizing the importance of motivation to lead. Furthermore, it sheds light on a gap in the literature in terms of the relationship between motivation to lead and SE. The theoretical and practical implications of the findings are discussed.

Key words

Project management, team, project team, consulting, Balanced Leadership Theory, vertical leadership, horizontal leadership, Empowerment, Social-normative motivation to lead, MTL, SN-MTL, Self-Efficacy, Team psychological safety, TPS.

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1.0 Introduction to the research topic

A rising number of organizations experience an increase in challenges related to uncertain and fast-changing environments, a growing complexity in their work assignments and a more diverse workforce (Ang et al., 2015; Pretorius et al., 2018). Faqua and Kurpius (1993) stated that organizations are complex systems operating within even more complex environments and that their survival and success depends on their ability to navigate the complexity by tackling arising issues and demands (Boselie, 2014). To face these challenges and demands, some organizations are applying team-based structures to reorganize their assignments (Pretorius et al., 2018). The team-based structure is often applied in organizations working on a project basis, such as within the consulting industry (Sydow et al., 2004). Project teams are regarded to be effective in dynamic environments, and especially in organizations affected by a competitive and global environment (Belout, 1998; Hoegl & Parboteeah, 2006). In the consulting industry, internal or external consultants are often staffed on projects to define and solve composite problems related to their special insights, expert knowledge and skills (Kurpius et al., 1993). However, one individual consultant rarely possesses the competencies to understand the complexity single-handedly and consultants therefore often work together in multifunctional teams to solve the problems in the given project (Kurpius et al., 1993; Pretorius et al., 2017).

To successfully solve the issues of the client, effective project management is considered key (Nixon et al., 2012; Yang et al., 2011). The management of project teams is a complex process as it revolves around the interaction between individual team members and team leaders. Although complex, it is important to understand how to manage project teams in order to achieve its highest potential and level of effectiveness, as the teams often consist of members with different expertise, backgrounds and competence (Pretorius et al., 2018). The question of how resources in teams can be managed and applied in order to successfully solve problems and achieve beneficial outcomes, have therefore been of interest in the project management literature (Carson et al., 2007; Frame, 2003; Kozlowski & Bell, 2003; Mehra et al., 2006; Pinto & Slevin, 1987; Sydow et al., 2004).

While previous research has focused on the formal project manager role typically being appointed to a single team member (also referred to as Vertical Leadership (VLS) (Carson et al., 2007; Kozlowski & Bell, 2003; Stewart & Manz, 1995), more recent research emphasize the functionality of adopting more flexible leadership approaches as the circumstances of and within a project alternate across the project's life-cycle (Baccarini, 1996; Maylor et al., 2008; Müller et al., 2017). A theory that looks into this flexibility of leadership in project teams is the theory of Balanced Leadership (BLS) by Müller et al. (2018a). BLS theory conceptualizes that leadership authority in projects will move back and forth between the different members' in a situational contingency, but at the same time will be coordinated by the vertical leader (VL) (Alonderienė et al., 2020). The word "balance" refers to the event of selecting and empowering one or several qualified team member(s) to take on the leadership responsibility on a temporary basis (Alonderienė et al., 2020; Müller et al., 2021). By balancing the leader role, the most appropriate member can take on the leadership role whenever required or suited, to ensure the best form of leadership at any point in time (Alonderienė et al., 2020; Müller et al., 2021).

The event of empowerment in the BLS theory highlights the transfer of the leadership authority and role between individuals in a team, and is an important mechanism which enables the sharing of responsibility and leadership among team members (Müller et al., 2018a). This event facilitates horizontal leadership (HLS), where the individual team member who encompasses the relevant competence for a certain assignment can take on the leadership role temporarily, hence contributing to adapting to the contextual challenges and exploiting the relevant resources at the right time. BLS and the event of empowerment thereby facilitates agility and response to changing demands (Cavaleri & Reed, 2008; Pearce & Sims Jr, 2002; Toegel & Jonsen, 2016), which is of a high significance in a dynamic and high-tempo environment such as in the consulting industry.

Empowerment is furthermore considered to be a motivational mechanism, indicating that individuals believe that they can impact their team and organization through their efforts (Yu et al., 2018). The link between empowerment and motivation is particularly interesting, as it is in the interest of the project that the

empowered team member feels motivated to accept the roles and responsibilities that the HLS role entails. This is because the empowered team member may possess skills that make them fit to lead temporarily. However, possessing those skills does not necessarily imply that the empowered team member is motivated to accept a leadership role (Amit et al., 2007; Popper & Mayseless, 2003). Consequently, it is expedient to consider the empowered team members' level of motivation to accept the temporary leadership role and responsibility. Furthermore, there has been limited research on the aspect of motivation to lead among team members in reference to BLS. This study can therefore contribute to enriching the understanding of factors that might impact the transfer of a leadership role in teams, and to broadening the understanding of contributing elements in a more flexible leadership approach.

The purpose of this study is to investigate the nature of the relationship between the level of empowerment from a formal leader towards a team member to accept a leader role temporarily, and the team members' level of motivation to accept this responsibility and role. The aim is to quantify motivation to lead (MTL) through a quantitative investigation of the MTL sub construct Social-normative motivation to lead (SN-MTL) at different levels of Team psychological safety (TPS) and Self-efficacy (SE) in the context of BLS in project teams in the consulting industry. BLS, Empowerment, SN-MTL, TPS and SE will be described in depth in the theoretical framework of this thesis. To investigate the purpose of this study, the following research question is posed:

Research question: What is the nature of the relationship between Empowerment and Social-Normative Motivation to Lead in the consulting industry?

To answer this question, we first empirically tested the correlation between empowerment and SN-MTL. The unit of analysis is the relationship between empowerment and SN-MTL. The study builds upon the recently developed theory of BLS, which postulates leadership as a dynamic, context-dependent transition of leader authority from a VL to a horizontal leader (HL) temporarily, to contribute

positively to the project's success (Drouin et al., 2018). Balanced leadership is characterized by five events; nomination, identification, selection and empowerment, horizontal leadership and its governance, and transition, and this paper focuses on the third event of selection and empowerment explicitly. However, an introduction to BLS and all events will be accounted for to clarify the theoretical framework for the study.

The study is an empirical, exploratory research study, and followed the processes by Saunders et al. (2009) which required the determination of the ontological and epistemological foundation from the outset of the research process. Accordingly, this study is based on objective post-positivism and took a deductive approach as hypotheses were derived from existing theories (Saunders et al., 2009). In terms of methodology, a self-reporting questionnaire was applied to measure responses at one single point in time through a mono-method, cross-sectional research design (Bell et al., 2018). Responses were collected using snowball-sampling technique and simple random sampling technique. Furthermore, all constructs included in the hypotheses of this study were measured quantitatively, and multivariate analyses were applied to analyze relationships between the variables.

By investigating the research question, this study contributes to academia by emphasizing the knowledge gap between a VL's efforts to empower a team member and the team member's motivation to accept the responsibilities that come with empowerment. Furthermore, academics will benefit from the further quantitative development of the theoretical framework of BLS theory and MTL. These contributions are important as they substantiate insights into the variables, decisions and mechanisms that contribute to transition from VLS to HLS in project teams within the consulting industry. These insights will allow practitioners to move from intuitive to deliberate and better-informed decision-making in terms of project management, which can be beneficial for project outcomes.

This research study is structured into the following sections: First 1.0 an introduction including the research question and the relevance of this study. Thereafter 2.0 the theoretical framework presents the fundamentals of balanced

leadership theory, and a literature review of publications on the concepts relevant to the study, namely empowerment, SN-MTL, TPS and SE. Hypotheses are presented in conjunction with their respective concepts. Thereafter, 3.0 the methodological foundation and procedures of the study is accounted for. Subsequently, 4.0 the data analysis and results of the study are presented, followed by 5.0 a discussion of the findings. In the discussion section, the implications, limitations and directions for future research are clarified. Lastly, 6.0 a short conclusion is presented. This paper also includes an Appendix with supplementary information.

2.0 Theoretical Framework

This section of the thesis seeks to establish a thorough foundation for understanding the constructs that are researched in this study, and reviews previous studies and findings in the fields of interest. The first part of the theoretical framework emphasizes the context in which this study has based its research, namely in project-based teams. Here, leadership in project teams is accounted for as it is central to understanding the scope of the next section looking into the BLS theory. The second section provides a theoretical background for the BLS theory, which is at the core of the constructs that are investigated further in the research question as well as in the hypotheses. The third section presents the two primary constructs; Empowerment and SN-MTL, followed by TPS and SE, which are investigated in relation to the primary constructs. The section also presents the three hypotheses derived from the research question which are researched in this study.

2.1 Introduction to projects and leadership in projects

Historically, projects have been considered organized structures that influence lives and societies (Shenhar & Dvir, 2007). These have been central in regards to humans' ability to organize, coordinate and execute actions through collective effort (Shenhar & Dvir, 2007). In a modern perspective and an organizational context, projects are affected by limited timeframes, budgets and other resources. These limitations are essential in understanding the potential objectives and outcomes for a project and have shown to significantly affect the project results (Chaos, 2001; Shenhar & Divr, 1993; Standish, 1994).

Müller et al. (2021, p. 1) refer to projects as “temporary organizations whose assigned resources undertake a unique and collaborated effort to deliver a beneficial outcome”. The management of projects is viewed through a variety of different lenses, and one perspective is based upon the team and leadership approach (Shenhar & Dvir, 2007). This approach investigates projects as an organization of team members, who need to be motivated, coordinated and led towards achieving the set shared goal. Hackman (1978) defines teams as social systems of three or more people, where the members as well as others perceive them as a team. Furthermore, according to Chiocchio et al. (2015, p. 54) a project team "unites people with various knowledge, expertise and experience who, within the lifespan of the project but over long work cycles, must acquire and pool large amounts of information in order to define or clarify their purpose, adapt or create the means to progressively elaborate an incrementally or radically new concept, service, product, activity, or more generally, to generate change". Therefore, project teams are regarded as important assets to respond to challenges that demand flexible structures in dynamic environments, which is more relevant than ever in organizations affected by high levels of globalization and competitiveness (Belout, 1998; Hoegl & Parboteeah, 2006). Project teams are used in a variety of industries (Kloppenborg et al., 2003), and are highly relevant in reference to the consulting industry, where project teams deliver industry-defined solutions to external clients (Kloppenborg et al., 2003; Sense, 2003).

In order to extract and apply the potential of project teams, it is essential to consider how the project team is managed. Müller et al. (2017) states that project managers are both managers and leaders, where they as managers have responsibility to conduct and reach project objectives, and leaders influence, guide and provide direction for team members (Bennis & Nanus, 1985; Pretorius et al., 2018). Furthermore, Zika-Viktorsson et al. (2006) claims that project management shall facilitate the distribution and leveling of the human resources available across time and space, which further promotes expertise sharing and knowledge transfer. In order to do so, it is important to understand the role of leadership in project teams.

Northouse (2018) defines leadership as a process whereby an individual influences a group of individuals to achieve a common goal. In relation to this, project management can be defined as the managerial activities needed to lead a project to a successful end (Shenhar & Dvir, 2007). However, whether or not a

project is successful is to a high degree a subjective evaluation (Ika, 2009; Müller & Jugdev, 2012). Müller et al. (2021, p. 1) elaborates on the understanding of leadership as "an interpersonal, person-oriented, social influence to guide the resources in direction, course, action and opinion" (Müller et al., 2021, p. 1). Accordingly, leadership occurs for, with, between and about people in a process of relational dynamics (Müller et al., 2021).

Traditionally, project managers are leaders who are assigned by the organization to lead the team and who are responsible for achieving the project objectives (Müller et al., 2018a). This can be referred to as "assigned leadership" and implies that the leadership is based on the specific position an individual is occupying in an organization (Northouse, 2018). This type of leadership is influenced by what can be understood as positional power, where the power which the leader possesses, is derived from an official office or rank in a formal organizational position (Northouse, 2018). Consequently, project managers formally possess authority to perform traditional top-down leadership over the project and the project team members (Müller et al., 2021). In this regard, project managers perform what is referred to as *vertical leadership* (VL) (Müller et al., 2021; Pearce & Sims Jr, 2002). Pearce and Sims Jr (2002) describes VL as a structure where the project manager is positioned hierarchically above and externally to the team and has a formal authority over the team. As VL, project managers are considered to be responsible for the team processes and outcomes (Pretorius et al., 2018). Accordingly, VL is described as a contrast to what is called shared leadership (Carson et al., 2007).

2.1.1 Distributed and shared leadership

While traditional VLS has been the dominant leadership approach for many decades, modern research has challenged the approach and argued that leadership is an activity that can be shared or distributed among members of the team (Pearce & Conger, 2003). As a result, many theories have been developed with an emphasis on the interaction and dynamic between individual team members and their contribution to the team. Among these theories, two central approaches emphasizing leadership of teams are distributed- and shared leadership approach (Alonderienė et al., 2020). Both approaches consider leadership at the team level, but have important distinctions:

Distributed leadership occurs when leadership emerges out of the social interaction of team members (Bolden, 2011), and is "a group activity that works through and within relationships, rather than individual action" (Bennett et al., 2003, p. 3). Accordingly, distributed leadership exploits the team's collective skills and competencies by encouraging team members to share their ideas with the rest of the team in order to build a repertoire of different perspectives and solutions to given situational issues (Müller et al., 2021). The team will subsequently review these ideas together and agree upon the best solution or decision to implement (Müller et al., 2017).

In distinction, shared leadership occurs when all members of a team are fully engaged in the leadership of the team and are not hesitant to influence and guide fellow team members in an effort to maximize the potential of the team as a whole (Pearce, 2004, p. 48). Shared leadership can be seen in reference to management of project teams (Alonderienė et al., 2020), as it is defined as the administration of leadership influence across different team members (Carson et al., 2007). Shared leadership therefore includes "simultaneous, ongoing, mutual influence processes within a team that is characterized by 'serial emergence' of official as well as unofficial leaders" (Pearce, 2004, p. 48). In this context, team members will engage in peer leadership by agreeing on *one* team member to be the leader temporarily (Crevani et al., 2007). Shared leadership is therefore executed by a team member upon nomination by the other team members (Pretorius et al., 2018).

Shared leadership is however dependent on that the VL provides the team with authority to plan and manage, and on the VL's efficacy and empowerment of the team's appointed leader (Müller et al., 2017). Hence, shared leadership can be viewed as a demonstration of fully developed empowerment in teams (Conger & Kanungo, 1988), where the VL plays an important part in the development and maintenance of shared leadership. What separates shared leadership from VLS is therefore that the leader (and thus the influencer) is often a peer of the people who are being led (or influenced) (Pearce & Sims Jr, 2002). This suggests that in practice, shared leadership goes beyond traditional VLS when several individuals act with authority without necessarily being formal leaders (Müller et al., 2017). Shared leadership therefore lays an important foundation for understanding strategies of the exchange of influence between leaders and followers (Bass & Stogdill, 1990; Yukl, 1998).

Gibb et al. (1954) emphasized the importance of shared leadership already early in the history of leadership research by stating that "Leadership is probably best conceived as a group quality, as a set of functions which must be carried out by the group". This statement is supported by other scholars, for instance by Pretorius et al. (2017) who stated that a single individual (e.g., the VL) in the team rarely possesses the competency to play all possible leadership roles efficiently within a project. Applying team members' distinct strengths to supplement or complement the VL's capabilities during different stages in the project can therefore be beneficial for effectiveness (Conger & Pearce, 2003; Pretorius et al., 2017). Shared leadership may therefore be developed for types of knowledge work that require team-based approaches, that are typically defined by high interdependence, high complexity and need for creativity (Pearce, 2004). Accordingly, as the complexity of the knowledge work increases in for instance the consulting industry, the need for leadership that is shared among team members also increases (Pearce, 2004).

2.1.2 Horizontal leadership

A team-centered leadership style that is closely connected to shared leadership is Horizontal leadership (HLS), which is a social process where one or several members of the project team influence the project manager, the team, and other stakeholders to carry the project forward in a desired direction (Müller et al., 2017). In similarity to shared leadership, HLS is also characterized by the leadership role continuously shifting between team members, based on the project's need for crucial expertise during different stages in the project (Pretorius et al., 2018). In this regard, team member(s) are typically nominated for a HLS role by the project manager in order to carry the project forward in a particular way and/or to lead the team through a particular state or issue during the project (Alonderienė et al., 2020; Müller et al., 2017). This is for instance relevant in situations which require expert knowledge that the VL does not possess individually (Müller et al., 2017).

HLS is however distinct from traditional shared leadership based on it being executed by a team member upon *nomination* by the project manager (VL), while simultaneously being *governed* by the VL for the time of the nomination(Müller et al., 2021). Accordingly, HLS has a closer connection with VLS as it is the VL that both nominates the team member to lead and holds the overarching control over the

project team and its objectives (Pretorius et al., 2018). The control that comes with governance reserves the right for the VL to revoke the HLS at any time, such as for instance when the project is in need of other types of expert knowledge or skills, or if the HL no longer wishes to lead (Müller et al., 2017).

2.1.3 Balanced leadership

However, whilst some scholars consider vertical-, shared and horizontal leadership as distinct leadership styles, other researchers emphasize that VLs in reality often have to, and benefit from, applying the different styles in concert across the project life-cycle (Müller et al., 2018; O'Toole et al., 2003; Pretorius et al., 2017). Accordingly, a recently developed theory of project leadership that balances the different leadership styles, and acknowledges the interaction between VLS- and HLS, is Balanced Leadership theory by Müller et al. (2018a).

