MASTER THESIS

Effective line manager behaviours that stimulate innovative work behaviour of employees in the three different phases of IWB: idea generation, idea promotion and idea realization at knowledge intensive service-oriented organizations.

- Case study of Flex People -

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Preface

In the first quartile of the master study Business Administration, I had the chance to choose my own electives based on my personal interests. With much excitement, I was able to follow HRM & Technology Design and HRM & Innovation as part of the Human Resources specialization. Innovations within the field of HRM have intrigued me and the importance of knowledge and research on this topic was evident for me. Therefore, when the opportunity came to further deepen my knowledge within the field, the choice for the role of managers in innovations was easily made. Luckily, the organization of my choice was open to this topic and really collaborative, they could not have been more supportive in this last phase of my education, with a special thanks to *Ankie Middel*. I am thankful for the support, guidance and possibilities for data collection they had for me. I also want to thank all the employees at the organization for their help while gathering the data, I could not have done it without them. Besides the organization, I would also like to thank my supervisor, *Prof. Anna Bos-Nehles*, for the guidance and feedback while writing my master thesis. In addition, the feedback and insights I received from *Prof. Maarten Renkema* were also valuable and I want to thank him as well. Another big support for me during the entire pre-master and master education were my fellow students *Wiebke, Susi and Marta*, I want to thank them for their support, feedback and enjoyable collaborations. Finally, I am grateful for the endless support I received from *my family, friends and my boyfriend*, I could not have done it without it.

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Abstract

Purpose – This research aims to get deeper insight into which line manager behaviours positively influence the three dimensions of the Innovative Work Behaviour (IWB) process. It aims to make the line managers' role in innovation clearer by emphasizing how to stimulate employees in idea generation, idea promotion and idea realization in knowledge intensive service-oriented organizations.

Methods – This research adopted a case study design, combining qualitative and quantitative methods. A research model was created based on an extensive literature review, eight interviews were conducted with several employees and managers, based on this the research model was adjusted. This model was tested using an online questionnaire with 120 respondents to find the relative importance of the behaviours using quantitative data.

Results – It was found that inspirational and personal advising was effective in all phases, finding sponsors and resources was effective in idea promotion and realization and structuring and facilitating was effective in idea realization. These results also imply that the role of the supervisor becomes more complex over time, with more behaviours needed in the latter phases of IWB.

Implications – Theoretically, this research found different leadership behaviours to be effective in idea generation, idea promotion and idea realization. In addition, it was found that the role of the leader in the process of IWB becomes more complex over time, with the most effective leadership behaviours being cumulative across the phases. Practically, this research can assist organizations in training, developing and selecting the managers with the skills to let innovations flourish within the organization.

Value – This research will give the line managers helpful insights on how to 'manage' innovations within their team effectively. In addition, this research is one of the first to find that the role of the supervisor is cumulative and increasingly complex over time.

Key words: IWB, phases of innovation, effective line management, line manager behaviour, supportive supervision, ambidextrous leadership.

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1| Introduction

Innovations are crucial in the current rapid-changing global economy for the survival of organizations, which has been even more emphasized by the recent Covid-19 pandemic. This situation led to high levels of uncertainty and continuously changing rules and regulations, innovation was needed to see out this global crisis, because innovations contribute to improvement and progress for an organization (Dasgupta et al., 2011). Extensive research by Baregheh et al. (2009, p. 1334) developed a multidisciplinary definition of innovation as "a multi-stage process whereby organizations transform ideas into improved/ new products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace". Scholars acknowledge the beneficial effect of innovative behaviours on organizational performance (Anderson et al., 2004; Bos-Nehles et al., 2017; Knies et al., 2018) and (sustained) competitive advantage (Becker & Gerhart, 1996; Veenendaal & Bondarouk, 2014). In addition, successful innovative initiatives will positively affect job satisfaction, employee performance, retention and recruitment (Simpson et al., 2006) which is essential in knowledge intensive (specialised) organizations.

An effective way to achieve innovations is finding a balance between exploration and exploitation (Andriopoulos & Lowe, 2000), which is also referred to as ambidexterity. In organizational context, it can be defined as "the ability to simultaneously pursue both incremental and discontinuous innovation…from hosting multiple contradictory structures, processes, and cultures within the same firm" (Tushman & O'Reilly, 1996, p. 24). When organizations successfully balance these contradicting activities, it will lead to innovations (Garaus et al., 2015; He & Wong, 2004; Tushman & O'Reilly, 1996). However, it is challenging to engage in both and finding a balance because of the contradicting nature (Andriopoulos & Lowe, 2000). Where opening behaviours aim at creating autonomy and stimulating creativity, closing behaviours focus on structuring and monitoring by keeping close control. These behaviours are highly similar with idea generation and idea realization and thus this research stream can give new insights on effective leadership of IWB by emphasizing the context of when specific behaviours are required and effective.

Innovations can occur at different levels: organization-level, team-level and individual-level (West & Altink, 1996). The focus of this research is on the individual-level, which is also referred to as Innovative Work Behaviour (IWB). IWB can be defined as "all individual actions directed at the generation, processing and application /implementation of new ideas regarding ways of doing things with the goal of increasing the organizational effectiveness and success" (Bos-Nehles et al., 2016, p. 382). It is important to acknowledge that IWB is a multi-staged process that incorporates different dimensions (phases). Different scholars have conceptualized these phases differently with the number of phases varying between two and six. However, a conceptualization that is acknowledged by many scholars and further developed over time enfolds three phases which are: idea generation, idea promotion and idea realization (de Jong & Den Hartog, 2007; Lukes & Stephan, 2017; Messmann & Mulder, 2012; Scott & Bruce, 1994; Veenendaal & Bondarouk, 2014).

Line managers (referred to as supervisors) can facilitate the IWB of employees through their leadership behaviours. Their role consists of a variety of different behaviours aimed at facilitating the motivation and capabilities of employees to engage in IWB (de Jong & Den Hartog, 2007) and balancing the exploration-exploitation tension of the IWB process. Hunter and Cushenbery (2011) conducted an extensive literature review on the influences on IWB and proposed that line managers are one of the most important drivers to enhance IWB. Their research also stated that a system of integrated behaviours is needed to achieve the desired result, this emphasizes that behaviours from ambidextrous leadership. aimed at exploration and exploitation, should be balanced to effectively manage the IWB-process effectively. Therefore, it can be stated that knowing which behaviours are effective based on context (IWB-phase) is crucial.

IWB consists of different phases and thus requires different behaviours. The innovative employee in this process needs effective line management. Since the required facilitation of the line manager is context dependent, the line manager must align their behaviours with the situation. Effective line management behaviour takes into account the phase of innovation that are occurring as well as the aim on flexibility (explorative) or efficiency (exploitative) which is derived from ambidextrous leadership theory (Rosing et al., 2011). Therefore, this study aims to find which line manager behaviours effectively enhance idea generation, promotion and realization to ensure effective management of the entire process.

Most organizations see the value of innovative behaviours and therefore aim to stimulate this among employees. However, depending on the type of organization, innovation can have different levels of importance. Organizations that engage in long-term relations with their employees, investing in their development and preserving their human capital, usually have more focus on these innovative behaviours. This is especially the case in organizations that depend highly on the expertise of their employee and which's knowledge can be seen as the product. These types of organizations can be defined as knowledge intensive service-oriented and since innovations are highly dependent on available knowledge, IWB is most likely to be realized here (Du Plessis, 2007). In these organizations, it is a part of the job rather than an extra-role behaviour. Different scholars (Adams & Lamont, 2003; Pyka, 2002; Shani et al., 2003) have emphasized the importance of correctly managing this knowledge to achieve desired innovation related outcomes. Therefore, especially in knowledge intensive service-oriented organizations, management of IWB among employees is crucial to ensure organizational success and secure beneficial outcomes.

1.1 | Research gap and problem statement

Line managers are a facilitator in realizing IWB within the organization (Hunter & Cushenbery, 2011). IWB is a multidimensional and complex process that requires different behaviours from both the employee and the line manager. However, current research (Alfes et al., 2013; Amankwaa et al., 2019; Karin et al., 2010) on line management does not take the context (phase and exploration/exploitation) into consideration because it treats IWB as a uni-dimensional concept, which makes it too general and broad. Seeck and Diehl (2017) recommended in their research, that the different phases of IWB should receive more attention in literature. A reason for this lacking attention could be the high level of overlap between the phases, making it broader and more general. Therefore, the problem is that current research does not specify which behaviours are essential for effective line management in the different phases of the innovation process. This is problematic because line managers have to effectively manage based on context, which is unclear at the moment, this results in lacking guidance for line managers which can be problematic because organization do not succeed to maximize their innovative performance with its beneficial outcomes.

1.2 | Research goal and research question

The aim of this research is to gain insight in effective line management that enhances idea generation, idea promotion and idea realization among employees in knowledge intensive service-oriented organizations. These dimensions require different behaviours from line managers because the employee needs different facilitation from their manager in the different phases (context). Additionally, the line manager needs to balance explorative and exploitative behaviours (from ambidextrous leadership), making line management in relation to IWB context specific enable managers to give their team members effective assistance throughout the process. Therefore, the following research question is proposed:

Which line manager behaviours are most effective in stimulating idea generation, idea promotion and idea realization of their team members in knowledge intensive service-oriented organizations?

It is crucial to distinguish differences between the different phases of innovation, and thus this research focusses on these three phases separately. Each phase requires different behaviours from the line manager and focusses on either flexibility or efficiency. Supportive supervision is the umbrella term of all the behaviours line managers can engage in to enhance IWB, it is a broad concept and consists of a wide range of behaviours that influence the employees behaviour or perceptions (Paustian-Underdahl et al., 2013), and thus is a rich literature stream for this research. When these behaviours are integrated appropriately, this is an effective way to enhance IWB (de Jong & Den Hartog, 2007; Hunter & Cushenbery, 2011; Veenendaal & Bondarouk, 2014). Therefore, literature on supportive supervision will give insight into the different behaviours line managers can engage in to enhance (phases of) IWB. Additionally , it is important to acknowledge that a combination of exploratory and exploitative behaviours are effective in stimulating innovation (Tushman & O'Reilly, 1996). The line manager needs to engage in behaviours that stimulate flexibility (exploration), or efficiency (exploitation) based on the context, which is referred to as ambidextrous leadership. Rosing et al. (2011, p. 957) defined this as "the ability to foster both explorative and exploitative behaviours in followers by increasing or reducing variance in their behaviour and flexibly switching between those behaviours." This theory will complement supportive supervision by emphasizing the context (flexibility and efficiency) of the different phases, making the behaviours more context related.

1.3 | Contributions

With fulfilling the gap in literature identified by Seeck and Diehl (2017), using ambidextrous leadership and supportive supervision, several contributions are made. Firstly, further support for the crucial role of line managers in the entire IWB process is provided, emphasizing the importance of (and contributing to) leadership literature regarding innovation. Secondly, this research makes line management behaviour more context-specific by distinguishing different important behaviours depending on the occurring phase of the IWB process adding onto supportive supervision literature (e.g. De Jong & Den Hartog, 2007). Thirdly, this study will provide insight into how line managers can balance explorative and exploitative behaviours in the IWB process, extending ambidextrous leadership (Rosing et al.,2011) by integrating it with IWB. Finally, line management is researched in a knowledge intensive service-oriented sector where IWB is especially essential, adding to the knowledge in this currently under-researched setting.

There are also practical contributions for organizations. Firstly, this manuscript provides guidance for line management on how to enhance idea generation, idea promotion and idea realization. Secondly, it helps to develop line managers because the required behaviours are clear and can be linked to training and development. Finally, this research can also assist in the inflow/ throughflow of managers, it can help in deciding which manager to hire/promote to stimulate IWB among their team. Conclusively, this will give knowledge intensive service-oriented organizations guidance on how to stimulate IWB among their teams.

1.4 | Structure of the paper

In the next chapter, there will be elaboration on different literature streams that are relevant in this research. Several theories and findings from scholars will be described and compared for each topic. Following, the researcher will provide a research design for the study and discuss the plan for the data measurement, data collection and analysis. Afterwards, the results will be presented, first there will be elaboration on the qualitative data, then the adjusted research model is given and finally the results of the quantitative analysis are given. Then, in the fifth chapter, there will be a discussion regarding the results including the main findings, followed by practical and theoretical implications, limitations and guidance for further research. Finally, the last chapter of this research enfolds an overall conclusion. Additional information that enables deeper comprehension on this topic can be found in the appendices.

2 | Theoretical framework

In this chapter, relevant theories are discussed to enable comprehension of the complex concepts central in this research. There will be elaboration on Innovative Work Behaviour (IWB), the multi-dimensionality of this concept and line manager behaviour with theory from supportive supervision and ambidextrous leadership, which will then be connected in the proposed research model.

2.1 | Innovative work behaviour (IWB)

Innovation in the organizational context is generally viewed as "organization-wide activity that represents the collective-level outcome of creative endeavour" (Shipton et al., 2017, p. 248). Innovation can occur at different levels: organization-level, team-level and individual-level. Within the scope of this research, the focus will be on individual-level innovation (IWB). Because, as stated by Agarwal (2014, p. 43) "one option for organizations to become more innovative is to encourage their employees to be innovative". When organizations engage in a multi-level relationship between HRM (practices) and innovation, this has positive outcomes for the organization. Leadership behaviours can be seen as a specific practice and they can stimulate IWB that contributes to collective innovation and thus beneficial effects (Renkema et al., 2021). Over the years, there has been a growing interest in IWB, which can be explained by the positive influence of IWB on (sustained) competitive advantage and organizational performance. Initially, this has been established by Damanpour (1991) and Becker & Gerhart (1996), and later confirmed by several other scholars (Anderson et al., 2004; Bos-Nehles et al., 2017; Knies et al., 2018; Veenendaal & Bondarouk, 2014). This positive effect can be explained by the improved ability of organizations to respond quickly to challenges and market opportunities when they are innovative (Bos-Nehles et al., 2017).

Scholars seem to have different definitions and conceptualizations of IWB. However, this study acknowledges that IWB is a complex process and thus consists of different dimensions. Different scholars have provided multi-dimensional definitions for IWB, an overview of several multi-dimensional definitions that are provided in literature can be found in *Appendix 1*. Similar to earlier definitions by West and Farr (1989) and Janssen (2000), Bos-Nehles et al. (2016, p. 382) proposed the following definition for IWB "all individual actions directed at the generation, processing and application/implementation of new ideas regarding ways of doing things with the goal of increasing the organizational effectiveness and success". Conclusively, the main aspects that define innovative work behaviour are the individual level, the different dimensions and the contribution to the organizations' success.

2.1.1 | Dimensions of IWB

This research wants to emphasize the multidimensionality of the concept IWB. Initially, two categories were distinguished: idea generation and idea application (Zaltman et al., 1973). Later, Scott and Bruce (1994) proposed three dimensions: idea generation, idea promotion and idea realization, which were further developed by both Janssen (2000) and Veenendaal and Bondarouk (2014). De Jong and Den Hartog added one extra dimension: idea exploration. Messman and Mulder (2012) added two dimensions: opportunity exploration and reflection. Additionally, Kleysen and Street (2001) and Lukes and Stephan (2017) proposed significantly different dimensions. An overview of the proposed dimensions by different scholars can be found in *Appendix 2*. Some scholars (Lukes & Stephan, 2017; Messmann & Mulder, 2012) find confirmation that there are significant differences between the phases. Other scholars (de Jong & Den Hartog, 2007; Kleysen & Street, 2001) have not found empirical evidence for significant differences between the different phases and cannot reject that IWB is a uni-dimensional concept because the correlations between the phases are relatively high, because of the overlap between the different phases.

Despite the contradictory findings of scholars, they agree on the statement that IWB consists of more than one behaviour and multiple dimensions represent the concept IWB best. Therefore, this study aligns with Scott and Bruce (1994) and would like to emphasize that IWB consists of different behaviours, which can also overlap between dimensions. Since the dimensions as proposed by Scott and Bruce (1994) are acknowledged by many scholars and further developed over the years (Veenendaal & Bondarouk, 2014), this research aligns with their conceptualization. Therefore, this research acknowledges three dimensions: idea generation, idea promotion and idea realization. These three phases consist of different behaviours and thus line managers should also alter their behaviour based on the phase of IWB that is occurring.

The first phase of IWB is idea generation and is closely related to creativity. This phase refers to the generation of novel, innovative ideas. This includes problem recognition and the generation of solutions for these problems, either completely new, or novel to the organization (Scott & Bruce, 1994). This phase usually starts with work-related problems, inconsistencies or emerging trends (Janssen, 2000). Mumford (2000, p. 316) defined idea generation as "free-flowing activity where application, implication, and consequences are identified and then shaped through refinement into a new idea or set of ideas". Summarizing, idea generation is the proposition of a novel idea based on a problem or ongoing trend.

The second phase of IWB is idea promotion (or idea championing), which enfolds seeking sponsorship for the novel idea and finding several supporters for it (Scott & Bruce, 1994). More specifically, the employee should engage in social activities to find supporters, collegues and sponsors that will provide the necessary power to realize it (Galbraith, 1982). This phase will give the employee the power to put the idea in practise when they are enthusiastic, persistent and involve the right people (e.g. managers, collegues, R&D employees) (de Jong & Den Hartog, 2007). Conclusively, idea promotion concerns finding support for the idea, involving key members and getting approval from top management to enable realization of the idea.

The third phase of IWB is idea realization (or idea application). This is the final phase and here the idea is completed by producing a prototype or model (Scott & Bruce, 1994). This prototype/ model must allow for experiencing the novel idea and later applying it within a job, group or organization (Kanter, 1988). The aim of this phase is to incorporate the novel idea into the daily business (Kleysen & Street, 2001). Therefore, idea realization starts when the necessary support is found, and the novel idea can be translated into a prototype and later implemented in the organization. An overview of these three different phases, based on the literature, is summarized in table 1.

