

Exploring The Effect of Extroversion on Networking Behavior: The Role of WFH

Thesis

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Abstract

This study examines the effect of extroversion and working from home on employees' networking behavior. In traditional in-office work environments, extroverted employees have been found to involve more in networking behavior compared to introverted employees. However, the rise of working from home due to the COVID-19 pandemic has disrupted networking dynamics within organizations. The objective is to explore the effect of extroversion on networking behavior and how working from home moderates this relationship. This study suggests that reduced in-person contact during working from home may hinder employees' involvement in networking behavior. Additionally, this study suggests that introverts may benefit from working from home due to the less stimulating environment it provides. Using survey data from 68 consultants at a medium-sized consultancy firm, this study finds that employees with high extroversion are more likely to engage in networking behavior compared to those with low extroversion. Furthermore, working from home negatively impacts employees' involvement in networking behavior but does not moderate the relationship between extroversion and networking behavior. This study highlights the need for revised measures and practices in the context of increased working from home and provides insights for scholars and managers navigating the challenges and opportunities of home-working arrangements.

Keywords: Networking Behavior, Extroversion, Introversion, Working from Home, Remote work, Personality Traits, COVID-19 pandemic

Introduction

Networking involves people interacting with each other to build and maintain relationships (Porter & Woo, 2015). Within organizations, employees form connections with managers and colleagues (Forret & Dougherty, 2004; Michael & Yukl, 1993; Singh et al., 2006; Wolff et al., 2008). Networking behavior of employees may offer organizations various benefits, including facilitating inter-organizational communication and teamwork, developing a positive climate (Gibson et al., 2014; Volmer & Wolff, 2018), acquiring and sharing tacit knowledge among peers and experts (Dachner et al., 2021), and improving capacity to innovate (Gino et al., 2016). Engaging in networking behavior has been associated with job performance, visibility and power within an organization, and both subjective and objective career success (Thompson, 2005; Forret & Dougherty, 2001, 2004; Volmer et al., 2021; Wolff & Moser, 2009; Volmer & Wolff, 2018). From a trait perspective, scholars indicate that employees high in extroversion are more likely to engage in networking behavior (e.g., Forret & Dougherty, 2001; Wolff and Kim, 2012). Introverted individuals (i.e. low in extroversion) are much less inclined to engage in networking (de Janasz et al., 2006; Forret & Dougherty, 2001).

However, the COVID-19 pandemic has drastically changed how organizations operate. As a consequence, working from home (WFH) experienced rapid growth as work patterns shifted (Zou et al., 2020) in response to government public health measures implemented to combat COVID-19 (Douglas et al., 2020). Past research on networking behavior has mainly focused on the antecedents (such as personality traits) that take place in a traditional “in-office” work environment (Forret & Dougherty, 2001; Wanberg et al., 2000; Wolff & Kim, 2012). Further research is needed on how WFH may challenge the networking behavior of employees, as they may have reduced face-to-face contact with colleagues and be unable to create the same environment for communication that is possible in an office (Cooper and Kurland, 2002). Before the pandemic, studies suggested that compared to extroverts, introverts may be more effective in environments that discourage social interactions (Bos et al., 2017). In addition, the shift to WFH may also indicate that there are varying effects of working from home on networking behavior for introverts and extroverts in which introverts may have an advantage due to their preference for less stimulating environments (Myers, 1962; Hathaway, 1982; McCrae and Costa, 1999).

Hackney et al. (2022) have predicted that the number of WFH workers will continue to rise even after the pandemic, underlining the importance of understanding the effect of WHF on networking behavior. Personality can predict employees' preferred work

environment and the level of arousal that would best facilitate engagement (Blau & Barak, 2012; Geen, 1984; Yellen et al., 1995). By understanding the effect of WFH on the relationship between extroversion and employees' involvement in networking behavior of employees, companies can create a work environment where both introverted and extroverted employees feel comfortable and motivated to increase networking behavior (Nag, 2021). As a result, managers and organizations can use these insights to choose whether or not to allow introverted and extroverted employees to work from home if it turns out that the effects of WFH on networking behavior are different for the two groups. This study aims to explore the effect of extroversion on the networking behavior of employees, and how WFH may moderate this relationship. The research question is *“How does extroversion affect employees' involvement in networking behavior and what role does WFH play in this relationship?”*

I build upon the need-to-belong theory (Baumeister & Leary, 1995) and Eysenck's Personality Theory (Eysenck, 1967) to explore the impact of extroversion on employees' networking behavior and the role of WFH in this context. The need-to-belong theory emphasizes the importance of establishing lasting relationships for overall well-being, which may be hindered by reduced in-person contact during WFH (Baumeister & Leary, 1995). Eysenck's Personality Theory highlights differences between extroverts and introverts in terms of arousal levels, with introverts benefiting from WFH as it provides an environment for focused success without external stimulation (Eysenck, 1967). Based on a survey of 68 consultants at Vlirdens, a medium-sized consultancy firm, I find that employees with high extroversion are more likely to engage in networking behavior compared to those with low extroversion. Additionally, I find that WFH has a negative effect on employees' involvement in networking behavior, but does not moderate the relationship between extroversion and networking behavior.

This study makes three contributions to the existing literature. Firstly, it confirms the positive relationship between extroversion and networking behavior, aligning with previous research that highlights the role of extroversion in facilitating networking (Ashton et al., 2002; Leary, Herbst, & McCrary, 2003; de Janasz et al., 2006). Secondly, adding to a growing body of research on networking behavior (Forret & Dougherty, 2001; Wanberg et al., 2000; Wolff & Kim, 2012; Porter & Woo, 2015; Michael & Yukl, 1993; Singh et al., 2006; Wolff et al., 2008), the findings demonstrate a negative effect of WFH on networking behavior, shedding light on the challenges faced in maintaining and fostering networking opportunities within a remote work environment (Cooper & Kurland, 2002; Baumeister &

Leary, 1995; Lal et al., 2021; Bailey & Kurland, 1999; Wang et al., 2020). Thirdly, the findings suggest that WFH does not moderate the link between extroversion and networking behavior, demonstrating that WFH negatively affects networking behavior for both introverted and extroverted employees. This insight enriches prior research on personality traits by exploring their interaction with WFH in shaping networking behavior. (Eysenck, 1967; Myers, 1962; Hathaway, 1982; John & Srivastava, 1999; McCrae & Costa, 1999; Evans et al., 2021).

Literature review/theoretical framework

Introversion-Extroversion

The personality dimension of Extroversion–Introversion is one of the most widely studied dimensions of personality (Landis et al., 2022; Montalvo-Garcia et al., 2021). Generally, extroverted individuals tend to be more active, optimistic, assertive, and outgoing, while those who are introverted are more reserved, shy, and prefer to be alone or with a few close people (Hachana et al., 2018; Haddoud et al., 2022). Extroversion is associated with the capacity to experience joy, engage in interpersonal interactions, and the need for stimulation (Black et al., 2010; Jani & Han, 2013). It is believed that while introverts are more easily aroused due to their internal nature, extroverts need external stimuli to increase their level of arousal (Zuckerman & Kuhlman, 2000).

Personality traits shape individuals' need and desire for social contact, as well as their actual social interactions and the quality of their social relationships (Back et al., 2011). Research studies have indicated that introverts prefer personal space more than extroverts. Burgoon and Jones (1976) found that introverts felt more strongly about personal space, while Williams (1971) concluded that extroverts were more comfortable with allowing less space between them and another participant. Furthermore, Block and Stokes (1989) discovered that introverts and extroverts prefer a private work environment, as introverts prefer closed-desk arrangements, like cubicles, to limit their exposure to environmental stimulation. Extroversion has been identified as an important factor in networking behavior, as it is associated with a greater likelihood of engaging in social interactions (Ashton et al., 2002). Extroverted individuals tend to be assertive and comfortable in social interactions and prefer social activities over solitary ones (Leary, Herbst, and McCrary 2003).

Hypothesis 1: Extroversion positively affects the networking behavior of employees, such that employees who score high in extroversion involve more in networking behavior than employees who score low in extroversion.

Networking Behavior

Networking research in management can be traced to Mintzberg (1973) and Granovetter (1973), who first highlighted the importance of relationships in the context of management. Subsequent studies have examined the role of networking in career strategies (Gould & Penley, 1984), political behavior (Luthans et al., 1985), and intelligent careers (Arthur et al., 1995). Networking leads to several outcomes, such as career success (Langford, 2000; Orpen, 1996; Wolff & Moser, 2009) and salary progression (Gould & Penley, 1984). Furthermore, studies have considered the antecedents of networking such as personality (Forret & Dougherty, 2001; Wanberg et al., 2000; Wolff & Kim, 2012) and gender (Van Emmerik et al., 2006; Knouse & Webb, 2001; O'Neil et al., 2011; Rasdi et al., 2013).

Employee networking behavior is characterized as "a form of goal-oriented behavior, both internally and externally to an organization, that is centered around creating, cultivating, and utilizing interpersonal relationships" (Gibson et al., 2014, p. 150). This definition has three key aspects to note. Primarily, networking behavior is motivated by an end goal, such as gaining information, resources, or influence that can benefit the workplace or an individual's career development (Forret & Dougherty, 2004; Michael & Yukl, 1993). For instance, a leader may build and sustain relationships with superiors, colleagues, and outside contacts to further their work unit's reputation and interests (Yukl, 2012). Additionally, networking behavior can take place both in and out of the organization (i.e. internal and external networking). For example, engaging with non-organizational members at an industry conference is an example of external networking (Yukl, 2012). Finally, networking behavior requires an active and ongoing effort to establish and maintain relationships. For example, inviting newly hired employees out for drinks to help them adjust to the organization can be a means of creating and sustaining such contacts and is also an example of internal networking (Gibson et al., 2014).

Networking has individual as well as organizational outcomes. At the individual level, the common assumption is that well-connected individuals will have an advantage in their careers and development (Gibson et al., 2014). This is true, with increased visibility and power resulting in greater career success (Forret and Dougherty, 2001; Wolff and Moser,

2009) and opportunities for advancement, power, and salary. Besides, networking serves to provide employees with access to resources, including alliances, information, and potential opportunities, that can contribute to better job performance and outcomes (Forret & Dougherty, 2004; Orpen, 1996; Rawlins & Rawlins, 1983; Wolff & Moser, 2010). At the organizational level, networkers may be able to provide strategic information that may be useful to their employers. For example, a well-connected networker in a technology company may be able to provide insights regarding other competitors' strategic direction and how well a new idea will be received in the field (Gibson et al., 2014). Training employees on how to successfully network may also facilitate inter-organizational communication and teamwork (Gibson et al., 2014).

Working from Home

WFH refers to working outside of a conventional workplace, with communication occurring through telecommunications or computer-based technology (Nilles, 1994; Bailey and Kurland, 2002). Other forms of WFH have been explored, including satellite and neighborhood workstations (Bailey and Kurland, 1999; Kurland and Egan, 1999). Initially, organizations viewed WFH as a way to avoid long commutes to the workplace (Nilles, 1975) and reduce real estate costs, as well as air pollution and traffic congestion (Bailey and Kurland, 2002). Previous research on WFH has shown mixed results in terms of the effects of WFH on relevant outcome variables, with some studies showing increased flexibility, autonomy, and work-life balance, and others showing increased isolation, family interruptions, and stress (Allen et al., 2003). Many business leaders and employees have embraced the opportunity to work virtually, which has been linked to increased productivity and job satisfaction (Bailey and Kurland, 1999, 2002; Bloom et al., 2015; Duxbury et al., 1998). Explanations for this association include increased flexibility, reduced commute times, and fewer meeting distractions (Collings et al., 2021). Companies can also benefit from decreased employee turnover and access to a larger talent pool (Bailey and Kurland, 2002).