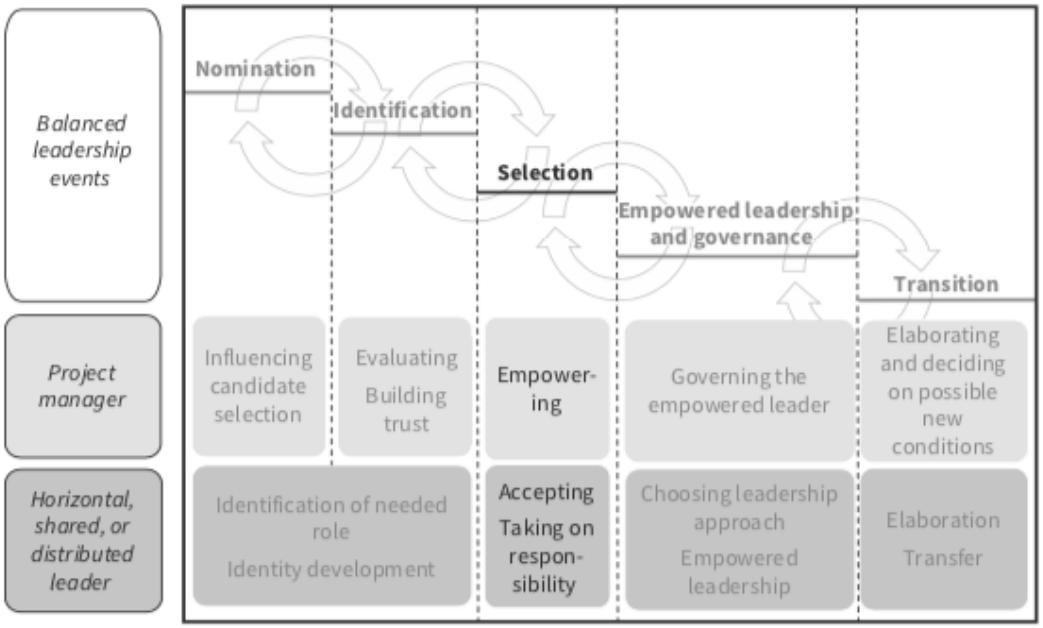
Balanced leadership (BLS) can be defined as "the dynamic back-and-forth of the transition of leadership authority between a VL (such as a project manager) and horizontal/shared leader(s) for the realization of desired states in projects" (Müller et al., 2021, p. 101). The *balancing* refers to selecting and empowering one or more qualified team member(s) to lead the project on a temporary basis, which ensures the best possible leadership at any point of time in the project (Alonderienė et al., 2020; Müller et al., 2021). BLS theory further conceptualizes that, in projects, leadership authority will bounce between different roles in situational contingency, whilst being controlled by the VL (Alonderienė et al., 2020). Because specific skills may be needed at different points in the project timeline, team members can become temporary leaders of the project based on their distinct strengths, knowledge, skills and capabilities (Müller et al., 2021).

BLS theory conceptualizes that the transition from VLS to HLS is characterized by five sequential events, where the VL and HL conduct a series of actions and decisions. These events are: (1) the nomination of team members, (2) identification of potential horizontal leaders, (3) selection and empowerment of horizontal leader(s), (4) horizontal leadership and governance, and lastly (5) transition (Müller et al., 2017). The events are illustrated in Figure 1 in order to depict the sequence of the separate events, and highlights the event of selection and empowerment. This study will briefly introduce each of the events as they create the foundation for understanding BLS in project teams. However, from section 2.2

and onwards, this study will give an in-depth description of the third event (3) selection and empowerment, which will be the sole focus in the rest of the study.

Figure 1.

The events of Balanced Leadership. Empowerment and accepting the leadership role under the event of selection. *Adapted from (Müller et al., 2021).*



2.1.3.1 Nomination event

Before leadership can be balanced in a project, scholars emphasize the importance of selecting team members to partake in the project team who have characteristics that make them capable of contributing to the project's success (Müller et al., 2021; Pinto & Slevin, 1987). The process of building a suitable project team is according to BLS theory referred to as *nomination* (Müller et al., 2018a). Nomination occurs when "the vertical leader aims for influencing the choice of team members in order to build a pool of most suitable resources and potential horizontal leaders for the project" (Müller et al., 2018a, p. 84). While nomination becomes important already from the onset of the project, team members may in practice join or leave the team during different stages in the project lifecycle (Müller et al., 2021). Nomination of new team members can therefore occur at several points in time (Sankaran et al., 2020). This can be exemplified in the

consulting industry, where some project teams experience such changes in staffing throughout the course of a project.

Regardless of the time of nomination, the action of nomination will influence the processes that enable balancing of leadership. Accordingly, scholars emphasize that it is imperative for a VL to actively attain the optimal resources to the team to successfully tackle the project's objectives (Pinto & Slevin, 1987; Sankaran et al., 2020). In general, the literature indicates that project team members are typically nominated based on their experience and skills, as well as their social skills and personality (Katzenbach & Smith, 2005; Morgeson et al., 2005).

2.1.3.2 Identification event

Given that the VL adopts a BLS approach, the VL will subsequent to nomination *identify* possible candidates within the project team for empowerment into a HLS role (Müller et al., 2021). This event is a "two-way activity from both project manager and team members to identify the best possible fit between a situation requiring horizontal leadership and a person executing it" (Müller et al., 2018a, p. 98). Accordingly, during this process, the VL forms an alliance with the team members that may qualify for empowerment.

Studies on project management have mainly emphasized team members' managerial skills and traits (Gaddis, 1959; Hauschildt et al., 2000) and professionality, personality and attitude as important for leader identification (Konstantinou, 2015; Müller et al., 2018c). Accordingly, the VL often assesses candidates for HLS against those criteria during the process of identification which is characterized by preliminary evaluation and continuous assessment as the candidate develops. In a recent study, Müller et al. (2018c) emphasize that the identification process is perceived slightly differently from the candidates' perspective, as it is more influenced by competition. For that reason, candidates typically express themselves in regard to the criteria in order to enhance their chances for selection, or withdrawal, if they are no longer interested in taking on a HLS role (Müller et al., 2018c).

2.1.3.3 Selection and empowerment event

The identification event thus becomes a precursor to the third event of BLS, where the VL finally *selects* one or more qualified candidate(s) to empower (Müller et al., 2021). This event marks the VL's transition of leadership authority to the empowered candidate(s) and their acceptance of this authority and its related responsibility (Cox et al., 2003; Müller et al., 2021). In this regard, selection refers to choosing an identified candidate to enact HLS temporarily. Furthermore, empowerment refers to the practices that the VL applies to give employees increased decision-making power (Leach et al., 2003).

During empowerment, the VL steps out of their role as project manager and becomes a facilitator in order to build a supportive climate for the HL (Yu et al., 2018). The VL's facilitating role will in turn support the HL's development of leadership skills, and provide support to the HL in leading the project (Yu et al., 2018). Scholars suggest that the empowerment of HLs in projects should contribute to the HL's feeling of being capable to lead (Sharma & Kirkman, 2015) and their experience of the leadership role as meaningful (Maynard et al., 2012; Neilsen, 1986).

2.1.3.4 Horizontal leadership and governance event

BLS theory further postulates that given the candidate(s) acceptance of the HLS, the VL will thereafter become a follower to the HL, while simultaneously *governing* the actions of the HL to ensure that decisions are made in the interest of the project (Müller et al., 2021). Accordingly, the fourth event in BLS theory refers to the temporary period in which the HL finally executes leadership over the VL, project and team.

However, during this period, the VL continues to govern the project and the HL (Pilkienė et al., 2018). While an official definition for governance of leadership in projects is yet to be defined, scholars researching the events of BLS consider it as a process that corresponds with the governance of other processes in organizations, where governance unfolds through mechanisms, structures and methods established in the project team to achieve project goals (Pilkienė et al.,

2018). In this regard, there is a large consensus that two of the key mechanisms in governance are control and trust (Bosch-Sijtsema & Postma, 2009; Edelenbos & Eshuis, 2012; Hoetker & Mellewigt, 2009; Müller et al., 2017). VLs are generally expected to keep their project in control in order to regulate the behaviors of the team members in the direction of goal achievement (Costa & Bijlsma-Frankema, 2007; Pilkienė et al., 2018). Accordingly, the control mechanism in governance is what regulates the direction of the project (Edelenbos & Eshuis, 2012). The trust mechanism however, lays the foundation for the VL's entrustment of authority and responsibility to the HL. This is because trust is a positive expectation that others refrain from opportunistic behavior even when they have the opportunity to do so (Edelenbos & Klijn, 2007).

Overall, the process of governance in HLS involves balancing trust and control (Pilkienė et al., 2018). Based on that balance, the governance in HLS allows the VL to stay in control over the progress, objectives and distribution of resources during the project (Pilkienė et al., 2018) whilst simultaneously trusting the HL to lead in interest of the project. Governance in HLS further becomes a system to direct and control managers while simultaneously holding them accountable for their performance (OECD, 2001).

2.1.3.5 Transition event

Lastly, the *transition* event marks the cessation of the HLS and occurs when the VL decides to evoke the temporary decision-making authority of the HL (Müller et al., 2018a). The event therefore occurs at the operational level, where there is a noticeable change from a "before" state of HLS to an "after" state where leadership is taken back by the VL (Alonderienė et al., 2020). The VL's decision to retract the HLS is usually made when there is no longer a need to delegate authority to the HL, when the HL should no longer have authority based on their expertise, or when the HL no longer wants to lead the process (Müller et al., 2017).

2.1.3.6 The socio-cognitive space enabling balanced leadership

Based on the nature of the events that characterize BLS theory, BLS is a process which does not occur in a vacuum. It involves the collaboration of the VL and the team members, where coordination mechanisms are necessary in order to enact HLS (Burke et al., 2003; Cox et al., 2003; O'Toole et al., 2003). According to Müller et al. (2015) the coordination of the sequential events of BLS takes place in a socio-cognitive space, which is the shared mental space between team members and VLs for identifying the situations that require BLS, and for synchronizing the transferal between VLS and HLS (Muller et al., 2015).

The socio-cognitive space consists of a shared understanding of empowerment, self-management and shared mental models in the team (Muller et al., 2015). In this regard, empowerment refers to whether there is a clear understanding about who is empowered to lead at any point in time, and self-management to what extent the empowered team member possesses the required skills, attitudes and motivation to take on the leader roles that comes with the HLS position (Muller et al., 2015). Lastly, in terms of shared mental models in teams, this is the structured knowledge that team members have of each other's skills, roles, capabilities and tendencies (Muller et al., 2015; Scott & Davis, 2015). The configuration of these three elements is suggested to enable a transferal of leadership from the VL and the execution of HLS by members on the team (Muller et al., 2016; Müller et al., 2017). Accordingly, in enabling contexts, the empowerment by the VL fosters self-management of the empowered team member, and in parallel updates the shared mental models of the team members about the new role and authority of the empowered HL (Muller et al., 2016; Müller et al., 2017). Therefore, the socio-cognitive space allows the VL and team to adjust and balance leadership based on the needs and demands of the project (Muller et al., 2015; Müller et al., 2018b).

2.2 Research constructs

In the following subsections, the theoretical constructs relevant to the study's research question are presented. These constructs are 2.2.1 Empowerment, 2.2.2 SN-MTL, 2.2.3 TPS and 2.2.4 SE. Hypotheses are presented in conjunction with their respective theoretical constructs. Lastly, a model of all hypotheses is illustrated in Figure 3.

2.2.1 Empowerment

As introduced in the section of BLS theory, empowerment occurs in the transferal of leadership authority to individuals in the team to lead horizontally (Müller et al., 2017). It is enabled by the need for a leader other than the VL to achieve optimal efficiency and/or effectiveness. A need for a temporary shift in leadership can occur for numerous reasons, such as e.g., the need for the project team to follow a specialist when solving a highly technical issue or if a particularly creative solution is necessary to drive the project forward. Empowerment is thus a central mechanism to sharing responsibility and power in decision-making with other selected members of the project.

The concept of empowerment is generally well rooted in organizational science and has traditionally been researched in reference to its performance-enhancing effects on individual, team and organizational levels of analysis (Carmeli et al., 2011; Harris et al., 2014; Stewart et al., 2012). In the management literature, empowerment is typically referred to in terms of two highly related types: social-structural empowerment and psychological empowerment (Simonet et al., 2015; Yu et al., 2018). The most frequently applied definition of empowerment refers to the social-structural type as "a practice, or set of practices involving the delegation of responsibility down the hierarchy so as to give employees increased decision-making authority in respect to the execution of their primary work tasks" (Leach et al., 2003, p. 28). In reference to its definition, social-structural empowerment can be understood as the conditions and structures in the organization that remove obstacles and delegate or share power, decision-making and control over resources (such as e.g., job design, procedures and policies) from leaders to subordinates (Simonet et al., 2015; Yu et al., 2018). In reference to BLS, social-structural empowerment therefore comes about as the formal situation where the VL hands over the baton to a project team member, and as involvement in decision processes and goal setting (Yu et al., 2018).

The second type of empowerment, psychological empowerment, describes the internal processes of the individual being, and enables subordinates to take on responsibility by increasing their intrinsic motivation (Thomas & Velthouse, 1990) and enhancing their SE (Conger & Kanungo, 1988). It is considered a motivational mechanism to perform because empowered individuals and teams find meaning in their work and believe that they can impact their organization through their efforts

(Yu et al., 2018). When a leader psychologically empowers a team member to take on a HLS role, they influence the team member on the basis of four dimensions: meaning, competence, self-determination and impact (Spreitzer, 1995). Psychological empowerment is hence related to employees' perception of themselves as having autonomy, impact and competence (Yu et al., 2018). Because the VL must facilitate sharing of authority, structural empowerment becomes a condition, but not a guarantee, for psychological empowerment (Seibert et al., 2011).

Yu et al. (2018) found empirical support for the process of HL empowerment as unfolding over three stages starting with a pre-empowerment stage, followed by an empowerment stage and lastly a post-empowerment stage (see Figure 2): During the pre-empowerment stage the VL facilitates structural empowerment and prepares cognitively to empower the HL. This includes that the VL settles on an empowerment orientation by evaluating the conditions for HL. The empowerment orientation will in turn function as a guide for aligning a previously identified HLS candidate(s) with the leadership demands of the situation. Based on this, the VL decides which candidate to empower. During the empowerment stage, the VL introduces a series of empowerment procedures sequentially. Firstly, a decision announcement is made, where the VL communicates the empowerment of the HL candidate to all members of the project team. This is followed by execution and control, where the VL governs the new HL during the HL's temporary execution of power. Subsequently, when there is time for it, the VL evokes the empowerment, and the leadership is transitioned back to the VL. Lastly, in the post-empowerment stage the VL gathers information from stakeholders and evaluates the HL's overall performance in the role, so that the HL can receive feedback for further guidance and learning.

Empowerment of a HL is hence a process that is initiated and managed by the VL throughout the events of BLS (Yu et al., 2018). However, while the empowerment by a VL is an enabler for enacting HLS, HLS is not dependent on the VL alone as it involves the interaction between the internal decisions of *both* the VL and the selected HL (Müller et al., 2017). In this regard, Müller et al. (2017) illustrate the interaction between HLS intent and practiced leadership as a sequential process that starts with the identification of possible candidates for HLS and the subsequent selection of one or more candidate(s) when the need for HLS

emerges. Accordingly, the identification and selection and empowerment events in BLS are dependent on *both* the VL and the selected HL's internal decisions (Müller et al., 2017) (see Figure 1).

For the VL this includes making an intra-personal decision regarding the selection of one or more team members as HL(s) and empowering them (Müller et al., 2017). According to Yu et al. (2018) a VL's level of effort to psychologically empower a team member is typically determined by the relationship between the VL and the subordinates who are empowered. In this regard, Leana (1987) found that the leader's trust in subordinates is an important predictor for the delegation of tasks and for psychological empowerment. Additionally, the subordinates can enable empowerment by influencing themselves or their environment by e.g. speaking up, showing initiative and taking on leader roles (Yu et al., 2018). Psychological empowerment is hence not an intervention by the VL, but rather a subjective experience of reality that is necessary in order to feel a sense of control (Simonet et al., 2015). Furthermore, when the VL decides to select and empower a team member to the HL role, he/she will convey the expectations for role execution and the conditions for the upcoming tasks that require HLS. These are conveyed to the candidate(s) in order to regulate the candidate(s) perception of the role (Müller et al., 2021).