Table 1 | Summary of the different dimensions of IWB

Phase 1 | Idea generation	Awareness of (work-related) problems (Janssen, 2000; Scott & Bruce, 1994)
	Generation of solutions (Scott & Bruce, 1994)
	Generation of (a set of) novel ideas (Mumford, 2000)
Phase 2 | Idea promotion	Gathering support from (key) partners (Galbraith, 1982; Scott & Bruce, 1994)
	Building a powerful alliance of supporters (de Jong & Den Hartog, 2007)
	Convince supporters and sponsors of the idea (Galbraith, 1982; Scott & Bruce, 1994)
Phase 3 | Idea realization	Producing a model or prototype (Kanter, 1988; Scott & Bruce, 1994)
	Planning the implementation of the novel idea (Kleysen & Street, 2001)
	Applying the model/idea in the organization (Kleysen & Street, 2001)

2.2 | Theories on effective line management

It is important to understand how the role of the line manager is essential for success, this can be explained in several ways. Blau (1964) explains the influence of the line manager with the social leader-member exchange theory (LMX). This theory states that when the line manager rewards employees, they will reciprocate this with the desired behaviour. Another way to underline the essential role of the line manager is their function as connecting layer within the organization. Regardless of the direction of the process (bottom-up or top-down), the line manager interacts with the (top) management as well as the employees (Gaynor, 2013; Shipton et al., 2017). Additionally, line managers are key actors for employees which have "the power to grant or deny them the support necessary for the further development, protection, and application of their ideas" (Janssen, 2000, p. 578). Finally, when employees feel supported by their line manager they will be more likely to engage in the desired behaviour, to help their line manager achieve team-level or business-unit goals (Shanock & Eisenberger, 2006), which benefits innovations.

Supportive supervision enfolds all behaviours of line managers that affect IWB, this is a very broad concept, which is specifically aimed at IWB. Therefore, this is a rich theory to consider in this research into effective line management in the different phases of IWB. It is important to acknowledge that balancing explorative and exploitative behaviours from ambidextrous leadership (also referred to as efficiency and flexibility) is appropriate to ensure IWB (Andriopoulos & Lewis, 2009). Innovative employees should be able to combine efficiency and flexibility to realize successful innovations. Line managers have a critical role in this process, they must assist the employee by switching between explorative and exploitative behaviours. These behaviours are relatively general, but the differences between the groups are evident. By combining the versatile, broad behaviours from supportive supervision with the explorative and exploitative behaviours from ambidextrous leadership, this study gains insight into effective line management based on context.

2.2.1 | Supportive supervision

Different scholars have provided evidence for the positive influence of line managers on the IWB of employees. Basadur (2004, p. 103) has noted that it is crucial for future leaders that they "... will help individuals (...) to coordinate and integrate their differing styles through a process of applied creativity that includes continuously discovering and defining new problems, solving those problems and implementing the new solutions." This research proposes to define supportive supervision as *"the behaviours of line managers that encourage and stimulate subordinates to engage in different innovative activities and behaviour throughout the different phases of the IWB process".* Thus, supportive supervision enfolds many different behaviours which makes it a very versatile and complex construct. When line managers engage in the most effective behaviours, it will have a significant positive effect on IWB of employees (de Jong & Den Hartog, 2007; Veenendaal & Bondarouk, 2014).

Over the years, many different scholars have researched the behaviours of leaders, which is also important for the line managers. Leadership behaviours help line managers to achieve the desired outcomes, because effective leadership behaviours positively affect employees. Initially, Fleishman (1953) defined two broad categories: task-oriented and relationship-oriented behaviours. Relationship-oriented behaviours express the degree of concern and respect to their team members (Tabernero et al., 2009), examples are coaching (Avolio & Bass, 1995), building trust (Avolio & Bass, 1995), encouraging creativity (Blake & Mouton, 1964) and encouraging initiative (Stogdill, 1963). Contrary, task-oriented behaviours focus on initiating structure and focus on goal achievement (Tabernero et al., 2009). Different task-oriented behaviours are expectance clarity (Avolio & Bass, 1995), minimizing deviations (Avolio & Bass, 1995) and monitoring (Blake & Mouton, 1964).

Aligned, Mumford et al. (2002) distinguished between leading-people and leading-work behaviours. Leading-people behaviours aim to stimulate creativeness among people. Important behaviours in this category are encouraging involvement (Santhamani, 1983), idea-, work- and social support (McGourty et al., 1996), freedom (Amabile et al., 1996) and intellectual stimulation (Mouly & Sankaran, 1999). In addition, Çekmecelioğlu and Özbağ (2016) found that transformational behaviours were effective in stimulating creativity. The most significant and influential behaviour they found was intellectual stimulation. Leading work behaviours aim at structuring the creative ideas, this category enfolds broadly-defined output expectations (Cardinal, 2001), feedback (Zhou & Oldham, 2001), project selection (Andriopoulos & Lowe, 2000) and information exchange (Farris, 1969). Finally, MacNeil (2003) emphasized the important role of a line manager as a facilitator of knowledge sharing. These behaviours are proposed by the mentioned authors and later confirmed by other scholars in the context of innovation.

Other important research to acknowledge is that of De Jong and Den Hartog (2007), who conducted extensive research into the role of line manager in the IWB process. They identified 13 different line management behaviours based on semi-structured interviews with firms in different sectors and they connected it, with the help of different literature, to idea generation and application. The behaviours De Jong and Den Hartog (2007) identified as supportive supervision were initially proposed by other scholars. The behaviours they found to influence idea generation are intellectual stimulation (Bass, 1985), stimulating knowledge diffusion (Mumford et al., 2002) and task assignment (Amabile, 1988). The behaviours found to influence idea realization are organizing feedback (Zhou & Oldham, 2001), rewards (Eisenberger & Cameron, 1996), providing resources (Judge & Cable, 1997) and monitoring (Leonard & Swap, 2005). Behaviours found to influence both are innovative role modelling (Jaussi & Dionne, 2003), providing vision (Sosik et al., 1998), consulting (Amabile et al., 2004), delegating (Krause, 2004), general support (Oldham & Cummings, 1996) and recognition (Redmond et al., 1993).

To clarify what the different behaviours proposed enfold, an overview of the findings of De Jong and Den Hartog (2007) is provided in *Appendix 3.* Additionally, Grobben (2021) has deepened the behaviours in each category, by adding sub-categories for each behaviour. This was based on data of the Netherlands Fire Services (NFS) and the research by De Jong and Den Hartog (2007). An overview of the created sub-categories can be found in *Appendix 4*. Together, this research gives insight in what exactly these behaviours enfold and make them more concrete by adding specific actions to specific behaviours.

Seemingly, most literature elaborates on effective behaviours in creativity and implementation. Though, another research stream, idea championing, focusses on the dimension that is in the middle of these two. Champion behaviours (behaviours relevant in promoting ideas) occur in collective situations where novelties are discussed (Kleysen & Street, 2001). These behaviours include mobilizing resources, persuading and influencing, pushing and negotiating and challenging and risk-taking (Tuominen & Toivonen, 2011). Managers generally play a significant role in this process (Howell & Higgins, 1990) because they enable implementation by successfully acquiring resources (Burgelman, 1983). Line managers should properly allocate resources (Dasgupta et al., 2011), persuade and negotiate with top managers (Sim et al., 2007), effectively communicate with all levels (Anderson & Bateman, 2000) and handle organizational changes (Kuratko et al., 2009). The role of the supervisor is to overcome resistance and keep different layers supportive for the idea (Sinha & Srivastava, 2015).

2.2.2 | Supportive supervision in the different phases of IWB

Relationship-oriented behaviours positively affect follower satisfaction (Tabernero et al., 2009), which is a more general behaviour. However, some behaviours (e.g. encouraging initiatives, trust) are important in idea generation. Contrary, task-oriented behaviours aim at creating structure, which is similar to exploitative behaviours and is especially important in idea realization. Leading-people behaviours aim to stimulate creativeness, which is highly correlated with idea generation (Mumford et al., 2002). Contrary, the leading-work behaviours aimed at structuring tasks and work, this is highly related to idea realization, where ideas need to be transformed to implementation with the help of structures. Thus, this research would like to state that the leading-people behaviours mainly influence idea generation and leading-work, and task-oriented behaviours mainly influence idea realization. In addition, De Jong and Den Hartog (2007) linked many different proposed behaviours to idea generation, idea realization or both. Championing literature provides this study with meaningful insights on the effective behaviours of line managers in idea promotion. Though, it must be acknowledged that supportive supervision is not exhaustive, more important leadership behaviours can be found in literature. A valuable research stream, complementing supportive supervision with the explicit aim on context, is ambidextrous leadership.

2.2.3 | Ambidextrous leadership

Where supportive supervision focusses on different leadership behaviours, ambidextrous leadership puts the emphasis specifically on the context. This research stream is complimentary to supportive supervision and together they give insight in the different behaviours important for line management of IWB. Organizational ambidexterity can be defined as "the ability to simultaneously pursue both incremental and discontinuous innovation…from hosting multiple contradictory structures, processes, and cultures within the same firm" (Tushman & O'Reilly, 1996, p. 24). Ambidexterity is challenging because a balance between two conflicting behaviours is necessary to ensure the desired result. In this context, IWB can be effectively stimulated when the line manager engages in both explorative and exploitative behaviours.

The ambidextrous leadership theory was developed by Rosing et al. (2011) and consists of three elements: opening (explorative) behaviours, closing (exploitative) behaviours and flexibility to use them interchangeably. Opening behaviours aim at exploration by encouraging team members to experiment and think differently (Rosing et al., 2011). These behaviours stimulate the search for new idea's, experimentation and discovery, the desired outcome is radical innovations, which include novel resources (Alghamdi, 2018). Contrary, closing behaviours aim at exploitation by decreasing the variance in team members' behaviours (Rosing et al., 2011). Closing behaviours stimulate efficiency, refinement and implementation of smarter ways to use existing resources (Alghamdi, 2018).

Besides these behaviours, line managers also need flexibility to switch between these behaviours depending on the context (also referred to as temporal flexibility). Neither opening nor closing behaviours are solely sufficient for realizing IWB, a combination between the two is crucial. Even stronger, this flexibility should not just be an ability of the line managers, it must be conducted when required (Rosing et al., 2011). However, there is no systematic model to predict when which behaviours are necessary, which makes it very difficult for line managers to ensure the right behaviours in every setting (Bledow et al., 2009). This leads to ad hoc decisions of line managers on which behaviours to apply to the situation, which can result in either effective or ineffective behaviours. To ensure more effective management, line managers should be informed when to use which behaviours based on the specific context.

Ambidextrous leadership was initially proposed by Rosing et al. (2011), the model they created can be found in *Appendix 5*. The first empirical tests of their theory were conducted by Zacher and Wilden (2014) and Zacher and Rosing (2015). The former found a positive relation between opening and closing behaviours of line managers and self-reported innovative performance. The latter found evidence for the positive influence of high levels of opening and closing behaviours on team-level innovations. Additionally, Zacher et al. (2016) found empirical support for the positive effect of ambidextrous leadership on individual-level innovations. Later, Alghamdi (2018) also provided empirical evidence for the relationship between opening behaviours and exploration as well as closing behaviours and exploitation. Recently, these findings were confirmed by Oluwefemi et al. (2020) who found empirical evidence for the effect of closing behaviours on exploitation and opening behaviours on exploration. Moreover, they found significant results on the effect of ambidextrous leadership on IWB, mediated by temporal flexibility. Therefore, it can be stated that when the line managers find the right balance between opening and closing behaviours, there will be a positive effect on IWB in transformational relationships.

2.2.4 | Ambidextrous leadership in the different phases of IWB

Mascareño et al. (2021) has researched the link between opening and closing behaviours and the IWB phases. Their research found empirical evidence for the positive effect of opening behaviours on idea generation as well as the effect of closing behaviours on the relation between idea generation and idea realization. The effect of neither opening nor closing behaviours was significant for idea promotion. A specific set of behaviours was found to influence the idea realization: taking corrective actions, setting specific guidelines and monitoring goal achievement (Mascareño et al., 2021).

Opening behaviours enhance exploration, which is also referred to as flexibility. Flexibility is especially important in idea generation and thus this study acknowledges the similarities and wants to state that opening behaviours are especially relevant in idea generation. Contrary, closing behaviours focus on efficiency and creating structure. Closing behaviours strengthen the effect of opening behaviours on idea realization (through idea generation) (Mascareño et al., 2021). Moreover, closing behaviours correlate highly with idea realization and thus the similarities between them are acknowledged. These behaviours are elaborated on by different scholars (Rosing et al., 2011; Zacher & Rosing, 2015), an overview of these behaviours is given in table 2. Research has not provided evidence yet for a link between ambidextrous leadership and idea promotion, Mascareño et al. (2021) tested this link, but did not find a significant effect and thus it is not specifically linked with either opening- or closing- behaviours. In this research, opening behaviours are included in the group of behaviours that affect idea generation and closing behaviours are included in the group of behaviours that affect idea realization in the overview of all phases.

Table 2 | Opening and closing behaviours based on Rosing et al (2011) and Zacher and Rosing (2015)

Opening (explorative) behaviours Phase | Idea generation	Closing (exploitative) behaviours Phase | Idea realization
Encouraging employees to do things differently	Decrease variance in employee behaviour
Encouraging employees to experiment	Taking corrective action
Allowing employees to think and execute autonomously	Usage of specific guidelines
Allow employees to contest a current situation	Monitoring goal attainment
Allowing errors and encourage learning error	Establishing routines
Motivate employees to take risks	Sanctioning errors
Giving room for own ideas	Sticking to plans and control of rules

Table 3 | Line management behaviours in the different phases of IWB

Idea generation	Idea promotion	Idea realization
Innovative role modelling (de Jong & Den Hartog, 2007; Jaussi & Dionne, 2003)		**Innovative role modelling** (de Jong & Den Hartog, 2007; Jaussi & Dionne, 2003)
Idea-, social- and work support (McGourty et al., 1996; Mumford et al., 2002)		**General support** (de Jong & Den Hartog, 2007; Oldham & Cummings, 1996)
Recognition (de Jong & Den Hartog, 2007; Redmond et al., 1993)		**Recognition** (de Jong & Den Hartog, 2007; Redmond et al., 1993)
Facilitating knowledge sharing (MacNeil, 2003)		**Facilitating knowledge sharing** (MacNeil, 2003; Mumford et al., 2002)
Providing vision (de Jong & Den Hartog, 2007; Sosik et al., 1998)		**Providing vision** (de Jong & Den Hartog, 2007; Sosik et al., 1998)
Consulting (Amabile et al., 2004; de Jong & Den Hartog, 2007)		**Consulting** (Amabile et al., 2004; de Jong & Den Hartog, 2007)
Delegating (de Jong & Den Hartog, 2007; Krause, 2004)		**Delegating** (de Jong & Den Hartog, 2007; Krause, 2004)
Stimulating knowledge diffusion (de Jong & Den Hartog, 2007; Mumford et al., 2002)	**Acquiring resources** (Burgelman, 1983)	**Providing resources (acquiring and allocating new resources)** (de Jong & Den Hartog, 2007; Judge & Cable, 1997)
Intellectual stimulation (Bass, 1985; de Jong & Den Hartog, 2007; Mouly & Sankaran, 1999)	**Allocating resources** (Dasgupta et al., 2011)	**Organizing feedback** (de Jong & Den Hartog, 2007; Hellström & Hellström, 2002; Zhou & Oldham, 2001)
General support (de Jong & Den Hartog, 2007; Oldham & Cummings, 1996)	**Negotiating with top management** (Sim et al., 2007; Tuominen & Toivonen, 2011)	**Rewards** (de Jong & Den Hartog, 2007; Eisenberger & Cameron, 1996)
Task assignment (Amabile, 1988; de Jong & Den Hartog, 2007)	**Overcoming resistance** (Sinha & Srivastava, 2015)	**Monitoring** (Blake & Mouton, 1964; de Jong & Den Hartog, 2007; Leonard & Swap, 2005; Mascareño et al., 2021)
Encouraging involvement (Mumford et al., 2002; Santhamani, 1983)	**Persuading top management** (Sim et al., 2007; Tuominen & Toivonen, 2011)	**Broad output expectations** (Avolio & Bass, 1995; Cardinal, 2001; Mumford et al., 2002)
Freedom (Amabile et al., 1996; Mumford et al., 2002)	**Handling organizational change** (Kuratko et al., 2009)	**Project selection** (Andriopoulos & Lowe, 2000; Mumford et al., 2002)
Encouraging creativity and initiatives (Blake & Mouton, 1964; Stogdill, 1963)	**Effective communication** (Anderson & Bateman, 2000)	**Information exchange** (Farris & Lim Jr, 1969; Mumford et al., 2002)
Encouragement to think differently (Rosing et al., 2011)	**Realizing support** (Sinha & Srivastava, 2015)	**Take corrective action** (Rosing et al., 2011)
Encourage experimenting and risk-taking (Rosing et al., 2011; Zacher & Rosing, 2015)		**Establish routines** (Rosing et al., 2011; Zacher & Rosing, 2015)
Allow and encourage error (Rosing et al., 2011)		**Sanctioning error** (Rosing et al., 2011)
Allow for contesting (Zacher & Rosing, 2015)		**Control of rules** (Rosing et al., 2011)
Room for own ideas (Rosing et al., 2011)		**Use of guidelines** (Mascareño et al., 2021; Zacher & Rosing, 2015)
		Decrease variance (Avolio & Bass, 1995; Zacher & Rosing, 2015)

Based on the different literature on supportive supervision and ambidextrous leadership, different behaviours are proposed to influence idea generation, idea promotion and idea realization (table 3). The opening and closing behaviours are given here for idea generation and realization and all leadership behaviours found in supportive supervision are given in the relevant phase. As visible in the table, there are more behaviours for idea generation and realization than idea promotion. This is because when IWB is conceptualized with two phases, championing behaviours are mostly included in idea realization.

2.3 | Effective line management of IWB

Different behaviours are grouped together for idea generation, idea promotion and idea realization. This was done by comparing the explanations from literature and then interpreting them using the Gioia coding (Gioia et al., 2013) method. All different behaviours from table 3 were included and interpreted and then they were grouped together based on similarities. Then for each group, an overarching category name was created with help of the Gioia method. Elaboration on the process of categorizing is given in *Appendix 6*.

2.3.1 | Idea generation

Idea generation is highly similar to creativity and requires opening behaviours to give the employee the freedom to explore. To stimulate idea generation, line managers should inspire and advice team members, they should provide team members with autonomy and arrange knowledge diffusion as well as be personally involved with their team members.

Inspiration enfolds motivation (energizing and directing behaviour), evoking (spontaneous arising) and transcendent (overcome limits) (Thrash & Elliot, 2003). Line managers can trigger inspiration for team members by engaging in inspiring behaviours, examples are innovative role modelling, providing vision, intellectual stimulation, encouragement to think differently, take initiatives and experimenting.

Advising is a general term that includes consulting and providing feedback. Giving feedback to team members significantly influences creativity of employees (Brookhart, 2013; Carson & Carson, 1993; Zhou, 2003). In addition, mentoring or consulting team members is also beneficial for the creative process of employees (Casavant & Cherkowski, 2001; Sternberg et al., 2004).