The COVID-19 pandemic has caused a massive shift towards WFH, as it has become the new normal for many occupational groups able to restructure their work routines for home-based work (Kramer and Kramer, 2020). The pandemic has accelerated the widespread adoption of virtual hiring, with job search behavior and the types of jobs sought to change during this period (McFarland et al., 2020). Social isolation is one of the main challenges associated with WFH (Feldman & Gainey, 1997; Cooper & Kurland, 2002). This isolation can be exacerbated if developmental activities are not valued in the organization (Cooper &

Kurland, 2002). The lack of informal conversations and knowledge sharing can lead to poorer job performance and a greater intent to leave the workplace (Golden et al., 2008). Main-office employees tend to feel more included than those working remotely (Morganson et al., 2010). Despite the variety of communication methods available (e.g., telephone, e-mail, instant messaging), employees believe that face-to-face interaction is most important for sustaining workplace relationships (Sia et al., 2014). Despite the many advantages of WFH, organizations must learn how to deal with a workforce largely WFH, such as how to facilitate onboarding, maintain productivity, reduce costs, and modify physical establishments accordingly (Nyberg et al., 2021), as a consequence of the COVID-19 pandemic.

Networking Behavior and Working from Home

Lal et al. (2021) found that WFH leads to isolation and loneliness due to the lack of face-to-face contact. Besides, they found that WFH can lead to difficulties in developing trust and creating meaningful relationships with colleagues (Lal et al., 2021). WFH has been identified as a source of isolation for employees (Bailey and Kurland, 1999; Wang et al., 2020). Although communication and information technology (ICT) can enable virtual collaboration with colleagues, it cannot replace the enthusiasm of face-to-face interaction, which is essential for building stronger social connections (Vayre and Pignault, 2014). As a result, video-conferencing or online conversations may not be as effective as in-person interactions due to the lack of physical presence, which could further limit the employees' ability to network and establish meaningful relationships with their colleagues and therefore decrease their involvement in networking behavior.

The need-to-belong theory proposed by Baumeister and Leary (1995) suggests that humans possess a strong desire to form lasting, meaningful interpersonal relationships, which are essential for mental, emotional, and physical well-being (Wang et al., 2020). Employees seek to build connections with their colleagues to develop meaningful relationships (Wang et al., 2020). In addition, employees who feel connected to their colleagues are more likely to actively seek out interactions and have a sense of belonging (Golden et al., 2008). WFH can be detrimental to social interaction, especially for those who mainly work from home, due to social isolation (Golden et al., 2008; Morganson et al., 2010). Those who feel isolated are less likely to seek out regular interactions, resulting in a lack of sense of belonging (Golden et al., 2008). Thus, the need-to-belong theory can be used to explain why WFH negatively affects the network behavior of employees.

Hypothesis 2: Working from home negatively affects the networking behavior of employees, such that employees who mainly work from home involve less in networking behavior than employees who mainly work in the office.

Networking Behavior, Introversion-Extroversion, and Working from Home

Individuals with introverted personalities and low self-esteem are less likely to engage in networking activities than their extroverted counterparts (de Janasz et al., 2006; Forret & Dougherty, 2001). Forret & Dougherty (2001) found that those with extroverted personalities and higher self-esteem are more likely to maintain external contacts, participate in professional activities and take steps to enhance their visibility in their organizations. They are also more comfortable when meeting new people (Digman, 1990; Goldberg, 1993; McCrae & Costa, 1987). Folk et al. (2020) reported that extraverts experienced a greater drop in social connectedness during social-contact restrictions due to COVID-19 than introverts, which was attributed to their higher level of social connectedness before the pandemic. According to Evans et al. (2021), employees scoring high in extroversion experienced more negative outcomes during the transition to enforced WFH. This could have something to do with the challenges of WFH. These include clear communication difficulties, difficulty acclimating to the organization, challenges in establishing and reinforcing culture (Bailey & Kurland, 2002; Gilson et al., 2015; Shaw et al., 1998), social isolation, and workplace relationship issues (Oakman et al., 2020; Grant et al., 2019; Delanoëje & Verbrugge, 2020).

Teams existing mostly of introverts may find more success when using text-based computer-mediated communication (CMC), such as email, and Microsoft Teams, compared to face-to-face communication, due to the nature of their personalities (Amichai-Hamburger et al., 2002). Introverts tend to be more reflective and thoughtful, engaging in introspection (Cain et al., 2011), and displaying a more precise and informative manner of speech (Heylighen & Dewaele, 2002). They are also more willing to listen to and consider others' opinions when making decisions (Grant et al., 2011), and tend to act more deliberately, carefully considering all factors involved, rather than being swayed by the passions of the moment (Judge et al., 2009; Matthews, 1997). Introverts who are skilled at written communication could benefit from working in virtual teams (Holton, 2001).

De Janasz and Forret (2008) suggest that for those who are shy, networking can be accomplished through non-personal means such as sending an e-mail or letter (Whiting & de Janasz, 2004). In a text-based CMC environment, communication through this approach has been found to provide increased parallelism, rehearsability, and slower transmission speed

(Dennis et al., 2008), enabling introverts to feel more confident in being able to express themselves (Amichai-Hamburger et al., 2002). This contrasts with face-to-face communication, where one's introversion is often overlooked, and their speech is easily overshadowed by those of a more extroverted nature (Dennis et al., 2022). Furthermore, involving all team members in decision-making, as is necessary for compensatory hidden profile tasks, is more easily accomplished in a text-based CMC environment, where introverts are not likely to be dominated by extroverts (Mejias et al., 2018).

Eysenck (1967) theorized that extroverts require more external stimulation than introverts to reach their optimal level of arousal, thus prompting them to seek out excitement and social interaction. Conversely, introverts have a higher baseline level of arousal, thus making them more sensitive to excessive stimulation (Eysenck, 1967). Introverted employees may benefit from WFH, as they generally require less social contact than extraverts (John & Srivastava, 1999), have smaller social networks (Harris et al., 2017), and have fewer social interactions (Lucas et al., 2008; Saklofske & Yackulic, 1989). Moreover, introverts tend to prefer less stimulating environments (Myers, 1962; Hathaway, 1982; McCrae and Costa, 1999). WFH may lead to lower levels of external stimulation, as the environment is more isolated and lacking in social interaction. For extroverts, this may decrease their involvement in networking behavior, as the lower levels of stimulation in a WFH environment may not be enough to satisfy their arousal needs. On the other hand, introverts may experience optimal stimulation at home, allowing them to involve in networking behavior more easily. Thus, Eysenck's Personality Theory (Eysenck, 1967) may explain why WFH moderates the relationship between extroversion and the networking behavior of employees.

Hypothesis 3: Working from Home moderates the relationship between extroversion and involvement in networking behaviors such that the relationship is weaker for those who work mainly from home than those who work mainly in the office.

Figure 1

Conceptual model

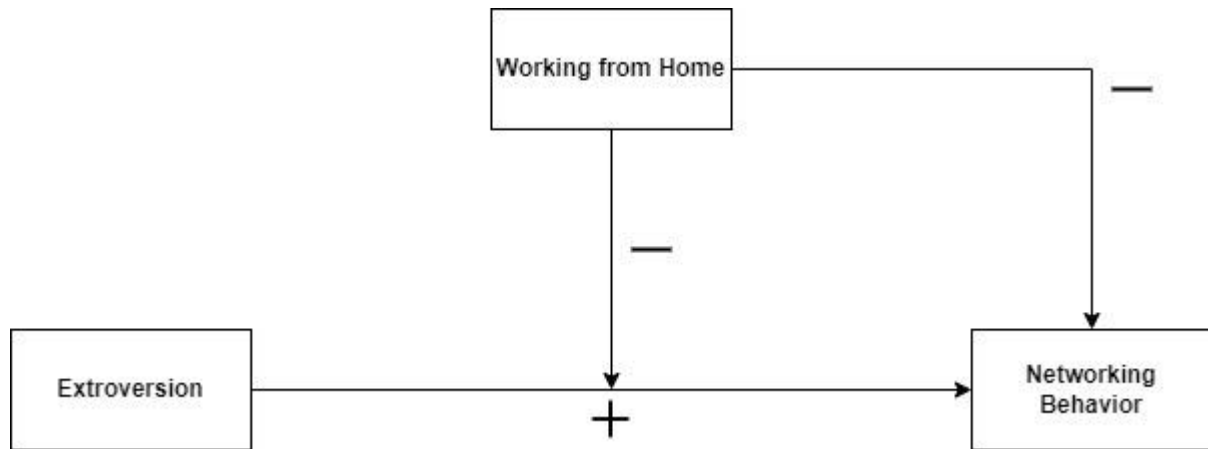


Table 1

Summary of the combined effects of Extroversion (high or low) and the extent of Working from Home on Networking Behavior

<i>Extroversion</i>	<i>High</i>	<p><i>Highly extroverted employees who work mainly in the office</i></p> <p>Those who are highly extroverted tend to be more actively involved in networking activities, especially those who work primarily in an office setting, as they are more likely to thrive in stimulating environments.</p>	<p><i>Highly extroverted employees who work mainly from home</i></p> <p>Highly extroverted employees tend to network more when they are in a social setting, but when they primarily work from home, this behavior is hindered due to their lack of stimulation.</p>
	<i>Low</i>	<p><i>Employees low in extroversion who work mainly in the office</i></p> <p>If employees are low on extroversion, their networking behavior is lessened; this is even more intense when employees are mainly office-based, as environments with too much social interaction can be overwhelming.</p>	<p><i>Employees low in extroversion who work mainly from home</i></p> <p>Employees who have a low level of extroversion may be less likely to engage in networking behavior, however, this decrease is less evident among employees who predominantly work from home as they are capable of performing in less stimulating environments.</p>
		<i>Low</i>	<i>High</i>
<i>The extent of Working from home</i>			

Methodology

Research context

This study uses a quantitative research method to empirically test the proposed hypotheses. Data for the analysis were collected through a survey, which can be found in Appendix A. To obtain a representative sample and ensure consistency within organizational culture and habits, the survey was conducted at one specific company. The chosen company, Vlirdens, is a consulting firm known for its expertise in planning to support organizations. Networking plays an important role in the context of this study, as both internal and external networking provides numerous benefits. By building relationships and making new connections, networking facilitates knowledge sharing, collaboration, and professional growth. In a knowledge-intensive organization like Vlirdens, where networking is highly valued, networking behavior is seen as a strategic approach to maintaining relationships and gaining new insights and opportunities, such as expanding professional networks, exchanging knowledge and expertise, and fostering collaborations. Moreover, Vlirdens operates according to a "hybrid" work environment, combining both remote working and working in the office. This context is relevant to the study because it reflects evolving work dynamics and the increasing prevalence of remote working in today's organizations.

Data collection

The CEO of Vlirdens was approached via LinkedIn and was interested in participating in this study with his organization. A phone interview took place on 28 March 2023 to discuss the possibilities of surveying this research at this firm. On April 4, I visited Vlirdens' office in Doorn and met the CEO, after which we made further arrangements. The CEO was responsible for distributing the survey link to all Vlirdens employees and sending a subsequent reminder email. After a week, a reminder was sent. Participants were given a total of three weeks to complete the survey. Of the 120 employees invited, 80 participants filled in the survey, resulting in a response rate of about 66,7%. Out of the total respondents, 68 respondents completed the entire survey, making them eligible for data analysis (56,7%). The size of the sample is critical when conducting research, as it can influence the outcomes and the strength of multiple regression analysis. According to Hair (2019), having between 15 and 20 observations for each independent variable is recommended. As a result, the sample size of 68 respondents is sufficient.

Measures

A cross-sectional and explanatory method has been utilized to assess the constructs of Extroversion, Networking Behavior, and Working from Home. Participants were asked to complete a questionnaire that included questions about all three constructs. Previously established and evaluated scales were used to allow for comparisons between the results of this study and those of other studies. Additionally, these scales have been validated in prior research. Employees were asked to evaluate all variables independently.

Extroversion

The Big Five Inventory (BFI) by Goldberg (1993) was utilized to measure extroversion. This inventory consists of 44 questions (Benet-Martínez & John, 1998) on a five-point Likert scale ranging from 1 - Disagree strongly to 5 - Agree strongly. For this survey, only the eight items that measured extroversion were used (Benet-Martínez & John, 1998). For example, participants were asked "I see myself as someone who is talkative" (Goldberg, 1993; John & Srivastava, 1999). Questions 2, 5, and 7 were reverse-scored and after recoding, a variable named Extroversion was made, which consisted of the mean score on all items of the extroversion part of the BFI. Respondents who score low in extroversion are labeled as 'extroverted employees' and those who score high in extroversion as 'introverted' employees. Employees who score low in extroversion in this study are interpreted as being introverted (e.g. Bourdage et al., 2015).