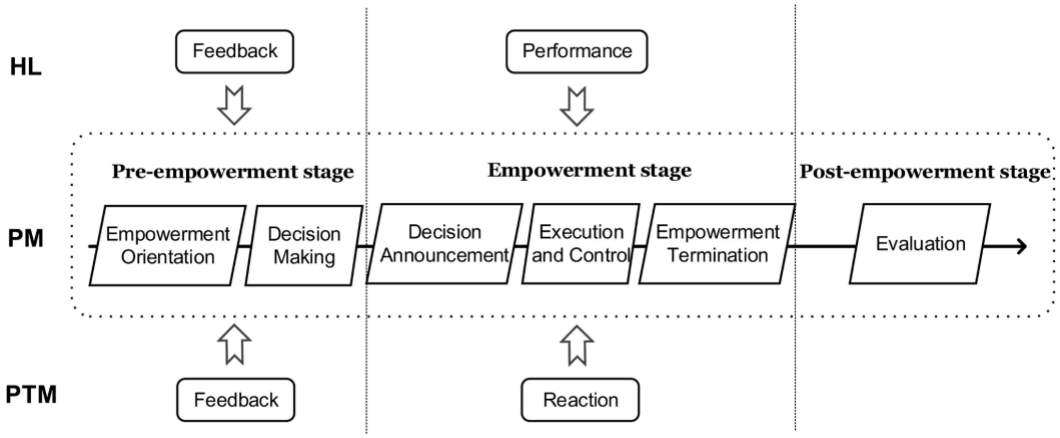
For the potential HL(s), the intra-personal decision involves their individual perception of their qualification for the leader role in reference to the expectations communicated by the VL, otherwise known as self-efficacy (SE) (Bandura, 1977, 1997). Accordingly, the candidate(s) level of SE will influence their decision to accept or decline the offer to lead when being empowered by the VL (Müller et al., 2018a). As such, selection and empowerment are necessary events that occur prior to the candidate(s) acceptance to take accountability for the role and the responsibility to fulfill the HLS role (Müller et al., 2021). In other words, it indicates that the enactment of HLS relies on a compliance between the VL who distributes a level of empowerment and the HL who receives and accepts the authority.

Accordingly, the selection and empowerment-event of BLS becomes a key activity to the actual transferal of authority from a VL to a selected team member (Figure 1). This is because the transferal requires that the VL empowers a qualified team member to take on the role as a HL, and also depends on the empowered team

member's acceptance to take on the responsibility and authority that the empowerment entails (Müller et al., 2021).

Figure 2.

The process of HL empowerment. HL=horizontal leader, PM=project manager/ VL. PTM=project team member. *Adapted from (Yu et al., 2018).*



2.2.2 Social-Normative Motivation to Lead

As presented, a VL's effort to empower a team member to take on a HL role is considered to influence the selected team member's motivation (Thomas & Velthouse, 1990). In this regard, motivation is considered to affect individuals' choices about what tasks and behaviors to engage in, and their thoughts about their performance and goals (Eccles et al., 1998). Previous research on motivation and employee behavior acknowledges motivation as a key influence on employees' decisions to pursue particular organizational roles, and as an important determinant for employees' devotion to fulfill their job responsibilities (Kanfer et al., 2017; Latham & Pinder, 2005). In reference to leadership, individual differences in motivation has also been emphasized as key to understanding individuals' decisions to aspire leadership roles and responsibilities (Chan & Drasgow, 2001; Lord & Hall, 1992). Previous research on leadership has typically emphasized predictive criterions for effective leadership, whereas more recent literature have argued the importance of considering individual differences when explaining leadership behavior, and dispute that leadership behavior is likely to be a multivariate issue (Chan & Drasgow, 2001; Lord & Hall, 1992; Murphy & Shiarella, 1997).

Attempting to recognize the complexity of leadership behavior and the multidimensional nature of leadership, Chan and Drasgow (2001) presented a construct highlighting individuals' motivation to lead. Chan and Drasgow (2001, p. 482) defined Motivation To Lead (MTL) as an individual-differences construct which "affects a leader's or leader-to-be's decisions to assume leadership training, roles and responsibilities, and his or her intensity, effort and persistence as a leader". In this regard, individual differences in MTL are considered relatively stable over time and can be found within any group (Chan & Drasgow, 2001). However, Chan and Drasgow (2001) emphasize that leadership skills and styles are learned, and that individual level of MTL therefore is changeable. In this regard, leadership experience and training is expected to have an effect on MTL (Chan & Drasgow, 2001). Furthermore, changes in MTL are considered to be an immediate outcome of an individual's leadership SE, leadership experience, sociocultural values and personality (Chan & Drasgow, 2001).

Whilst research on MTL does not claim that individual MTL can predict leadership effectiveness, it rather argues that individuals will have different preferences and motivation when it comes to pursuing, taking on or accepting leader roles (Badura et al., 2020; Chan & Drasgow, 2001). Therefore, researching MTL can provide key insight into predictive behavioral ratings of leadership potential as well as a better understanding of the relationship between individual differences and leadership behavior (Chan & Drasgow, 2001).

In their conceptualization of the construct, Chan and Drasgow (2001) posit three different dimensions underlying individual differences in the MTL: Firstly, (1) Affective-Identity MTL (AI-MTL) which refers to individual desire to lead because the individual either enjoys leading or sees themself as a leader. Secondly, (2) Non-Calculative MTL (NC-MTL) refers to an individual's desire to lead because the individual does not compare the costs and benefits of leading. Lastly, (3) Social-Normative MTL (SN-MTL) refers to an individual's desire to lead out of a sense of duty or obligation to his/her organization, leader, or team (Badura et al., 2020; Chan & Drasgow, 2001).

While the MTL construct presented by Chan and Drasgow (2001) is considered to be the dominant theoretical paradigm for MTL, the development of measurement and conceptualization of MTL has been criticized for being too limited (Badura et al., 2020). In this regard, the distinction between the three sub-

dimensions as well as the inconsistency of the measurement of the dimensions has been criticized for being unpredictable in terms of appliance in research and how they differ from each other (Badura et al., 2020). However, Badura et al. (2020) report that researchers have appropriately been applying both the individual subcategories to measure MTL (Waldman et al., 2013), or all three subcategories together. Accordingly, a clear guideline to measuring MTL is yet to be defined.

In the context of applying team-based structures, such as when adopting a BLS approach in a project team in the consulting industry, Pretorius et al. (2018) emphasize the importance of forming team norms to support implementation. In this regard, norms can be understood as socially shared standards towards what is appropriate behavior (Birenbaum & Sagarin, 1976; Chatman & Flynn, 2001). Norms can play an important role particularly in group cooperation, such as in project teams (Chatman & Flynn, 2001). Furthermore, organizational culture, including group norms, and senior management attitudes towards leadership have also been highlighted as contributing factors of the success of implementing team-based leadership approaches (Conger & Pearce, 2003). Stamper et al. (2000) even describe organizations as systems of social norms and emphasize that people conduct themselves in a certain way to conform to the shared consensus of an appropriate type of behavior in subcultures, such as in project teams.

Chan and Drasgow (2001) emphasize sociocultural values and group norms as distal antecedents to MTL in the subdimension SN-MTL. Therefore, the social norms in teams are relevant to consider when assessing team members' sense of duty or responsibility as components in their underlying individual differences in MTL. Individuals with high SN-MTL are usually motivated and steered by the feeling of social duty and obligation towards their team (Badura et al., 2020). In reference to BLS, this means that project team members might accept a HLS role on a temporary basis because they believe it is their duty or responsibility to do so (Bobbio & Rattazzi, 2006). Furthermore, employees with high levels of SN-MTL tend to have leadership experience and are usually confident in their own leadership abilities (Badura et al., 2020; Chan & Drasgow, 2001).

Furthermore, as social norms closely relate to expectations and perceptions of certain types of behavior, it is interesting to consider expectations between a VL and the team member's behavior. Particularly in reference to the potential effect of empowerment in terms of encouragement or discouragement, and how it can

influence an individual's motivation to accept leader role responsibility (Simonet et al., 2015). This relates to the event of selection and empowerment in BLS, where the candidate(s)' expectations for the potential position as HL is conveyed by the VL. Accordingly, it is relevant to consider whether expectations and social norms can affect a team member's motivation to lead (i.e., SN-MTL) when being empowered to take on a HL role by a VL.

As argued, there are interesting relations between the MTL and social norms, specifically relating to group projects in organizations. Furthermore, SN-MTL emphasizes that social norms and a sense of duty is relevant as it draws attention towards the social aspect of leading others, which in turn is essential to consider in team-structured organizations. Based on the importance of social- and team norms in organizations and organizational subgroups, as well as in relation to the MTL-construct, looking into the potential effect of social norms on MTL is interesting. Therefore, this master thesis applies only the SN-MTL dimension in the following research.

In light of these arguments, and in relation to the BLS theory, the empowerment-construct and the SN-MTL-construct, the success of a VL's empowerment of a team member to take on the role as a HL can seemingly have an effect on the selected team member's level of SN-MTL. In this master thesis, we therefore wanted to look into the relationship between empowerment and SN-MTL and investigate whether the VL's empowerment of a team member can affect that team member's level of SN-MTL. Based upon this, the first hypothesis investigated in this study is as follows:

> **H1:** Empowerment has a positive effect on the selected team member's Social-Normative Motivation to Lead.

2.2.3 Team psychological safety

As described, sociocultural values and norms are presented as important elements affecting individuals' SN-MTL (Chan & Drasgow, 2001). This suggests that team members' interpersonal surroundings, and their individual perception of the potential consequences of their social behavior in those surroundings, may influence their SN-MTL. A concept that emphasizes the influence of the social

context on behavior is psychological safety which is defined as "an individual's perceptions about the consequences of interpersonal risks in their work environment" (Edmondson, 1999, p. 250).

In a work environment that is perceived as psychologically safe, employees feel secure in their perception of the social norms that are present in their current group, and feel accepted when speaking their minds and when being their authentic selves (Edmondson, 1999; Newman et al., 2017). Psychological safety furthermore involves a mutual respect and interest between colleagues, where there is room for interpersonal constructive conflict and confrontation. As a result, psychologically safe environments are considered to facilitate a work context where experimentation is encouraged, and employees have positive intentions towards each other (Edmondson, 1999). Additionally, a psychologically safe work environment facilitates open, supportive and trustful interpersonal relationships between employees (Ayenew et al., 2015; Banks et al., 2014). Newman et al. (2017) further emphasize that while psychological safety shares some similarities with trust, they are also fundamentally different as psychological safety emphasizes how members of a group perceive group norms. In contrast, trust focuses on how one person views another (Newman et al., 2017).

While the term psychological safety generally appeals to the work environment as a whole, Edmondson (1999) also consider psychological safety as important within teams specifically. This specific type of psychological safety is referred to as Team Psychological Safety (TPS) and is defined as "a shared belief that the team is safe for interpersonal risk taking" (Edmondson, 1999, p. 355). These shared beliefs are usually unconscious in the everyday life of the individual team members, but will influence the team dynamics (Newman et al., 2017).

In this regard, Newman et al. (2017) report that TPS influences how team members perceive group norms. TPS is therefore considered particularly important in team-settings, such as in projects teams in the consulting industry, where team members and leaders work closely with each other, and each individual has personal needs and expectations in terms of their work environment (Edmondson, 1999; Newman et al., 2017). This level of expectation further relates to team members'

perception of what is acceptable behavior in the group and the consequences if someone contravenes those behaviors. Accordingly, TPS influences interpersonal trust and risk taking in the team (Edmondson, 1999).

In teams with high TPS, team members are encouraged to grow, learn, and demonstrate their talents and expertise, thereby becoming effective and contributing team members (Frazier et al., 2017). Furthermore, work environments with high levels of TPS have been found to be a predictor for empowerment of employees (Simonet et al., 2015). By facilitating a work environment where employees are confident that they will receive support from each other and do not fear negative consequences from potential failure, team members will feel safe to pursue their goals and ideas (Edmondson, 1999; Simonet et al., 2015). Consequently, in teams with high TPS, the team context may better facilitate empowerment of team members as individuals may be less apprehensive to the consequences of failure when taking on HLS, as the other team members are supportive and encouraging (Simonet et al., 2015). On the other hand, in teams with low TPS, a leader's effort to empower team members may be less successful. Supporting this, Simonet et al. (2015) further suggest that responses, or non-responses, within an individual's team may have a significant effect in encouraging or discouraging efforts to assume responsibility, gain access to resources and change the environment.

Based on the associations between TPS and both empowerment and SN-MTL, it can be hypothesized that TPS may have an effect on the potential relationship between empowerment and SN-MTL. Moreover, we hypothesize that efforts to empower candidate(s) to take on a HL role will influence the candidate(s) SN-MTL, and that these efforts may be less successful among individuals who perceive that TPS is low in their team, and more successful among individuals who perceive that TPS is high in their team. Consequently, this study proposes the following hypothesis:

H2: Team Psychological Safety moderates the relationship between Empowerment and Social-Normative Motivation to Lead.

2.2.4 Self-Efficacy

Few cognitive determinants of behavior have received as abundant and thorough empirical support as the concept of self-efficacy (Bandura, 1977, 1997; Maddux, 2013; Stajkovic & Luthans, 1998). Wood and Bandura (1989, p. 408) define self-efficacy (SE) as the "belief in one's capability to mobilize the motivation, cognitive resources and courses of action needed to meet given situational demands". SE is an individual level construct and can account for the differences in how individuals perceive their own capabilities to organize and execute the courses of action required to manage certain prospective situations (Bandura, 1977). Level of SE therefore influences how individuals approach challenges because it impacts their judgment about their ability to successfully tackle that challenge or its tasks and goals (Locke et al., 1984). Individuals who perceive themselves as highly efficacious generally activate sufficient effort that, if well executed, produces successful outcomes (Bandura, 1997; Stajkovic & Luthans, 1998). On the other hand, individuals who perceive their SE as low, are likely to cease their efforts prematurely and consequently fail in completing the task (Bandura, 1997; Stajkovic & Luthans, 1998). SE has also been suggested to be a good measure to predict a range of behavioral outcomes when compared to other motivational constructs (Graham & Weiner, 1996). Furthermore, SE has been referred to as the foundation for personal achievements, personal well-being and human motivation (Cherian & Jacob, 2013).

The association between SE and different behavioral outcomes is also well documented in the project management literature. For example, SE has been identified as a potential influence on motivation (Schunk, 1995), performance (Dainty et al., 2003), knowledge sharing (Lin & Huang, 2010) and overall commitment to a project (Jani, 2011). Furthermore, SE is considered to influence the likelihood that an individual will engage in a certain behavior (Blomquist et al., 2016; Miles & Maurer, 2012). In this regard, SE greatly enhances a subordinate's willingness to perform extra efforts to master challenges, thereby positively influencing the subordinate's productivity and job satisfaction (Blomquist et al., 2016).

In light of balanced leadership theory, SE is acknowledged as the basis for the empowered candidate(s) intra-personal decision to accept or decline the HLS role (Müller et al., 2017). Upon nomination and empowerment from a VL, the

empowered candidate(s) will typically evaluate their qualifications against the demands of the role, for example through their past performance and other strengths (Müller et al., 2017). This suggests that SE can influence the candidate(s) perception of themselves as being able to tackle the demands that come with the expectations of the temporary leadership role, which in turn may influence the candidate(s) motivation to lead.

In reference to empowerment, psychological empowerment is a process that enhances SE among organizational members (Conger & Kanungo, 1988). Furthermore, research suggests that psychological empowerment and SE have positive effects on proactive behavior, and that SE partially mediates the relationship between psychological empowerment and proactive behavior (Huang, 2017). In situations where an individual possesses the adequate motivation, ability, resources and SE to perform their empowered role, a VL's effort to empower candidate(s) typically yield significant benefits for both the VL and the employees (Heslin, 1999). In this regard, candidate(s) must have developed the capability and SE to assume the responsibilities that the empowerment bestows upon them (Heslin, 1999). Consequently, Heslin (1999) reports that employees must be both able, self-efficacious and sufficiently willing in order for empowerment to function. In the context of a VL empowering candidate(s) to take upon leader roles, the effect of empowerment on successful transition from VLS to HLS will hence arguably be influenced by the empowered candidate(s) level of SE.

When exploring the interplay between SE and leadership, previous research has established a clear link between leadership SE and MTL (Badura et al., 2020; Chan & Drasgow, 2001) suggesting that in order to want to lead, an individual must also feel like they are able to lead. In their studies, Chan and Drasgow (2001) found that SE was a proximal antecedent to individuals' MTL and proposed that SE could function as a moderator between various distal antecedents and MTL. For leadership this means that when someone feels like they are able to lead, they are more likely to exert effort and persist longer in trying to achieve this goal, thus showing stronger motivation to lead (Schyns et al., 2020).

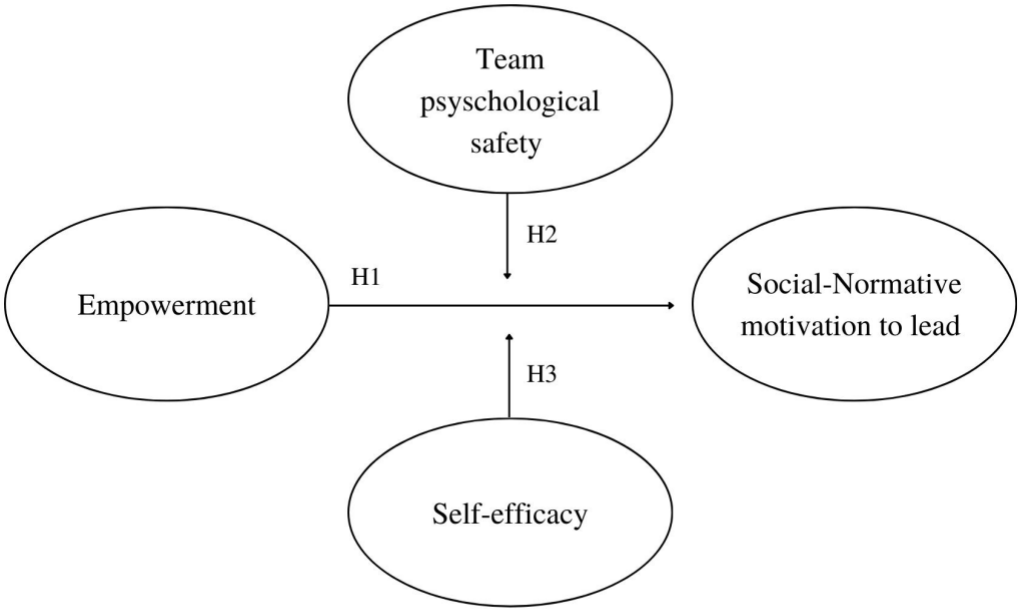
Based on the associations between SE and both empowerment (Heslin, 1999) and MTL (Badura et al., 2020; Chan & Drasgow, 2001), it can be hypothesized that SE may have an effect on the potential relationship between empowerment and SN-MTL. Moreover, we hypothesize that efforts to empower

candidate(s) to take on a HLS role will influence the candidate(s) SN-MTL, and that these efforts may be less successful among individuals with low SE, and more successful for individuals with high SE. Consequently, this study proposes the following hypothesis:

> **H3:** Self-Efficacy of the selected team member moderates the relationship between Empowerment and Social-Normative Motivation to Lead.