Empowering employees is especially important in idea generation because it requires some degree of freedom, to explore and generate novel ideas. They can give their team members freedom, delegate tasks to them, allow error and contesting and give team members room for own ideas. These empowering behaviours positively affect creativity (Greenberg, 1992; Liu et al., 2011) because it gives team members the opportunity to explore, develop and test novel ideas.

Knowledge diffusion is also crucial to generate novel ideas. If an employee generates a novel idea, they must take into account many factors and thus need specific knowledge for the design of the idea. The role of the line manager here is to share their knowledge as well as knowledge diffusion among colleagues. Different scholars have emphasized the importance of extensive domain specific knowledge (Gurteen, 1998; Weisberg, 1999), global knowledge (Malecki, 2010), external knowledge (Soo et al., 2007) in the process of idea generation or creativity.

Finally, a good **supportive relationship** between the line manager and team member is needed to reach the desired result. This relation is explained by Blau (1964) with the Social Leader Member Exchange (social LMX) theory. It emphasizes that to reach desired behaviour from team members, line managers should support them and engage in personal relations. This strong and personal relationship can be accomplished when the line managers is highly involved, provides work-, social- and idea- support and gives the team member recognition. When the line managers create a social LMX, it has been proven to significantly enhance creativity of employees (Gu et al., 2015; Kalyar et al., 2019; Khalili, 2018; Tierney, 2015).

An overview of these proposed categories and the different behaviours they enfold, as stated in research, can be found in table 4. Based on these findings, this research proposes the following hypothesis:

H1: The line manager behaviours (a) inspiring, (b) advising, (c) supporting, (d) empowering and (e) enabling knowledge diffusion are positively related to idea generation of employees.

Table 4 | Behavioural categories for idea generation

Behavioural category	Behaviours
Inspiring	Innovative role-modelling (de Jong & Den Hartog, 2007; Jaussi & Dionne, 2003)
	Providing vision (de Jong & Den Hartog, 2007; Sosik et al., 1998)
	Intellectual stimulation (Bass, 1985)
	Encouragement to think differently (Rosing et al., 2011)
	Encourage creativity and initiatives (Blake & Mouton, 1964; Stogdill, 1963)
	Encourage experimenting and risk-taking (Rosing et al., 2011; Zacher & Rosing, 2015)
Advising	Consulting (Amabile et al., 2004; de Jong & Den Hartog, 2007)
	Providing feedback (de Jong & Den Hartog, 2007; Zhou & Oldham, 2001)
Empowering	Freedom (Amabile et al., 1996; de Jong & Den Hartog, 2007)
	Delegating (de Jong & Den Hartog, 2007; Krause, 2004)
	Allow and encourage error (Rosing et al., 2011)
	Allow for contesting (Zacher & Rosing, 2015)
	Room for own ideas (Rosing et al., 2011)
Knowledge diffusion	Stimulating knowledge diffusion (de Jong & Den Hartog, 2007; Mumford et al., 2002)
	Facilitating knowledge diffusion (MacNeil, 2003)
Supporting	Recognition (de Jong & Den Hartog, 2007; Redmond et al., 1993)
	General support (de Jong & Den Hartog, 2007; Oldham & Cummings, 1996)
	Idea-, work- and social support (McGourty et al., 1996; Mumford et al., 2002)

2.3.2 | Idea promotion

To assist the employee in promoting their idea, the line manager should engage in 'championing' behaviours. These behaviours help the employee to go from idea to implementation, but they need to acquire resources, find sponsors and support within the organization. First, **the resources**, those are especially needed in idea promotion, because implementation is impossible before acquiring the needed resources. The line manager can assist here, by acquiring resources for the employee and allocating resources to them, additionally they assist in handling changes to attain more resources. Line managers acquire resources by persuading others and allocate them to the employee when the idea is promising (Howell & Boies, 2004), which is mandatory to ensure implementation of the idea in the latter phase

Aligned, the employee needs to find **sponsors for the idea**, those will grand them the necessary resources, support, credibility and power to enable implementation of the novel idea (Galbraith, 1982). This is an important bridge between having a novel idea (generation) and implementing the idea (realization). Line managers can overcome this gap because they are the link between the employee and top management, they have the power to connect them and bring the needed sponsorship to implement the idea (Beath, 1996). They can assist in finding sponsors by persuading and negating with top management, overcoming resistance from top management and communicating effectively with them.

Finally, it is also important to **acquire support** before an employee can implement the novel idea (Veenendaal & Bondarouk, 2014). Without support, it is incredibly difficult to actually realize the idea. The line manager should engage in effective communication with team members. Their role is to enthusiasm, convince and inform team members of the beneficial outcomes of the novel idea to overcome resistance (Darnell et al., 2017) and build a coalition of support (Fernandez & Rainey, 2017).

Conclusively, an overview of these categories and the different behaviours they enfold, as stated in research, can be found in table 5. Based on these findings, this study proposes the following hypothesis:

H2: The line manager behaviours (a) providing resources, (b) finding sponsors and (c) realizing support are positively related to idea promotion of employees.

Table 5 | Behavioural categories for idea promotion

Behavioural category	Behaviours
Providing resources	Acquiring resources (Burgelman, 1983)
	Allocating resources (Dasgupta et al., 2011)
	Handling with organizational change (Kuratko et al., 2009)
Finding sponsors	Persuading top management (Sim et al., 2007; Tuominen & Toivonen, 2011)
	Effective communication with top management (Anderson & Bateman, 2000)
	Overcoming resistance among top management (Sinha & Srivastava, 2015)
	Negotiating with top management (Sim et al., 2007; Tuominen & Toivonen, 2011)
Realizing support	Overcoming resistance among team members (Sinha & Srivastava, 2015)
	Effective communication with team members (Anderson & Bateman, 2000)
	Ensuring support within the organization (Sinha & Srivastava, 2015)

2.3.3 | Idea realization

The final phase of IWB is idea realization which concerns the actual (planning of) the implementation of the novel idea. Closing behaviours are crucial in this final stage, because planning and structure are required for successful implementation (Mascareño et al., 2021). This phase is completely different from idea generation and also requires different behaviours than idea promotion. Where idea generation requires autonomy, idea realization requires structure and monitoring and lesser degrees of freedom.

First, the line manager should **structure** the process for the employee. They can control rules, establish routines, take corrective actions and make use of guidelines to ensure a structured implementation of the novel idea. Rules and setting standards combined with a clear focus, are found to be related to successful implementation of novel ideas (Miron-Spektor et al., 2011; Miron et al., 2004).

Secondly, it is also important for the line manager to **monitor** the process to avoid delays or ineffective implementation. The line manager should voice broad output expectations, follow specific plans and decrease variance within the team. This way, the manager can monitor the last stage of the IWB process, to reach successful implementation (Leonard & Swap, 2005). However, it must be stated that monitoring has a negative effect on idea generation and excessive monitoring will negatively affect the entire IWB process (Amabile et al., 2004; Oldham & Cummings, 1996). Thus, monitoring is an important behaviour to ensure successful implementation, but it should be moderate to avoid over-doing it.

Another important behaviour is **facilitation**. The resources acquired in idea realization should be provided to the employee when needed, or additional resources should be provided when necessary, because a lack of resources hinders implementation (Mengistie et al., 2015). In addition, sharing knowledge and information is also crucial for successful implementation (Mumford et al., 2002), because more information and knowledge helps to improve the novel idea. The role of the line manager is to provide the needed resources, knowledge and information to the employees.

It is important that the employee feels **acknowledged,** appreciated and possibly receive rewards for their efforts (de Jong & Den Hartog, 2007), because idea realization includes the successful implementation of the novel idea. When the line manager uses rewards combined with recognition and support, it positively affects the idea realization (Eisenberger & Cameron, 1996), because the employee has more focus and puts in more effort (de Jong & Den Hartog, 2007). Contrary, rewarding negatively affects idea generation (Amabile, 1988) and it is important to state that it must be combined with recognition in the implementation phase. Recognition includes giving praise, awarding achievements and ceremonies (Yukl, 2002) and positively affects the implementation of novel ideas (Redmond et al., 1993)

Finally, **feedback** is important to stimulate idea realization. They advise the employee on the implementation process and organize feedback from others (e.g. management, collegues, costumers). Hellström and Hellström (2002) proposed that willingness of employees to implement the idea depends on personal advise (feedback) from their line manager and positive-critical feedback will improve successful implementation. Additionally, customer feedback enhances new product success rates (Cooper, 2003) and will positively affect the overall innovation in the organization (Hippel, 2002).

In table 6, an overview of the different categories including the behaviours they enfold according to literature is given. In addition, this research proposes the following hypothesis:

H3: The line manager behaviours (a) structuring, (b) monitoring, (c) facilitating, (d) providing feedback and (e) acknowledging are positively related to idea realization of employees.

Table 6 | Behavioural categories for idea realization

Behavioural category	Behaviours
Structuring	Take corrective action (Rosing et al., 2011)
	Establish routines (Rosing et al., 2011; Zacher & Rosing, 2015)
	Sanctioning error (Rosing et al., 2011)
	Control of rules (Rosing et al., 2011)
	Use of guidelines (Zacher & Rosing, 2015)
Monitoring	Decrease variance (Avolio & Bass, 1995; Zacher & Rosing, 2015)
	Follow plans (Rosing et al., 2011)
	Broad output expectations (Avolio & Bass, 1995; Cardinal, 2001; Mumford et al., 2002)
Facilitating	Providing resources (de Jong & Den Hartog, 2007; Judge & Cable, 1997)
	Facilitating knowledge sharing (MacNeil, 2003; Mumford et al., 2002)
	Information exchange (Farris & Lim Jr, 1969; Mumford et al., 2002)
Providing feedback	Giving feedback (Amabile et al., 2004; de Jong & Den Hartog, 2007)
	Organizing feedback (de Jong & Den Hartog, 2007; Hellström & Hellström, 2002; Zhou & Oldham, 2001)
Acknowledging	Recognition (de Jong & Den Hartog, 2007; Redmond et al., 1993)
	Rewards (de Jong & Den Hartog, 2007; Eisenberger & Cameron, 1996)

2.4 | Research model

Based on all different effective leadership behaviours found in ambidextrous leadership and supportive supervision and the categorization performed by the researcher, a research model is proposed. An overview of which behaviours influence which phase is given in table 7. Later, the model in figure 1 will be tested to get insight on how to manage idea generation, idea promotion and idea realization effectively within knowledge intensive service-oriented organizations.

Table 7 | Research model

Behavioural category	Idea generation	Idea promotion	Idea realization
Inspiring	+		
Advising	+		
Supporting	+		
Empowering	+		
Knowledge diffusion	+		
Finding sponsors		+	
Realizing support		+	
Providing resources		+	
Providing feedback			+
Acknowledging			+
Structuring			+
Monitoring			+
Facilitating			+

Figure 1 | Research model

Inspiring
Advising
Supporting   H1 + → Idea generation
Empowering
Knowledge diffusion

Finding sponsors
Realizing support   H2 + → Idea promotion
Providing resources

Providing feedback
Acknowledging
Structuring   H3 + → Idea realization
Monitoring
Facilitating
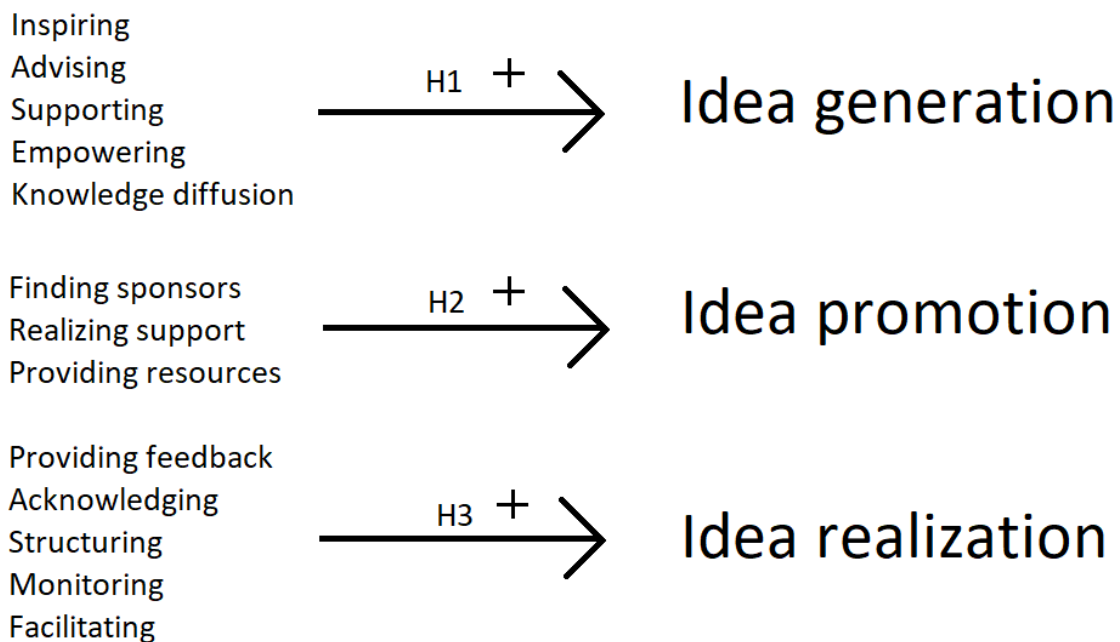
3 | Methodology

The design of this research enfolds the approach on how to answer the proposed research question. Because all data was collected at one organization, which is a good representation of a knowledge intensive service-oriented organization, this research can be characterised as a case study. In this research, a multi-method approach was used, which enfolds using multiple data collection techniques complementarily (Saunders et al., 2009), which are interviews and an online questionnaire. The advantage of using a multi-method approach is the ability to gain a deeper understanding of the subject and increasing the trustworthiness of the research (Babbie, 2016). The purpose of this project is exploratory research, it aims at deepening knowledge on line manager behaviour in the different phases of IWB.

3.1 | Case description

The organization where all data is collected is Flex People (pseudonym), this organization facilitates specific services for the different units (referred to as members). For each of these members, Flex People provides multiple services: back office, front office, finance, information technology (IT), human resources (HR) and management. The value of Flex People is facilitation to their members with the different specialized departments, employees perform tasks and advice the units within their field of expertise. The organization has 150 employees in total, including all members (measured in October 2021). Most of the units/members work in the field of recruitment, consultancy or human resources. Because Flex People facilitates all different services, the different units can focus on their core business. This makes them an interesting organization to study, because they aim at facilitating growth and enable ambitious employees to start their own unit. Over the past 5 years the group has grown from one to 17 different units. This shows high growth and high potential for innovative behaviours which is very interesting for this research.

The aim is to attain new insights regarding the role of managers in knowledge intensive service-oriented organizations. These organizations are likely to employ people who have high strategic value and /or high uniqueness (Lepak & Snell, 1999). When employees contribute highly to the strategic value of the organization, they are important and usually internally employed with the intention to build a long-term relationship. When employees have highly unique knowledge and skills, it is very difficult to replace them and therefore they should be closely tied to the organization using a transformational leadership style which is likely within knowledge intensive service-oriented organizations.

In order to generalize towards this specific type of organizations, the choice of a suitable organization was critical. Because of the high level of radical innovations (units), this was a great example of an innovative knowledge intensive service-oriented organization. To ensure representativeness for this sector, the chosen organization was examined based on characteristics of these organizations. Makani and Marche (2010) dedicated their research to defining knowledge intensive firms (KIF) and proposed that KIF's have two dimensions: worker and organizational. At the worker level, these organizations either focus on expertise and innovation. At the organizational level, it states that knowledge is the input and the product, so workers create new knowledge. Flex People has a focus on both expertise (especially at the head office) and innovation, with the stimulation of intrapreneurship (radical innovations). Moreover, the different departments at the head office have an advising role to the other organizations, therefore, their knowledge can be seen as both the input and the product. Based on this, Flex People is a representative sample for knowledge intensive organizations. Additionally, Flex People facilitates services for all their members, and thus can be seen as a service-oriented organization (Mills & Margulies, 1980). This makes Flex People a suitable case for this research because they are focussed on long term relations with their employees and can be defined as knowledge intensive and service-oriented.

3.2 | Data collection - interviews

This research has used two sources of data to gather insight in the relation between leadership behaviours and idea generation, promotion and realization. Because this research combined different elements from various literature streams and theories, the proposed research model should be tested before gathering quantitative data. Therefore, the first step was to conduct several interviews with employees within Flex People, this enabled deeper insights on the topic and allowed making adjustments to the research model.

3.2.1 | Respondents

Because this study aimed to get insights from both the employee and the line manager, it was decided that interviews were conducted within several departments. Within the departments HR, IT, back office and front office, the line manager and one of their team members were interviewed. The employees that were interviewed was chosen based on the input of the line manager, who indicated which employee is engaging in IWB and therefore suitable. This gives insight into different perspectives on effective line manager behaviours. In total, four line managers and four employees were interviewed by the author. These interviews took place in person, using a mobile device to record the interview, after permission was granted. The interviews took between 45-90 minutes each, with an average duration of 65 minutes. All interviews were conducted in person, at the head office of Flex People in June, July and August 2021.

3.2.2 | Procedure

To research which line management behaviours stimulate each IWB phase, qualitative data was collected by interviewing employees from Flex People. The interviews were semi-structured, specific questions were prepared, but anticipation on the given answers was also desired. This method is appropriate to collect open-ended data, explore interviewee's thoughts and beliefs on a specific topic (DeJonckheere & Vaughn, 2019) and when improvised follow-up questions are desirable (Rubin & Rubin, 2011). The aim was to explore opinions of line managers on IWB and improvising based on answers, and thus semi-structured interviews seemed most appropriate. The questions were based on four main themes: innovation and IWB in general, idea generation, idea promotion and idea realization. An overview of all the questions developed for the interviews with the managers and team members can be found in *Appendix 7.*

3.2.3 | Data collection and analysis

The data from the interviews was collected from four managers and four team members within Flex People. After conducting the interviews, they were transcribed by the interviewer and then coded using a combination of deductive and inductive coding, with the help of the software Atlas.ti. The codes were based on the proposed research model (deductive) and additional information given by the interviewees (inductive) was also included, the coding scheme used can be found in the results. The combination of inductive and deductive coding is acknowledged by scholars and extensively described by Grodal et al. (2020). Therefore, this method is the most appropriate to answer this research question.