Networking Behavior

The Short Networking Behavior Scale (SNBS) by Wolff and Spurk (2020) was used to measure online professional networking behavior preference. The scale includes 18 items that are measured on a 5-point Likert scale ranging from 1 - Never/rarely to 5 - Very often/always. The questions are divided into 6 factors: 1) Building internal contacts, 2) Maintaining internal contacts, 3) Using internal contacts, 4) Building external contacts, 5) Maintaining external contacts, and 6) Using external contacts. The first 3 factors measure internal networking and the last 3 factors external networking. For example, participants were asked "In my organization, I approach employees I know by sight and start a conversation" and "I develop informal contacts with professionals outside the organization, in order to have personal links beyond the company" (Wolff & Spurk, 2020). Both internal and external networking behavior items were included in the questionnaire.

The selection of the SNBS as a measurement scale for networking behavior was driven by several considerations. The SNBS is widely regarded as a valid and practical approach for evaluating networking across diverse contexts (Stanton et al., 2002). It is particularly useful when there are time constraints or limited participant attention, as commonly encountered in large-scale surveys with multiple constructs or online survey settings. Furthermore, the SNBS is well-suited for studies that focus on networking in general. Given the time constraints and the broad focus on networking in general, the selection of the SNBS was considered appropriate for this research.

Working from Home

Golden and Veiga (2005) utilized a measurement approach to assess WFH by asking participants to report the average number of hours per week during which they consistently engaged in remote work, away from their primary office location. In this study, the degree of working from home is measured by the percentage of hours the participating employee works from home compared to their total hours worked. This percentage is quantified on a 0-100 scale, with 0 indicating that the employee works exclusively in the office, and 100 indicating that the employee only works from home. I can use the degree of working from home as a metric to determine the proportion of hours an employee spends WFH as compared to their total hours worked. With this variable, we can determine whether employees network more when WFH or not, and can also use the data to make more informed decisions about the optimal way to structure employees' working arrangements.

Control variables

Atinc et al. (2012) recommend providing detailed justifications for the inclusion of control variables, demonstrating their relationship to study variables. The four control variables Gender, Age, Job tenure, and Department (Operation/Support) were included in the model to eliminate possible explanations of the results, as they correlate with networking behavior (Forret & Dougherty, 2001; Wolff et al., 2018). The variables Gender and Department were measured using a nominal scale and a metric scale to determine the Age and Job tenure of the respondent. Initially, the control variable Job level was added. After speaking with the CEO of Vlirdens, it became clear that at Vlirdens it is not so much the job level that applies, but rather in which department you work within Vlirdens. In fact, at Vlirdens there are two possibilities: either you work in operations or you work in the support

organization. That is why this question instead of the question about Job level is asked of the respondents to explore whether there is a difference between these groups.

Data analysis

The proposed relationships were evaluated using a multiple-regression analysis. The employee's networking behavior was identified as the dependent variable, while WFH and extroversion were the independent variables. As this study only consists of one dependent variable and all three variables were measured using metric scales, Hair (2019) recommends that multiple regression analysis is the most suitable method to use. Before the regression analysis, bivariate correlations and reliability analysis were conducted to test the validity of the survey questions and to identify the underlying structures of the variables. The non-metric variables (i.e. control variables Gender and Department (Operation/support)) were recoded into dummy variables and an interaction term was created. The multiple regression analysis has been conducted, and the results provide insights into the relationships between the variables. The regression coefficients (beta values) have revealed both the direction and strength of the relationships between the independent variables (Extroversion and Working from Home) and the dependent variable (Networking Behavior). Positive coefficients indicate a positive relationship, while negative coefficients indicate a negative relationship. The statistical significance of these coefficients, determined by the p-values, has been crucial in assessing the significance of the relationships.

Furthermore, the R-squared value has been calculated to determine the proportion of variance in networking behavior that can be explained by the independent variables. A higher R-squared value indicates a better fit of the model to the data, suggesting that the independent variables explain a larger portion of the variability in networking behavior. The overall statistical significance of the regression model has also been evaluated using the F-test, which tests the significance of the model as a whole. In interpreting the results, the individual significance of the independent variables (p-values) has been examined to assess their impact on networking behavior. Additionally, the assumptions of the regression analysis, including linearity, independence of residuals, homoscedasticity, and absence of multicollinearity, have been carefully evaluated, as violations can impact the validity and interpretation of the results. After testing the assumptions, the regression analysis was performed hierarchically. The first model included the control variables, the second model included the independent variables, and the third and final model included all variables, including the interaction term.

This was done to determine the extent to which the explanatory power increased and if any improvements to the model were made.

Limitations

One limitation of this research is the relatively low response rate of 56,7%, with only 68 out of 120 employees who filled in the survey completely. This low response rate introduces the possibility of non-response bias and raises concerns about the generalizability of the findings. The characteristics and opinions of non-respondents may differ from those who participated, potentially bias the sample and limiting the applicability of the research results to the larger population. While the sample size meets the recommended guideline for the number of observations per independent variable, the low response rate restricts the generalizability of the findings to broader populations or organizations.

Another limitation is the choice to only do quantitative research. The absence of qualitative methods restricts the depth of understanding regarding individuals' experiences, motivations, and perspectives related to networking behavior. Besides, qualitative research allows for a deeper exploration of the organizational context and social dynamics that influence networking behavior, which is missed in a survey-based study. In addition, qualitative research provides a platform for participants to share their unique perspectives and insights, which are not captured in a survey alone.

Furthermore, this study does not differentiate between internal and external networking behavior. Internal and external networking behaviors have distinct characteristics and implications. By not differentiating between them, this research may overlook important nuances and variations in individuals' networking activities, hindering a comprehensive understanding of networking behavior. Internal and external networking may require different skills, approaches, and strategies. Failing to differentiate between them may limit the practical implications of the research's findings. Organizations and individuals may benefit from specific recommendations or interventions tailored to each type of networking behavior.

Research ethics

To ensure the safety and comfort of all those involved, several ethical considerations were taken into account during this research. Participants were provided with clear and transparent information about the purpose of the study, the potential uses of the findings, and any potential risks or benefits associated with their participation. They were given the

freedom to decide whether or not to participate and were assured that their decision would not have any negative consequences. Moreover, participants were explicitly informed of their right to withdraw from the study at any stage without facing any repercussions. Furthermore, it is worth mentioning that the use of the company name or any identifiable information of the organization, including its CEO, was conducted with explicit permission. By adhering to these ethical considerations and obtaining necessary permissions, the research aimed to maintain the safety, comfort, and rights of all participants involved while ensuring the credibility and integrity of the study. The study data will be securely stored for ten years in a designated Workgroup folder, following the Radboud University Research Data Management guidelines. This ensures data preservation and research integrity, even after leaving Radboud University.

Results

Recoding variables

To perform a multiple regression analysis, all variables must be on a metric scale. In the current study, the independent and dependent variables meet this requirement, but some control variables are measured on a nominal scale, such as Gender, and Department (Operation/Support). To incorporate these variables into the analysis, dummy variables were created, which have a 0/1 score and represent one category of the original variable. However, since there was no theoretical basis for selecting a reference category, the category with the highest number of observations was chosen for each control variable. Specifically, the reference category for Gender is 'Woman' and for Department, it is 'Operational'.

Univariate analysis

Some data are missing for the variables 'Networking Behavior', 'Extroversion', 'Working from Home', 'Gender', and 'Department'. To determine if these missing values deviate from the expected patterns, a Little's MCAR Test was conducted. The test results indicated that the outcome was not statistically significant ($\chi^2(9) = 7.10, p = .627$). Therefore, the null hypothesis (H_0) cannot be rejected, suggesting that the missing data occurred completely at random (MCAR). Out of the 80 respondents, 12 had missing values. These 12 respondents did not respond to the essential questions on Networking Behavior, Extraversion, and Working from Home, and their survey completion rates ranged from 11% to 22%. To

maintain the validity of the study, it was decided to exclude these 12 respondents. The remaining 68 respondents completed the entire survey.

Descriptive statistics were obtained for seven variables. The results are presented in Table 2. The descriptive statistics include measures of kurtosis and skewness, which provide insights into the shape and distribution of the variables. Based on the recommended range of -2 to +2 for kurtosis and skewness (Field, 2018), it is observed that all variables, except for Job tenure, fall within this range. The kurtosis value for Job tenure is reported as 2.118, slightly exceeding the range. However, it is important to note that further analysis was conducted to assess the normality of this variable.

Table 2

Descriptive Statistics for Study Variables

Variable	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Skewness</i>	<i>Kurtosis</i>
1. Networking Behavior	68	63.6	10.4	-.30	.98
2. Extroversion	68	28.9	6.2	-.10	-1.04
3. Working from Home	68	47.6	22.8	.34	-.99
4. Age	68	38.3	9.2	.24	-.76
5. Gender ^a	68	1.6	.5	-.30	-1.97
6. Job tenure	68	3.4	2.8	1.17	2.12
7. Department ^b	68	1.8	.4	-1.18	-.63

^a 1 = Male and 2 = Female.

^b 1 = Support and 2 = Operation.

To evaluate the distribution of the variables, normal distribution histograms and normal probability plots (normal p-plots) were generated. Networking behavior is depicted in Figure 2 (normal distribution histogram) and Figure 3 (normal p-plot), while Extroversion is shown in Figure 4 (normal distribution histogram) and Figure 5 (normal p-plot). Working from Home is presented in Figure 6 (normal distribution histogram) and Figure 7 (normal p-plot), while Age is displayed in Figure 8 (normal distribution histogram) and Figure 9 (normal p-plot). Gender is represented in Figure 10 (normal distribution histogram) and Figure 11 (normal p-plot), and Job tenure is shown in Figure 12 (normal distribution histogram) and Figure 13 (normal p-plot). Lastly, Department is illustrated in Figure 14 (normal distribution histogram) and Figure 15 (normal p-plot). The examination of these

figures provides visual evidence regarding the normal distribution of the variables, including Job tenure, despite its slightly higher kurtosis value.

Bivariate correlations

In the bivariate correlation analysis presented in Tables 3 and 4 of Appendix C, the validity of the survey was analyzed. Regarding the variable Extroversion, all the items showed significant correlations in the Pearson correlation analysis (Table 3 of Appendix C). As a result, none of these items had to be removed. Regarding the variable Networking Behavior, it was found that the item "*When I need answers to sensitive questions, I turn to reliable colleagues to find out more about the matter*" did not show a significant correlation with Networking Behavior ($r(66) = .151, p = .218$). To enhance the validity of the survey items, the aforementioned item was subsequently removed from the analysis. This step was taken to ensure that only the most relevant and statistically significant items were included in the final survey questionnaire. Furthermore, all the other items demonstrated significant Pearson correlations with Networking Behavior (Table 4 of Appendix C).

Reliability analysis

The reliability analysis is performed to evaluate the consistency of measurements within each variable. This analysis is conducted separately for each variable. The first variable, Extroversion, shows a Cronbach's Alpha coefficient of .889 (Table 5 of Appendix D). The second variable, Networking Behavior, exhibits a Cronbach's Alpha of .872 (Table 7 of Appendix D). According to Hair (2019), a Cronbach's Alpha score higher than 0.6 indicates a high level of consistency among the items, ensuring the reliability of the analysis. In this study, all three variables meet this criterion, indicating reliable measurements. The analysis suggests that removing items would not substantially increase Cronbach's alpha coefficients (Tables 6 and 8 of Appendix D). Therefore, based on the reliability analysis, no further items were removed. A detailed description of the reliability analysis can be found in Appendix D.

Assumptions regression analysis

To ensure that the results of the multiple regression analysis accurately represent the sample, it is crucial to meet certain assumptions. This section examines five assumptions:

1. Linearity of the phenomenon: The relationship between the dependent variable and each independent variable must be linear. To check for linearity, the plot of

standardized errors by the regression standardized predicted value is examined. The scatterplot in Figure 18 of Appendix E shows no unusual patterns or deviations from the horizontal zero-line, indicating a linear regression model.