Figure 3.

Model of Hypotheses.



3.0 Methodology

The following section presents the methodological approach and the decisions made to investigate this study's research question and hypotheses. We will elaborate on the research and survey design, the measurement scales used in the survey and their respective credibility, as well as the control variables. The important notion of ethical implications will be stated and thereafter the procedure for collecting data will be presented in reference to the sample.

3.1 Research design

The study is an empirical, exploratory research study, and followed the processes by Saunders et al. (2009) which required the determination of the ontological and epistemological foundation from the outset of the research process. Ontology refers to assumptions about the nature of reality (Saunders et al., 2009). The ontological foundation of this research study is objectivism, as we considered the social reality that we researched as existing externally and independently of human thoughts, beliefs and knowledge of their existence (Saunders et al., 2009; Wahyuni, 2012).

Furthermore, epistemology refers to assumptions about knowledge, what constitutes acceptable, valid and legitimate knowledge, and how knowledge can be communicated to others (Burrell & Morgan, 2017). In this regard, this study took the post-positivist perspective that only observable phenomena are appropriate sources to provide credible data, facts, knowledge and generalizations about the social world (Saunders et al., 2009). However, to measure and obtain true knowledge about the reality of this social world, we recognized that the social reality needs to be framed in a certain context of relevant law or dynamic social structures which have created the observable phenomena within this social world (Wahyuni, 2012). Consequently, the ontological and epistemological foundation of the study had implications for the way we conducted research and collected and analyzed data, as we axiologically have aimed to separate ourselves as researchers from the respondents' perceptions by taking the stance of the etic approach and outsider perspective (Wahyuni, 2012). Thus, we have strived to keep our research uninhibited by our own values and biases.

In accordance with our objective post-positivist foundation, this study has taken a deductive research approach as hypotheses were derived from existing theories (Saunders et al., 2009). Correspondingly, the study followed the six sequential steps to deductive research presented by Blaikie (2010) which states that first, an idea, hypothesis or hypotheses must be formulated. Then, by using existing literature, a testable proposition may be deduced. Then, the proposition should be compared to existing theories to see if it offers further understanding into the idea.

If it does, data should be collected to measure the relevant concepts so that they may be analyzed. If the analysis indicates inconsistent results with the hypothesis, it should be rejected. On the other hand, if the findings support the hypothesis, the proposition and respective theory will be strengthened (Blaikie, 2010).

In alignment with the deductive research approach, this study applied a mono-method quantitative methodology (Saunders et al., 2009). Thus, a cross-sectional online self-reporting survey was administered to respondents at one single point in time to measure their responses in reference to the study's hypotheses (Bell et al., 2018). Applying a questionnaire was considered appropriate in this study due to the method's popularity as a source to collecting quantitative primary data in a standardized manner (Roopa & Rani, 2012; Saunders et al., 2009). Investigating the research question and the respective hypotheses in a cross-sectional manner furthermore allowed us to gain insight into a snapshot of the situation in the consulting industry today.

3.2 Survey design

The questionnaire that was developed and distributed for data collection in this study was developed through BI Norwegian Business School's (BI) partnered online survey provider 'Qualtrics'. The questionnaire collected data based upon self-reported responses, which contributed to collecting the individual participants' personal perception, thoughts, and attitudes on the measurement constructs of the study (Johnson & Christensen, 2019).

The digital format in the web-based questionnaire was adapted to an easy and effective lay-out for both computers and mobile devices which has proven to be of importance to facilitate participation among the respondents (Qualtrics, 2022). Furthermore, the questionnaire was systematically developed to include the relevant measures for the constructs and control variables while not exceeding 10 minutes of completion time. Making sure that the questionnaire took no more than 12 minutes to complete was critical as longer completion times have been reported to drastically decrease completion rate (Qualtrics, 2022).

To accommodate respondents from international consultancy firms across Scandinavia with different native languages, the English language was applied in

the questionnaire. Furthermore, as we applied measurement scales that have been extensively validated in the English language (see section 3.3), we did not want to risk compromising their reliability by translating their respective questions into Norwegian.

3.3 Data and measurement credibility

When evaluating which measurement scales to apply in the questionnaire, one of the main concerns revolved around securing credible data, with an emphasis on applying measurements with high levels of reliability and validity. Reliability is a fundamental property of a test, and is important in terms of making sure that the measuring instruments have as little random error as possible (Brahma, 2009; Cooper, 2020). Cronbach's Alpha with a threshold of .50 was used to assess the level of reliability in SPSS. Validity refers to the extent of which the scores of a measurement represent the variables it is supposed to (Brahma, 2009; Cooper, 2020). We therefore focused on identifying previously validated scales and measurements and transparency in reference to the data collection procedures, the analysis and the accuracy of the data, to ensure an acceptable level of validity.

The questionnaire was constructed without intention of deceiving participants. Therefore, participants were informed about the purpose of the study, and which constructs they were being measured upon. A high level of transparency could impose Common Method Bias (CMB) in the sample, where the actual predispositions of the respondents are not represented. CMB was addressed following Podsakoff (2003) by emphasizing in the questionnaire a) anonymity, b) that there are no right or wrong answers, and c) that answers should be related to the last finished project. Furthermore, subsequent to data collection, a Haman test One-Factor test was conducted in SPSS in order to ensure that there was no issue with CMB in the sample.

Before administering the questionnaire to the targeted sample, a small Pilot study (N=10) was conducted, with participants who were representative of the sample and some who were not. A few adjustments were made to the questionnaire in accordance with feedback from the participants in the pilot study to ensure that the questionnaire was functional and developed appropriately. These adjustments

included correction of spelling errors and the inclusion of the clarifying word "(you)" in the questions measuring empowerment (e.g., "The empowerment of the horizontal leader (you) was clearly communicated to team members"). The data obtained from the pilot study was not used in the analyses' conducted post data collection.

Survey items measuring Empowerment, SN-MTL, TPS and SE were in the questionnaire collected in a structured manner as ordinal data using a five-point Likert scale with the alternatives 1="Strongly disagree", 2="Somewhat disagree", 3="Neither agree or disagree", 4="Somewhat agree" and 5="Strongly agree". Control variables (CV) were collected as nominal/categorical data. CVs are listed in section 3.3.5 of the study. All questionnaire items are included in Appendix 1.

3.3.1 Empowerment

Empowerment was measured based upon Müller et al. (2018) adaptation of Sharma and Kirkman (2015) scale. This scale includes three questions, which are purposely designed for contexts of BLS in projects. These questions are developed in order to understand the structural and psychological empowerment of the HL (Müller et al., 2018). Questionnaire items for Empowerment are e.g., "The empowerment of the horizontal leader (you) was clearly communicated to team members" and "The empowered person (you) understood that you were empowered to become the horizontal leader". All items are listed in Appendix 1.

Other scales were also considered, such as the scale presented by Amundsen and Martinsen (2014) on empowering leadership (2014) which consists of 24 questions. However, this scale is more suitable to permanent organizational settings, and hence not relevant for the project settings emphasized in our study. Despite that the questionnaire presented by Müller et al. (2018a) only consists of three questions, their scale was deemed more appropriate for a setting such as a team-based organizational structure that is characteristic for the consulting industry.

3.3.2 Social-Normative Motivation to Lead

Social-Normative motivation to lead was measured based on the Motivation to Lead (MTL) scale developed by Chan and Drasgow (2001). In this scale, MTL

is postulated as a three-dimensional construct consisting of the first order factors 'Affective-Identity MTL', 'Non-Calculative MTL' and 'Social-Normative MTL'. Based on the multisample confirmatory factor analysis comparing the fit of single-factor versus three-factor models to their proposed 27 MTL items we recognized that the three-factor model was a better fit (Chi-sq=3,475, df=963, RMSEA=.035) (Chan & Drasgow, 2001). However, a single-factor model also had acceptable fit (Chi-sq=7,978, df=972, RMSEA=.058). For this reason, we decided to apply only the nine items for the SN-MTL factor in our study as it covers the construct we wanted to measure. The SN-MTL scale also had acceptable Cronbach alpha scores ranging from .65 to .75 which suggest that the scale has a generally acceptable/high internal consistency reliability (Chan & Drasgow, 2001). The idea that the three factors of MTL should be treated as three separate constructs is further supported by Badura et al. (2020). Questionnaire items for SN-MTL are e.g., "I feel that I have a duty to lead others if I am asked to" and "It is an honor and a privilege to be asked to lead". A full list of all questionnaire items is listed in Appendix 1.

3.3.3 Team Psychological Safety

Team Psychological Safety (TPS) was measured based upon Edmondson (1999) seven item scale for psychological safety which has been documented to have a high internal consistency reliability (Edmondson et al., 2004). The items have been adapted slightly in order to fit with our criteria that respondents evaluate their responses against their last finished project instead of their current project. Consequently, items have been revised to refer to their team experience in past tense. Questionnaire items for TPS are e.g., "...Members of your team were able to bring up problems and tough issues" and "...It was safe to take a risk in your team". A full list of all questionnaire items is listed in Appendix 1.

3.3.4 Self-Efficacy

Self-Efficacy (SE) was measured based on the ten item Self-Efficacy scale developed by Luthans and Peterson (2002) in collaboration with Gallup Leadership Institute. This scale was developed to meet the theoretical criteria proposed by (Bandura, 1997). In particular, the scale was designed to meet Bandura's guidelines

that it ‘represent beliefs about personal abilities to produce specified levels of performance, and must not include other characteristics’ (Bandura, 1997, p. 45). The SE measure is further considered to have highly satisfactory internal reliability with a Cronbach's alpha of .86. Questionnaire items for SE are e.g., “I do not give up easily” and “I feel secure about my ability to do things”. A full list of all questionnaire items is listed in Appendix 1.

3.3.5 Control variables

In order to control for third variables that may influence the relationship between the variables in this study, we included some demographic and contextual items in the questionnaire. Demographic variables included ‘company size’, ‘role in company’, ‘tenure’ and ‘years of experience in the consulting industry’. Contextual variables included ‘project category, ‘changes in staffing’, ‘length of project’ and ‘team size’. These control variables (CV) were measured as nominal data with their respective measurement categories. A full list of the questionnaire items is listed in Appendix 1.

3.4 Ethical implications

This research project complies with the ethical principles in business research proposed by Diener and Crandall (1978). No harm will come to individuals participating or not participating in the study. Participation in the project was voluntary and based on the participants informed consent. No deception was involved. Any individual participating in the study can withdraw his/her consent at any time without giving a reason. Participants have the right to have their data deleted if the data can be located or identified in the sample. There will be no negative consequences for the participants if they choose not to participate or later decide to withdraw.

The development and distribution of the survey was based on the guidelines and restrictions set by Norwegian Center for Research Data (NSD) for handling personal data in research, and on NSD’s formal approval of the project (See Appendix 2. Approval from NSD). This master thesis complies with the user agreement between BI and Qualtrics which include legislations and regulations that

apply under Norwegian law, BI and Qualtrics guidelines. Personal data collected through the survey included demographic data (Company Size, Role in company, Tenure, and Number of years of experience from the industry) and contextual data (project type, changes in staffing, length of project and number of team members on the project). The purpose of collecting these demographic and contextual data was to identify demographic and contextual differences in the sample.

All personal data has been and will be processed confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act (GDPR). In order to ensure that no unauthorized persons are able to access the personal data, data is and will be stored on this project's data controller's (BI) encrypted server for research data. All personal information collected in the survey was be removed before analysis. All data and references made in social media posts to the survey will be deleted by 31.12.2022 in accordance with NSD's terms of agreement for the research project and project deadline. No references will be made in any future publication or presentation to the survey participant or his/her organization.

3.5 Data collection procedure

Relevant participants for this study were individuals working as consultants in project teams in Scandinavia. To reach a diverse sample of individuals who qualified for participation against these criteria, a non-probability snowball sampling scheme and a simple random sampling scheme was applied.

Snowball sampling refers to sampling through initial contact with a small group of people relevant for the research topic, and subsequently using these people to establish contact with others (Bell et al., 2022). Accordingly, it is a non-probability or non-random sampling method where particular people are selected deliberately to provide important information (Maxwell, 1996, as cited in Taherdoost (2016)). In this study, relevant participants were approached directly based on their employment in the consulting industry, their membership in a project team and their line of assignments. Participants were asked to complete the survey and were encouraged to distribute it to others in their organization and professional networks who fulfilled the criteria for participation. While the snowball sampling

scheme is beneficial for reaching populations that are difficult to access, we acknowledge that the technique has limited generalizability and may produce errors (Taherdoost, 2016).

To strengthen our sample and generalizability of findings, a simple random sampling scheme was also applied (Taherdoost, 2016). Simple random sampling is a type of probability sampling technique that gives every case of the population an equal probability of inclusion in the sample (Taherdoost, 2016). In this study, a selection of consultancy companies operating within different business consulting services (e.g., in Engineering, Construction, Retail, Shipping, Information technology (IT), Organizational change, Human Resources (HR), Finance, Information and communication technology (ICT), Supply-Chain, Private Equity, or other) in Scandinavia were contacted. The companies that agreed to partake in the study distributed the questionnaire to their employees randomly. Additionally, the questionnaire was distributed on social media platforms such as LinkedIn and Facebook, where a broad audience could be reached.

By applying the sampling methods in conjunction, the goal was to collect a representative sample that would reveal the most fundamental and basic principles and patterns of the sample and its respective population (Taherdoost, 2016). However, the schemes disregarded our opportunity to control for how many had received the questionnaire, and calculating a response rate was therefore not possible (Taherdoost, 2016).

3.6 Sample

111 responses were obtained through the survey. 84 of these responses were complete and were included in the analysis. Furthermore, response number 82 had to be excluded as an outlier (see section 4.1). The usable sample size therefore consisted of 83 responses. The total sample size can be considered small (Pallant, 2018), but meets the minimum requirement of 20 responses per variable for generalizing the results (Hair et al., 2003).

The sample was distributed across different demographic groups and is illustrated in Figures 4 to 11. The respondents had most recently worked on projects within the business (41%), financial (21%), manufacturing (20%) or technology

(18%) industry (see figure 4). The length of the respondents' most recent finished project varied from less than 3 months (42%), 4-6 months (28%), 7-12 months (18%) to more than 12 months (12%) (see figure 5). Most respondents reported being a part of a team consisting of 4-7 team members (51%), followed by a team size of 1-3 team members (30%), 8-12 team members (12%), 12-15 team members (4%) and teams with more than 15 team members (3%) (see figure 6). Most respondents reported no changes in staffing (52%), followed by those with monthly changes (31%), others reported changes in staffing bi-weekly (9%), weekly (6%) and daily (2%) (see figure 7). Most respondents reported working in an organization with 51-250 employees in their country of residency (35%), followed by organizations with 1001-5000 employees (32%), less than 50 employees (17%), more than 5000 employees (9%) and lastly 251-1000 employees (7%) (see figure 8). Of the respondents, most were in the role of Consultant (35%), followed by Associate Consultant (18%), Project Manager (18%), Senior Consultants (17%), other roles (7%) and lastly, Partners (5%) (see figure 9). Most reported having a Tenure in the organization of 2-3 years (40%), 0-1 year (39%), 4-9 years (18%), and 10-14 years (3%) (see figure 10). Most of the respondents had 0-1 (34%) or 2-3 (34%) years of experience from the industry, followed by 4-9 years (18%), 15 or more years (8%) and lastly 10-14 years (6%) (see figure 11).

Figure 4.

Project category demographics.

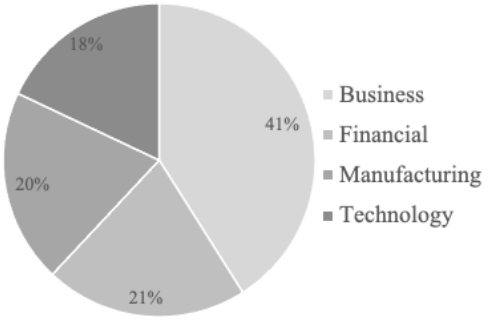


Figure 5.

Project length demographics.