These codes are based on the research model proposed by this study, including every behaviour belonging to a proposed category according to the literature. To ensure a complete view on this topic, this research was also open to different important leadership behaviours mentioned by the interviewee, these were also coded (deductive) and based on the input from the different interviewees and grouped together based on similarities within each behavioural category (when applicable). This was done to ensure exhaustiveness of effective leadership behaviours in idea generation, idea promotion and idea realization. The coding scheme used in this research is given in table 8. After the interviews, the proposed research model was adjusted, before quantitative data was collected and analysed.

Table 8 | Coding scheme for interviews

| 1st order	2nd order	3rd order	Sample quote
Behaviours important in idea generation	Inspiring	Innovative role modelling	"I want to set the example for my team members" [M4]
		Providing vision	"I have a strong vision on the future, also for my team" [M3]
		Intellectual stimulation	"I get challenged to think differently about things" [E3]
		Encouragement to think differently	"I feel stimulated by the openness to new ideas" [E1]
		Encourage creativity and initiatives	"My freedom helps me to come up with new ideas" [E4]
		Encourage experimenting/ risk taking	"There is always room for mistakes" [M3]
	Advising	Consulting	"My role is advising, they can always come to for help" [M2].
		Providing feedback	"I like to get feedback, to check whether I am on the right track" [E3]
	Empowering	Freedom	"I get a lot of freedom, my manager just trusts me with it" [E1]
		Delegating	"My manager delegated it to me, and I could explore and design it" [E1]
		Allow and encourage error	"You can never do something wrong, no idea is wrong" [M2]
		Room for own ideas	"My team members can make their own decisions" [M3]
	Knowledge diffusion	Stimulating KD	"We stimulate getting new ideas by attending webinars + seminars" [M1]
		Facilitating KD	"We have regular team meetings initiated by my manager" [E4]
	Supporting	Recognition	"I like to be recognized for my efforts" [E2]
		General support	"I like to engage in more personal relationships with my team" [M4]
		Idea-, work- and social support	"I try to establish a personal relationship with all my team members" [M3]
Behaviours important in idea promotion	Providing resources	Allocating resources	"I give my team all the resources they need to develop the idea" [M3]
		Acquiring resources	"When I need resources, my manager helps me to acquire them" [E2]
		Handling with organizational change	No sample quote
	Finding sponsors	Persuading MT	"I will bring the idea to the person that decides on the budgets" [M1]
		Effective communicating with MT	"It would be nice if my manager could keep the MT informed" [E3]
		Overcoming resistance at MT	No sample quote
		Negotiating with MT	No sample quote
	Finding support	Overcoming resistance team	"I would like it if my manager helps me to convince others" [E3]
		Effective communication team	"My manager communicates with all the labels" [E4]
		Ensuring support	"I like to create a support base for new ideas among the collegues" [M3]
Behaviours important in idea realization	Structuring	Take corrective action	"I would appreciate some control from my manager" [E3]
		Establish routines	No sample quote
		Sanctioning error	No sample quote
		Control of rules	No sample quote
	Monitoring	Use of guidelines	No sample quote
		Decrease variance	No sample quote
		Follow plans	"My manager feels involved and thus monitors the project" [E2]
		Broad output expectations	"I need more guidance in the later stages of IWB" [E3]
	Facilitating	Providing resources	"If there are lacking resources in the implementation, my manager has more the position to solve this than me" [E1]
		Facilitating knowledge sharing	"My role would be checking in what my team members need and get it for them" [M1]
		Information exchange	
	Providing feedback	Giving feedback	"Feedback is important to make the idea work" [M4]
		Organizing feedback	"I would like to get feedback from different stakeholders" [E3]
	Acknowledging	Recognition	"Recognition is important, preferably on the individual level" [M4]
		Rewards	No sample quote

3.3 | Data collection – online questionnaire

The online questionnaire gave insight into the IWB and leadership within the case company, Flex People. It enabled a deeper understanding of the topic by analysing the scores and reading the answers to all open questions, that stressed the importance of innovation and the openness of the organization to it. The specific items were based on the renewed research model to ensure correct measurement of effective leadership within Flex Group. The online questionnaire can be found in *Appendix 8.*

3.3.1 | Respondents

This online questionnaire was distributed to all employees of Flex People as well as all of their related companies (members). To get insights into all different perceptions, all employees (150 employees, October 2021) were included to get a complete picture of the line management in the entire organization. Every employee of Flex People is suitable for distributing this survey because everyone is either a top manager (who manage the line managers), line manager or employee. Thus, their input is of relevance and combining all functions will give a complete overview on this topic. The online questionnaire received 120 responses, resulting in a 80% response rate, which is considered good in research (Gordon, 2002). The characteristics of the respondents are visualised in figure 2, with exception of the unit, this is confidential.

Figure 2 | Demographics respondents
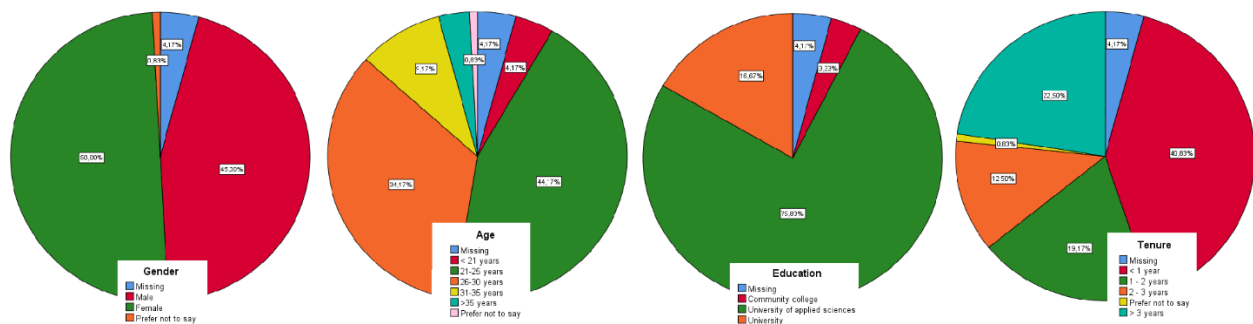
3.3.2 | Measurement

To collect the needed quantitative data, Qualtrics was used. Firstly, there were some general, open questions to get insight into the thoughts and ideas of the employees on innovative behaviour within the company, which is especially valuable to make sense of the findings. After this, the study measured the different behaviours of managers (IV) and the IWB in different phases (DV). These variables were measured using different statements, based on the research model (combination of supportive supervision and ambidextrous leadership). The respondents could answer each statement using a 5-point Likert scale with the following options: totally disagree, slightly disagree, neither disagree nor agree, slightly agree and totally agree. This scale is chosen because to measure opinions, the Likert scale is most appropriate (Peter, 1979; Shaw et al., 1967) and for clarity purposes the 5-point scale was the best choice.

The questionnaire was distributed to all employees of Flex People via the internal communication systems. The statements were based on the research model and different measures in literature. Because this research has developed a novel research model, the statements related to the behaviours of managers were based on different literature streams (Avolio & Bass, 1995; De Jong & Den Hartog, 2010; Yukl et al., 2002). The statements measuring the different phases of IWB were entirely based on the proposed scales by De Jong & Den Hartog (2008), they conceptualized four different phases and only those included in this research were used. Finally, the control questions were measured using multiple-choice questions with different options (mutually exclusive and exhaustive). Table 9-12 show all measurements in this analysis.

Table 9 | General questions | For more in-depth results for Flex People (their request)

Question	Question	Type	Answer options
How important is innovation for you?	Open-ended	Nominal	Text
Why do you think innovation is important?	Open-ended	Nominal	Text
What do you need from your manager to engage in innovative behaviour?	Open-ended	Nominal	Text
What do you need from the organization to engage in innovative behaviour?	Open-ended	Nominal	Text

Table 10 | Dependent variables | Questions on the different phases of IW B based on De Jong and Den Hartog (2008)

Phase	Statement	Type	Answer	Cronbach A
Idea generation	I often wonder how things can be improved I pay attention to issues that are no part of my daily work I search out new working methods, techniques or instruments I generate original solutions for problems I find new approaches to execute tasks	Ordinal	5-point likert scale	0,789
Idea promotion	I can make important organizational members enthusiastic for innovative ideas I attempt to convince people to support an innovative idea	Ordinal	5-point likert scale	0,726
Idea realization	I can systematically introduce innovative ideas into work practises I contribute to the implementation of new ides I put effort in the development of new things	Ordinal	5-point likert scale	0,752

Table 11 | Independent variables | Questions on the different behaviours of managers based on literature (Avolio & Bass, 1995; De Jong & Den Hartog, 2010; Yukl et al., 2002) and tested in qualitative analysis

Category	Statements	Type	Answer	Cronbach A
Inspiring	My manager challenges me to consider better ways to do my work My manager talks enthusiastically about what must be accomplished	Ordinal	5-point likert scale	0,911
Advising	My manager simulates me to look at a problem from different angles My manager provides me with assistance on how to improve	Ordinal	5-point likert scale	0,905
Supporting	My manager considers different needs, abilities, and aspirations My manager encourages me when I have a difficult task	Ordinal	5-point likert scale	0,915
Empowering	My manager gives me substantial responsibility in work activities My manager stimulates decision making without getting prior approval	Ordinal	5-point likert scale	0,931
Sharing knowledge	My manager involves others' expertise to improve an idea My manager seeks different perspectives to improve an idea	Ordinal	5-point likert scale	0,923
Finding sponsors	My manager makes important org. members enthusiastic for my idea My managers can effectively represent me to higher authority	Ordinal	5-point likert scale	0,934
Realizing support	My manager attempts to convince people to support my new idea My managers can effectively represent me to other colleagues	Ordinal	5-point likert scale	0,947
Providing resources	My manager provides me time when I need this for a project My manager provides me with budgets when I need this for a project	Ordinal	5-point likert scale	0,917
Providing feedback	My manager makes sure I get feedback from stakeholders on my idea My manager gives me feedback on my developed idea	Ordinal	5-point likert scale	0,989
Acknowledging	My manager praises me when I engage in effective performance My manager expresses satisfaction when I meet expectations	Ordinal	5-point likert scale	0,963

Structuring	My manager determines how to use resources to accomplish a task efficiently My manager schedules and coordinates unit activities efficiently	Ordinal	5-point likert scale	0,976
Monitoring	My manager checks the progress and quality of the work My manager ensures effectively meeting organizational requirements	Ordinal	5-point likert scale	0,990
Facilitating	My manager is effective in meeting my job-related needs My manager ensures that all my project-related needs are satisfied	Ordinal	5-point likert scale	0,975

Table 12 | Control variables | Questions on general personal information

Subject	Type of question	Type	Answer options*
Gender	Multiple choice	Nominal	Male, Female and Non binary
Age	Multiple choice	Ordinal	<25 years, 25-35 years, > 35 years
Education	Multiple choice	Ordinal	High school, MBO, HBO, University+
Tenure	Multiple choice	Ordinal	<1 year, 1-2 years, 2-3 years, 3-4 years, 4+ years
Label	Multiple choice	Nominal	All different members (Confidential)

*These answer options include an answer option: 'I do not want to say' to ensure that all possible answers can be given in this online questionnaire.

3.3.3 | Data collection and analysis

The data was downloaded from Qualtrics and imported into the programme SPSS. The first step was to compute indexes, because all variables were measured using multiple statements. This was done by adding up the scores of the relevant items and dividing them with the number of items. For each multi-item construct, the reliability was assessed using Cronbach's Alpha. In addition, the descriptives (min, max, mean, SD) for each construct and correlations between all variables were given. Because the high level of correlations between the variables, factor analysis was performed for the proposed leadership behaviours.

For IWB, the three phases will remain separately because of the extensive literature review and interviews that provide evidence for the differences between the phases. The literature enabled this study to distinguish three different phases. With the aim to make line management behaviours more specific it is most appropriate to use the theoretical confirmation and qualitative data to confirm three different phases and thus factor analysis was not seen to be appropriate. Because each phase was measured using multiple statements, an average score was computed for each phase, that will be used as dependent variable in this study to test the effect of the leadership behaviours (independent/ predictor variables).

These predictor variables are also measured with multiple items and thus averages were computed. However, since these behaviours are highly similar, as found in the literature as well as the high correlations between them, their dimensions should be reduced to enable further analysis. Therefore, for each 'group' of leadership behaviours that is prevalent for each phase, factor analysis is performed. Based on high factor loadings (>0,7) , novel variables were created that are a combination of all variables loading high on that factor. This factor was then given a new name that represents all of the enfolding behaviours.

For each phase, a multiple regression was performed to analyse which of the newly created behaviours had a significant effect. In addition, the power of the model and the variance it explained were given to highlight the significance of these results. In this analysis, 10 times the number of predictors is considered a fair response rate (Harrington, 2009). This research proposed 13 variables, and thus this study aimed at getting 130 responses. However, with 120 responses, close to the aimed amount and a response rate of 80%, it seems adequate in this research (Baruch & Holtom, 2008) and sufficient to make conclusions.

3.3.4 | Control variables

To ensure that the research is not affected by other influential factors, control variables are also considered. The descriptives of the control variables in this research can be found in table 13. To assure that the control variables are not influential, they were analysed as first. First, gender was checked by performing a T-test on IWB scores, the result was insignificant (T=1,342, p = 0,182). Secondly, age of the respondents was checked with ANOVA, the result was insignificant (F=1,524, p= 0,222). Thirdly, there was controlled for education of employees, using ANOVA, the result was insignificant (F=1,701, p=0,171). Fourthly, tenure was controlled with ANOVA, also given to be insignificant (F=1,381, p=0,237). Finally, the difference between the labels was analysed using ANOVA, which implied no significant differences (F= 1,217, p=0,278). It can be stated that these characteristics of the respondents do not have a significant impact on their scores on IWB (average score of all phases) and therefore this is not affecting the research.

Table 13 | Descriptives control variables

Variable	Answer options	Missing
Gender	Female (N=60, 50%), Male (N=54, 45%)	N = 6 (5%)
Age	< 25 (N=58, 48.3%), 25-35 (N=52, 43.3%), > 35 (N=4, 3.3%)	N = 6 (5%)
Education	MBO (N=4, 3.3%), HBO (N=91, 75.8%), University (N=20, 16.7%)	N = 5 (4,2%)
Tenure	< 1 year (N=49, 40.3%), 1-2 years (N=23, 19.2%), > 3 years (N=42, 35%)	N = 6 (5%)
Label	12 different options / labels (head office + label A to K) Head office (N=22, 18.3%), Label A (N=45, 37.5%), Label B (N=14, 11.7%), Label C (N=12, 10%), Label D (N=3, 2.5%), Label E (N=3, 2.5%), Label F (N=4, 3.3%), Label G (N=1, 0.8%), Label H (N=2, 1.7%), Label I (N=1, 0.8%), Label J (N=5, 4.2%), Label K (N=2, 1,7%)	N = 6 (5%)

3.4 | Trustworthiness

Reliability measures the level of random error in the research. The interviews were coded by multiple persons, to ensure similar understanding of the content of the interviews, which is also referred to as inter-coder reliability. In addition, there was a pre-test of the survey, to check comprehension of the questions by the respondents and the scales were logical and consistent throughout. Moreover, scales from literature and multi-level constructs were used to limit reliability issues. In addition, there were different types of validity, which all represent the idea that the researcher measured what they aimed to measure.

The different types of validity are external validity, internal validity and construct validity (Babbie, 2016). The external validity of the research refers to the generalization beyond the research setting (Babbie, 2016). The researcher aims to generalize towards knowledge intensive service-oriented organizations, which Flex People is a good representation of. Internal validity represents the causality of the relationships between the variables (Babbie, 2016). The interviews are used for sense-making and possible other influences are also taken into consideration, to exclude possible spuriousness. In addition, in the data analysis of the online questionnaires, the different leadership behaviours were tested on all different innovative phase behaviours to ensure that all possibilities were examined. The construct validity examines whether the measures actually reflect the concepts. To ensure construct validity, the operationalization is based on literature. The different conceptualizations of IWB were adopted from several scholars and the line manager behaviours were proposed based on research from different literature stream, these behaviours were also researched with the help of interviews at Flex People .

4 | Results

To answer the research question, multiple steps were taken. The first step was to test the proposed research model using interviews with different employees and managers within Flex People. Then, based on the findings, the research model was adjusted to ensure exhaustiveness. This renewed research model was then tested using an online questionnaire to find the relative importance of effective leadership behaviours for the different phases. Thus, these different methods are used complimentarily to answer the research question as thorough and exhaustive as possible within the scope of this research.

4.1 | Qualitative results

Starting the process to find an answer to the RQ were the interviews, structured around the different phases of innovation and the presumed important leadership behaviours for each phase. These results were based on the codes applied in Atlas.ti by the researcher, based on the coding scheme in table 8. Then, the categories were further strengthened with quotes from the interviews (M=manager, E=employee). There will be elaboration on IWB and innovation in general, idea generation, promotion and realization.

4.1.1 | Innovation at Flex People

Innovation is seen by several employees as renewing current methods and/or products, making processes more efficient and development to assure the future. One manager stressed *"standing still is going backward, we need to prepare for the future"* [M2] and another emphasized *"innovation is renewing existing methods, making it more efficient and considering sustainability"* [M4]. The importance of innovation was emphasized by all interviewees, they stated that innovation is necessary to grow, develop and stay competitive in the current competitive environment. One interviewee stated *"if you do what you have always done, you will get what you always got"* [M4]. Therefore, it can be stated that innovation is crucial for Flex People, and it should be stimulated by the different team managers.

All managers indicated that innovation could arise bottom-up, initiated by their team members. In their turn, team members indicated that managers play an important role in their process of IWB. They stated that they need support from the organization, effective communication, motivation, openness and inspiration to maximize their innovative ideas and behaviours. One employee voiced this "*if you just stay in the flow of daily work, nothing will change*" [E2], and another said "*there is always openness towards new ideas or ambitions within the organization*" [E4]. Managers also acknowledged their role in this process and voiced their efforts to maximize IWB within their teams with autonomy, openness, facilitation and support. Managers emphasized "*I want to facilitate needs regarding innovation and besides be a role model for my team, when it comes to innovation*" [M4] and "*my role is to use my network to connect my team members, facilitate their needs, support them and set an example for them*" [M3].

However, there are some challenges that need to be solved, because they hinder the innovation potential of Flex People. Interviewees stated that on the one hand Flex People is highly innovative, rapidly growing and expanding in different areas. On the other hand, internal processes at Flex People are somewhat outdated, have not changed in years and improvements are yet to be made. In terms of innovations, Flex People creates many radical innovations (novel organizations) but can increase their efforts regarding incremental innovations (e.g., automatizations, digitalization). This can be explained by "*as a service organization we are focussed on efficiency rather than innovation*" [M4], "*sometimes we stick to what we know, despite the current) trends*" [M1] and "*sometimes I feel like we are stuck in old patterns and ways of doing*" [M3]. This emphasizes the current challenges Flex People faces with regards to innovations, which can be resolved because of the organization's characteristics, according to the interviewees.