2. Constant variance of the error term (homoscedasticity): The assumption for linear regression analysis is that the residuals have constant variance across the range of the independent variable. The scatterplot in Figure 18 of Appendix E demonstrates a constant spread of variance, confirming homoscedasticity.
3. Normality of the error term distribution: Normal probability plots are used to assess whether the error terms follow a normal distribution. The P-Plot in Figure 17 of Appendix E reveals that the residual line closely aligns with the diagonal line, indicating a normal distribution of error terms. Besides, Figure 16 of Appendix D shows an approximately normal distribution.
4. Independence of the error term: The Durbin-Watson test is employed to determine if the residuals and observations are correlated. A value of 2 on the test statistic signifies uncorrelated residuals (Field, 2018). Table 9 in Appendix E displays a Durbin-Watson value of 2.119, confirming the independence of the error term.
5. Multicollinearity: This assumption examines the correlation among independent variables. Correlation coefficients and tolerance/variance inflation factor (VIF) values are assessed to detect multicollinearity. For the assumption to be met, VIF values should be 1.0 or higher (but not exceeding 10), and tolerance values should be greater than 0.20 (Field, 2018). Table 10 of Appendix E shows that all VIF values are greater than 1.0 (but not exceeding 10), and all tolerance values are greater than 0.20, satisfying the multicollinearity assumption.

Regression analysis

Before conducting the regression analysis, a bivariate analysis was performed to examine the correlations among the variables included in the study. Table 11 displays the correlations, revealing both positive and negative relationships. Out of the correlations, seven were found to be statistically significant at the 0.05 level. Therefore, the presence of these statistically significant correlations suggests that there are existing and non-random relationships among the variables. In particular, there is a significant positive correlation between Extraversion and Networking Behavior ($r(66) = .351, p = .003$), supporting the first hypothesis that employees who are high in extraversion involve more in networking behavior than employees who score low in extroversion. Another significant correlation is observed

between Working from Home and Networking Behavior ($r(66) = -.249, p = .041$), supporting the second hypothesis that employees who mainly work from home involve less in networking behavior than employees who mainly work in the office.

Additionally, a significant correlation was found between Working from Home and Extraversion, suggesting that employees who mainly work from home are more introverted than employees who mainly work in the office ($r(66) = -.257, p = .034$). The positive correlation between Job tenure and Networking Behavior ($r(66) = .368, p = .002$) indicates that employees who have been employed longer are more involved in networking behavior. The correlation between Job tenure and Age reveals a positive relationship, which is expected. Employees who have been working for the organization for a longer time tend to be older ($r(66) = .490, p < .001$). The final two correlations involve gender differences. The analysis reveals that male employees tend to be older than their female counterparts ($r(66) = -.272, p = .025$) and have longer job tenure compared to female colleagues ($r(66) = -.303, p = .012$).

Table 11

Correlations for Study Variables

Variable	1	2	3	4	5	6	7
<i>Dependent variable</i>							
1. Networking Behavior	—						
<i>Independent variables</i>							
2. Extroversion	.35**	—					
3. Working from Home	-.25*	-.26*	—				
<i>Controls</i>							
4. Age	.09	-.01	.03	—			
5. Gender ^a	-.20	-.03	-.12	-.27*	—		
6. Job tenure	.37**	-.13	.18	.49**	-.30*	—	
7. Department ^b	-.16	-.17	-.03	-.11	-.01	.05	—

^a 1 = Male and 2 = Female.

^b 1 = Support and 2 = Operation.

* $p < .05$. ** $p < .01$.

A total of three models were utilized in the regression analysis (Table 12). The first model included control variables (Age, Job tenure, and dummy variables for Gender and Department excluding the reference category). The second model added the independent variables Extraversion and WFH, while the final model, Model 3, included the interaction term Extraversion * WFH. As displayed in Table 12, Model 1, comprising control variables, explains 18,9% of the variance in Networking Behavior (Adjusted R2 = .138). Model 2, with the addition of the two independent variables, results in a .190 (Adjusted R2 = .328) increase in Adjusted R2, and the inclusion of the interaction term in Model 3 leads to a small .005 (Adjusted R2 = .323) decrease. Consequently, Model 3 attains an explanatory power of Adjusted R2 = .323, indicating that 32.3% of the total variance in Networking Behavior is accounted for by the variables used in this research. Model 2 demonstrates a significant improvement in model prediction with a p-value of less than .001, as indicated by the F-Change statistic. In contrast, Model 3 does not show a significant F change ($p = .491$), suggesting that the additional variables (the interaction term Extraversion * Working from Home) in this model did not contribute significantly to the prediction.

The ANOVA F-test, presented in Table 12, evaluates the overall fit of the regression model and assesses variability levels within it (Field, 2018). Model 1 yields a significant ANOVA result ($F(4, 63) = 3.677, p = .009$). Model 2 and Model 3 also demonstrate significance, with $F(6, 61) = 6.461, p < .001$, and $F(7, 60) = 5.560, p < .001$, respectively. This suggests that all three models can be used. The coefficients presented in Table 14 represent the mean response change associated with a variable's alteration while holding other variables in the model constant. The table reveals few significant effects among the variables. Notably, in Model 1, Job tenure ($B = 1.553, p = .003$) is significant. This finding suggests that employees with longer job tenure tend to involve more in networking behavior compared to employees who have been employed for a relatively shorter duration. In Model 2, the two independent variables retain significance at the 5% level, as expected.

Hypothesis 1 is supported by the significant relation between Extraversion and Networking Behavior ($b = .406, p = .072$). This indicates that higher levels of Extraversion are associated with higher scores in Networking Behavior. Furthermore, hypothesis 2 is also supported, as there is a significant negative influence of Working from Home on Networking Behavior ($b = -.115, p = .021$). This suggests that employees who work from home tend to exhibit lower levels of Networking Behavior. However, the interaction between Extraversion and Working from Home ($B = .006, p = .491$) indicates that Working from Home does not

significantly moderate the relationship between Extraversion and Networking Behavior. Therefore, hypothesis 3 is not supported.

Table 12

Results of Regression Models of Networking Behavior^a

Variable	Model 1	Model 2	Model 3
Constant	63.44 (5.12)	53.63 (7.50)	61.18 (13.26)
<i>Controls</i>			
Age	-0.19 (0.15)	-0.22 (0.13)	-0.22 (0.13)
Gender	2.37 (2.50)	0.98 (2.25)	1.04 (2.26)
Job tenure	1.55** (0.50)	2.00** (0.45)	1.96** (0.46)
Department	4.08 (2.72)	3.05 (2.44)	3.26 (2.47)
<i>Independent variables</i>			
Extroversion		0.55** (0.18)	0.27 (0.44)
Working from Home		-0.12* (0.05)	-0.27 (0.22)
<i>Interaction</i>			
Extroversion-Working from Home			0.01 (0.01)
R^2	.19	.39	.39
Adj. R^2	.14	.33	.32
F Change	3.68**	9.94**	.480
F	3.68**	6.46**	5.56**
N	68	68	68

^a Figures in parentheses are the standard errors of the coefficients.

* $p < .05$. ** $p < .01$.

Discussion

Theoretical implications

The findings have three important theoretical implications. Firstly, previous research has consistently highlighted that extroverted individuals tend to be more socially active, assertive, and comfortable in social interactions, which should make them more likely to engage in networking activities (Ashton et al., 2002; Leary, Herbst, & McCrary, 2003; de Janasz et al., 2006). Therefore, it was hypothesized that employees with high extroversion would demonstrate greater involvement in networking behavior compared to those with low extroversion. The findings support this hypothesis, indicating that employees with high extroversion are indeed more likely to engage in networking behavior. Extroverted employees possess characteristics and preferences that drive them to seek out social interactions and engage in networking activities. Their natural inclination towards assertiveness and comfort in social interactions enables them to involve in networking behavior more easily. By confirming the positive effect of extroversion on networking behavior, this study reinforces and extends the existing theoretical understanding of the relationship between personality traits and networking behavior and provides empirical evidence supporting the importance of considering extroversion as a key factor influencing employees' involvement in networking behavior (Ashton et al., 2002; Leary, Herbst, & McCrary, 2003; de Janasz et al., 2006).

Secondly, previous research has consistently shown that WFH leads to feelings of isolation, trust-building difficulties, and challenges in forming meaningful relationships with colleagues due to the lack of face-to-face contact (Lal et al., 2021; Bailey & Kurland, 1999; Wang et al., 2020). These findings align with the need-to-belong theory, which suggests that humans have an innate desire for lasting and meaningful interpersonal relationships that are vital for their mental, emotional, and physical well-being (Baumeister & Leary, 1995; Wang et al., 2020). Therefore, it was hypothesized that WFH would negatively affect employees' involvement in networking behavior. The findings demonstrate that WFH, by inducing social isolation and hindering social interactions, negatively affects employees' networking behavior. Therefore, the theoretical implication drawn from this study reinforces the understanding that WFH's negative impact on networking behavior can be explained through the lens of the need-to-belong theory (Baumeister & Leary, 1995). These findings contribute to the expanding body of research regarding networking behavior (Forret & Dougherty, 2001;

Wanberg et al., 2000; Wolff & Kim, 2012; Porter & Woo, 2015; Michael & Yukl, 1993; Singh et al., 2006; Wolff et al., 2008).

Thirdly, previous research has shown that extroverts thrive on external stimulation and social interaction (Eysenck, 1967; Myers, 1962; Hathaway, 1982; John & Srivastava, 1999; McCrae & Costa, 1999) and that extroverts may experience more negative outcomes during the transition to enforced WFH (Evans et al., 2021). Therefore, it was hypothesized that WFH moderates the relationship between extroversion and involvement in networking behaviors, such that the relationship between extroversion and networking involvement would be weaker for those working from home. However, the findings indicate that working from home does not moderate the relationship between extroversion and involvement in networking behaviors. These findings suggest that the physical work environment, whether it is at home or in the office, does not significantly impact the relationship between extroversion and networking behaviors. This contradicts the initial expectation and highlights the importance of further research to understand the complex interplay between extroversion, networking behaviors, and the work environment (Evans et al., 2021). The challenges and benefits of working from home may vary for individuals with different personality traits, and additional factors, such as the other four personality dimensions of the Big Five (Wolff & Kim, 2012) may need to be considered in further research.

Managerial implications

In terms of practical implications for managers, there are several important points to consider. First, managers need to recognize the influence of personality traits, such as extraversion, on employee networking behavior. Understanding the diverse characteristics of their workforce can help managers tailor their strategies to support both extroverted and introverted employees. This can include providing opportunities for virtual networking and collaboration, as well as creating an inclusive and supportive environment that accommodates different social preferences. In addition, promoting virtual networking platforms is essential. Given the negative impact of WFH on networking behavior, managers should actively promote and facilitate the use of virtual networking platforms and tools. Encouraging participation in online meetings, virtual conferences, and professional networking groups can help compensate for the lack of face-to-face interactions. Providing training or resources on effective virtual networking techniques can also enable employees to be remotely engaged and build meaningful connections.

Fostering a culture of connection is also critical. Organizations need to foster a culture that values and supports networking, even in a home-working environment. This can be achieved by creating virtual social spaces, such as online communities or discussion forums, where employees can connect and share experiences. Managers can also organize virtual team-building activities, networking events, or mentoring programs to facilitate relationship-building and knowledge-sharing among employees. In addition, managers should ensure that employees have access to resources and support systems that facilitate networking efforts. This may include providing guidelines or best practices for virtual networking, offering mentoring opportunities, or establishing internal networking initiatives. In addition, managers can play an active role by connecting employees with relevant contacts, introducing them to potential networking opportunities, or offering networking training and development programs.

Furthermore, managers should recognize the potential benefits of encouraging and supporting networking efforts among employees with longer job tenure. They can leverage the accumulated knowledge and contacts of these employees to promote collaboration, knowledge sharing, and innovation within the organization. In addition, managers can create opportunities for employees with shorter job tenure to learn from and connect with more experienced colleagues, facilitating their integration into the organizational network. Finally, organizations can encourage a hybrid work approach. By balancing the benefits of personal interactions and the flexibility of remote work, organizations can consider implementing a hybrid work model that combines both office and remote work. This approach allows employees to take advantage of personal networking opportunities while still enjoying the benefits of remote work. Managers can establish guidelines and policies that promote a healthy balance between personal collaboration and remote productivity.