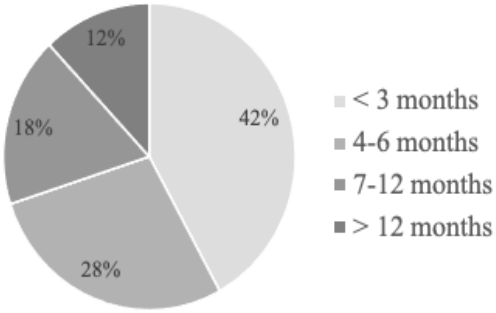


Figure 6.

Team size (by number of team members).

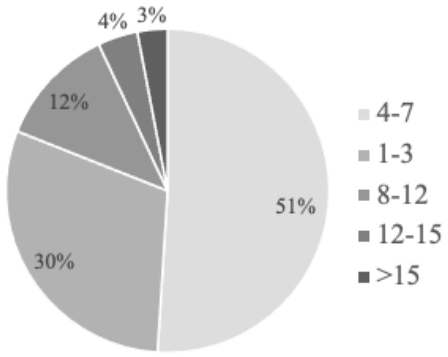


Figure 7.

Changes in staffing.

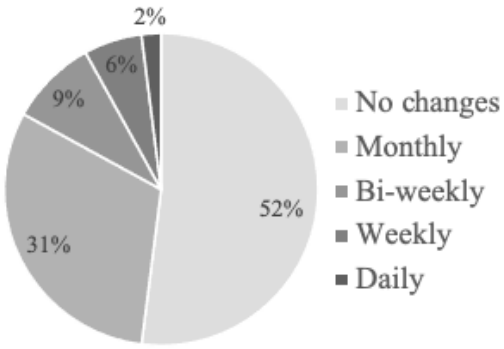


Figure 8.

Organizational size

(by number of employees).

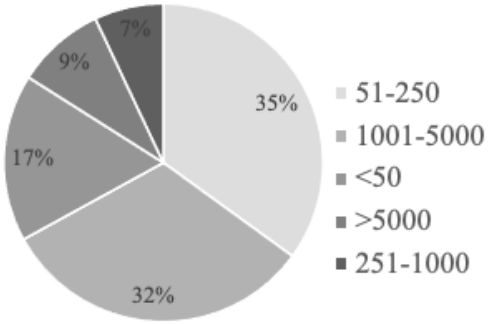


Figure 9.

Role in organization.

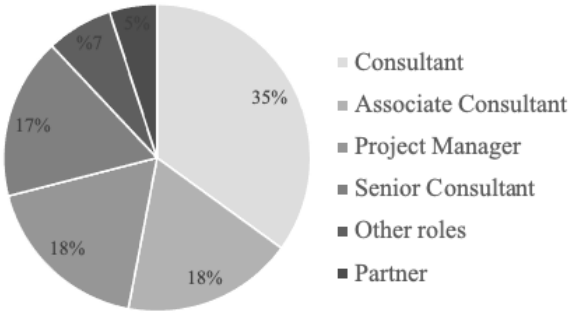


Figure 10.

Tenure (in years).

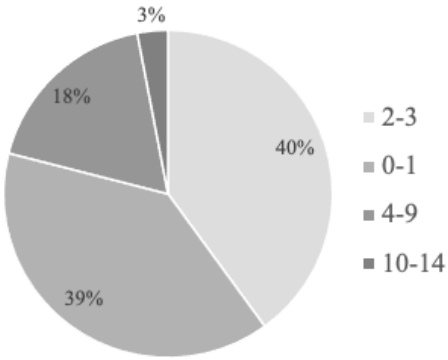
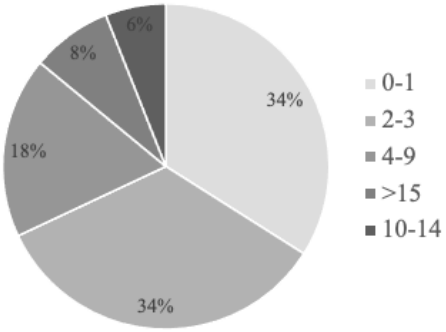


Figure 11.

Years of experience from

the industry.



4.0 Data analysis and results

The first section in this chapter will present the (4.1) data analysis, elaborating in detail about the process and steps followed in analyzing the data retrieved from the survey. In the course of processing, analyzing and describing the collected data, the statistics program IBM SPSS Statistics version 28 was applied. Thereafter, the (4.2) results from the analyses will be presented.

4.1 Data analysis

Preliminary to any statistical procedures, a screening and cleaning of the data was conducted to check for and correct errors and missing values. All missing values were recoded to '-99' in the dataset. Additionally, a missing value analysis was conducted to assess trends in missing data. This analysis identified between 13% and 24% missing data and indicated that participants gradually refrained from responding to questions as they progressed through the questionnaire. Similar trends have been reported by Qualtrics (2022), stating that completion rate decreases in correspondence with the length of the survey. To handle missing data, cases were excluded pairwise in further analyses.

Due to their negatively worded nature, Item 1, 3 and 5 in the scale for TPS and Item 9 in the scale for SN-MTL were reversed coded. The CV for 'Project category' was recomputed from the twenty categories identified from the questionnaire to the four new groups *Technology* (IT, ICT, Cyber security, Digital transformation)*, Business* (Supply Chain, Organizational change, HR, Strategy, Sustainability, Market research, retail, tourism)*, Manufacturing* (Engineering, construction, Industrial city planning, Industrial Equipment) and *Financial (*Finance, Private Equity, Insurance, Shipping). The decision to reduce the number of categories in 'Project Category' was based on a preference for a more comparable number of categories in each CV in our dataset.

Subsequently, descriptive statistics were conducted to assess the characteristics of the sample and to evaluate all variables for any violations of the assumptions underlying the statistical techniques used in later analyses. We followed the procedure recommended by Pallant (2018) for producing descriptive statistics. Characteristics of the control variables (CVs) were assessed through the application of Frequencies statistics. For our continuous variables (scale variables), a Descriptive analysis was performed. In the Descriptive analysis we included basic

'summary' statistics (Means (M), Standard Deviations (SD), Range, Kurtosis and Skewness) to assess the characteristics of our continuous variables and to check for normality in the distribution. According to Warne (2018, p. 53) real-life distributions are rarely perfectly normal at 0. While there is no universally accepted range of skewness or kurtosis for a distribution to be considered normal, some researchers argue that variables where skewness is >3 is to be considered severely skewed (Kline, 2016; Warne, 2018). Researchers are less congruous when it comes to kurtosis, where some view ±.75 as a cut-off value (Warne, 2018), and others consider variables with kurtosis levels above >10 as an indication of a problem with kurtosis (Kline, 2016). Based on the reasoning of Warne (2018) and Kline (2016) we based our analyses on a cut-off value of ±3 for Skewness and Kurtosis. As high positive kurtosis (>3) revealed that the distribution in our sample was leptokurtic for certain items in the variables, the 'Explore' function in Descriptives was applied to produce a Boxplot for exposure of outliers in the sample. Based on findings from the Boxplot, actions were taken to filter out the response (response 82) that contributed to kurtosis by computing a filter variable and applying the filter in the Select Cases function, to exclude it from further analyses. Following the exclusion of response 82, kurtosis was improved. However, kurtosis for SN-MTL item 2 remained >3 (kurtosis=3.472). Excluding the outliers in this item did not reduce kurtosis significantly and rather increased kurtosis in other items. Consequently, we decided to include the responses that contributed to high kurtosis in SN-MTL item 2 and proceeded with our analyses (see section 4.2.1, and Table 1).

As a next step in our data analysis, we examined all measures for internal consistency reliability by conducting a reliability analysis and applying Cronbach alpha. Ideally, the Cronbach alpha coefficient of a scale should be >.70 to be considered of high reliability (DeVellis & Thorpe, 2021; Pallant, 2018). However, Hinton (2004) reports that Cronbach alpha values from .50 to .70 are considered to show moderate reliability. Therefore, we set the threshold for reliability in all analyses to .50. Our analysis revealed that two of the scales (Empowerment and TPS) included in the study had high Cronbach alpha coefficients >.70. The two other scales (Self Efficacy and SN-MTL) scored just below .70 (see Table 2). We therefore proceeded to assess the potential improvement of reliability for these two scales by removing items in each of the two constructs. Deleting some items could improve the scales' internal reliability to some degree, but the improvement

potential was minimal. Considering the thorough validation of both the SE (Bandura, 1997) and SN-MTL scales (Chan & Drasgow, 2001) in the literature, we concluded to respect the scales' integrity by including all items in further analyses.

To assess whether the sample was influenced by CMB, we conducted a Harman One-Factor test and evaluated the Total Variance Explained by all items in our questionnaire. The Harman test revealed that the first unrotated factor had 17% explanation power of the variance among variables. According to Podsakoff and Organ (1986) the threshold for explanatory power of the first unrotated factor is >50%. Accordingly, this implied that there was no issue with CMB in this study.

To further investigate the measures' reliability, we conducted a series of Factor Analyses to ensure that the constructs' items loaded onto the components they theoretically should belong to. We applied Principal Component Analysis (PCA). As recommended by Pallant (2018), we evaluated our data set's suitability for factor analysis by assessing the sample size and the strength of the relationship among the items in the scales. In reference to sample size, this study meets the minimum requirement of 82 responses (Onwuegbuzie & Johnson, 2004) and 20 responses per variable (Hair et al., 2003), for the sample to be considered applicable for quantitative analyses, with N=83 and four research variables. Furthermore, in terms of the second recommendation suggested by Pallant (2018) for issues to be addressed, we applied Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test for sphericity to assess the factorability of our data. In alignment with the reasoning of Tabachnick and Fidell (2014), we set the KMO Index threshold at a minimum of .60 and the Bartlett test's significance level to p<.05 when considering the appropriateness of factor analysis. As the standards for both sample size and factorability were satisfied in our analysis (Pallant, 2018), we decided to proceed with the application of PCA.

In the process of Factor Extraction in PCA, we applied Varimax rotation. Our decision to apply Varimax rotation was based on Costello and Osborne (2005) advice to apply it due to its production of easily interpretable results. In our analysis, the factor loading of each item onto their respective conceptualized constructs provided us with an indication of how well the items measured the constructs they were intended to measure. Despite the four scales' documented reliability and validity (Bandura, 1997; Chan & Drasgow, 2001; Drouin et al., 2018; Edmondson,

1999), it was only the items in the construct of Empowerment that loaded onto one factor.

As the other three factors did not load onto one factor each as expected, we decided to follow the recommendation by Tabachnick and Fidell (2014) of adopting an exploratory approach by experimenting with different numbers of factors until we found a satisfactory solution. According to Pallant (2018), a satisfactory solution should balance the need to find a solution with as few factors as possible, while still explaining as much of the variance in the original data set as possible. Considering this recommendation, we ended up accepting a minimal Total Variance Initial Eigenvalue cumulative percent of >50% and suppressed factor loadings below .40. Additionally, Reliability tests for internal consistency were conducted for all the different factor solutions we explored to ensure reliability of new scales. Item-total statistics were assessed in reference to the reliability threshold of .50 to investigate reliability and potential improvement in Cronbach's Alpha if items were deleted. For the SN-MTL construct we accepted a three-factor solution and saved the new variables "SN-MTL_F1", "SN-MTL_F2" and "SN-MTL_F3". For the Self-Efficacy (SE) construct we accepted a three-factor solution. The third component/factor did however have low reliability and we decided to proceed with only Component 1 and Component 2 in further analyses. In the process we lost a total of three items. The two new components for SE were saved as "SE_F1" and "SE_F2". Lastly, for TPS we accepted a two-factor solution. Component 1 had moderate reliability, and Component 2 had low reliability. Consequently, Component 2, and its associated two items, were removed from further analysis. Based on this, a new variable for TPS was saved as "TPS". Overall, due to the shift from 4 constructs to 7 constructs, the PCA led to a change in our hypothesized model. Regardless, we decided to proceed with exploring our hypotheses (H1, H2 and H3) based on the new variables.

To assess if there were significant differences in the mean scores on the variables between demographic groups, a series of One-Way Analysis of Variance (ANOVA) tests were run in SPSS. In the category "tenure" the number of responses distributed within the category had unequal group sizes, with only one respondent in the group "15 or more years". In particularly small group sizes it may be inappropriate to run some parametric analysis such as ANOVA (Pallant, 2018), hence we decided to exclude this response for the ANOVA on the tenure category.

This response was however included in other ANOVAs and analyses conducted because we deemed it important to maintain the sample size. ANOVAs for all CVs were conducted with Scheffé post-hoc tests for multiple comparisons to calculate potential effect sizes. We chose the Scheffé test because of its conservativeness and popularity (Langdridge et al., 2006). Alpha level for significance was set to $\alpha < .05$ as it is the most common α value used in the social sciences (Warne, 2018). Due to some small, significant differences between some groups in the CVs (presented in the results section), we decided to include all CVs in the subsequent interaction analyses.

Bivariate Correlation Analysis was conducted to identify relationships between continuous variables. Correlation coefficients were produced as Pearson's *r,* because it is one of the most common statistics in the social sciences and is considered an appropriate statistic for our ratio level variables (Warne, 2018). According to Warne (2018) and Pallant (2018), a significant correlation between the independent variable (IV) and dependent variable (DV) is a prerequisite to making predictions of DV values through analyses such as regression. Furthermore, since moderation analysis is a regression-based analysis "used when one is interested in testing whether the magnitude of a variable's effect on some outcome variable of interest depends on a third variable or set of variables", a significant relationship between the DV and IV is also a requirement if one is to investigate potential moderating effects (Hayes, 2012, p. 4). As we did not find significant correlations between the DV (SN-MTL_F1, SN-MTL_F2 and SN-MTL_F3) and the IV (Empowerment) (presented in the results section), we did not find support for H1. Consequently, we refrained from applying moderation analyses to assess H2 and H3 and abandoned our hypothesized model.

We decided to enter a new stage of exploratory research to investigate the relationships between the variables that did obtain significant correlations in the Correlation analysis. Pallant (2018, p. 149) generally advises against "throwing variables into a multiple regression and hope that, magically, answers will appear", and emphasizes the need for sound theoretical background. We therefore applied Standard Linear Multiple Regression analyses based on the theory presented in the Theoretical framework in this thesis, keeping the associations between the different concepts in mind.

In regression analyses, all CVs were added along with the IV as predictors. Due to missing values in several of the variables in the regression analysis, cases were excluded listwise to ensure that only responses with complete sets of data were included, ensuring an equal sample size for all variables (*N*=83). Due to the data set's limited sample (*N*=83), we followed Pallant (2018) recommendation of considering the Adjusted R Square rather than the R square score for small samples. Thresholds for multicollinearity statistics were set to >.10 for Tolerance and <10 for VIF (Pallant, 2018) As the Mean and Standard Deviation (SD) statistics for our regression analyses revealed that some Means and SDs were dissimilar, we decided to report the Unstandardized beta coefficients and their standard errors (SE) in our results. This decision was based on the reasoning that Standardized coefficients in regression are misleading when variables in the model have different standard deviations or follow different distributions (Choueiry, 2022).

4.2 Results

4.2.1 Descriptive statistics

Table 1 presents descriptive statistics for all variable items and CVs with the number of responses (N), Range, Means (M), Standard Deviations (SD) and level of Skewness and Kurtosis with standard errors (SE). As seen in Table 1, skewness is considered normal for all variables. The descriptive statistics revealed high positive kurtosis for SN-MTL item 2 (kurtosis=3.420, *S.E*=.514) and Self Efficacy item 4 (kurtosis=7.872, *S.E*=.517). Based on the high kurtosis, a box plot revealed an outlier in the SE item 4. Post exclusion of this outlier, kurtosis was significantly reduced in SE item 4 (kurtosis=-1.384, *S.E*=.520). The final sample was reduced from 111 responses to a total of *N*=83.

Table 1.