4.1.2 | Idea generation

There are different management behaviours that can positively affect idea generation among team members. These different behaviours were all grouped together and formed the proposed categories in the research model. The following categories were proposed to enhance idea generation: inspiring, advising, supporting, empowering and ensuring knowledge diffusion.

1| Inspiring

All interviewees agreed that inspiring is crucial to evoke idea generation among team members. Inspiration refers to stimulation of the creative part of the mind, to come up with novel ideas. In the interviews, managers expressed different approaches to realize creativity and team members voiced their desires and positive experiences regarding this topic. **Innovative role modelling** was one of the most prevalent examples of inspiring behaviours of the supervisor. Team members see this exemplary behaviour and are inspired by it "*my manager always has big ideas, and she involves me with them*" [E2]. Team managers are also aware of the importance of this "*I want to set the example for my team members*" [M4] and "*I think it is important to be an example for my team members*" [M3]. **Providing vision** is another way to inspire employees, by giving them guidance and future goals. Therefore, to guide your team towards the desired direction, they must be provided with guidance with a strong vision. This vision will inspire employees, different managers provide vision "*I bring my vision on the future with a lot of enthusiasm*" [M1], "*I have a strong vision on the future, also for my team*" [M3] and "*I have a strong vision for our department, we need to automate*" [M4]. **Intellectual stimulation** can also be used to inspire employees, interviewees indicated that intellectual stimulation can mainly be achieved by challenging current ways of work or processes and challenge employees to think outside of the box. Employees stated "*It is really nice if someone says you can also do this, because of this reason, so then I learn from it and the idea gets even better*" [E1] and "*I get challenged to think differently about things" [E3]*. **Encourage experimenting, risk-taking and different ways of thinking** can also be used to inspire team members. These two categories were found to be understood similar and thus these can be merged together in the renewed RM. Several employees felt this, as "*I feel stimulated by the openness to new ideas, not a single idea is wrong*" [E1] and "*my freedom helps me to come up with new ideas*" [E4]. One manager voiced "*there is always room for mistakes, success does not happen without any failure*" [M3].

2| Advising

When employees engage in behaviours related to idea generation, they can appreciate advise from their manager. The manager is usually more experienced within the industry, expertise and organization and thus can provide the team member with valuable insights. **Consulting** is the most prevalent way of advising within the manager-team member relationship. This enfolds giving advice on the development of the novel idea and how to cope with challenges. One employee voiced their appreciation of the consulting role as "*It is really nice if someone says you can also do it like this, because of this reason, so then I learn from it and the idea gets even better" [E1]*. Whereas one manager acknowledged "*My role is advising, they can always come to me if they need my help" [M2]*. **Providing feedback** is another important behaviour supervisors should engage in to advise their team members. This is specifically aimed at the development of the novel idea and is more content related. This can be of great value for team members, as one interviewee stated that "*I like to get feedback, to check whether I am on the right track and as some confirmation" [E3]*. **Coaching** was initially not a part of the research model because it overlaps with consulting and feedback, however the importance of the coaching role of the supervisor was stressed by

many interviewees. Whereas feedback is aimed at the content of the idea and consulting at the process of development, coaching is more aimed at the personal development of the team member. Different managers elaborated on this role as *"I will help them with their idea in a coaching way" [M4]* and *"I want to challenge my team-members to critically reflect on their ideas" [M1]*.

3| Supporting

One of the most important behaviours managers should engage in to enhance the performance of the employee in general is supporting. This is also stressed by the social leader-member exchange theory, which emphasizes the importance of the positive relationship between the manager and team member. **Recognition** is one of the most concrete ways to show support to team members. This enfolds giving team members credit for their work, complimenting them and rewarding them for extra efforts (e.g. being thoughtful, gestures). One of the employees voiced this *"I like to be recognized for the effort I put in to the optimizations I do in my work*" [E2] and "*I appreciate the personal touch and attentiveness of my supervisor, especially when I perform outstanding work*" [E3]. **Idea-, work and social support (general support)** are the most basic form of support, without the presence of it, the chances of innovations are minimal. In the original RM, idea-, work- and social support and general support were separated, however since the two were interpreted highly similar by interviewees, they are merged together in the renewed RM. Managers stressed "*I always try to establish a personal and positive relationship with all my team members*" [M3] and "*I like to engage in more personal relationships with my team, to improve our team prestation at work*" [M4]. In addition, an employee said "*My manager and me have similar ways of thinking, which I really like*" [E4]. **Establishing trust** was initially not proposed in the research model, however it was clearly emphasized by several interviewees. If there is no trust between the team member and the supervisor, the team member will not share their innovative ideas with them, with the fear that the supervisor will 'steal' the idea and not give them credit. Interviewees stressed this importance, *"mutual trust is really important for me"* [E3], *"trust is the foundation of my work-relations, without it I will not share my ideas"* [E1] and *"my team members need to know they can trust me, I will never betray their trust*" [M2].**Organizing meetings and communication** was also proposed by multiple interviewees within Flex People. This refers to regular meetings between the supervisor and team members to discuss work situations, ambitions, goals, personal development and even the private life of the employee when desired. This is really characterizing for Flex People since all team managers have regular (once a month) personal meetings with each employee. The aim of these meetings is to develop the employees, contribute to their personal growth and keep them committed to Flex People(to avoid turnover). One manager explained these meetings as *"I always have regular one-on-one meetings with my team, I think that is important to motivate them and achieve their personal goals"* [M1].

4| Empowering

Another leadership behaviour which is crucial in the generation of novel ideas is empowering. This enfolds giving the employees freedom and autonomy to make their own decisions, which is crucial for them to explore novel ideas. Empowering is especially relevant in knowledge intensive organizations, because of the highly specialised knowledge and expertise. To allow employees to discover how they can use the skills within their expertise, autonomy is crucial and thus they should be empowered by their supervisors. **Freedom** is an important condition to empower the employees. This freedom is needed for them to explore ideas, search for solutions and get inspired to generate new ideas. All managers stressed the responsibilities of their team members, and that they had flexible schedules to get their work done (e.g.

flexibility in working days, time, planning of days). This is experienced similarly by the employees, which they really appreciated. Employees stated that *"I like my freedom, I do not need a lot of guidance when generating new ideas"* [E2]*, "I get a lot of freedom, my manager just trusts me with it"* [E1] *and "my freedom helps me to come up with new ideas"* [E4]. **Delegating** can be understood similarly to freedom, however this also refers to ideas or projects that are initiated by others and then delegated to a team member. An example was given by an employee *"there was the wish for an employee journey, my manager delegated it to me, I could design the entire journey"* [E]. After the idea is delegated, freedom is needed to successfully accomplish the task, as one manager stated "*I give my team members room to explore, I always give them time and freedom for this" [M2].* **Creating an environment where error is allowed** is rephrased, before it was allowing and encouraging error, but this category name seems clearer. This refers to the work-environment that is open to learning processes, which include mistakes and error. Managers stress the importance of this environment "*you can never do something wrong, no idea is wrong"* [M2] *and "I want to leave my people as free as possible, I think it is important and trust is the foundation"* [M4]. **Room for own ideas** is another important factor in empowering employees. When employees feel stimulated to initiate their own, novel ideas, they will generate more innovative ideas. One of the managers said "*my team members can make their own decisions, they will learn from that, and I trust them"* [M3]. This category shows similarities with 'allow for contesting', but this was not emphasized by the interviewees and will not be part of the renewed RM.

5| Knowledge diffusion

This category was referred to as sharing knowledge, which implies knowledge shared by solely the supervisor. Since the interviewees stressed the importance of sharing knowledge within different settings (e.g. the team, external parties, other departments), knowledge diffusion seems to be a better description. **Stimulating knowledge diffusion** enfolds encouragement towards the team members to engage in communications with other parties. Interviewees express this importance, "*I like to meet with other organizations to discuss work related subjects to get new insights"* [E2] and *"we stimulate getting new ideas by attending webinars, seminars and networking" [M1].* **Facilitating knowledge diffusion** is similar to stimulating, however this refers to the concrete actions managers take to ensure knowledge diffusion. Employees stressed this in different ways, *"my manager initiates regular team meetings to bring us together and discuss new ideas" [E1] and "we have regular team meetings initiated by my manager" [E4].* Managers stated the following: *"with my team I attend webinars and seminars to get new ideas" [M2], "I always share knowledge, insights and connections when I see fit" [M3]* and *"I want my team to get inspiration at other organizations, outside of Flex People" [M4].* **Brainstorming** is a more explicit example of knowledge diffusion, as mentioned by several interviewees and therefore included in the renewed RM. Interviewees stated that: *"it really helps to get together to brainstorm on problems we encounter in our work" [E3]* and *"I aim to stimulate my team members, we have regular mini-brainstorm sessions" [M3].* **Informing about new developments** is another way of sharing knowledge, more specifically sharing relevant information. This refers to trends and developments that are prevalent within the industry or sector, that may be beneficial to Flex People. Because of the specialized nature of the different departments, keeping knowledge up to date is critical for renewal. The role of the manager here is to ensure up-to-date knowledge and share this with team members. One employee voiced this need as *"my field of expertise develops rapidly, therefore I need to know what is going on" [E4].* Managers stressed their ways of staying up to date "*w*e *need to look outside for inspiration, what others do and how can that be of value for us" [M3]* and *"I will gather relevant information for my team to enable improvements" [M4].*

4.1.3 | Idea promotion

Based on the research model, three different categories of behaviours are proposed to have a positive influence in idea promotion: finding sponsors, realizing support and providing resources. These are behaviours that supervisors should engage in to enable realization. Idea promotion is the bridge between a developed novel idea (ide generation) and the actual implementation of the idea (idea realization)

1| Finding sponsors

Before the implementation of the idea, sponsorship must be found for the novel idea. This relates to the resources and persons needed for the idea, that can be granted by different sponsors. In the situation of Flex People, the sponsors are the Management Team (MT) of the organizations, who have the authority to set budgets, allocate resources and provide time to realize ideas. **Persuading top management** is the most prevalent in this category, it refers to convincing the MT that idea is beneficial and worthy of the needed resources. Managers see this as an important role for them, "*I will bring the idea to the person that decides on the budgets" [M1], "I want to convince the higher management with enthusiasm and inform them of the idea" [M1], "I will present the idea with enthusiasm and commitment" [M3]* and *"I will bring the idea to management level and will make it concrete for them" [M4]*. This stresses that the managers will present the idea with enthusiasm and with relevant facts to persuade them and negotiate specifics with regards to resources for the idea. Closely linked to this is negotiating with and overcoming resistance at the management, however in this organization the MT is generally positive towards new ideas and almost never resistant to good novel ideas. Therefore, persuading the MT and convincing them seems to be sufficient and negotiations and overcoming resistance are less prevalent, which leads to the exclusion these behaviours in the renewed RM. **Effective communication with top management** was also found to be of essence in the search for sponsorship. The supervisor should act as the linking factor between the employee and the MT, and therefore assure effective communication between the two. One employee stressed *"approaching the management would be a big step for me, it would be nice if my manager could keep the MT informed" [E3]*. **Help with a plan for top management and representation to top management** were also considered to be important by multiple interviewees. The plan refers to making business models, writing out plans, clarifying the project and making calculations with regards to the costs and returns. One employee said "*with this novel idea, I need to make an overview of investments and returns for the MT, but I have never done it before, so my manager is helping me with this*" [E2]. These plans with objective information will help to convince the management of the idea. Interviewees noticed different things about this representation *"my manager always presents my ideas to management, because she is closer to them" [E1], "I think it is my job as a manager to represent my team members to the management if they do not feel secure enough to do it" [M2]* and *"the function of my manager is to go to the management with ideas" [E4]*.

2| Realizing support

It is crucial for an idea to be successful to have the support of the top management. However, this is not sufficient for successful realization of an idea, support should also be established among collegues and others within the organization. A strong support base is critical for the acceptance of the idea, because if this is not happening, the idea will not be accepted and used nor successful within the organization. Therefore, stakeholders within the organization should be convinced of the added value of the idea, for them or the organization. In this process, there is also an important role for the team manager.

Overcoming resistance among team members refers to convincing collegues that are not too enthusiastic about the idea or its added value. In organizations that exist for quite some years, like the biggest label in Flex People, some processes and routines are rooted in the daily work. People often have to get used to a new idea, which contests with current ways of working among collegues. Interviewees mentions *"I would like it if my manager helped me to convince others of my idea"* [E3] and *"it is important to bring the story convincing and communicate the benefits to collegues"* [M2]. Here the emphasis is on convincing and voicing the benefits for employees, so that their resistance will decrease, and they will eventually be supportive of the idea. **Ensuring support within the organization** is another aspect of the realization of a support base for the novel idea. Whereas overcoming resistance focusses on engaging with employees that are reluctant towards the new idea, ensuring support is more aimed at creating a large support base. One employee emphasizes the need for representation *"my manager represents me to internal and external stakeholders"* [E4]. In addition, managers voiced their responsibilities to create a support base: *"I like to create a support base for new ideas among the collegues"* [M3] and *"I want to involve people, I want to trigger them with the idea"* [M4]. **Effectively communicating with team members** is closely related to overcoming resistance and ensuring support. However, this is more specifically about informing and involving employees / stakeholders on the development of the innovation. A manager said *"I want to communicate the idea in such a way that others see the added value" [M1],* whereas employees stated that *"my manager is the connection between me and other labels if the plans are big"* [E3] and *"my manager has contact with all the labels and she communicates with them"* [E4].

3| Providing resources

Another essential step in idea promotion is to acquire the needed resources. Because every idea, regardless of the size, requires some amount of time, money, connections or other facilitation. The role of the manager here is to **acquire and allocate resources** for and to the innovative idea. These are still viable behaviours of team managers, however from the interviews it can be concluded that there should be more emphasis on the *different resources* needed than the acquirement and allocation of them. **Providing time** can be allocated in different ways: giving team members time in their workweek to develop the idea, creating a project team that works on the idea or even hiring extra FTE's to manage the extra workload. Employees stressed the importance of having the time to work on ideas/ projects and the role of the manager here, *"my manager gives me time to work on projects, I can decide when to work on it myself, I just need to prioritize"* [E2] and "*if I do not have enough time for my idea, my manager helps me to solve this"* [E4]. Likewise, different managers stated that they provided time-related resources for their team-members, *"I will give my team-member the time and budget they need-within boundaries"* [M1] and *"if my team needs an extra employee and it is necessary for success, I will make it happen"* [M3].**Money or budgets** is another crucial resource needed to enable realization of a novel idea. s. Again, the role of the manager is focussed on acquiring the budget at the MT and making it available for the employee. In the interviews, this was prevalent "*when I need monetary resources, my manager helps me to acquire them*" [E2] and *"I will present the idea to get the budget we need to realize it"* [M2]. **Connections and other resources** are the last category of needed resources for the employee to enable idea realization. Connections especially refer to the network of the MT and the team manager, which can be of value for the innovative employee. The role of the manager is to fulfil the needs of the employee with regards to these resources, as one employee said *"I expect to get whatever I need for my idea"* [E3]. Another manager stressed that the innovative employee should get whatever they need (within boundaries) to ensure success of the idea, *"I give my team members all the resources they need to develop the idea"* [M3].

4.1.4 | Idea realization

Different categories are proposed to be essential line manager behaviours to enhance idea realization within organizations: providing feedback, acknowledging, structuring, monitoring and facilitating. These categories and the behaviours they enfold are extensively discussed in the interviewees and will be elaborated on in the following sections.

1| Providing feedback

When it comes to the actual realization of the innovative idea, getting others' opinions and insights can be extremely beneficial for the idea. When fully invested in an idea, it is sometimes difficult to step back and look at the idea from a different point of view. **Giving feedback** refers to opinions, insights and ideas from the supervisor themselves, that might be beneficial to the idea. Since the manager is likely more experienced and has a high level of expertise (this is definitely the case in Flex People) their insights can help the idea further. Managers voiced the need to advice the employee, *"I will give them advice on how to approach certain things"* [M2] and *"feedback is important to make the idea work"* [M4]. **Organizing feedback** refers to opinions, insights and ideas from other stakeholders. Since stakeholders have some kind of interest regarding the idea, their opinion is important to consider. Different employees stressed the importance of getting feedback from stakeholders and the role of the manager here: *"I would appreciate it if my manager gave me back feedback from others"* [E2], *"I would like to get feedback before and after implementation from different stakeholders"* [E3] and *"I need information from stakeholders that use the new idea"* [E4].

2| Acknowledging / Recognition

To keep the employee motivated in this last stage of innovative work behaviour, it is important to acknowledge their efforts. Initially it was proposed that acknowledging was the overarching category important in this phase, which included **rewards and recognition**. In Flex People, recognition was emphasized by all different employees, they all agreed on the importance and confirmed this was relevant within the organization. Then, rewards were discussed with all interviewees, who indicated that these were not really applicable within the organization, the focus was more on the personal recognition. Therefore, this category is **renamed to recognition,** and it enfolds different ways that supervisors engage in giving recognition to their team members when realizing the innovative idea. **Positive feedback** is the most frequent way of giving employees recognition. Different managers emphasized the importance of giving recognition to their team members, *"recognition is important, preferably on the individual level"* [M4] and *"I want to show appreciation if someone achieved something"* [M1]. **Celebrating milestones** was also proposed to be of essence by several interviewees. Celebrating milestones and successes of the project will help to keep the employee, and other stakeholders, committed and motivated. Different managers elaborated on the idea of celebrating milestones, *"every project needs to be a party, and we will celebrate each milestone"* [M3] and *"I think it is important to celebrate each success, regardless of the size"* [M2]. **Giving credit** is also closely related with positive feedback, but it is especially aimed at others within or outside of the organization. This is of special importance to the employees, who stated that they would never trust a team manager that would take all the credit themselves instead of giving it to the initiator. They indicated that getting credit for the idea was important to them. "*I think it is good to name and give credit to those who worked on innovations"* [E2] and *"I need some recognition that you add value for the organization"* [E3]*. This implies that managers should give credits to the innovator when communicating the innovative idea to different parties, the MT, collegues and external parties.