Overall, by recognizing the importance of networking to employee development, collaboration, and organizational success, managers can take proactive steps to support and enhance networking behaviors even in the context of remote work. Creating a conducive environment, leveraging virtual networking tools, and fostering a culture of connection can help maintain strong professional relationships and benefit from the advantages of networking in today's modern work environment.

Limitations

This study is subject to several limitations, which in turn create directions for future research. Firstly, the examination of the impact of working from home was limited to a single

company, constraining the generalizability of the findings. Expanding the study to encompass multiple companies across different sectors would provide a more comprehensive perspective, enabling researchers to explore additional factors that may influence the networking behavior of employees.

Secondly, although the sample size of the study met the requirements for analysis, it was limited due to constraints imposed by the company. This smaller sample size may have contributed to the lack of significant effects observed in the data, potentially resulting in a Type II error. Collecting data from a larger and more diverse sample would increase statistical power and strengthen the robustness of the analysis, leading to more conclusive findings and practical implications. The limited number of participants in this study may have affected the generalizability and reliability of the results. A larger sample size would allow for more variation and representativeness, allowing the findings to be better generalized to a broader population of workers. Increasing the sample size would also result in greater statistical power, allowing smaller effects to be detected and validated.

Thirdly, one of the limitations of this research is the time constraints that have limited the exploration of other aspects related to homeworking. The theoretical implications section of the study suggests the existence of additional factors and dynamics that may influence network behavior in the context of WFH. However, due to time constraints, these aspects were not examined in detail. To address this limitation, future research could delve deeper into these unexplored aspects to enrich our understanding of the topic. For example, researchers could examine the role of technology and digital platforms in facilitating networking behavior in a home-based work environment. They could explore the effectiveness of various virtual networking tools, such as video calling platforms, collaboration software, or online communities, in supporting relationship building and knowledge sharing among remote employees.

Fourthly, the study's geographical scope was restricted to the Netherlands. This limitation encompasses two important considerations. Firstly, the translation of validated scales from English to Dutch for the Dutch-speaking respondents may introduce linguistic and cultural nuances that could potentially influence the results. Secondly, the generalizability of the study's outcomes to other countries is limited, considering that cultural variations and the diverse backgrounds of individuals can lead to varying results. Future research could address these limitations by conducting cross-cultural studies and examining the effects of cultural factors on the relationship between extraversion, networking behavior, and the moderating effect of working from home.

Finally, relying on self-reporting as a method of assessing networking behavior carries the risk of subjective assessment. Individuals may consider themselves to be effective networkers or introverts/extroverts, but their actual behavior may not match their self-assessment. This can lead to biased results and reduced reliability of findings. To address this limitation, future research could use alternative measurement methods to provide a more objective evaluation of networking behavior. For example, instead of relying solely on self-reports, researchers could use manager evaluations to assess employee networking behavior. Managers may have a better understanding of their employees' interactions and networking activities and can provide a more objective assessment based on their observations and experiences. In addition, researchers can consider objective measures, such as analyzing the frequency or quality of networking activities. This can be done, for example, by collecting data on participation in professional events, number of business contacts, or success in establishing professional relationships. These objective measures would allow a more reliable and objective evaluation of networking behavior, independent of employees' perceptions and self-assessments.

Conclusion

This study aims to examine the impact of the modern work environment on networking behavior within organizations. Specifically, it examines how working from home affects the relationship between extraversion and networking behavior. The study confirms the positive influence of extraversion on networking behavior. However, contrary to expectations, the study shows that working from home does not negatively affect this relationship. Therefore, the conclusion is that the extent to which an employee works from home does not have a differential effect on the involvement of introverted or extroverted employees in networking behavior. In addition, the study confirms the negative effect of working from home on networking behavior.

These findings offer interesting insights, but there are further avenues for research. First, future research could look at the contextual factors that may influence the relationship between extraversion and networking behavior in a home-working environment. For example, future research could focus on the role of virtual communication channels and technological tools in facilitating or hindering networking behavior. Certain tools or platforms may have a greater impact on the networking behavior of extroverted individuals than introverted individuals, or vice versa. In addition, further research can explore the specific mechanisms underlying the negative impact of working from home on networking

behavior. Factors such as reduced informal interactions, fewer opportunities for spontaneous encounters, or a lack of face-to-face contact may affect networking opportunities when working from home. Identifying these mechanisms may help develop strategies and interventions to encourage and support networking behavior in a home-working environment. Moreover, focusing on the long-term effects of working from home on networking behavior, especially since the corona pandemic occurred relatively recently and afterward working from home has become quite the new normal, may lead to deeper and more accurate insights.

In summary, although this study has provided valuable insights, there are still several research opportunities to gain a deeper understanding of the complex relationship between work environment, personality traits, and networking behavior. Exploring contextual factors, underlying mechanisms, and long-term effects will help us better anticipate the challenges and opportunities associated with networking in a modern work environment.

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Appendices

Appendix A Survey in Dutch

Onderzoek Netwerkgedrag Medewerkers Vlirdens

Start van blok: Welkomswoord

Beste deelnemer,

Hartelijk dank dat u bereid bent deel te nemen aan dit onderzoek over het onderwerp netwerkgedrag van medewerkers van Vlirdens! De vragenlijst omvat vragen over onder andere uw netwerkgedrag, uw persoonlijkheid en in welke mate u thuiswerkt. Het invullen van de vragenlijst duurt maximaal 10 minuten. Ik ben u zeer dankbaar voor uw tijd!

Met vriendelijke groet,

Fons Looman
Masterstudent Strategic Management
Nijmegen School of Management Radboud Universiteit

Einde blok: Welkomswoord

Start van blok: Intern netwerken

De volgende stellingen gaan over intern netwerken. Kruis aan welke optie het beste bij u past.

	Nooit (1)	Zelden (2)	Regelmatig (3)	Vaak (4)	Altijd (5)
In mijn organisatie benader ik medewerkers die ik van gezicht ken en begin een gesprek. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik gebruik evenementen in mijn organisatie om nieuwe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

contacten te
leggen. (2)

Als ik een
persoon uit
mijn organisatie
wil ontmoeten
die van
professioneel
belang voor mij
kan zijn, neem
ik het initiatief
en stel ik
mezelf voor. (3)

Ik praat bij met
collega's van
andere
afdelingen van
mijn organisatie
over waar zij
werken. (4)

Als ik een
collega van een
andere afdeling
van mijn
organisatie niet
direct kan
helpen, zal ik
een oogje in het
zeil houden
voor hem/haar.
(5)

Ik bespreek
problemen met
collega's van
andere
afdelingen van
mijn organisatie
die zij hebben
met hun werk.
(6)

Ik bespreek
komende
organisatorische
veranderingen

met collega's van andere afdelingen van mijn organisatie. (7)

Wanneer ik antwoorden nodig heb op gevoelige vragen wend ik mij tot betrouwbare collega's om meer te weten te komen meer over de zaak te weten te komen. (8)

Bij informele gelegenheden wissel ik professionele tips en hints uit met collega's van andere afdelingen van mijn organisatie. (9)

Einde blok: Intern netwerken

Start van blok: Extern netwerken

De volgende stellingen gaan over extern netwerken. Kruis aan welke optie het beste bij u past.

Nooit (1) Zelden (2) Regelmatig (3) Vaak (4) Altijd (5)

Ik ontwikkel informele contacten met professionals buiten de organisatie, teneinde persoonlijke

banden te hebben
buiten het bedrijf. (1)

Ik gebruik externe
evenementen om
nieuwe contacten op
te bouwen met
mensen uit andere
organisaties. (2)

Wanneer ik een
persoon van een
andere organisatie
ontmoet die een
belangrijke zakelijke
contact voor mij kan
zijn, vergelijk ik
notities met hem/haar
over onze
gemeenschappelijke
werkgebieden. (3)

Ik ontmoet kennissen
van andere
organisaties buiten de
reguliere werkuren.
(4)

Ik ontmoet kennissen
van andere
organisaties die voor
mij van professioneel
belang kunnen zijn
tijdens informele
bijeenkomsten. (5)

Ik gebruik zakelijke
evenementen buiten
de organisatie
(netwerkevenementen,
conferenties) om op
persoonlijk niveau
met zakelijke
kennissen te praten.
(6)

Als ik kennissen van
andere organisaties
ontmoet, benader ik

hen om bij te praten
over nieuws en
veranderingen in hun
professionele leven.
(7)

Ik wissel
professionele tips en
hints uit met
bekenden uit andere
organisaties. (8)

Ik neem kennissen
buiten de organisatie
in vertrouwen voor
werkgerelateerde
zaken. (9)

Einde blok: Extern netwerken

Start van blok: Introversie-Extraversie

De volgende stellingen gaan over intern netwerken. Kruis aan welke optie het beste bij u past.

	Helemaal niet mee eens (1)	Enigszins mee oneens (2)	Noch eens noch oneens (3)	Enigszins mee eens (4)	Helemaal mee eens (5)
Ik zie mezelf als iemand die spraakzaam is. (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zie mezelf als iemand die gereserveerd is. (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zie mezelf als iemand die vol energie zit. (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ik zie mezelf als iemand die veel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

enthousiasme
opwekt. (4)

Ik zie mezelf
als iemand die
de neiging heeft
stil te zijn. (5)

Ik zie mezelf
als iemand met
een assertieve
persoonlijkheid.
(6)

Ik zie mezelf
als iemand die
soms verlegen,
geremd is. (7)

Ik zie mezelf
als iemand die
uitgaand is,
gezellig. (8)

Einde blok: Introversie-Extraversie

Start van blok: Thuiswerken

Wat is de mate waarin u thuiswerkt ten opzichte van het totale aantal uren dat u werkt? (Geef een gemiddelde schatting in percentage)

Einde blok: Thuiswerken

Start van blok: Control-variabelen

Wat is uw leeftijd in jaren?

Wat is uw geslacht

Man (1)

- Vrouw (2)
- Niet-binair/derde geslacht (3)
- Ik zeg dat liever niet (4)

Hoeveel jaar bent u al werkzaam bij deze organisatie?

Waar bent u voornamelijk werkzaam?

- In de support-organisatie (1)
- In de operatie (2)