Descriptive statistics (post exclusion of outliers)

	N	Range	Mean	SD	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	SE	Statistic	SE
SN-MTL item 1	85	4	4.26	.990	-1.677	.261	2.811	.517
SN-MTL item 2	85	3	4.48	.701	-1.638	.261	3.472	.517
SN-MTL item 3	85	4	3.84	.998	-.543	.261	-.081	.517
SN-MTL item 4	85	4	3.82	.902	-.637	.261	.271	.517
SN-MTL item 5	85	4	3.16	1.132	.020	.261	-.630	.517
SN-MTL item 6	85	4	2.34	1.097	.832	.261	.175	.517
SN-MTL item 7	85	3	4.08	.775	-.616	.261	.179	.517
SN-MTL item 8	85	4	3.53	.907	-.089	.261	-.290	.517
SN-MTL item 9	85	4	3.49	1.042	-.469	.261	-.387	.517
TPS item 1	84	3	4.08	.996	-.694	.263	-.719	.520
TPS item 3	84	3	4.13	.741	-.579	.263	.168	.520
TPS item 5	84	4	4.14	1.066	-1.210	.263	.705	.520
TPS item 2	84	4	3.67	.910	-.660	.263	.551	.520
TPS item 4	84	4	4.05	1.140	-1.246	.263	.780	.520
TPS item 6	84	4	4.15	1.012	-1.105	.263	.448	.520
TPS item 7	84	3	3.94	.869	-.560	.263	-.239	.520
SE item 1	84	3	4.23	.700	-.776	.263	.972	.520
SE item 2	84	3	4.40	.661	-.923	.263	.901	.520
SE item 3	84	3	4.39	.621	-.816	.263	1.256	.520
SE item 4	84	2	4.40	.518	.127	.263	-1.384	.520
SE item 5	84	3	4.38	.657	-.852	.263	.845	.520
SE item 6	84	3	4.08	.824	-.818	.263	.449	.520
SE item 7	84	4	3.62	.943	-.574	.263	.173	.520
SE item 8	84	4	4.05	.930	-1.108	.263	1.055	.520
SE item 9	84	4	3.65	.885	-.432	.263	.054	.520
SE item 10	84	3	4.24	.688	-.576	.263	.181	.520
Empowerment item 1	83	4	3.80	.997	-.406	.264	-.538	.523
Empowerment item 2	83	4	3.94	.992	-.645	.264	-.253	.523
Empowerment item 3	83	4	4.05	.868	-.896	.264	1.002	.523
Valid N (listwise)	83							
Project Length	95	3	<N/A>	1.115	.540	.247	-1.097	.490
Team Size	95	4	<N/A>	.987	1.227	.247	1.657	.490
Changes Staffing	95	4	<N/A>	.973	-1.405	.247	1.710	.490
Project category	95	3	<N/A>	1.036	.244	.247	-1.078	.490
Organization size	83	4	<N/A>	1.292	.126	.264	-1.333	.523
Role	83	5	<N/A>	1.440	.717	.264	-.26	.523
Tenure	83	4	<N/A>	.875	.911	.264	.871	.523
Years of Experience	83	4	<N/A>	1.220	.933	.264	.069	.523
Valid N (listwise)	83							

4.2.2 Common method bias

A Harman one factor test for common method bias (CMB) in the questionnaire showed 29 factors, with the first one accounting for 17% of the

variance, followed by 11%, 8%, 7%, 6% and smaller. As the Harman test revealed that the first unrotated factor had <50% explanation power, no single factor dominated the test, thus indicating no issue with CMB.

4.2.3 Factor Analysis

Principal Component Analyses (PCA) with Varimax rotations conducted for all four variables separately identified a total of seven new factors (presented in Table 2). Respective reliability analyses revealed acceptable reliability levels for all factors (i.e. Cronbach Alpha ≥.50 (Hinton, 2004) (shown in Table 2.). Inter-item correlation statistics generally fell within the acceptable range between .30 and .90 (Hair et al., 2003). The factor loadings and Cronbach alpha measures are shown in Table 2. The questions related to the items are shown in Appendix 1.

The PCA for variable SN-MTL revealed a three-factor solution (SN-MTL_F1, SN-MTL_F2 and SN-MTL_F3) with eigenvalues exceeding 1, explaining 30%, 14%, 13% of the variance respectively. The three-factor model explained a total of 58% of the variance in SN-MTL (KMO = .661, p=<0.001). PCA for variable TPS revealed a two-factor solution (TPS, TPS_F2) with eigenvalues exceeding 1, explaining 35% and 14% of the variance respectively. The two-factor solution explained a total of 50% of the variance in TPS (KMO= .733, p=<0.001). As accounted for in the data-analysis of this thesis, TPS_F2 had low reliability (α=.452) and was therefore excluded from further analyses (listed in Table. 2 as 'Not Valid'). PCA for the variable SE revealed a two-factor solution (SE_F1 and SE_F2) with eigenvalues exceeding 1, explaining 36% and 14% of the variance respectively. The two-factor model explained the total of 51% of the variance in SE (KMO=.694, p=<0.001). PCA for variable Empowerment revealed a one-factor solution, with an eigenvalue exceeding 1. The factor explained 77% of the total variance (KMO= .693, p=<0.001).

Table 2.

Factor Analysis and Reliability

	Component								
	SN-MTL_F1	SN-MTL_F2	SN-MTL_F3	TPS	SE_F1	SE_F2	Empowerment*	Not Valid	Not Valid
Cronbach Alpha	.649	.535	.588	.661	.706	.620	.849	.452	N/A
N	85	85	85	84	84	84	83	84	84
SN-MTL Item 3	.805								
SN-MTL Item 5	.719								
SN-MTL Item 8	.668								
SN-MTL Item 4		.697							
SN-MTL Item 6		.811							
SN-MTL Item 7		.532							
SN-MTL Item 1			.803						
SN-MTL Item 2			.590						
SN-MTL Item 9			.725						
TPS Item 1				.774					
TPS Item 3				.801					
TPS Item 5				.584					
TPS Item 6				.432					
TPS Item 7				.549					
SE Item 2					.538				
SE Item 5					.730				
SE Item 6					.725				
SE Item 7					.698				
SE Item 10					.501				
SE Item 1						.530			
SE Item 3						.820			
SE Item 4						.811			

	Component								
	SN-MTL_F1	SN-MTL_F2	SN-MTL_F3	TPS	SE_F1	SE_F2	Empowerment*	Not Valid	Not Valid
Cronbach Alpha	.649	.535	.588	.661	.706	.620	.849	.452	N/A
N	85	85	85	84	84	84	83	84	84
Empowerment Item 1							.889		
Empowerment Item 2							.915		
Empowerment Item 3							.822		
TPS Item 2								.791	
TPS Item 4								.760	
SE Item 8									<.40
SE Item 9									<.40

Extraction Method: Principal Component Matrix (PCA) with Varimax Rotation
* One Component Matrix

4.2.4 One-Way Analysis of Variance

One-Way between-groups ANOVA-tests by demographic-variables showed no significant differences by demographics for the CVs 'Organization Size', Role in Organization', and 'Years of Experience in the Industry'. ANOVA-tests revealed significant differences between groups in the CVs 'Project Category', 'Project Length', 'Team Size', 'Changes in Staffing', and 'Tenure'.

Project Category

A one-way ANOVA of all variables (SN-MTL_F1, SN-MTL_F2, SN-MTL_F3, TPS, Empowerment, SE_F1, SE_F2) on the CV "Project Categories" (Technology, Business, Manufacturing, Financial) revealed that there was a significant difference in level of Empowerment between at least two groups in Project Category (F (3, 79) =5.668, p=.001). There were no statistically significant differences between Project Category groups and the variables SN-MTL_F1 (p=.319), SN-MTL_F2 (p=.695), SN-MTL_F3 (p=.192), SE_F1 (p=.210), SE_F2 (p=.472) or TPS (p=.390). A Scheffé post-hoc test for multiple comparisons found that there was a significant mean difference (MD) between the level of Empowerment between groups Technology and Manufacturing (MD=.958, p=.042,

95% C.I.=.022, 1.893), where the Technology group on average reported higher levels of empowerment compared to the Manufacturing group. Furthermore, a significant difference in Empowerment scores were found between the groups Technology and Financial (*MD*=1.167, *p*=.008, 95% C.I.=.232, 2.102), where the Technology group on average reported higher levels of empowerment than the Financial group.

Project Length

A one-way ANOVA of all variables on the CV "Project Length" revealed that there was a significant difference in level of Empowerment between at least two groups in Project Length (F (3, 79) = 3.870, p=.012). There were no statistically significant differences between Project Length groups and the variables SN-MTL_F1 (*p*=.814 SN-MTL_F2 (*p*=.590) SN-MTL_F3 (*p*=.417) SE_F1_Resilience (*p*=.981) SE_F2 (*p*=.144) or TPS (*p*=.940). Scheffé post-hoc test for multiple comparisons revealed a significant mean difference between the level of Empowerment between groups "Less than 3 months" and "More than 12 months" (*MD*=-.988, *p*=.045, 95% C.I. = -1.962, -.013), where respondents in the group "More than 12 months" reported higher scores on empowerment than the group "Less than 3 months".

Team Size

A one-way ANOVA of all variables on the CV "Team Size" revealed that there was a significant difference in level of SN-MTL_F3 between at least two groups in Team Size (F (4, 80) = 4.940, p=.001). There were no statistically significant differences between Team Size groups and the variables SN-MTL_F1 (*p*=.227), SN-MTL_F2 (*p*=.246), SE_F1 (*p*=.839), SE_F2 (*p*=.152), Empowerment (*p*=.602) or TPS (*p*=.502). A Scheffé post-hoc test for multiple comparisons indicated a significant mean difference between the level of SN-MTL_F3 between groups "1-3" team members and "4-7" team members (*MD*=-.980, *p*=.002, 95% C.I.=-1.707, -.252), where the group with "4-7" team members on average reported higher levels of SN-MTL_F3 than the group with "1-3" team members.

Changes in Staffing

A one-way ANOVA of all variables on the CV "Changes Staffing" revealed that there was a significant difference in level of SN-MTL_F2 (F (4, 80) = 2.625, p=.041), Empowerment (F (4, 78) = 3.891, p=.006), and TPS (F (4, 79) = 6.282, p<.001) between at least two groups in Changes of staffing. There were no statistically significant differences between Changes in Staffing groups and the variables SN-MTL_F1 (p=.512), SN-MTL_F3 (p=.594), SE_F1 (p=.126), SE_F2 (p=.780). A Scheffé post-hoc test for multiple comparisons revealed a significant mean difference between the level of SN-MTL_F2 between groups "Bi-weekly" and "Monthly" changes in staffing (MD=1.208, p=.042, 95% C.I. = .027, 2.388), indicating that respondents in the group that experience changes in staffing on a bi-weekly basis reported higher levels of SN-MTL_F2 than the respondents in the group experiencing monthly changes in staffing. There was also a significant mean difference between the level of Empowerment between groups "Weekly" and "Monthly" changes in staffing (MD=-1.475, p=.043, 95% C.I. = -2.922, -.028, indicating that respondents in the group that experience changes in staffing on a monthly basis reported higher levels of empowerment than the respondents in the group experiencing weekly changes in staffing. Furthermore, there was a significant mean difference between the level of TPS between groups "Daily" and "Monthly" changes in staffing (MD=-2.647, p=.005, 95% C.I.=-4.717 5, -.578), which suggests that respondents in the group that experience monthly changes in staffing reported higher levels of TPS than the respondents in the group experiencing daily changes in staffing. Furthermore, there was a significant mean difference between the level of TPS between groups "Daily" and "Never" changes in staffing (MD=-2.894, p=.001, 95% C.I. = -4.930, -.858), which suggests that respondents in the group that never experience changes in staffing reported higher levels of TPS than the respondents in the group experiencing daily changes in staffing.

Tenure

A one-way ANOVA of all variables on the CV "Tenure" revealed that there was a significant difference in level of TPS between at least two groups in Tenure (F (3, 78) = 2.877, p=.041). There were no statistically significant differences between Tenure SN-MTL_F1 (p=.878), SN-MTL_F2 (p=.744) SN-MTL_F3

(p=.982), SE_F1 (p=.965), SE_F2 (p=.917), or Empowerment (p=.419). However, a Scheffé post-hoc test for multiple comparisons found that there was no significant difference between the level of TPS between groups based on tenure.

4.2.5 Hypotheses testing

4.2.5.1 Bivariate correlation

Correlation Analysis was conducted to assess associations between all continuous variables, and their eligibility for regression analyses. The analysis revealed no significant correlations between Empowerment and the three factors SN-MTL_F1 (r=.185, p=.094), SN-MTL_F2 (r=.059, p=.594) or SN-MTL_F3 (r= -.005, p=.964) (See Table 3). Hence, we did not find support for H1 (**'**Empowerment has a positive effect on the selected team member's Social-Normative Motivation to Lead'). The insignificant relationship between the variables hypothesized in H1 led to the rejection of H2 ('Team Psychological Safety moderates the relationship between Empowerment and Social-Normative Motivation to Lead') and H3 ('Self-Efficacy of the selected team member moderates the relationship between Empowerment and Social-Normative Motivation to Lead') as these were reliant on a significant relationship between the IV (Empowerment) and DV (SN-MTL).

Furthermore, the Correlation analysis results revealed small, significant correlations between the variables SN-MTL_F1 and SE_F1 (r=.235, p=.031), SN-MTL_F1 and SE_F2 (r=.293, p=.007), SN-MTL_F2 and SE_F1 (r=.314, p=.004) and Empowerment and SE_F1 (r=.226, p=.040). Among the other variables, no significant correlations were detected (Table 3.).

Table 3.

Correlations.

	SN-MTL_F1	SN-MTL_F2	SN-MTL_F3	TPS	Empowerment	SE_F1	SE_F2
SN-MTL_F1	1						
SN-MTL_F2	.000						
SN-MTL_F3	.000	.000					
TPS	-.072	-.106	.098				
Empowerment	.185	.059	-.005	.148			
SE_F1	.235*	.314**	-.004	.136	.226*		
SE_F2	.293**	-.135	-.009	.160	.118	.000	1

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

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

4.2.5.2 Multivariate regression analysis

Significant correlations identified from the correlation analysis were explored with Standard Multiple Regression analyses. The Model Summary and ANOVA statistics for regressions revealed a significant model for SN-MTL_F2 (IV) on SE_F1 (DV) (*p=.032*) with an Adjusted r-square of 0.12 (See Table 4 and 5). While a significant model was found for SE_F1 (IV) and Empowerment (DV), the CV 'project category' was the only variable that made a significant unique contribution to the prediction of Empowerment (B=-.304, B S.E=.105, p=.005). The contribution of SE_F1 was insignificant (>.05), and hence, did not contribute to the prediction of Empowerment (see Table 6). For all other significant relationships identified in previous correlation analysis (Table 3.), no significant regression models were found (see Table 5.).

The Coefficient table for the Linear regression between SN-MTL_F2 as an IV and SE_F1 as the DV (Table 7) indicate no problems with multicollinearity as all variables showed acceptable tolerance numbers (>.10) and VIF values (<10). Findings indicate that the IV 'SNMTL-F2' (*B*=.386, *B* S.E=.109, *p*=<.001) have a significant, unique contribution to the prediction of the DV SE_F1. None of the CVs included in the regression analysis showed significance (See Table 7.). This indicates that the CVs did not contribute to predicting SE_F1 in this model.

Table 4.

Model summary for significant regression models.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
SN-MTL_F2 (IV) → SE_F1 (DV)	.462	.213	.116	.944560
SE_F1 (IV) → Empowerment (DV)	.540	.291	.204	.892359

Table 5.

ANOVA table for regression models.

Model		Sum of Squares	df	Mean Square	F	Sig.
SE_F1 (IV) → SN-MTL_F1 (DV)	Regression	10.784	9	1.198	1.233	.289
	Residual	70.938	73	.972		
	Total	81.723	82			
SN-MTL_F1 (IV) → SE_F1(DV)	Regression	9.538	9	1.060	1.056	.405
	Residual	73.250	73	1.003		
	Total	82.788	82			
SE_F1 (IV) → SN-MTL_F2 (DV)	Regression	15.561	9	1.729	1.972	.055
	Residual	63.994	73	.877		
	Total	79.554	82			
SN-MTL_F2 (IV) → SE_F1 (DV)	Regression	17.658	9	1.962	2.199	.032*
	Residual	65.130	73	.892		
	Total	82.788	82			
Empowerment (IV) → SE_F1 (DV)	Regression	8.836	9	.982	.969	.472
	Residual	73.952	73	1.013		
	Total	82.788	82			
SE_F1 (IV) → Empowerment (DV)	Regression	23.870	9	2.652	3.331	.002*
	Residual	58.130	73	.796		
	Total	82.000	82			
SE_F2 (IV) → SN-MTL_F1	Regression	13.994	9	1.555	1.676	.110
	Residual	67.728	73	.928		
	Total	81.723	82			
SN-MTL_F1 (IV) → SE_F2 (DV)	Regression	16.350	9	1.817	2.000	.051
	Residual	66.308	73	.908		
	Total	82.658	82			

All analyses include CVs (Project category, Tenure , Organization size, Changes Staffing , Project Length , Team Size, Role , Years of Experience) as IV.

Table 6.

Coefficients for regression model SE_F1 (IV) and Empowerment (DV).

	Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	-.067	.665		-.100	.920	-1.392			
SE_F1	.155	.102	.155	1.514	.134	-.049	.149	.921	1.085
Project Length	.189	.103	.198	1.837	.070	-.016	.181	.833	1.200
Team Size	.110	.124	.099	.891	.376	-.136	.088	.790	1.265
Changes Staffing	.039	.104	.040	.374	.709	-.169	.037	.867	1.154
Organization size	-.088	.080	-.114	-1.098	.276	-.249	-.108	.898	1.114
Role	.053	.089	.077	.599	.551	-.124	.059	.592	1.689
Tenure	.034	.165	.030	.209	.835	-.295	.021	.465	2.151
Years Experience	.036	.128	.044	.283	.778	-.219	.028	.398	2.515
Project category	-.304	.105	-.309	-2.904	.005	-.513	-.286	.859	1.164

DV: Empowerment.
IV: SE_F1 and CVs (Project category, Tenure, Organization size, Changes Staffing, Project Length, Team Size, Role, Years of Experience).

Table 7.