3| Structuring

In the last phase of IWB, an important responsibility of the manager is to structure the idea realization processes. As found in the literature, supervisors can engage in different behaviours to assist the employee in this final, crucial phase. However, as found when discussing structuring with the interviewees most of the proposed behaviours were not applicable in Flex People, because they believe in high levels of autonomy and responsibilities. Behaviours like **sanctioning error, establishing routines, control of rules and use of guidelines** were not found to be appropriate in Flex People and will therefore not be included in the renewed RM. Corrective action was somewhat applicable and in addition the interviewees stressed the importance of coordination and setting and ensuring deadlines, within the role of the supervisors. **Taking corrective action** was the only one of the proposed behaviours that seemed somehow relevant according to the interviewees. They indicated high levels of responsibilities and autonomous behaviour, which decreases the need for structuring by the team manager. However, it was discussed that whenever work in project teams is necessary, the team (or project) manager should take corrective action if team members fail to deliver their work. One employee elaborated more on this, *"I would appreciate a planning and some control from my manager, if others do not deliver as promised, they should take action"* [E3]. **Coordination** can also be seen as some way of structuring the process. Different interviewees proposed the important role of the supervisor as coordinator in the idea realization. Managers stressed, *"it is important to give my team members guidance in this phase"* [M2] and *"It is my role to coordinate and keep the overview" [M1].* Additionally, different employees voiced their needs of coordination of the manager, *"I need some reference of what is expected, I would like a structure that I can use" [E2]* and *"I need some structure to ensure that my idea gets implemented timely"* [E3]. **Setting and ensuring deadlines** was also proposed to be a responsibility of the team manager by different interviewees. One manager approached this like *"I will make a project plan with different deadlines and phases"* [M4]. The desire of setting deadlines and making a concrete planning was also stated by employees, *"I would like a clear planning of time, when do I need to deliver"* [E2].

4| Monitoring

Somewhat related to structuring, monitoring of the idea realization is essential for success. Since the final phase of IWB requires more structure, monitoring is desired to ensure deadlines are met and successful implementation. This phase requires different behaviours from idea generation, the employee needs to work more structured, planned and following a specific route. Different behaviours related to monitoring were proposed, however one of them, **decreasing variance**, was not found to be applicable in Flex People because the role of the supervisor is never too prominent because of the high levels of responsibilities and autonomy, *"the monitoring is really informal, she gives me responsibilities" [E1]*. Though, the interviewees acknowledged some degree of monitoring within Flex People. **Following plans** is the first behaviour supervisors can use to positively influence idea realization. This refers to stimulation of the supervisor to proceed according to schedule and work based on plans. Similarly to this, the interviewees mentioned **monitoring and overviewing the progress** as important responsibilities of the supervisor. Interviewees indicated, *"my manager feels involved and thus monitors the project"* [E2], *"I always keep an eye on the deadlines, we must meet them"* [M1], *"I will check deadlines to ensure my team member is not drowning in the project"* [M3] and *"my manager helps me with planning and meets with me regularly"* [E4]. **Give broad output expectations** was confirmed by the interviewees as an important way of monitoring the innovative idea. Employees can appreciate some guidance in this final stage, so that they know what must be achieved. This is of value, because it can be difficult for the team member to be focussed on the end-

goal. Thus, it is within the responsibilities of the team manager to voice broad output expectations regarding the idea, also as a way of expectation-management. The need for monitoring is more prevalent in the latter stages than the earlier ones, as one employee phrased clearly *"I see the innovation process as a funnel, where I need more guidance in the later stages"* [E3]. **Ensuring development over time** enfolds the process after implementation, which should also be considered. Together with overviewing and monitoring the process, this behaviour was proposed by the interviewees and thus will be included in the renewed RM. Different managers elaborated on the need for development after the implementation, *"I will ensure the progress of the project and the planning, even after implementation" [M3]* and *"I will always ensure we are on track, and I will not stop until the idea is working optimally" [M4].*

5| Facilitating

The last important leadership behaviour in the process of IWB is facilitation of the needs of the employee. This is a broad behaviour which is mainly dependent on the specific needs of the innovative employee. **Providing resources** is essential to realize the innovative idea. Whereas in the idea promotion phase resources are acquired and allocated, here it concerns additional resources or other resources than already acquired. When projects cannot succeed because of lacking resources (e.g. time, money), the role of the supervisor is to provide additional resources, whenever seen fit. One employee stated *"If there are lacking resources in the implementation, my manager has more the position to solve this than me"* [E1]. One manager stated that, *"I am a coach on the side-line, but always there for them"* [M3] which implies the important role of supervisor as provider of needed resources and other important knowledge and information. **Facilitate knowledge sharing and information exchange** are also essential to facilitate the innovative employee. If there is specialized knowledge, either within or outside the organization, which is relevant for the idea of the innovative employee, the supervisor should share this knowledge with the employee. One manager stressed *"my role would be checking in what my team members need and get it for them"* [M1].

4.1.5 | Summary of interview results

The findings from the interviews complement the research model, that was based on an extensive literature review. To ensure exhaustiveness, the choice was made to start with qualitative analysis to enable adjustments of the proposed research model. Therefore, the qualitative analysis was the first step in answering the research question. An overview of the findings in this analysis, is given in table 14. All behaviours that are added to the research model are marked as well as the re-named behavioural category. Adjustments to the research model were also considered in the online questionnaire.

In the interviews, the aim was to get insight in all relevant leadership behaviours, therefore behaviours of supervisors were discussed for each phase, however the relative importance of each behaviour was not discussed. Thus, it can be stated that all of these behaviours are essential, but it cannot be said which are more important in knowledge intensive service-oriented organizations. To say something about the relative importance of these different behaviours, further analysis is required. Therefore, the proposed research model was adjusted, and this renewed model will be used in the quantitative data analysis. This allowed for answering the part of the research question focussed on 'the most effective', because the relative importance will be tested in the quantitative part of this study. Prior to the qualitative analysis, the online questionnaire was already proposed. However, because this research consists of different steps, adjustments to the questionnaire were made based on the qualitative findings before the distribution.

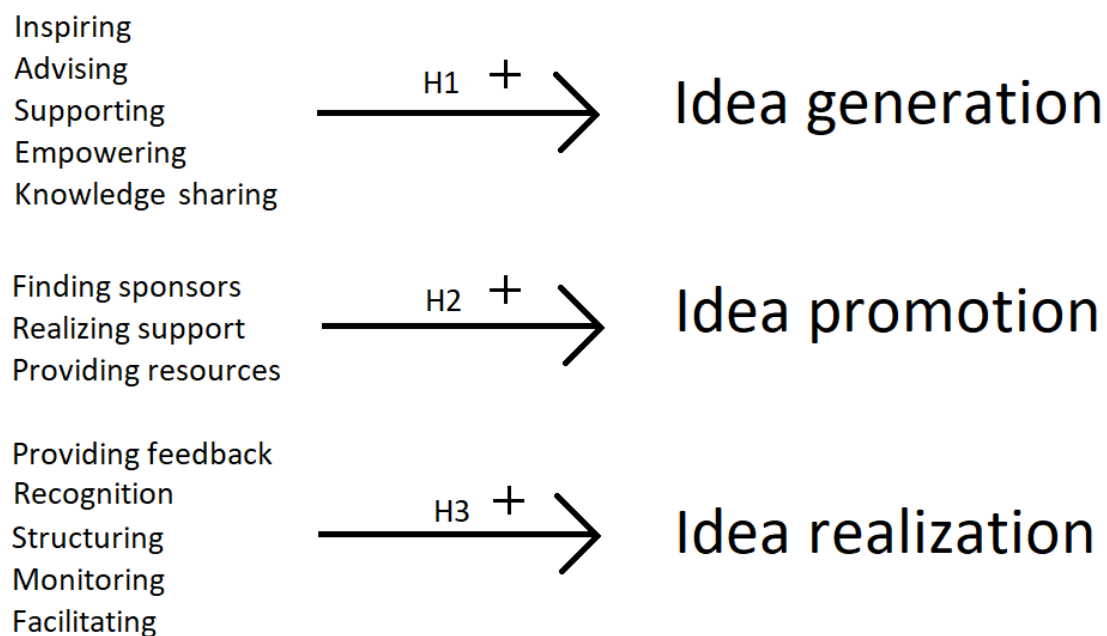*Table 14 | Categories and behaviours found for each phase*

Phase	Behavioural category	Behaviours
Idea generation	Inspiring	Innovative role-modelling Providing vision Intellectual stimulation Encouragement to think differently and creative Encourage experimenting and risk-taking
	Advising	Consulting Providing feedback Coaching
	Supporting	Recognition Idea-, work- and social support Trust Regular meetings
	Empowering	Freedom Delegating Establish an environment where error is allowed Room for own ideas
	Knowledge sharing	Stimulating knowledge diffusion Facilitate brainstorming / knowledge sharing Inform about new developments
Idea promotion	Finding sponsorship	Persuading top management Effective communication with top management Representation to top management Help with a plan for top management
	Realizing support	Overcoming resistance among team members Effective communication with team members Ensuring support within the organization
	Providing resources	Time (e.g. project team, extra personnel) Money / budgets Connections
Idea realization	Providing feedback	Giving feedback Organizing feedback
	Recognition	Positive feedback Celebrating milestones Giving credit
	Structuring	Take corrective action when necessary Coordination Setting and ensuring deadlines
	Monitoring	Follow plans Broad output expectations Monitoring and overviewing the progress Development over time
	Facilitating	Providing resources Facilitating knowledge sharing Information exchange

*Marked behaviours are new/changed behaviours found in the qualitative research

4.2 | Renewed research model

Some adjustments are made to make the research model more complete and clearer. As mentioned in the results, some category names (e.g. knowledge diffusion, providing resources) were renamed to cover their enfolding behaviours in a better way. In addition, some behaviours were mentioned when talking about specific categories, they were also included in the renewed research model to ensure exhaustiveness. Because the data collection in this study was done with different steps, the research model was adjusted and renewed based on the findings of the interviews. Following, this renewed research model was tested using an online questionnaire that provided this study with the necessary quantitative data to find which behaviours are most effective. The methodology of this quantitative research was built before the data collection, however the collection of this data only started after the novel research model was proposed and adjustments were made. Thus, it is important to emphasize that this was done stepwise, so that altercations could still be made in between analysis of the qualitative vs. quantitative data. The renewed research model that is used in further analysis, was based on the findings above and is given in figure 3.

Figure 3 | Renewed research model

Inspiring
Advising
Supporting
Empowering
Knowledge sharing

H1 + → Idea generation

Finding sponsors
Realizing support
Providing resources

H2 + → Idea promotion

Providing feedback
Recognition
Structuring
Monitoring
Facilitating

H3 + → Idea realization

4.3 | Quantitative results

The quantitative data was collected with the help of an online questionnaire, in which each variable was measured using different statements. This analysis was needed to answer the research question because this analysis allows for finding significant effects and thus measuring the relative importance of each behaviour. Where the qualitative data was used to ensure exhaustiveness, the quantitative data is used to find significance and importance of effective behaviours. All statements related to either IWB or leadership behaviours and the respondents could answer using a 5-point Likert scale. To get insight into the variables, an average score of all relevant items (statements) was computed. These scores vary from 1 (totally disagree) to 5 (totally agree) based on multiple statements. To get insightful results, multiple steps were taken to get insight in effective leadership behaviours in the different phases of IWB.

4.3.1 | Descriptives and correlations

After the scores for all dependent and independent variables were calculated by computing average scores for the multi-item measures, the descriptives were computed. Given in table 15, is the number of responses (N), the mean score, the standard deviation from the mean (SD), the minimum and maximum score given and finally the Cronbach's alpha to assess the reliability of the multi-item constructs. For the IWB-phases, the reliability score is above 0.7 and thus considered as reliable according to scholars (Gliem & Gliem, 2003; Tavakol & Dennick, 2011). For each of the leadership behaviours Cronbach's Alpha is even 0.9 or more, which gives certainty about the reliability of the constructs.

Table 15 | Descriptives dependent and independent variables

Variable	N	Mean	SD	Min	Max	Cronbach's Alpha
Idea Generation	120	4,0183	0,57977	2	5	0,789
Idea Promotion	120	3,8750	0,69889	2	5	0,726
Idea Realization	120	3,8139	0,69518	1,67	5	0,752
Inspiring	120	4,2395	0,70065	2	5	0,911
Advising	120	4,0378	0,71355	2	5	0,905
Supporting	120	4,1933	0,69839	1,5	5	0,915
Empowering	120	4,3445	0,66303	2	5	0,931
Knowledge	120	4,0336	0,78040	2	5	0,923
Sponsors	120	3,7143	0,79344	1	5	0,934
Support	120	4,1933	0,69839	1,5	5	0,947
Resources	120	3,9328	0,68558	1	5	0,917
Feedback	120	4,4138	0,64023	1	5	0,989
Acknowledging	120	3,6853	0,75622	2	5	0,963
Structuring	120	3,7284	0,80863	1,5	5	0,976
Monitoring	120	4,2284	0,64063	2,5	5	0,990
Facilitating	120	4,0517	0,64397	2,5	5	0,975

To check the correlation among the dependent and independent variables, Pearson's R is used, because the scores are based on multiple items using a Likert scale and thus can be seen as numerical. For correlations, a score higher than 0,5 indicate a strong effect, higher than 0,3 indicate a moderate effect and higher than 0,1 indicate a small effect according to well-established interpretations of Cohen (1988). For the control variables, Cramer's V is used, because these variables are numerical. Then, for the combination of control and (in)dependent variables is assessed using the Spearman's Rho, because this seems to be most appropriate for the combination. An overview of correlations is given in table 16 and 17.

Looking at the correlation table, there are some notable things. Between the leadership behaviours and phases there are many positive correlations. This indicates levels of similarity between the variables, which can be explained by some overlap of the leadership behaviours and phases. Though, it can be seen that proposed behaviours that are important in idea realization, have lower correlations with idea generation and promotion. This supports the proposed theories and shows that the 'closing' behaviours are not that effective in the first and second phase of IWB. Another observation is that the level of correlations between different leadership behaviours is relatively high, indicating that there is a large amount of overlap between the different leadership behaviours and the different phases of IWB, which will be dealt with in the next steps of the quantitative analysis, using factor analysis.

Table 16 | Correlation table full size

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
DV's																					
1 Idea Generation	1																				
2 Idea Promotion	,445**	1																			
3 Idea Realization	,549**	,511**	1																		
IV's																					
4 Inspiring	,326**	,274**	,458**	1																	
5 Advising	,413**	,294**	,427**	,650**	1																
6 Supporting	,221*	,208*	,416**	,567**	,623**	1															
7 Empowering	,180*	,203*	,330**	,460**	,447**	,605**	1														
8 Knowledge	,204*	,249**	,313**	,385**	,530**	,486**	,469**	1													
9 Sponsors	,302**	,320**	,504**	,561**	,465**	,490**	,450**	,474**	1												
10 Support	,221*	,261*	,416**	,567**	,623**	0,968**	,605**	,486**	,490**	1											
11 Resources	,245**	,271*	,437**	,445*	,412**	,510**	,457**	,345**	,673**	,501**	1										
12 Feedback	,066	,058	,316**	,446*	,370**	,481**	,459**	,291**	,520**	,481**	,549**	1									
13 Acknowledging	,041	,010	,202*	,306**	,258**	,387**	,202*	,272**	,245**	,387**	,315**	,258**	1								
14 Structuring	,101	,076	,168	,286**	,322**	,533**	,298**	,396**	,276**	,533**	,286**	,275**	,617**	1							
15 Monitoring	,107	,106	,309**	,454**	,397**	,482**	,367**	,364**	,452**	,482**	,439**	,425**	,396**	,554**	1						
16 Facilitating	,138	,092	,228*	,422*	,392**	,434**	,363**	,426**	,505**	,434**	,532**	,433**	,525**	,465**	,472**	1					
CV's																					
17 Gender	-,198*	-,233*	-,187*	-,012	,018	-,010	,166	,052	,024	,137	-,023	-,224*	-,233*	-,010	-,170	-,098*	1				
18 Age	,058	-,041	,096	-,119	-,011	-,031	-,158	-,228*	,010	-,124	-,248*	-,081	,015	-,031	,036	-,198*	,595**	1			
19 Education	-,023	,030	,016	,089	,060	-,019	,005	,024	,074	,128	,148	,011	,006	-,019	,030	-,125	,580**	,607**	1		
20 Tenure	,147	,479	-,082	-,163	-,102	-,186*	-,185*	-,107	-,113	-,096	-,210*	,053	-,156	-,186*	,040	-,266*	,591**	,660**	,594**	1	
21 Label	-,130	-,076	,021	-,076	,042	,062	,045	-,039	,004	,011	,011	-,072	,057	,062	-,042	,088	,614**	,500**	,724**	,511**	1

$*p < 0{,}05, **p < 0{,}01$

Table 17 | Correlations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
DV's																					
1 Idea Generation	1																				
2 Idea Promotion	,445**	1																			
3 Idea Realization	,549**	,511**	1																		
IV's																					
4 Inspiring	,326**	,274**	,458**	1																	
5 Advising	,413**	,294**	,427**	,650**	1																
6 Supporting	,221*	,208*	,416**	,567**	,623**	1															
7 Empowering	,180*	,203*	,330**	,460**	,447**	,605**	1														
8 Knowledge	,204*	,249**	,313**	,385**	,530**	,486**	,469**	1													
9 Sponsors	,302**	,320**	,504**	,561**	,465**	,490**	,450**	,474**	1												
10 Support	,221*	,261*	,416**	,567**	,623**	0,968**	,605**	,486**	,490**	1											
11 Resources	,245**	,271*	,437**	,445*	,412**	,510**	,457**	,345**	,673**	,501**	1										
12 Feedback	,066	,058	,316**	,446*	,370**	,481**	,459**	,291**	,520**	,481**	,549**	1									
13 Acknowledging	,041	,010	,202*	306**	,258**	,387**	,202*	,272**	,245**	,387**	,315**	,258**	1								
14 Structuring	,101	,076	,168	,286**	,322**	,533**	,298**	,396**	,276**	,533**	,286**	,275**	,617**	1							
15 Monitoring	,107	,106	,309**	,454**	,397**	,482**	,367**	,364**	,452**	,482**	,439**	,425**	,396**	,554**	1						
16 Facilitating	,138	,092	,228*	,422**	,392**	,434**	,363**	,426**	,505**	,434**	,532**	,433**	,525**	,465**	,472**	1					
CV's																					
17 Gender	-,198*	-,233*	-,187*	-,012	,018	-,010	,166	,052	,024	,137	-,023	-,224*	-,233*	-,010	-,170	-,098*	1				
18 Age	,058	-,041	,096	-,119	-,011	-,031	-,158	-,228*	,010	-,124	-,248*	-,081	,015	-,031	,036	-,198*	,595**	1			
19 Education	-,023	,030	,016	,089	,060	-,019	,005	,024	,074	,128	,148	,011	,006	-,019	,030	-,125	,580**	,607**	1		
20 Tenure	,147	,479	-,082	-,163	-,102	-,186*	-,185*	-,107	-,113	-,096	-,210*	,053	-,156	-,186*	,040	-,266*	,591**	,660**	,594**	1	
21 Label	-,130	-,076	,021	-,076	,042	,062	,045	-,039	,004	,011	,011	-,072	,057	,062	-,042	,088	,614**	,500**	,724**	,511**	1

*p < 0,05, **p < 0,01

With the different phases correlating approximately 0,5, there is some overlap between the phases of IWB. This is also something that scholars struggle with because the different phases have high similarities and therefore it is difficult to establish phases with lower correlations. Because this research aims to distinguish effective leadership behaviours specifically in the different phases, the choice is made to not perform factor analysis on the different phases. The literature provided enough evidence for the differences between the three phases, which was also found in the qualitative data analysis. Therefore, factor analysis will not be performed for the different phases of IWB, aligned with the aim of this study.