Einde blok: Control-variabelen

Appendix B

Figure 2

Normal distribution of the variable Networking Behavior

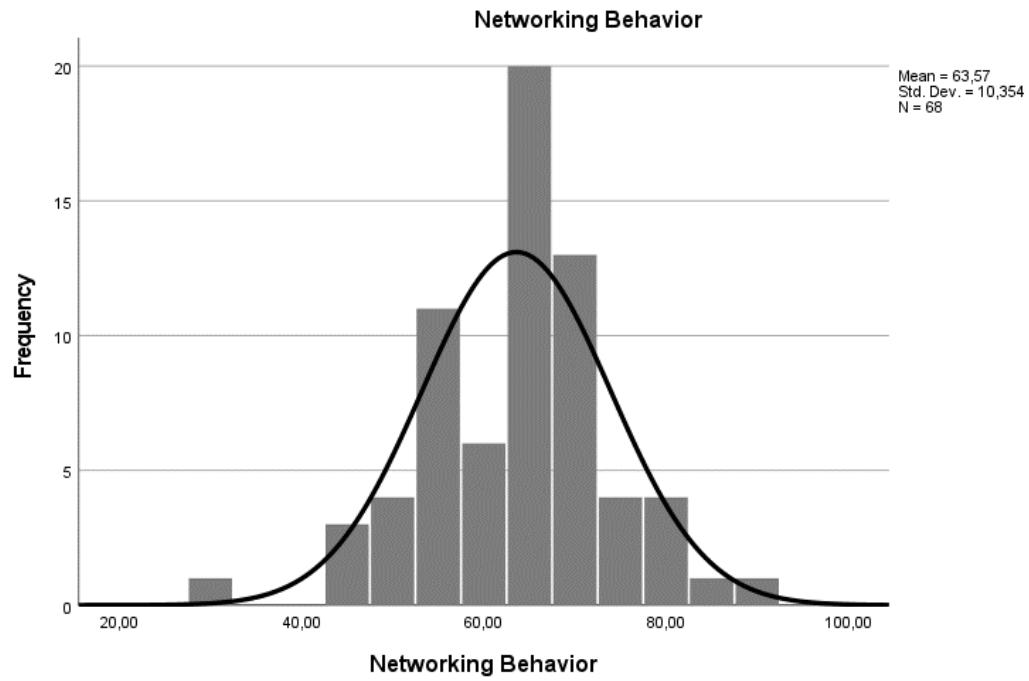


Figure 3

Normal P-P Plot of the variable Networking Behavior

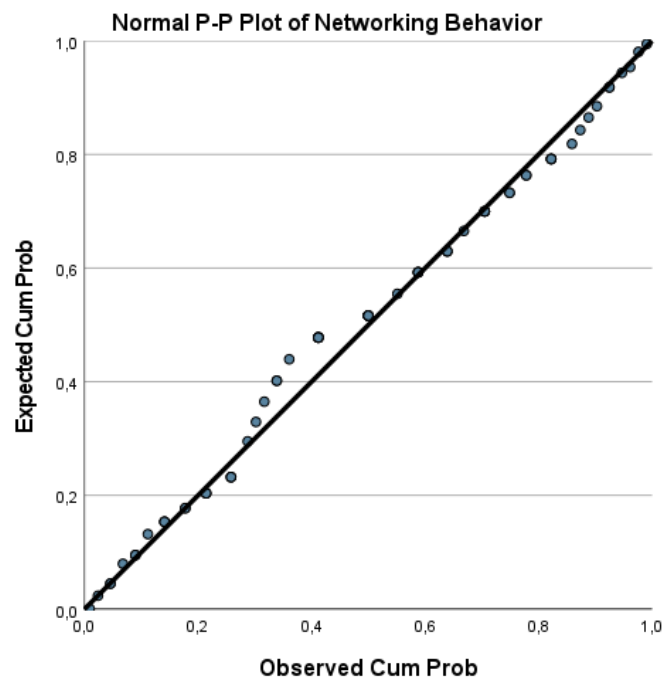
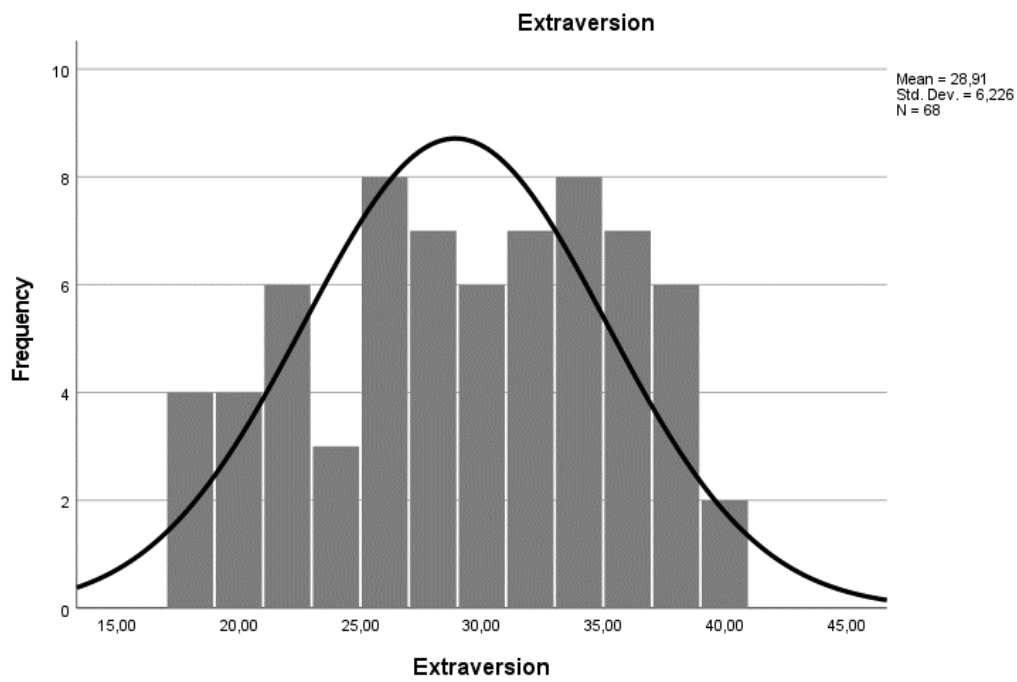


Figure 4

Normal distribution of the variable Extroversion

**Figure 5**

Normal P-P Plot of the variable Extroversion

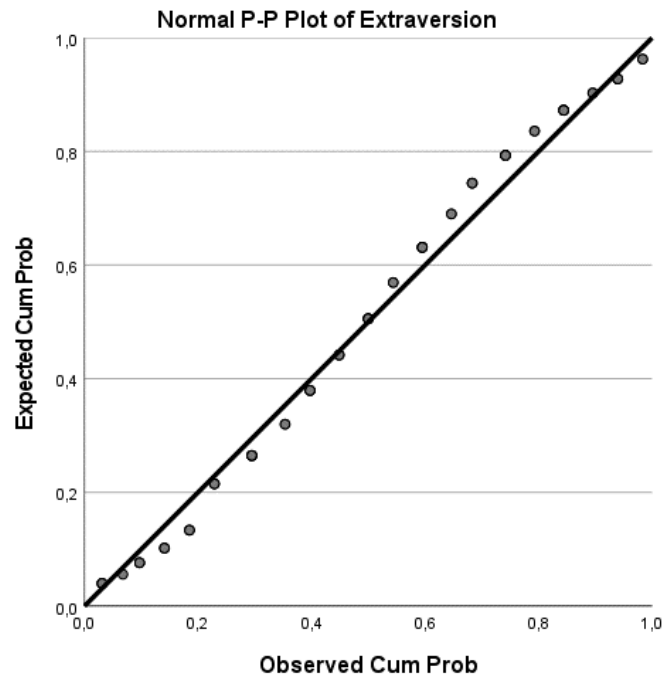
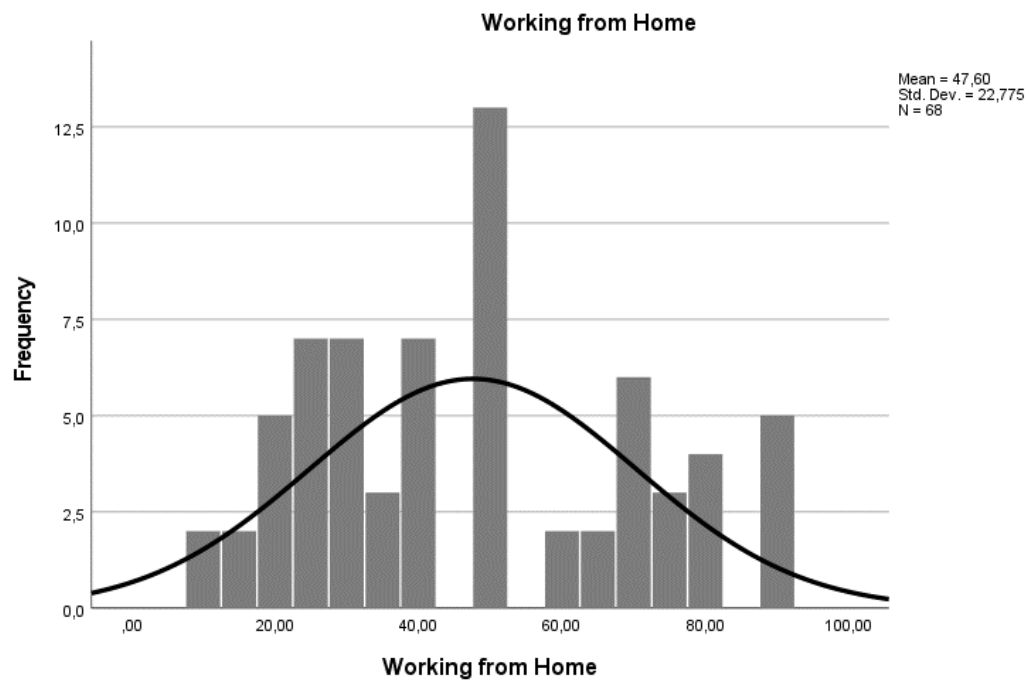


Figure 6

Normal distribution of the variable Working from Home

**Figure 7**

Normal P-P Plot of the variable Working from Home

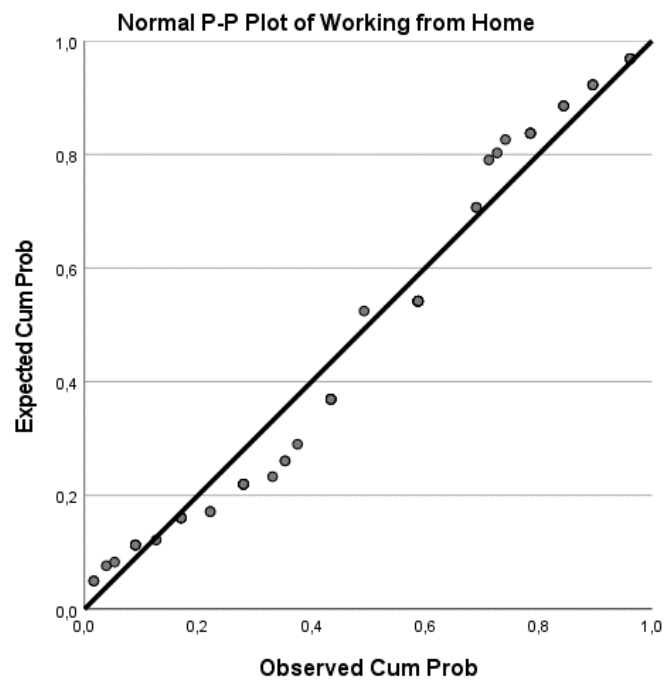
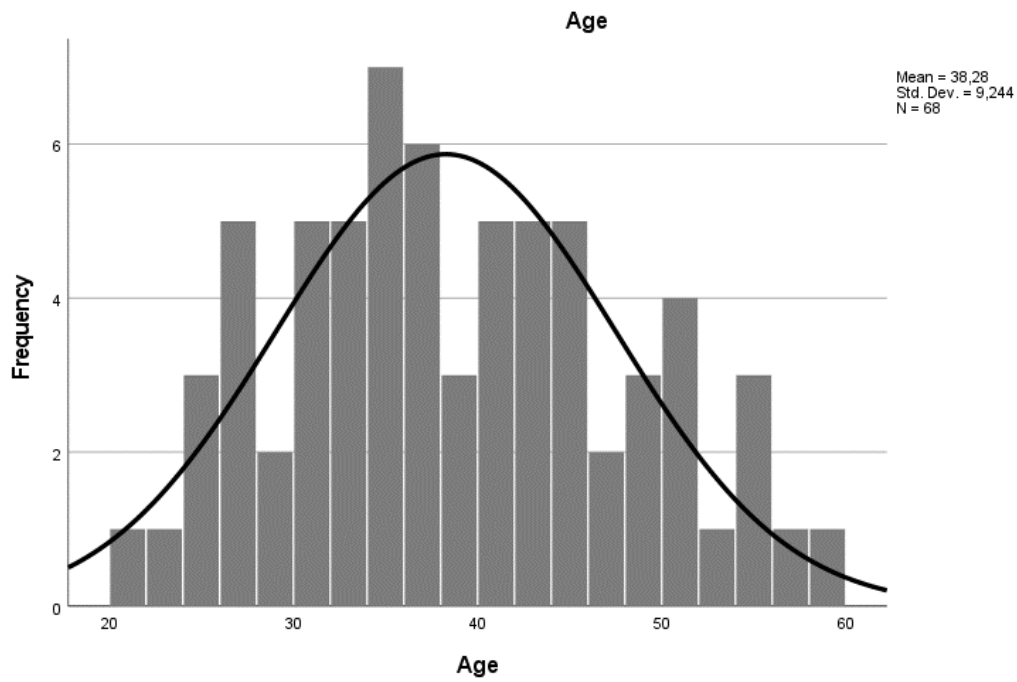