Coefficients for regression model SN-MTL_F2 (IV) and SE_F1 (DV)

	Unstandardized Coefficients		Standardized Coefficients			95,0% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	-.502	.702		-.716	.477	-1.900			
SN-MTL_F2	.386	.109	.378	3.534	<.001	.168	.367	.942	1.062
Project Length	.001	.109	.001	.008	.994	-.217	.001	.832	1.201
Team Size	-.128	.131	-.114	-.981	.330	-.388	-.102	.794	1.260
Changes Staffing	.159	.109	.161	1.458	.149	-.058	.151	.886	1.129
Organization size	-8.143E-5	.085	.000	-.001	.999	-.170	.000	.898	1.114
Role	.168	.094	.241	1.797	.076	-.018	.187	.600	1.667
Tenure	.044	.176	.039	.251	.803	-.307	.026	.457	2.189
Years Experience	-.047	.137	-.058	-.347	.730	-.320	-.036	.391	2.558
Project category	-.143	.112	-.145	-1.281	.204	-.367	-.133	.844	1.185

DV: SE_F1_Resilience
IV: SN-MTL_F2 and CVs (Project category, Tenure, Organization size, Changes Staffing, Project Length, Team Size, Role, Years of Experience)

5.0 Discussion

5.1 Discussion of hypotheses

The following section of this thesis will discuss and reflect upon the results from the present study. The research from this study is anchored in the research question "*What is the nature of the relationship between Empowerment and Social-Normative Motivation to Lead in the consulting industry?"*. Based on this research question and a literature review of Empowerment and SN-MTL, the following three hypotheses were developed and tested in the study:

H1: Empowerment has a positive effect on the selected team member's Social-Normative Motivation to Lead.

H2: Team Psychological Safety moderates the relationship between Empowerment and Social-Normative Motivation to Lead.

H3: Self-Efficacy of the selected team member moderates the relationship between Empowerment and Social-Normative Motivation to Lead.

As presented in the results, the correlation analysis revealed that there was no significant relationship between Empowerment and SN-MTL. Consequently, **H1** was not supported in our analysis. Considering that the literature review indicated that empowerment is a motivational mechanism that motivates individuals to perform well (Chan & Drasgow, 2001; Yu et al., 2018), it was unexpected to discover that there was no significant relationship between Empowerment and SN-MTL. Hence, it appears that even though previous research has shown that there is a relationship between empowerment and motivation (e.g., Yu et al. (2018)), this study did not find support for a significant relationship between empowerment and the more limited SN-MTL construct.

As no support was found for **H1**, **H2** and **H3** were rejected as they both built upon the assumption that there was a significant relationship between Empowerment and SN-MTL (a support of **H1**).

5.2. Supplementary discussion of other findings

As all three hypotheses were rejected, we entered an exploratory phase to assess other significant relationships between variables. Multivariate regression analysis identified a significant relationship between SN-MTL_F2 as the IV and SE_F1 as the DV, where SN-MTL_F2 had a predictive effect on SE_F1. Considering the new subfactors had been developed based on the SE and SN-MTL scales that had been validated in the literature (Chan & Drasgow, 2001; Luthans & Peterson, 2002), we were surprised to discover that no relationships between the two other SN-MTL factors or the other SE factor was indicated in the analysis.

Regardless, previous research on MTL has emphasized that there is a strong link between SE and MTL (Badura et al., 2020; Chan & Drasgow, 2001). For instance, Chan and Drasgow (2001) reported that SE was an antecedent to the MTL-construct, suggesting that to be motivated to lead, one first needs to feel a certain level of SE to feel able to. For leadership this means that when someone feels able to lead, they are likely to exert more effort and persist longer in trying to achieve this goal, thus showing stronger motivation to lead. Badura et al. (2020) also conceptualized a more specific SE type; leadership SE, as a proximal antecedent of

motivation to lead. Leader SE has been documented as beneficial in a number of situations as it has an impact on motivation (Hannah et al., 2008; Murphy & Ensher, 1999; Watson et al., 2001). Furthermore, Singer (1991) found that leadership SE could account for the variance in leadership aspiration among individuals.

Interestingly, a common factor to most previous studies on SE and MTL is that the direction of the relationship between the constructs is from SE to MTL. This is the opposite of the direction we discovered in the present study, which indicates that people with high SN-MTL-scores tend to report higher levels of SE. However, it is important to emphasize that the findings from this study were identified through regression, hence it cannot prove causality of the relationship (Pallant, 2018). Moreover, our findings suggest that individuals who feel motivated to lead for reasons such as a sense of duty or responsibility to their employer, are more likely to have confidence in their capabilities to mobilize the motivation, cognitive resources and courses of actions needed to meet the given situational demands.

While there has been limited research on SN-MTL as a predictor of SE, some theoretical contributions highlight the interplay between the two concepts. For instance, Chan and Drasgow (2001) found in their studies of MTL that individuals who are motivated by a sense of social duty and obligation (i.e., SN-MTL) also tend to have more past leadership experience and training, and are confident in their leadership abilities. As SE is considered a conceptualization of internal self-confidence (Murphy & Johnson, 2016), one can subsequently assume that individuals who have a high score on SN-MTL also feel confident about their capabilities to lead.

While we do not have access to information regarding respondents past experiences with leadership roles and trainings, Chan and Drasgow (2001) consider MTL as an individual differences construct that affects a leader's or leader-to-be's decisions to assume leadership training, roles and responsibilities and that affect his or her intensity of effort at leading and persistence as a leader. Accordingly, one can hypothesize that respondents who score high on the MTL subfactor SN-MTL

decide to engage in activities that provide them with leadership experience, which may in turn have increased their self-confidence, or in other words, their SE.

Overall, few studies have discussed a relationship between SE and SN-MTL. The one-way relationship indicated in our analysis is however interesting, and paired with existing research, it may indicate that motivation and SE can influence each other. However, in order to truly understand the nature of the relationship between SE_F1 and SN-MTL_F2, future investigations are necessary.

5.3 Implications

5.3.1 Theoretical contributions

While the statistical findings did not provide support for the hypotheses, the study is still a contribution to academia as it has emphasized the perspective of the individual in the empowerment process of BLS, and addressed the knowledge gap between VL' efforts to empower team member(s) and that team member's motivation to accept the responsibilities that come with empowerment. To our knowledge, previous studies on BLS have not investigated the mechanisms (SN-MTL, TPS and SE) that may influence selected team member(s) motivation to take on the responsibilities that VLS entails. The present study is therefore a contribution to understanding which constructs influence SN-MTL.

Furthermore, previous research on BLS have mainly approached research through qualitative or mixed method approaches (Alonderienė et al., 2020; Drouin et al., 2018; Müller et al., 2018a; Pilkienė et al., 2018; Yu et al., 2018). The present study has substantiated the functionality of applying quantitative methods when assessing empowerment in balanced leadership, by providing support for the validity and reliability of the Empowerment scale (α=.849) originally presented by Müller et al. (2018a).

Additionally, in similarity to evidence presented by other scholars (Badura et al., 2020; Chan & Drasgow, 2001) this study has supported that there exists a relationship between MTL and SE. However, while previous research has conceptualized and found empirical evidence that SE is a proximal antecedent to MTL, our findings suggest that the sub-construct SN-MTL may actually predict SE. Consequently, the effect of social norms in motivation to lead may affect individuals' perception of their own ability to tackle new challenges. This is

interesting for academia, as it implies that SE can be both a predictor for MTL (Chan & Drasgow, 2001) and be predicted by SN-MTL.

5.3.2 Practical implications

Based on the data analysis, the results indicated that the respondents' mean score on the SE-construct was relatively high (*M*=4.145, on a scale from 1-5). This implies that the sample, which consisted of consultants explicitly, reported having high belief in their own abilities to perform assignments and solve problems. It is relevant to consider that this high mean in SE scores might be a characteristic for people working as consultants, which makes the group an interesting population in understanding potential group differences and industry differences in SE.

Another interesting result from the data analysis showed a significant mean difference in the level of TPS among two different groups in the CV "Changes in Staffing". The difference was identified between the groups "Daily" and "Monthly" (*MD*=-2.647), showing that respondents experiencing changes on a monthly basis reported higher level of TPS compared to respondents who experienced changes in staffing on a daily basis. A significant mean difference in TPS was also identified between respondents in the "Daily" and "Never" groups (*MD*=-2.894), where respondents who never experienced having changes made in their staffing, reported higher TPS than in the group that experienced daily changes in staffing. This implies that in teams where there are few changes made in staffing, team members perceive their teams to be more psychologically safe. This has practical implications for how organizations within the consulting industry can practice staffing of project teams as psychologically safe teams are characterized by several positive outcomes, such as being more effective, learning-oriented, innovative and supportive (Edmondson et al., 2004; Frazier et al., 2017; Newman et al., 2017). Additionally, in teams with high TPS, team members are encouraged to demonstrate their talents and expertise, thereby becoming effective and contributing team members (Frazier et al., 2017). Teams in the consulting industry with high TPS may therefore be functional environments to enact BLS, as they facilitate rotating HLS based on team members' expertise. For organizations, our study has implicated that TPS level may be related to the frequency of changes

made in staffing. Hence, organizations may benefit from reducing the frequency of changes in staffing to facilitate higher TPS in project teams. Once again, it is important to emphasize that these findings do not indicate causality. Therefore, the relationship can alternatively be explained by situations where e.g., teams with low TPS require more frequent changes made in their staffing, for instance by demand by team members or by the project manager.

5.4 Limitations and directions for future research

5.4.1 Limitations

This study has several limitations in terms of its statistical power, research design and impact that may affect the validity and reliability of the results. Firstly, a noteworthy limitation in this study is the limited statistical power due to the small sample size of 83 responses. A larger sample is always advantageous in quantitative studies because it, compared to smaller samples, increases the chances of detecting an actual effect (Bell et al., 2022) due to increased generalizability, reliability, and validity. While we recognize that the sample in this study was small, the narrow population of interest made it difficult to obtain more responses. The limited sample size most likely influenced all statistical analyses, and underpowered our research results. For instance, in factor analyses, few of the scale items loaded onto the constructs they were intended to, despite their previously established validity and reliability (Chan & Drasgow, 2001; Edmondson, 1999; Luthans & Peterson, 2002; Müller et al., 2018a).

Furthermore, through the process of factor analysis, the items of the validated measurement scales were split into new factors. Through this process, some of the items in the scales were excluded from further analyses, thereby compromising the existing scales. While the new factors had acceptable Cronbach alphas, they were lower than the Cronbach alpha values documented for the original scales in the literature (Chan & Drasgow, 2001; Luthans & Peterson, 2002). The decrease in validity and reliability of our factors indicate a limitation to our measurements and analyses, even though the generated Cronbach alpha values were considered acceptable.

In terms of impact, this study has limited generalizability both to the targeted population and to populations with similar characteristics. The population

of consultants working in teams in the consulting industry in Norway can be considered narrow in itself. Regardless, a sample size of 83 responses might not sufficiently capture the true mean of the population. Consequently, we are precautious in generalizing findings to all consultants working in teams in the consulting industry. A subsequent limitation of the limited sample is further that one should be careful in comparing or deriving findings to groups within similar industries or with similar occupational characteristics.

Adding to limitations, Müller et al. (2017) reported that team members are typically nominated for a HLS role by the project manager in order to carry the project forward in a particular way (Müller et al., 2017) and/or to lead the team through a particular state or issue during the project (Alonderienė et al., 2020), such as when situational demands require expert knowledge (Müller et al., 2017). Accordingly, nomination for a HLS role depends on a certain degree of knowledge or expertise. The sample in this study did however consist of a majority of respondents in the junior level categories; Associate Consultant (18%) and Consultants (35%) (see Figure 9). Juniority was also prominent in the categories of tenure and experience from the industry where respondents reported ≤3 years of tenure (79%) (see Figure 10), and ≤3 years of experience (68%) (see Figure 11). These respondents can presumably lack experience and expertise, and therefore might not be eligible candidates to be empowered for a HLS role. This assumption is substantiated by Yu et al. (2018) previous research on empowerment in BLS, where the mean tenure of respondents considered eligible for empowerment was 6.5 years. Based on this, a limitation to this study is that a majority of the respondents might not be eligible to be nominated nor empowered to a HL role in the first place.

Another limitation is that the technique applied for collecting data may have influenced the findings. While the snowball sampling technique functioned as a practical and efficient method to reach the relevant population to this study, it also limited our control over aspects of data collection such as total response rate, geographical location of respondents and the relevance of their professional backgrounds. Considering the snowballing sampling method is a non-random sampling method where recruited participants assist in the recruitment of additional respondents, referrals influenced our control over who responded to the survey. While we controlled for participants by making requirements clear at the beginning

of the survey and purposefully contacted individuals with relevant professional backgrounds to take part in the study, we cannot guarantee that those who responded based on referrals met the requirements for participation such as working as a consultant specifically.

Another limitation in data collection methodology that may have influenced whether our findings captured the true experiences and perceptions of participants, is the application of the self-reporting questionnaire as a source of data. While self-reporting questionnaires are commonly applied in social sciences, psychology and organizational research, research participants generally want to respond in a way that makes them look as good as possible (Podsakoff & Organ, 1986; Stewart & Elisa, 2002). Stewart and Elisa (2002) report that self-reports typically contain at least some bias, and that self-report bias tends not to be uniform across constructs in psychological research conducted in business settings. As such, self-reporting bias may be present in our data. Furthermore, while self-reporting bias may have been reduced by applying a secondary source of data (Stewart & Elisa, 2002), our study is based on a single data collection method and may therefore not have ruled out the validity threats of self-reporting.

Lastly, little research has been conducted on MTL in general. Even when the construct has been researched, there has been little consensus on whether all three sub constructs (Social-Normative MTL, Affective-Identity MTL and Non-Calculative MTL) should be measured together or separately (Chan & Drasgow, 2001). The lack of clear guidelines on how MTL is to be measured appropriately can have influenced our analysis, as findings may have been different if all three sub constructs were included and measured in the study.

5.4.2 Directions for future research

The study uncovers a number of opportunities for future research. These include replication of the presented study with a larger sample size and respondents with more experience in more senior job positions, to increase statistical power. In replication, we also recommend implementation of multiple data collection methods to supplement the self-reporting questionnaire, such as applying a longitudinal approach where the same survey is administered at two points in time with an interval between them.

Another direction for future research is to investigate whether cultural differences in SN-MTL can influence SE and vice versa, in a cross-cultural study. Considering SN-MTL refers to an individual's desire to lead out of a sense of duty or obligation to his/her organization, leader, or team (Badura et al., 2020), the individual's motivation to lead is likely to depend on the power of the group norms. According to Jetten et al. (2002), cultural differences can influence how strongly individuals identify with and conform to group norms. In their research, Jetten et al. (2002), found that individuals from collectivistic cultures were more likely to incorporate salient group norms and prescribing them as part of their self-concepts compared to individuals from individualistic cultures. This suggests that cultural differences may influence a team member's perception of obligation towards their team to take on a leader role, and their belief in themself to successfully fulfill that role.

A third direction for future research can be to look into the potential relationship between the frequency of changes in staffing made in a project team and the individual team members' level of TPS. In this study (as presented in the data analysis and under practical implications), we found in the comparison of two demographic groups, that respondents who reported less frequent changes in staffing made in their team, also reported higher TPS scores. As teams with high levels of TPS facilitate for more effective and contributing team members (Edmondson et al., 2004; Frazier et al., 2017), it would be interesting to investigate whether a decrease in changes made in staffing in a team, could contribute to a rise in the team members' TPS. Thereby also having an impact on a team's effectiveness and contribution from its members.

Lastly, we encourage future research to look into the events of BLS and investigate what mechanisms influence VLs to empower team members, and what mechanisms influence that team members motivation to take on more responsibility. While empowerment may function as a bridge from VLS to HLS, the VL's effort to empower a team member will be limited by the team member's motivation to take on a leadership role and responsibility, temporarily. To our knowledge, the theory of BLS has not yet accounted for the motivational component in the crucial event of empowerment and role acceptance, and we therefore believe that the theory could benefit from further empirical research on the topic.

6.0 Conclusion

This study contributes to strengthening the research on the newly developed BLS theory, and to the understanding of leadership in project teams. Furthermore, this study strengthens the applicability of investigating the Empowerment event in BLS quantitatively.

This study investigated the research question "What is the nature of the relationship between empowerment and social-normative motivation to lead in the consulting industry?" through three hypotheses. Although our analysis did not find support for the hypothesized relationships, we identified an interesting finding that can have theoretical implications for the motivation to lead construct and its relationship to the SE construct.

Furthermore, our research has practical implications for how team-based projects in the consulting industry can staff their teams, as teams with fewer changes in staffing during the course of the project were found to have higher levels of perceived TPS.

Additionally, our findings indicate that individuals working as consultants have high levels of SE, implying that research on this specific sample group and industry might have specific characteristics that separates them from other groups and industries.

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Appendix

Appendix 1. Full questionnaire

The transition of leadership between project managers and team members in the consulting industry

Welcome,

Project managers are not always the expert in all facets of a project and often rely on team members to make decisions or lead the project on a temporary basis. This survey investigates the transition of leadership between project managers and team members in the consulting industry, and will contribute to Balanced Leadership theory and project management literature.

You have been asked to participate in this research project because **you are currently working in a consulting role in the consulting industry**, and have the relevant knowledge and experience to contribute to the research topic. The questions **require that you have been a member of a team-based project**.

It will take approximately 5-10 minutes to complete this survey. Please answer the questions in respect of **your last finished project, where you were encouraged and motivated by your project manager/leader to take on more responsibility and/or authority in the team temporarily.** If you have not been part of a team project where this has occurred, we ask you to pass this survey to someone on your team who was empowered in this way.

There are no right or wrong answers, participation is voluntary, and organizations or individuals will not be traceable from the final reports. Respondents can abandon the questionnaire at any time. However, meaningful results are only possible when all questions are answered. Respondents can save their answer and come back later to complete their responses. Please submit the survey by **March 26th, 2022**.