However, the high correlations between the leadership behaviours are somewhat problematic. Because the similarities between these behaviours are extremely high, it is crucial to reduce the amount of different leadership behaviours using factor analysis. This way, highly similar leadership behaviours will be grouped together to allow further analysis and reduce the similarities between the different behaviours.

4.3.2 | Factor analysis

Before the factor analysis is performed, it is important to mention again what is aimed to be tested in this research. Based on the extensive literature review and the qualitative analysis, this research proposed a research model with corresponding hypothesis. This research model proposes different leadership behaviours to be effective in the different phases of IWB. Therefore, the quantitative research will focus on the behaviours relevant in each phase, as proposed based on the literature and qualitative analysis. Because of the high level of correlations between leadership behaviours, it is important to engage in factor analysis to bundle highly similar variables. This factor analysis builds components with different variables loading on them. According to scholars (Harman, 1976), variables that have a loading of 0.7 or more, represents that the factor extracts sufficient variance from that variable. When performing factor analysis on the complete set of leadership behaviours, only two factors could be extracted, of which one with solely positive loadings. This seems unbeneficial to this research, because it differentiates from the findings in literature, where different behaviours are crucial in idea generation, promotion and realization.

Therefore, another approach for factor analysis was used to enable the reduction of dimensions within the different phases of IWB. Now, the factor analysis was performed three times (once per phase), each time including the behaviours that were proposed to be effective in the corresponding phase. Because the aim is to explore the most effective leadership behaviours for each phase, exploratory factor analysis will be performed. The factors will be extracted using principal axis factoring, because the behaviours are estimated of the leaders' personality and performance (Field, 2000). Rotation is not applicable, because only one factor is extracted for each group of behaviours. For each component, the loadings are given in table 18. Highlighted here, are the loadings that contribute enough to the factor (value >0,7), and thus should be part of the newly created factor (Harman, 1976).

Table 18 | Factor analysis

Variables	Factor 1 Idea Generation	Factor 2 Idea Promotion	Factor 3 Idea Realization
Inspiring	0,718		
Advising	0,795		
Supporting	0,787		
Empowering	0,671		
Knowledge sharing	0,623		
Providing resources		0,835	
Finding sponsors		0,806	
Realizing support		0,610	
Structuring			0,710
Monitoring			0,693
Facilitating			0,713
Providing feedback			0,490
Acknowledging			0,687

*Marked loadings are included in the new variables because of their high loadings

The first component enfolds behaviours relevant in idea generation. Behaviours loading high on the factor are inspiring, advising and supporting. Empowering and knowledge sharing also seem to have a moderate loading, however it is not high enough to include them in the new factor. These three variables will be combined together in one new variable that will be named: inspirational and personal advising.

The second component contains two behaviours that are relevant in idea promotion. The behaviours that load high on this factor are providing resources and finding sponsors. Together, these two variables will form the newly created variable: finding sponsors and resources. This excludes the effect of realizing support, which only has a moderate loading on the factor and thus is not considered.

The third component has two behaviours that load high on it, structuring and facilitating. These three variables together will form the new variable: structuring and facilitating. Monitoring, providing feedback and acknowledging are ought to be important in the last phase, but do not contribute enough to be included in the novel variable. These variables, and all other behaviours with loadings lower than 0.7, will not be considered in further analysis, because they do not explain enough of the variance in the newly built factors. To clarify the outcome of the factor analysis, a summary of the old and new variables can be found in table 19.

Table 19 | Variables before and after factor analysis

Old	New
Inspiring	
Advising	Inspirational and personal advising
Supporting	
Empowering	
Knowledge sharing	Excluded
Providing resources	
Finding sponsors	Finding sponsors and resources
Realizing support	Excluded
Structuring	
Facilitating	Structuring and facilitating
Monitoring	
Acknowledging	Excluded
Providing feedback	

4.3.3 | Regression

To test the effect of the leadership behaviours on the different phases of IWB, multiple regression analysis was performed. In total, three multiple regressions were performed, one for idea generation, idea promotion and idea realization. In each regression, all three newly created variables found in factor analysis were considered as well as the control variables. With the multiple regression, the effect of inspirational and personal advising, finding sponsors and resources and structuring and facilitating on all phases of IWB are measured. The outcome of these analysis can be found in table 20, with an indication of significance at each finding (significant effects are marked) to ensure clarity.

It is critical to include the control variables in the model. Though, all control variables were measured on a categorical level, and they need to be recoded to dichotomies to include them in the regression. Thus, gender was recoded to 'being a female', age was recoded to 'being below 26', education was recoded to 'university or higher', tenure was recoded to '2 years or more' and label was recoded to working at the head office (Flex Group). This enabled inclusion of the control variables in the multiple regression.

Table 20 | Multiple regression analysis

	Idea generation	Idea promotion	Idea realization
Constant	2,661	2,563	1,330
Inspirational and personal advising	0,361***	0,295**	0,373***
Finding sponsors and resources	0,033	0,215*	0,339***
Structuring and facilitating	-0,048	-0,181	-0,105*
Gender (female)	-0,114	-0,046	-0,083
Age (<26 years)	-0,087	-0,113	-0,200
Education (University)	0,021	-0,146	0,145
Tenure (>2 years)	0,223	-0,010	-0,148
Label (Head office)	0,082	-0,288	0,119
F-score	7,431***	5,322**	19,314***
R^2	0,161	0,121	0,341

*Marked behaviours are significant *** p < 0,01, ** p < 0,05, * p < 0,1

This analysis shows that inspirational and personal advising has a significant effect on idea generation. The first model explains 16,1% of variance in idea generation with the mentioned behaviours, establishing a model fit of 7,4. The second model shows a significant impact of inspirational and personal advising as well as finding sponsors and resources on idea promotion. The variables in this model explain 12,1% of the variance in idea promotion with a model fit of 5,3. The last model shows significance of all proposed behaviours on idea realization, explaining 34,1% of the variance and with a model fit of 19,3. For each of the regression models, the F-score was sufficient large (Kelley & Bolin, 2013) with a significance level below 0,05. These regressions help to assess the influence of these variables on the different phases.

4.4 | Hypotheses

These results enable the testing of the hypotheses and can therefore answer which leadership behaviours are effective in knowledge intensive service-oriented organizations. However, during the analysis of the quantitative data, it was found that the leadership behaviours correlate highly and therefore a factor analysis was needed. Though, this implicates that the proposed hypotheses include other behaviours than those analysed in the results. Therefore, these hypotheses cannot be confirmed or rejected, however some remarks can be made about them. The different hypotheses proposed in this research are given below, with some findings that support or reject them.

H1: The line manager behaviours (a) inspiring, (b) advising, (c) supporting, (d) empowering and (e) enabling knowledge diffusion are positively related to idea generation of employees.

Evidence for hypotheses 1A, 1B and 1C is provided, because inspirational and personal advising was found to have a significant effect on idea generation. However, because of the newly created variable, the hypothesis cannot be accepted, even though there is evidence that supports the statement. Contrary, little support was found for hypotheses 1D and 1E and thus they can be rejected.

H2: The line manager behaviours (a) providing resources, (b) finding sponsors and (c) realizing support are positively related to idea promotion of employees.

Evidence for hypotheses 2A and 2B was found because finding sponsors and resources was found to significantly affect idea promotion. Since this variable is a combination of the 2A and 2B, there is support for this hypothesis, even though it cannot be completely accepted. Opposed, there is no evidence or support for hypothesis 2C and thus it can be rejected.

H3: The line manager behaviours (a) structuring, (b) monitoring, (c) facilitating, (d) providing feedback and (e) acknowledging are positively related to idea realization of employees.

Evidence for hypotheses 3A and 3C were found in the quantitative analysis, because the newly created variable that is a combination of the two, was found to have a significant effect on idea realization. However, this is not exactly the same as proposed, and thus the hypothesis cannot be confirmed, but there is support for it. Contrary, because of the lacking support, hypotheses 3B, 3D and 3E are rejected.

Even though the hypothesis cannot be confirmed because of the adjusted variables, based on the performed factor analysis, insights into which leadership behaviours are effective in idea generation, promotion and realization within knowledge intensive service-oriented organizations is provided. Additionally, it is also important to acknowledge that some leadership behaviours did not solely be effective in the proposed phase, but also in other phases of the IWB-process. The role of the leader becomes increasingly complex because these leadership behaviours are cumulative, in the first phase only one behaviour is desired from the manager, while more behaviours are needed in the latter phases.

5 | Discussion

This research has explored the role of team managers in knowledge intensive service-oriented organizations in the different phases of IWB: idea generation, promotion and realization. These phases were identified and categorized based on earlier research and have significant differences among them. In previous leadership literature, the role of the team manager in the IWB-processes was analysed using a uni-dimensional view on IWB. Since this research has found that the different phases require different behaviours from the employee in line with current research (De Jong & Den Hartog, 2007; Rosing et al., 2011), the role of the manager in each is also different. Therefore, it is complementing the earlier research on the role of the team manager with the literature on ambidextrous leadership (Rosing et al., 2011) and on supportive supervision (De Jong & Den Hartog, 2007). Supportive supervision was specifically focussed on IWB, but mostly treated it as a uni- or two-dimensional construct. Therefore, there was a need to add more context to when these behaviours were effective, using the theory on ambidextrous leadership. To enable extensive analysis of this specific topic literature mixed-method research was performed. With this approach, deeper comprehension of the subject and a complete oversight of behaviours was assured. The results from the analyses implied that all proposed behaviours have positive correlations with their corresponding phase, however, not all results were found to be statistically significant. Therefore, all significant behaviours, which can be seen as most important, will be discussed for each phase.

5.1 | Main findings

Within the **idea generation** phase, it was described that employees wanted to be inspired, advised, supported and empowered by their team leader, that also enabled knowledge sharing. Based on the interviews, all behaviours seemed to be essential in the stimulation of idea generation among team members in line with the literature on leadership. However, the qualitative analysis did not consider the relative importance of the different behaviours and thus quantitative analysis was used to deepen the knowledge on leadership. Here, the combination of inspiring, advising and supporting (inspirational and personal advising) was found to have a significant impact on idea generation. This confirms the findings in earlier research on ambidextrous leadership (Rosing et al., 2011; Zacher & Rosing, 2015) that state that opening behaviours enhance exploration. Additionally, these findings further develop the literature on supportive supervision and strengthen the theories on the effect of leading-people behaviours (Mumford et al., 2002), relationship-oriented behaviours (Tabernero et al., 2009) and specific behaviours (inspiring, advising, supporting) found by different scholars (de Jong & Den Hartog, 2007; Oldham & Cummings, 1996; McGourty et al., 1996; Mumford et al., 2002; Sosik et al., 1998). This implies that the context is key in determining which leadership behaviours are most effective, as learned from ambidextrous leadership theory, which makes inspirational and personal advising the most effective behaviour in idea generation.

Within the **idea promotion** phase, earlier research has proposed the role of manager as one to arrange resources, find sponsors and realize support. The importance of these behaviours was confirmed by the interviewees in Flex People, emphasizing the relevance in stimulating idea promotion. Though, further analysis was needed to determine which leadership behaviours were most effective. It was found that finding sponsors and resources had a significant positive effect on idea promotion. This research builds on idea championing literature, that emphasizes the importance of mobilizing resources (Burgelman, 1983; Dasgupta et al., 2011) and influencing the management (Sim et al., 2007; Tuominen & Toivonen, 2011). It also confirms theories on the importance of the role of line managers in this specific phase (Howell & Higgins, 1990). Therefore, within the context of promoting ideas, which is not explicitly considered in ambidextrous leadership, finding sponsors and resources are the most effective leadership behaviours.

Besides this confirmation, there was also a novel finding on which behaviours are essential in idea promotion. Inspirational and personal advising has a positive effect on idea generation, as described in the literature, however this research demonstrates that it is also an effective leadership behaviour in idea promotion. Research (Alghamdi, 2018; Oluwefemi et al., 2020) on ambidextrous leadership was not able to establish an effect of opening or closing behaviours to idea promotion, while this research does establish the positive effect of different opening behaviours on idea promotion. This is similar to literature on supportive supervision as most scholars analysed the role of the manager in IWB in only one or two different phases, inspirational and personal advising was solely linked to idea generation (McGourty et al., 1996; Oldham & Cummings, 1996; Mumford et al., 2002; de Jong & Den Hartog) Therefore, this research provides the first evidence that opening behaviours are also effective in the idea promotion phase.

Within **idea realization**, the proposed research model stressed the role of the manager to structure, monitor, facilitate, give recognition and provide feedback. In the interviews performed within Flex People, most of these behaviours were confirmed to be important in stimulating idea realization. Though, the qualitative analysis enabled this research in giving relative importance to the different behaviours, finding that structuring and facilitating are the most effective in stimulating idea realization. This confirms earlier findings of scholars (Alghamdi, 2018; Oluwefemi et al., 2020) describing that closing behaviours are effective in idea realization. It seems that these behaviours, that aim at exploitation and structuring the process, are beneficial to idea realization. Aligned, it confirms task-oriented behaviours (Tabernero et al., 2009) and leading-work behaviours (Mumford et al., 2002) to have a positive effect on idea realization. Conclusively, the last stage of IWB requires structuring and facilitating from the line manager.

However, these are not the only behaviours that are needed in this phase, inspirational and personal advising as well as finding sponsors and resources are still essential in idea realization. This contradicts existing literature that states that opening behaviours should solely be used in the first phase and closing behaviours in the last phase (Alghamdi, 2018; Oluwefemi et al., 2020). Similarly, research on supportive supervision considers creativity-aimed behaviours to only be effective in idea generation (McGourty et al., 1996; Sosik et al., 1998; Oldham & Cummings, 1996; Mumford et al., 2002; de Jong & Den Hartog, 2007) and championing behaviours only in idea promotion (Burgelman, 1983; Sim et al., 2007; Dasgupta et al., 2011; Tuominen & Toivonen, 2011). This research contests these ideas, finding that inspirational and personal advising as well as finding sponsors and resources is still required in idea realization. Therefore, it can be stated that the role of the leader in IWB is more complex than current literature may suggest.

Besides identifying effective behaviours in the different phases of IWB, another interesting observation is that the process becomes more complex over time. In the first phase, the role of the supervisor is relatively limited, with only the inspiring, advising and supporting role. However, over time, this role becomes more complex as the leader should engage in more behaviours further in the IWB-process. Effective behaviours to manage the IWB-process seem to be cumulative, with each phase different behaviours become effective while the importance of the previous behaviours remain the same. This shows the complexity of the role of the manager in this process, the further the employee is in the IWB process, the more different behaviours are needed from the team manager. These behaviours may be conflicting at times and thus temporal flexibility to use them interchangeably is required. This is in line with earlier research on ambidextrous leadership (Rosing et al., 2011), emphasizing the importance of the adjustment of behaviours based on the context. Therefore, it can be said that different leadership behaviours are effective in the IWB phases, and they should be deployed based on the context, which becomes increasingly complex over time due to the amount of effective (and possibly contradicting) behaviours.

In this specific type of organization, knowledge intensive service-oriented, the management of the IWB process is especially relevant due to the reliance on human capital and expertise within the organization. As the knowledge of employees is the product, it is important to ensure and stimulate innovative behaviours. This need for innovation determined the setting and case study of this research (knowledge intensive service-oriented). Whereas literature proposes strict closing behaviours (Rosing et al., 2011), monitoring, (Blake & Mouton, 1964; Leonard & Swap, 2005; de Jong & Den Hartog, 2007; Mascareño et al., 2021) and control of rules to decrease variance (Avolio & Bass, 1995; Zacher & Rosing, 2015), the analysis of the qualitative data suggested otherwise. Because of the high level of expertise and maturity of employees, strict monitoring was not appreciated in the entire process. Some degree of structuring had positive effects and facilitation of the line manager was also effective, yet strict controlling leadership styles are not appropriate in this type of organizations and thus are not considered to be effective here.

5.2 | Answer to research question

The aim of this research was to explore which leadership behaviours are the most effective in stimulating idea generation, idea promotion and idea realization among employees in knowledge intensive service-oriented organizations, in line with the central research question:

Which line manager behaviours are most effective in stimulating idea generation, idea promotion and idea realization of their team members in knowledge intensive service-oriented organizations?

Based on literature on supportive supervision and ambidextrous leadership, different behaviours were explored in relation to idea generation, promotion and realization. Here, it was found that inspirational personal advising is effective in all phases, finding sponsors and resources is effective in idea promotion and realization as well as that structuring and facilitating is effective in idea realization for employees in knowledge intensive service-oriented organizations. To ensure clarity of these findings, a visualization of the answer to this research question is given in figure 4. Each variable given in the model above is a combination of different categories of leadership behaviours, which all include several concrete behaviours. An overview of which behavioural groups enfold which concrete behaviours (for each phase) is given in table 21. With this overview, it is relatively easy to see which leadership behaviours are effective in stimulating idea generation, promotion and idea realization in knowledge intensive service-oriented organizations, answering the research question extensively and providing guidance for organizations .