Figure 8

Normal distribution of the variable Age

**Figure 9**

Normal P-P Plot of the variable Age

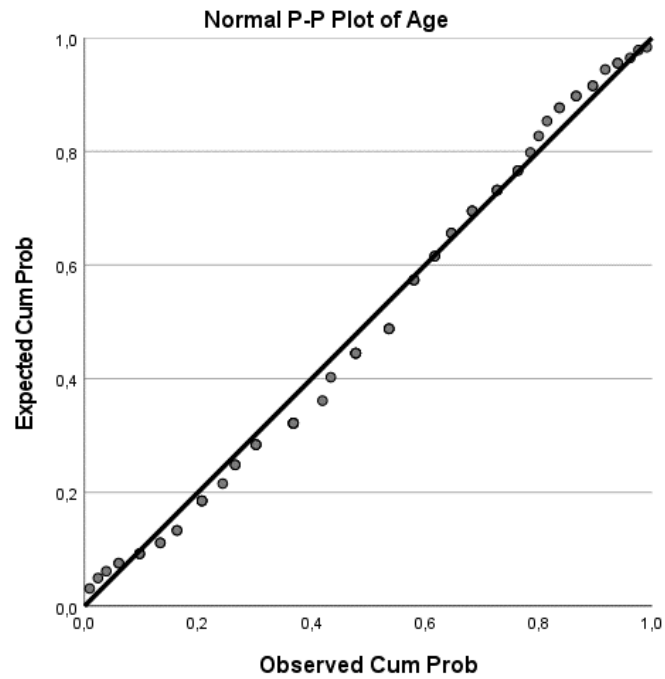
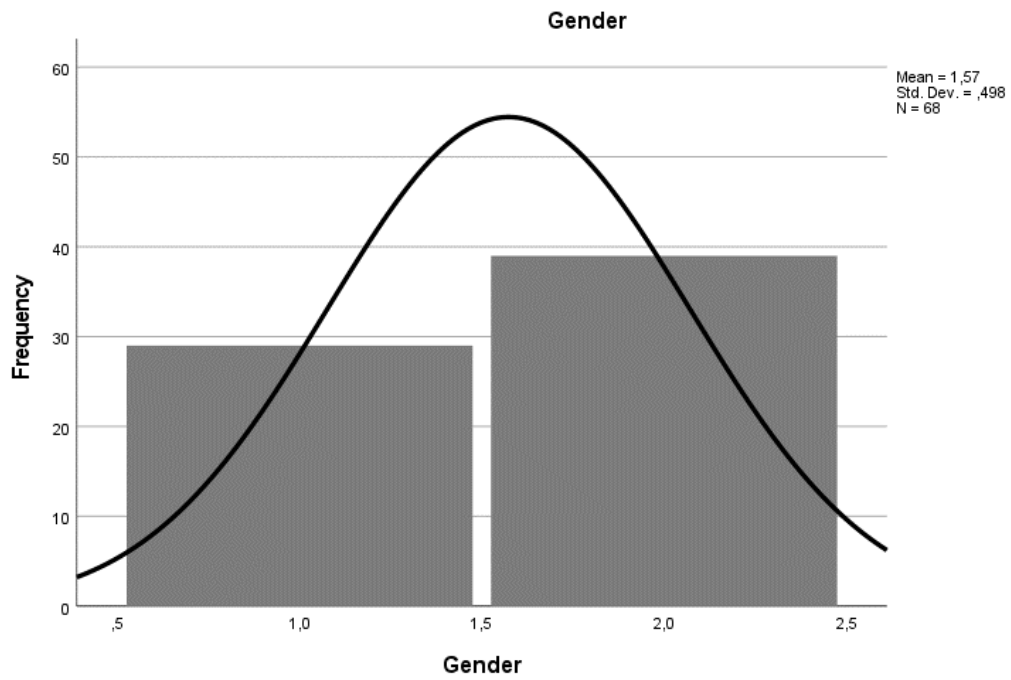


Figure 10

Normal distribution of the variable Gender

**Figure 11**

Normal P-P Plot of the variable Gender

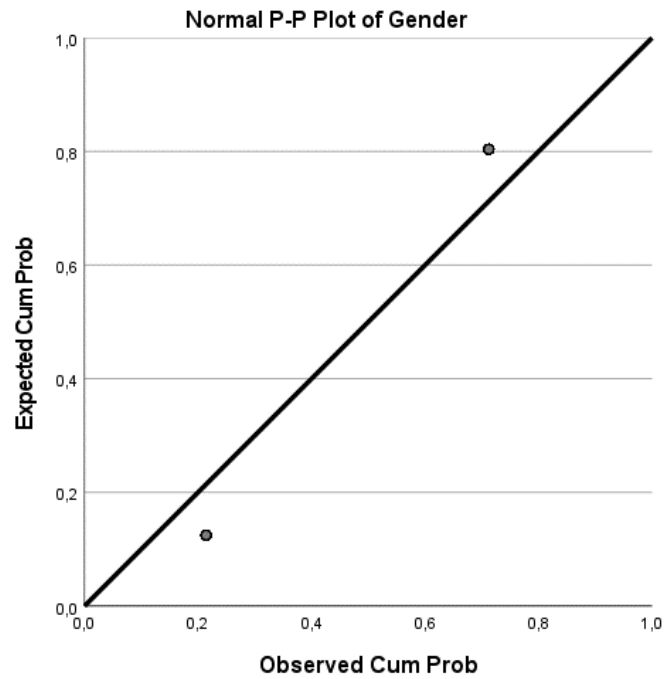
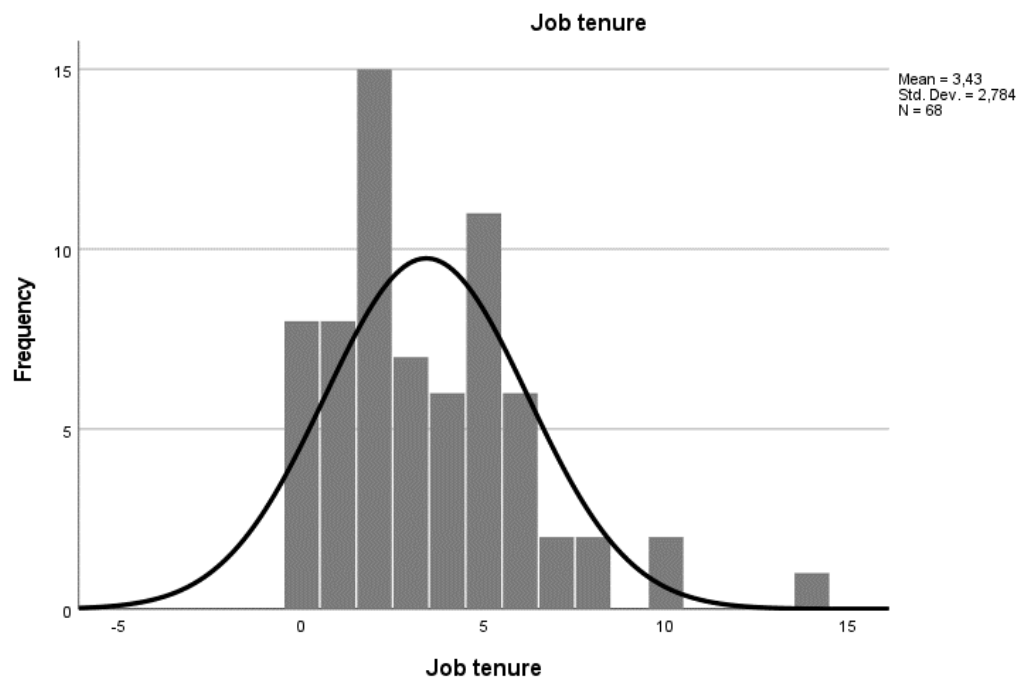


Figure 12

Normal distribution of the variable Job tenure

**Figure 13**

Normal P-P Plot of the variable Job tenure

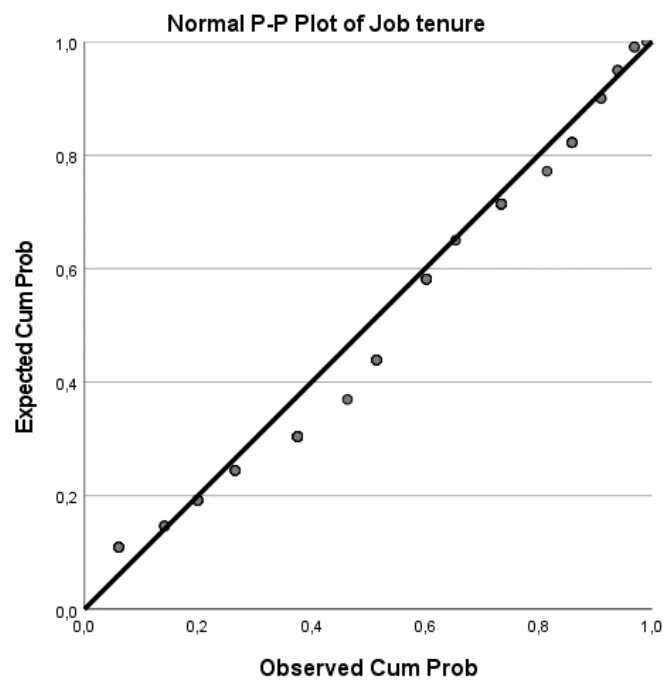
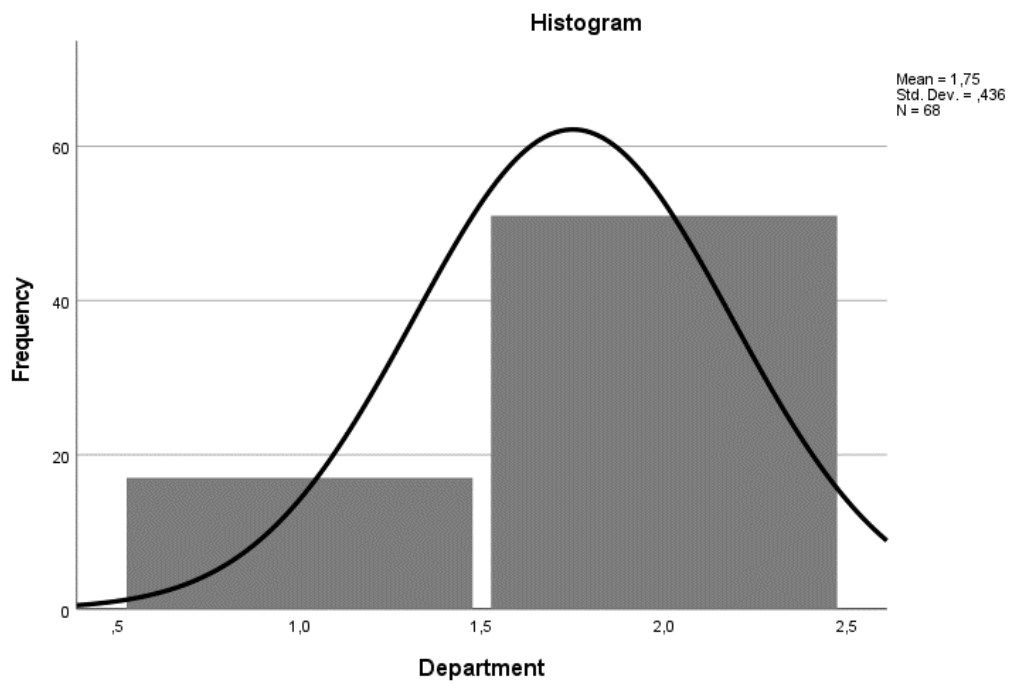
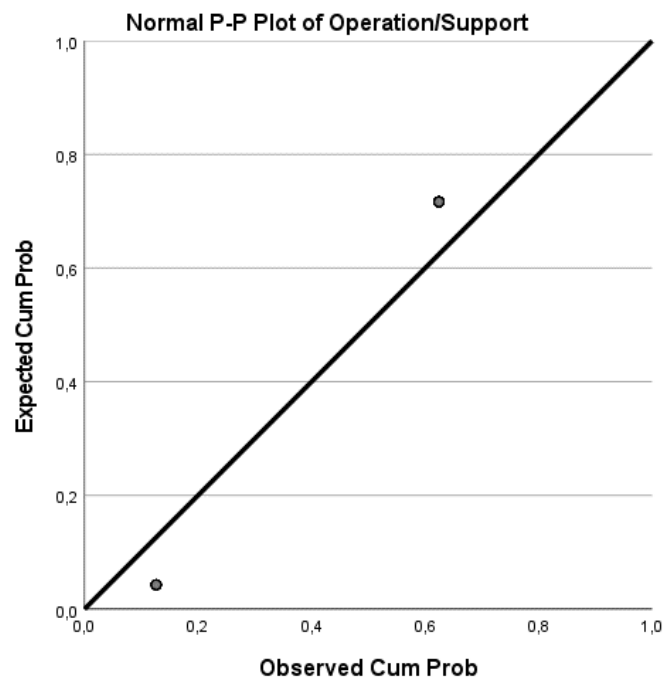


Figure 14

Normal distribution of the variable Department

**Figure 15**

Normal P-P Plot of the variable Department



Appendix C

Table 3

Correlations for the items belonging to the variable Extroversion

Items	Extroversion
I see myself as someone who is talkative.	.79**
I see myself as someone who is reserved.	.76**
I see myself as someone who is full of energy.	.62**
I see myself as someone who generates a lot of enthusiasm.	.72**
I see myself as someone who tends to be quiet.	.85**
I see myself as someone who has an assertive personality.	.68**
I see myself as someone who is sometimes shy, inhibited.	.80**
I see myself as someone who is outgoing, sociable.	.79**

* $p < .05$. ** $p < .01$.