Thank you in advance for taking the time to fill out the questionnaire as a contribution to our master thesis in Leadership and Organizational Psychology at BI Norwegian Business School. In case of questions, please contact Helene Vemmestad by email, s2012042@bi.no.

Consent

Please see the attached information letter concerning the purpose of the project, data security, your rights and further details about this research project. I have received and understood information about the project "The transition of leadership between project managers and team members in the consulting industry", and have been given the opportunity to ask questions.

Page 1 of 10

I give consent for my personal data to be processed and stored until the end date of the project, 01.01.2023.

- ○ Yes
- ○ No

---

1. How long was the approximate length of your last finished project?

- ○ Less than 3 months
- ○ 4 - 6 months
- ○ 7 - 12 months
- ○ More than 12 months

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2. How many members from your organization were part of your team in this project?

- ○ 1-3
- ○ 4-7
- ○ 8-12
- ○ 12-15
- ○ More than 15

---

3. How often were changes made in the staffing of your team in this project?

- ○ Daily
- ○ Weekly
- ○ Bi-weekly
- ○ Monthly
- ○ Never

4. Your last finished project was of the following category:

- ○ Engineering
- ○ Construction
- ○ Retail
- ○ Shipping
- ○ Information technology (IT)
- ○ Information and communication technology (ICT)
- ○ Supply chain
- ○ Organizational change
- ○ Finance
- ○ Private equity
- ○ HR
- ○ Other _____

Social-normative motivation to lead is defined as an individual's desire to lead out of a sense of duty or obligation to his/her organization, team or leader.

Based on this information, the next set of questions will assess your social-normative motivation to lead.

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
5. I feel that I have a duty to lead others if I am asked to.	○	○	○	○	○
6. I agree to lead whenever I am asked to or nominated by the other members.	○	○	○	○	○
7. I was taught to believe in the value of leading others.	○	○	○	○	○
8. It is appropriate for people to accept leadership roles or positions when they are asked to.	○	○	○	○	○
9. I have been taught that I should always volunteer to lead others if I can.	○	○	○	○	○
10. It is not right to decline leadership roles.	○	○	○	○	○

11. It is an honor and a privilege to be asked to lead.	○	○	○	○	○
12. People should volunteer to lead rather than wait for others to ask or vote for them.	○	○	○	○	○
13. I would never agree to lead just because others voted for me.	○	○	○	○	○

Self-efficacy is defined as an individual's belief in themself, and their ability to successfully perform and accomplish a task.
Based on this information, the next set of questions will assess self-efficacy.

	Strongly disagree	**Somewhat disagree**	**Neither agree nor disagree**	**Somewhat agree**	**Strongly agree**
14. When trying to learn something new, I rarely give up, even if I am not initially successful	○	○	○	○	○
15. I do not give up easily	○	○	○	○	○
16. I try new things, even if they look complicated	○	○	○	○	○
17. I try to learn new things, even if they seem difficult to me	○	○	○	○	○

18. I always get the job done	○	○	○	○	○
19. If I can't do a job the first time, I keep trying until I can	○	○	○	○	○
20. I always achieve the goals I set for myself	○	○	○	○	○
21. I feel secure about my ability to do things	○	○	○	○	○
22. Failure just makes me try harder	○	○	○	○	○
23. I am capable of dealing with most problems that come up in life	○	○	○	○	○

Team psychological safety is defined as a shared belief that the team is a safe work environment, where team members feel that their colleagues will not reject them for being themselves or saying what they think, have positive intentions to one another, are able to engage in constructive conflict or confrontation, and respect each other's competence.

Based on this information, the next set of questions will assess team psychological safety.

In your last finished project…

	Strongly disagree	**Somewhat disagree**	**Neither agree nor disagree**	**Somewhat agree**	**Strongly agree**
24. ...The mistakes you made in your team, were often held against you	○	○	○	○	○

25. ...Members of your team were able to bring up problems and tough issues	○	○	○	○	○
26. ...Members on your team sometimes rejected others for being different	○	○	○	○	○
27. ...It was safe to take a risk in your team	○	○	○	○	○
28. ...It was difficult to ask other members of your team for help	○	○	○	○	○
29. ...No one in your team would deliberately act in a way that undermined your efforts	○	○	○	○	○
30. ...Your unique skills and talents were valued and utilized	○	○	○	○	○

Empowerment is defined as a practice, or set of practices involving the delegation of responsibility down the hierarchy in order to give employees increased decision-making authority in respect to the execution of their primary work tasks.

A horizontal leader is a team member that emerges as a leader on a temporary basis upon nomination by the formal project manager, while being governed by the formal project manager.

Based on this information, the next set of questions will assess empowerment in your team.

In your last finished project…

	Strongly disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
31. …The empowerment of the horizontal leader (you) was clearly communicated to team members	○	○	○	○	○
32. ...The empowered person (you) understood that you were empowered to become the horizontal leader	○	○	○	○	○
33. ...The horizontal leader (you) associated this empowerment with personal appreciation, such as having impact, competence, autonomy, and/or being assigned meaningful work	○	○	○	○	○

34. What is the size of your organization in your country of residence in terms of number of employees?

- ○ Less than 50
- ○ 51 -250
- ○ 251 – 1,000
- ○ 1,001 – 5,000
- ○ More than 5,000

35. What is your current role in the organization?

- ○ Associate Consultant
- ○ Consultant
- ○ Senior Consultant
- ○ Project Manager
- ○ Partner
- ○ Other _____

36. How many years have you been employed in the company?

- ○ 0-1
- ○ 2-3
- ○ 4-9
- ○ 10-14
- ○ 15 or more

37. How many years of experience do you have from the consultancy industry?

- ○ 0-1
- ○ 2-3
- ○ 4-9
- ○ 10-14
- ○ 15 or more

Appendix 2. Information letter

Are you interested in taking part in the research project "The transition of leadership between project managers and team members in the consulting industry"?

This is an inquiry about participation in a research project where the main purpose is to investigate the circumstances, processes and criteria that lead to the temporary leadership by a project team member. In this letter we will give you information about the purpose of the project and what your participation will involve.

Purpose of the project

Project managers are not always the expert in all facets of a project and often rely on team members to make decisions or lead the project on a temporary basis. Based on this, this academic study investigates the circumstances, processes and criteria that lead to the temporary leadership by a project team member.

The purpose of this project is to:

- Identify how empowerment can influence team members' motivation to lead
- Identify how team dynamics can influence employees' motivation to accept leadership roles
- Identify how individual differences can influence team members' motivation to accept leadership roles

Through that the following research question is addressed:

- What is the nature of the relationship between empowerment and social-normative motivation to lead?

Who is responsible for the research project?

BI Norwegian Business School (BI) is the institution responsible for the project.

Why are you being asked to participate?

You have been asked to participate in this research project because you are currently working in a consulting role in the consulting industry, and have the relevant knowledge and experience to contribute to the research question. The questions require that you have been a member of a team based project.

What does participation involve for you?

If you choose to take part in the project, this will involve that you fill in an online survey. It will take approximately 5-10 minutes. The survey includes questions about your experiences as a team member. Your answers will be recorded electronically.

The questions will revolve around:

- The size (in number of employees) of your organization
- Your role and your last finished project
- Your professional experience and your educational background
- Your experience of the interaction between yourself and the leader of your last finished project
- Your motivation to accept temporary leadership roles in team settings
- Your belief in your own capacity to execute behaviors necessary to produce specific performance attaintments
- Your experience of the dynamics between team members in your last finished project

Participation is voluntary

Participation in the project is voluntary. If you chose to participate, you can withdraw your consent at any time without giving a reason. You have the right to have your data deleted if the data can be located or identified in the sample. There will be no negative consequences for you if you choose not to participate or later decide to withdraw. The survey can also be abandoned at any time, but we hope you will fill it out in its entirety, as it only has value for us when completed.

Your personal privacy – how we will store and use your personal data

We will only use your personal data for the purpose(s) specified in this information letter. Personal data collected in this survey include demographic data (company size, your role in the company, your years in the company, your highest educational background and the number of years you have been in the industry). The purpose of collecting demographic data is to identify demographic differences. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act (GDPR)).

Your personal data will only be accessible for BI Norwegian Business School by the master's students Ingvild Reksten Amland and Helene Rose Wahr-Hansen Vemmestad and their supervisor Ralf Müller. In order to ensure that no unauthorized persons are able to access the personal data, we will store data on BI's encrypted server for research data.

Data is collected through BI's partnered survey provider 'Qualtrics'. Master's students applying this tool in their thesis project are required to follow the user agreement between BI and Qualtrics in which include laws and regulations that apply under Norwegian law, BI and Qualtric guidelines. Data will be stored in an encrypted server (OneDrive).

All personal information collected in the survey will be removed before analysis. No reference is made in any future publication or presentation to the survey participant or his/her organization.

What will happen to your personal data at the end of the research project?

The project is scheduled to end 01.07.2022. All personal data will be deleted by January 1st 2023.

Your rights

As long as you can be identified in the collected data, you have the right to:

- access the personal data that is being processed about you
- request that your personal data is deleted
- request that incorrect personal data about you is corrected/rectified
- receive a copy of your personal data (data portability), and send a complaint to the Data Protection Officer or The Norwegian Data Protection Authority regarding the processing of the personal data

What gives us the right to process your personal data?

We will process your personal data based on your consent. Based on an agreement with BI Norwegian Business School, NSD – The Norwegian Centre for Research Data AS has assessed that the processing of personal data in this project is in accordance with data protection legislation.

Where can I find out more?

If you have questions about the project, or want to exercise your rights, contact:

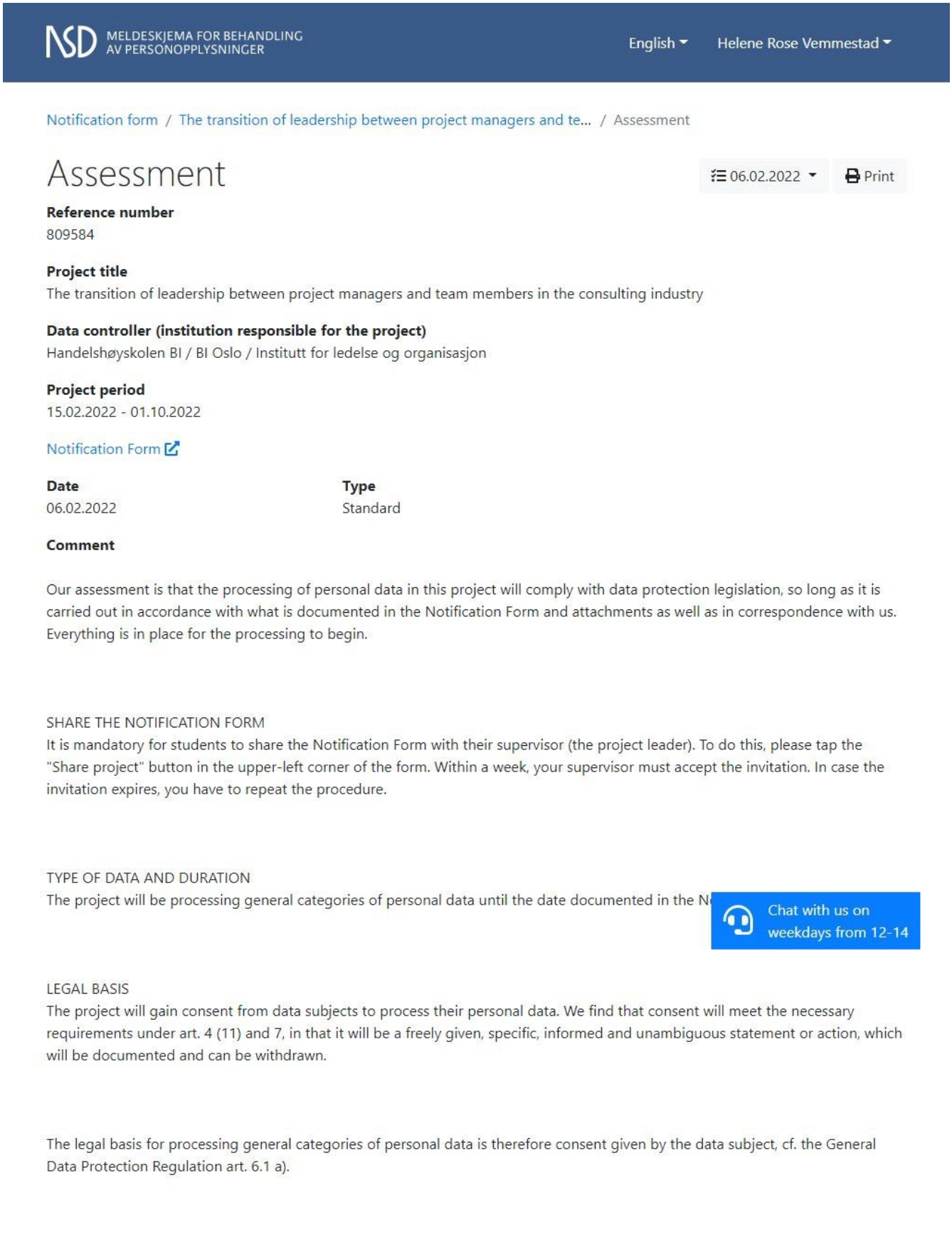
- BI Norwegian Business School via Ralf Müller, by email: ralf.muller@bi.no or by telephone: +46 70 68 91 040
- Our Data Protection Officer: Vibeke Nesbakken, by email: personvernombud@bi.no.
- NSD – The Norwegian Centre for Research Data AS, by email: (personverntjenester@nsd.no) or by telephone: +47 53 21 15 00.

We are happy to share our results. Please send an email to helene@vemmestad.no if you want a summary of the findings.

Yours sincerely,

Project Leader	***Student***	***Student***
Ralf Müller	Ingvild Reksten Amland	Helene Rose W-H Vemmestad

Appendix 3. NSD Approval



NSD MELDESKJEMA FOR BEHANDLING AV PERSONOPPLYSNINGER

English ▾ Helene Rose Vemmestad ▾

Notification form / The transition of leadership between project managers and te... / Assessment

Assessment

06.02.2022 ▾ Print

Reference number
809584

Project title
The transition of leadership between project managers and team members in the consulting industry

Data controller (institution responsible for the project)
Handelshøyskolen BI / BI Oslo / Institutt for ledelse og organisasjon

Project period
15.02.2022 - 01.10.2022

Notification Form

Date
06.02.2022

Type
Standard

Comment

Our assessment is that the processing of personal data in this project will comply with data protection legislation, so long as it is carried out in accordance with what is documented in the Notification Form and attachments as well as in correspondence with us. Everything is in place for the processing to begin.

SHARE THE NOTIFICATION FORM
It is mandatory for students to share the Notification Form with their supervisor (the project leader). To do this, please tap the "Share project" button in the upper-left corner of the form. Within a week, your supervisor must accept the invitation. In case the invitation expires, you have to repeat the procedure.

TYPE OF DATA AND DURATION
The project will be processing general categories of personal data until the date documented in the N

Chat with us on weekdays from 12-14

LEGAL BASIS
The project will gain consent from data subjects to process their personal data. We find that consent will meet the necessary requirements under art. 4 (11) and 7, in that it will be a freely given, specific, informed and unambiguous statement or action, which will be documented and can be withdrawn.

The legal basis for processing general categories of personal data is therefore consent given by the data subject, cf. the General Data Protection Regulation art. 6.1 a).

PRINCIPLES RELATING TO PROCESSING PERSONAL DATA

We find that the planned processing of personal data will be in accordance with the principles under the General Data Protection Regulation regarding:

lawfulness, fairness and transparency (art. 5.1 a), in that data subjects will receive sufficient information about the processing and will give their consent

purpose limitation (art. 5.1 b), in that personal data will be collected for specified, explicit and legitimate purposes, and will not be processed for new, incompatible purposes

data minimisation (art. 5.1 c), in that only personal data which are adequate, relevant and necessary for the purpose of the project will be processed

storage limitation (art. 5.1 e), in that personal data will not be stored for longer than is necessary to fulfil the project's purpose

THE RIGHTS OF DATA SUBJECTS

As long as the data subjects can be identified in the data material, they will have the following rights: access (art. 15), rectification (art. 16), erasure (art. 17), restriction of processing (art. 18), data portability (art. 20).

We find that the information that will be given to data subjects about the processing of their personal data will meet the legal requirements for form and content, cf. art. 12.1 and art. 13.

We remind you that if a data subject contacts you about their rights, the data controller has a duty to reply within a month.

FOLLOW YOUR INSTITUTION'S GUIDELINES

We presuppose that the project will meet the requirements of accuracy (art. 5.1 d), integrity and confidentiality (art. 5.1 f) and security (art. 32) when processing personal data.

Qualtrics is a data processor for the project. NSD presupposes that the processing of personal data by a data processor meets the requirements under the General Data Protection Regulation arts. 28 and 29.

To ensure that these requirements are met you must follow your institution's internal guidelines and/or consult with your institution (i.e. the institution responsible for the project).

NOTIFY CHANGES

If you intend to make changes to the processing of personal data in this project it may be necessary to notify us. This is done by updating the Notification Form. On our website we explain which changes must be notified: https://www.nsd.no/en/data-protection-services/notification-form-for-personal-data/notify-changes-in-the-notification-form

Wait until you receive an answer from us before you carry out the changes.

FOLLOW-UP OF THE PROJECT

We will follow up the progress of the project at the planned end date in order to determine whether the processing of personal data has been concluded.

Good luck with the project!