Table 4

Correlations for the items belonging to the variable Networking Behavior

Items	Networking Behavior
In my organization, I approach employees I know by sight and start a conversation.	.45**
I use events in my organization to make new contacts.	.44**
If I want to meet a person from my organization who could be of professional importance to me, I take the initiative and introduce myself.	.46**
I catch up with colleagues from other departments of my organization about what they are working on.	.52**
If I can't help a colleague from another department of my organization directly, I will keep an eye out for him/her.	.43**
I discuss problems with colleagues from other departments of my organization that they are having with their work.	.58**
I discuss upcoming organizational changes with colleagues from other departments of my organization.	.55**

When I need answers to sensitive questions I turn to reliable colleagues to find out more about the matter.	.15
At informal occasions I exchange professional tips and hints with colleagues from other departments of my organization.	.55**
I develop informal contacts with professionals outside the organization, in order to have personal links beyond the company.	.74**
I use external events to build new contacts with people from other organizations.	.67**
When I meet a person from another organization who could be an important business contact for me, I compare notes with him/her about our common work areas.	.70**
I meet with acquaintances from other organizations outside of regular working hours.	.65**
I meet with acquaintances from other organizations that could be of professional importance to me at casual get-togethers.	.63**
I use business events outside of the organization (networking events, conferences) to talk to business acquaintances on a personal level.	.75**
If I meet acquaintances from other organizations, I approach them to catch up on news and changes in their professional lives.	.70**
I exchange professional tips and hints with acquaintances from other organizations.	.61**
I confide in acquaintances outside of the organization for job-related matters.	.35**

* $p < .05$. ** $p < .01$.

Appendix D

Table 5

Cronbach's Alpha of the variable Extroversion

Cronbach's Alpha	N of Items
.889	8

Table 6

Item-Total Statistics of the variable Extroversion

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I see myself as someone who is talkative.	24.84	30.62	.72	.871
I see myself as someone who is reserved.	25.97	29.50	.67	.874
I see myself as someone who is full of energy.	24.88	33.39	.54	.887
I see myself as someone who generates a lot of enthusiasm.	24.85	31.59	.63	.878
I see myself as someone who tends to be quiet.	25.43	27.35	.77	.864
I see myself as someone who has an assertive personality.	25.41	31.05	.57	.884
I see myself as someone who is sometimes shy, inhibited.	25.88	28.37	.71	.870
I see myself as someone who is outgoing, sociable.	25.12	29.36	.71	.870

Table 7

Cronbach's Alpha of the variable Networking Behavior

Cronbach's Alpha	N of Items
.872	17

Table 8 shows that removing the item "I confide in acquaintances outside of the organization for job-related matters" would result in a slight increase in Cronbach's Alpha. However, the increase of 0.04 is deemed insubstantial, and thus, the item is not deemed necessary to be removed.

Table 8

Item-Total Statistics of the variable Networking Behavior

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
In my organization, I approach employees I know by sight and start a conversation.	54.84	98.11	.38	.869
I use events in my organization to make new contacts.	55.47	97.09	.36	.870
If I want to meet a person from my organization who could be of professional importance to me, I take the initiative and introduce myself.	54.75	98.82	.39	.869
I catch up with colleagues from other departments of my organization about what they are working on.	55.15	96.43	.46	.866
If I can't help a colleague from another department of my organization directly, I will keep an eye out for him/her.	55.43	97.47	.34	.871
I discuss problems with colleagues from other departments of my organization that they are having with their work.	55.60	96.00	.45	.866
I discuss upcoming organizational changes with colleagues from other departments of my organization.	55.63	95.55	.46	.866

At informal occasions I exchange professional tips and hints with colleagues from other departments of my organization.	55.38	95.08	.47	.866
I develop informal contacts with professionals outside the organization, in order to have personal links beyond the company.	55.88	90.76	.68	.857
I use external events to build new contacts with people from other organizations.	56.06	90.24	.61	.860
When I meet a person from another organization who could be an important business contact for me, I compare notes with him/her about our common work areas.	56.24	91.23	.64	.859
I meet with acquaintances from other organizations outside of regular working hours.	56.43	89.11	.57	.862
I meet with acquaintances from other organizations that could be of professional importance to me at casual get-togethers.	56.19	92.99	.56	.862
I use business events outside of the organization (networking events, conferences) to talk to business acquaintances on a personal level.	56.50	88.10	.69	.855
If I meet acquaintances from other organizations, I approach them to catch up on news and changes in their professional lives.	55.72	92.23	.64	.859
I exchange professional tips and hints with acquaintances from other organizations.	55.63	94.00	.54	.863
I confide in acquaintances outside of the organization for job-related matters.	56.63	98.06	.24	.878

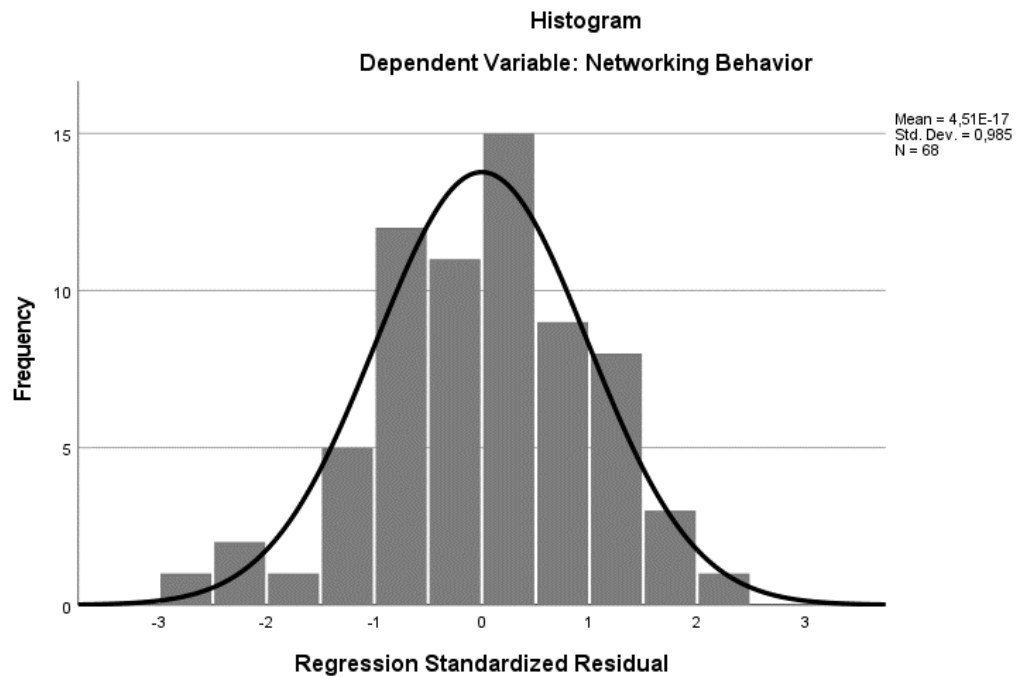
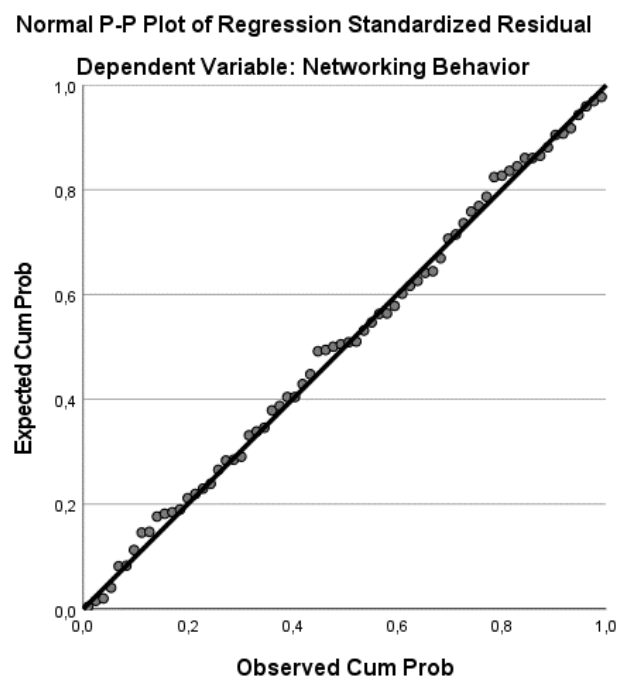
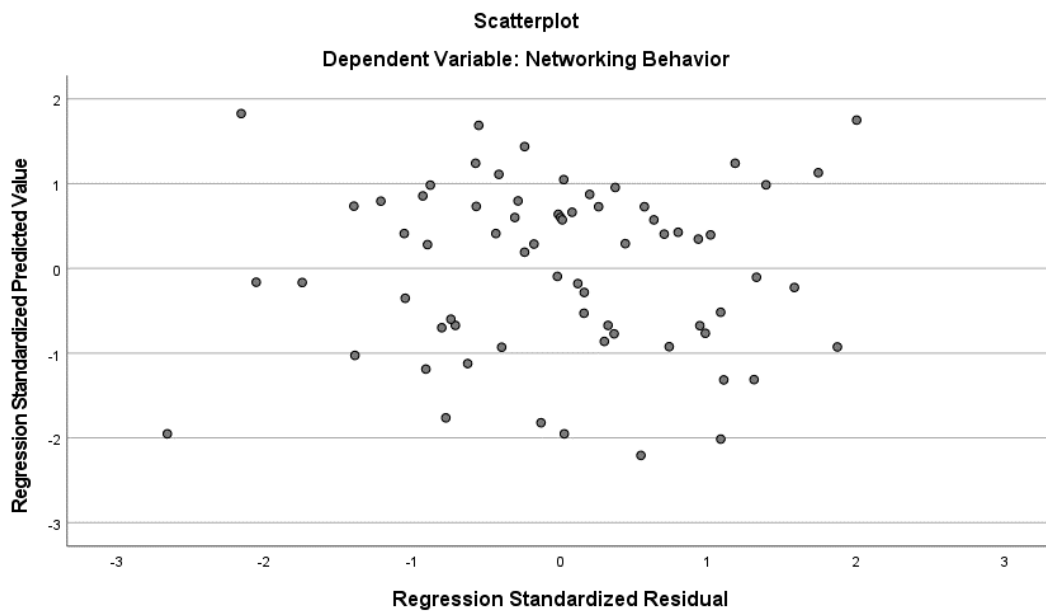
Appendix D**Figure 16***Normal distribution***Figure 17***Normal P-Plot*

Figure 18*Scatterplot***Table 9***Model Summary with Durbin-Watson*

Model	Change Statistics					Durbin-Watson
	R Square Change	F Change	df1	df2	Sig. F Change	
1	.15 ^a	5.74	2	65	.005	2.119

a. Predictors: (Constant), Extroversion, Working from Home

b. Dependent Variable: Networking Behavior

Table 10*Multicollinearity*

Model		Unstandardized		Standardized	t	Sig.	Collinearity	
		Coefficients		Coefficients			Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	52.49	6.91		7.59	<.001		
	Extroversion	.51	.20	.31	2.60	.012	.934	1.071
	Working from Home	-.08	.05	-.17	-1.44	.156	.934	1.071

a. Dependent Variable: Networking Behavior