Figure 4 | Answer to research question

Inspirational and personal advising ———+———> Idea generation

Inspirational and personal advising
Finding sponsors and resources ———+———> Idea promotion

Inspirational and personal advising
Finding sponsors and resources
Structuring and facilitating ———+———> Idea realization
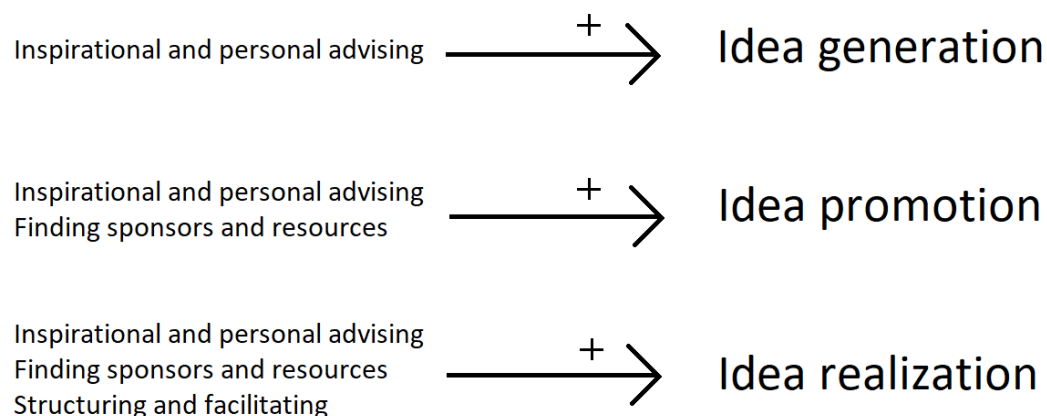
Table 21 | Behaviours for each category and phase

Behavioural group	Includes	Behaviours	Effective in
Inspirational and personal advising	Advising	Consulting Providing feedback Coaching	All phases of IWB
	Inspiring	Innovative role-modelling Providing vision Intellectual stimulation Encouragement to think differently and creative Encourage experimenting and risk-taking	
	Supporting	Recognition Idea-, work- and social support Trust Regular meetings	
Finding sponsors and resources	Finding sponsors	Persuading top management Effective communication with top management Representation to top management Help with a plan for top management	Idea promotion & Idea realization
	Providing resources	Time (e.g. project team, extra personnel) Money / budgets Connections	
Structuring and facilitating	Structuring	Take corrective action when necessary Coordination Setting and ensuring deadline	Idea realization
	Facilitating	Providing resources Facilitating knowledge sharing Information exchange	

5.3 | Theoretical implications

This research combined the extensive literature stream of supportive supervision with the context-focussed literature on ambidextrous leadership. Combining these complementary theories, this research fulfils a gap in literature, as identified by Seeck and Diehl (2017) making several theoretical implications.

Firstly, this research found different behaviours to be most effective in the different phases of IWB. Applying theories of ambidextrous leadership (Rosing et al., 2011; Zacher & Rosing, 2015) enabled this study to link specific behaviours to different phases. This confirmed findings from scholars (Alghamdi, 2018; Oluwefemi et al., 2020; Mascareño et al., 2021) that opening behaviours were linked to idea generation and closing behaviours were linked to idea realization. Thus, ambidextrous leadership provided a solid base for determining the context in which leadership behaviours were effective. Especially because of the temporal flexibility, stressing the importance of using behaviours interchangeably (Rosing et al., 2011). However, it must also be acknowledged that the use of this ambidextrous leadership model is less straightforward as it seems, because some opening behaviours are also found to be effective in idea realization. This is because the process becomes more complex over time and more, possibly contradicting, behaviours are required which makes engaging in temporal flexibility essential. Conclusively, confirming the effect of opening and closing behaviours on IWB-phases and underlining the importance of temporal flexibility, this study contributes to literature on ambidextrous leadership.

Secondly, different literature on supportive supervision indicated which behaviours are most effective in idea generation, promotion and realization. Many findings of scholars were also confirmed in this research, the effect of inspiring (Stogdill, 1963; Blake & Mouton, 1964; Jaussi & Dionne, 2003; de Jong & Den Hartog, 2007), advising (Zhou & Oldham, 2001; Amabile et al., 2004; de Jong & Den Hartog, 2007) and supporting (Redmond et al., 1993; McGourty et al., 1996; Mumford et al., 2002; de Jong & Den Hartog, 2007;) on idea generation. The effect of finding sponsors (Anderson & Bateman, 2000; Sim et al., 2007; Tuominen & Toivonen, 2011; Sinha & Srivastava, 2015) and finding resources (Burgelman, 1983; Kuratko et al., 2009; Dasgupta et al., 2011) on idea promotion. Finally, the effect of structuring (Rosing et al., 2011; Zacher & Rosing, 2015) and facilitating (Farris & Lim Jr, 1969; Mumford et al., 2002; MacNeil, 2003; Amabile et al., 2004; de Jong & Den Hartog, 2007) on idea realization was confirmed in this study.

However, leadership behaviours that are essential in the first phase of the innovation process, are not considered to have a positive effect in the later stages. Some specific behaviours, like providing vision, consulting and innovative role modelling were found effective in idea realization (Sosik et al., 1998; Jaussi & Dionne, 2003; Amabile et al., 2004; de Jong & Den Hartog, 2007). But in general, these types of behaviours are proposed to be most important in the first phase. This research shows that inspirational and personal advising are effective in all three phases of IWB, which has not been explicitly shown before in supportive supervision literature and thus contributing to it. Similarly, the championing behaviours that different scholars (Burgelman, 1983; Sim et al., 2007; Tuominen & Toivonen, 2011; Dasgupta et al., 2011) proposed to be essential in idea promotion, was found to be effective in idea realization as well. This contributes to championing literature by extending the influence of its behaviours to an extra phase in the process. Conclusively, this study draws further on supportive supervision literature, by emphasizing the context of effective leadership behaviours and finding that inspirational and personal advising is effective in all phases and finding sponsors and resources is effective in the last two phases.

Thirdly, this research is valuable for leadership literature in the context of innovative work behaviour, by providing several valuable new insights on the topic. Besides furthering the research ambidextrous leadership and supportive supervision, this research also provided an entirely new insight on leadership of IWB. Different scholars already stressed the need of different behaviours (De Jong & Den Hartog; Rosing et al.,2011) in the three phases and this study confirms these ideas. However, the results also indicate that some behaviours are effective in multiple phases, and even more interestingly, that the role of the leader in the process of IWB becomes more complex in later phases. In this study a clear process was established, where effective leadership behaviours to stimulate idea generation, promotion and realization are cumulative over time, which is, based on current knowledge, a novel finding within the field of leadership.

Finally, this research was conducted in a specific research context, knowledge intensive service-oriented organizations. These types of organizations depend highly on the expertise of their employees, making their development and innovativeness even more relevant. This research found that in this specific type of organization, a lesser degree of closing behaviours is needed. Whereas Rosing et al. (2011), proposed to use controlled monitoring to enable exploitation, it was found to be effective in a softer shape within this study. A high degree of monitoring and control was not desired, because of the high levels of expertise, employee skills and autonomy, the role of the manager was more focused on structuring and facilitating. This also conflicts findings from scholars on supportive supervision who emphasized the need for monitoring (Avolio & Bass, 1995; Cardinal, 2001; Mumford et al., 2002). This shows that effective leadership is slightly different based on organizational type, in this case knowledge intensive service-oriented. Therefore, this contributes to literature on knowledge intensive service-oriented organizations.

5.4 | Practical implications

This research will help organizations that are knowledge intensive service-oriented. Since these types of organizations are highly dependent on the expertise of their employees, which is also (one of) the product(s) of the organization, it is especially important to stimulate innovation among team members. Because the current field is rapidly changing, these types of organizations should develop and strengthen their human capital by stimulating innovative behaviours. Therefore, the results of this research can be used to assist managers in knowledge intensive service-oriented organizations to further develop managers to stimulate IWB among their team members.

Accordingly, table 21 (page 48) gives an overview of which concrete behaviours are effective in stimulating idea generation, idea promotion and idea realization among employees. Organizations can use this information to recruit, promote and develop their team managers. When an organization can identify which phase of the IWB-process is problematic, this overview easily shows which behaviours are most effective. Therefore, if a specific team within the organization is struggling with one of the phases, behaviours that would benefit this team and help them develop can be identified relatively easily.

This will help organizations to train their team managers in such a way that these behaviours can effectively deployed. They can do this in different ways, such as providing training, mentoring or education programs to ensure their managers develop the competences to engage in the proposed behaviours. Another way to approach this is to use these behaviours and competences in the selection of new managers, either new to the organization (recruitment and selection) or current employees (promoting).

Conclusively, this research helps organizations and team leaders to effectively stimulate the different phases in the IWB-process of team members. To ensure clarity and comprehensiveness, figure 5 shows the different effective leadership behaviours that stimulate the phases of IWB. Additionally, to see which behaviours belong in the categories, table 21 (page 48) can be consulted. This gives managers the information they need to adapt their behaviours based on the needs of the team and the IWB phase. This can be a starting point for stimulating innovation in knowledge intensive service-oriented organizations.

Figure 5 | Effective leadership behaviours in IWB
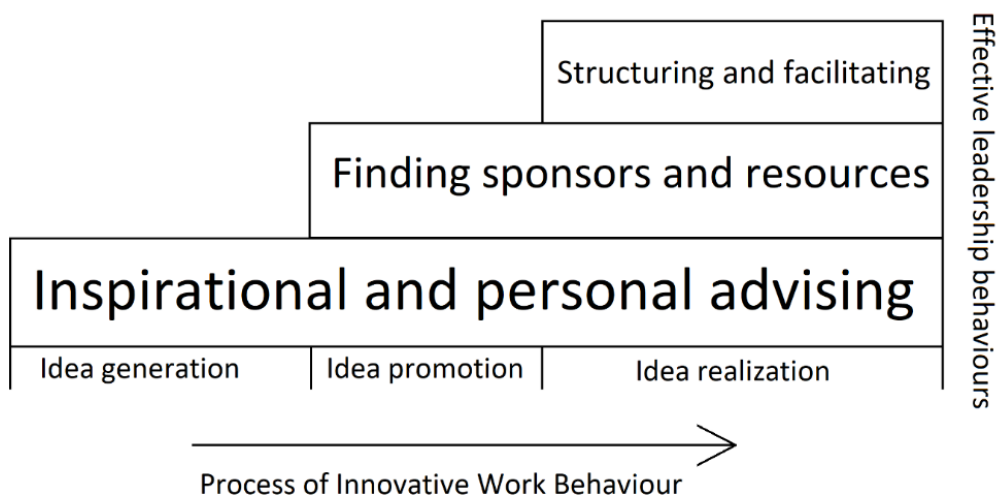
5.5 | Limitations and future research

It must be acknowledged that this research has limitations, which could give guidance for future research projects. Firstly, the sample size in this research was rather small, due to the number of employees in Flex People (N=150), which impacts the generalizability. However, with a response rate of 80% (N=120), the number of responses within Flex People is more than sufficient to represent the sample. Furthermore, a relatively limited number of interviews (eight in total) were conducted which could have hampered the identification all behaviours associated to the stimulation of the IWB phases. Further research could explore the effect of increasing the number of interviews in the qualitative part of this research to test whether performing more interviews (possibly within different organizations) would give similar results.

Secondly, the majority of employees of Flex People are HBO educated and are relatively young which makes them a relatively homogenous sample or case study. It would be interesting to see if the results hold up in other companies in this specific field with more heterogeneous employees, in age as well as in educational level and other characteristics. Therefore, for future research, it would be interesting to perform similar research in an organization (within the same field or within another field) with larger variability among employees to verify these results among a more heterogenous population.

Thirdly, this research enfolded respondents from different units (within Flex People), however, there were some differences among them. Using all employees was necessary in establishing a large enough sample size, but it could have affected the results because of the differences between the units. However, this can also be seen as an advantage as all the different units had similar results, strengthening the reliability and generalizability of these results. For other scholars it could be interesting to engage in further research to determine if there are specific differences between units and find explanations for possible differences. When other settings are explored, comparisons between units or even organizations are possible.

Finally, it must be acknowledged that there could be differences between the managers within the organization and different units. These differences in leadership behaviours and innovative work behaviours could have affected the results. However, due to the anonymized nature of the online questionnaire it was not possible to control for this. Though, as the quantitative data did not have significant outliers, this effect is expected to be limited. Additionally, this anonymity was needed because the author of this research is also an employee of Flex People. However, in further research, it could be interesting to find differences in the scores of respondents regarding personality traits/ leadership styles of their team manager linking these behaviours to literature on personality and leadership styles.

6 | Conclusion

Conclusively, it can be stated that different leadership behaviours are found to have a positive effect on idea generation, idea promotion and idea realization. It is essential for organizations to get insights in which behaviours are effective in stimulating the desired phase and how to develop these skills in managers. This research has found that inspirational and personal advising is effective in all phases of the IWB-process, finding sponsors and resources is effective in idea promotion and realization as well as that structuring and facilitating is effective in idea realization. In addition, it was found that the role of the supervisor becomes more complex over time, because the most effective behaviours in the different phases are cumulative in the subsequent phase. Therefore, it can be stated that this research prepared the bridge between leadership literature and the multi-dimensional concept of IWB. Further research can be beneficial to help organizations and managers with maximizing innovative work behaviour and ensuring positive outcomes for knowledge intensive service-oriented organizations.

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Appendices

In the appendices some additional or complementary information to deepen the knowledge and comprehension on this topic is provided.

Appendix 1 | Definitions of IWB

Several definitions of IWB have been by various scholars. To give an overview of relevant different multi-dimensional definitions of innovations, an overview is listed in table 22.

Table 22 | Different definitions of innovative work behaviour

Source	Definition
(West & Farr, 1989, p. 16)	"The intentional introduction and application within a role, group or organization of ideas, processes, products or procedures, new to the relevant unit of adoption, designed to significantly benefit role performance, the group, the organization or the wider society."
(Janssen, 2000, p. 288)	"The intentional creation, introduction and application of new ideas within a work role, group or organization, in order to benefit role performance, the group, or the organization"
(Kleysen & Street, 2001, p. 285)	"All individual actions directed at the generation, introduction and or application of beneficial novelty at any organizational level."
(Yuan & Woodman, 2010, p. 324)	"We define innovative behaviour as an employee's intentional introduction or application of new ideas, products, processes, and procedures to his or her work role, work unit, or organization".
(Bos-Nehles et al., 2016, p. 382)	"All individual actions directed at the generation, processing and application/implementation of new ideas regarding ways of doing things with the goal of increasing the organizational effectiveness and success"

Appendix 2 | Different conceptualizations of IWB

Different authors have proposed other dimensions of IWB, an overview of several different conceptualizations can be found in table 23.

Table 23 | Different dimensions of innovative work behaviour

Source	Amount	Which dimensions
(Zaltman et al., 1973)	2	Idea generation and idea application
(Scott & Bruce, 1994)	3	Idea generation, idea promotion and idea realization
(Janssen, 2000)	3	Idea generation, idea promotion and idea realization
(De Jong & Den Hartog, 2007)	4	Idea exploration, idea generation, idea championing and idea application
(Messmann & Mulder, 2012)	5	Opportunity exploration, idea generation, idea promotion, idea realization and reflection
(Kleysen & Street, 2001)	5	Opportunity exploration, generativity, formative investigation, championing and application
(Lukes & Stephan, 2017)	6	Idea generation, idea search, idea communication, implementation, involving others and overcoming obstacles

Appendix 3 | Leadership behaviours

De Jong and Den Hartog (2007) did extensive research into supportive supervision (important line manager behaviours). Their research provided a solid basis for this manuscript, therefore more information on their research is elaborated on in this appendix. They identified 13 categories of behaviours, these categories and behaviours they include can be found in table 24.

Table 24 | Conceptualization of leadership behaviours as proposed by De Jong and Den Hartog

Category	Behaviours
Innovative role modelling	Being an example of innovative behaviour
	Exploring opportunities
	Generating idea's, idea championing and development efforts
Intellectual stimulation	Stimulating subordinates directly to come up with novel ideas
	Stimulate subordinates to evaluate current practices
Stimulating knowledge diffusion	Stimulate open and transparent communication
	Introduce supportive communication structures (e.g., informal meetings)
Providing vision	Explicitly communicating vision on role and type of innovation
	Providing directions for further action
Consulting	Checking with people before initiating changes that may affect them
	Incorporate their ideas and suggestions in decision-making
Delegating	Give subordinates sufficient autonomy
	Let subordinate decide relatively independently how to do a job
Support for innovation	Be friendly to innovative employees
	Being patient, helpful and a good listener
	Look out for subordinates' interest when problems might occur
Organizing feedback	Ensuring feedback on concepts and trails
	Providing feedback
	Ask customers/ collegues for their opinion
Recognition	Show appreciation for innovative performances
Rewards	Provide financial/material rewards for innovative performance
Providing resources	Providing time to implement idea's
	Providing money to implement idea's
Monitoring	Ensuring effectiveness and efficiency
	Checking up on people
Task assignment	Providing employees with challenging tasks
	Make allowance for employees' commitment when assigning tasks

Appendix 4 | Leadership behaviour in the NFS

The inspiration for this manuscript was the HRM & Innovation assignment when following the masters' course. This assignment aimed at making the term supportive supervision more concrete, using data of the Netherlands Fire Services (NFS). Several interviews, as conducted by Bos-Nehles et al. (2016) were re-coded to get insight into the different relevant behaviours. This research found that 12 categories related positively to IWB, and only one (monitoring) hindered innovation. Additionally, each category proposed by De Jong and Den Hartog (2007) was deepened by adding sub-categories. An overview of these subcategories can be found in table 25.

Table 25 | Sub-behaviours of supportive supervision

Behaviours developed by De Jong and Den Hartog (2007)	Sub-behaviours found by Grobben (2021)
01 Innovative role modelling	Innovative behaviour supervisor
02 Intellectual stimulation	Brainstorm about problems + solutions
	Positive attitude towards new ideas
	Providing a framework
	Rethink old ways
03 Stimulating knowledge diffusion	Sharing information
	Sharing knowledge
04 Providing vision	Provide guidance
	Provide vision
05 Consulting	Assistance in developing process
	Participation in decision making
06 Delegation	Freedom to explore idea's
	Granting autonomy - time
07 Support for innovation	Helpful attitude
	Openness towards team members
	Personal relations
	Sincere interest in team members
	Supportive towards team members
	Trust and respect
08 Organizing feedback	Feedback from leader
	Feedback from management
	Feedback from operation
	Sparring partners
09 Recognition	Giving praise and compliments
10 Rewards	Financial rewards
	Non-financial rewards
	Personalization of rewards
11 Providing resources	Taking the ideas to higher hierarchical levels
	Providing facilities
	Providing money
	Providing time
12 Monitoring	Controlling supervision (-)
13 Task assignment	Honest evaluation - select best idea's
	Identify innovative people
	Match abilities and skills

Appendix 5 | Ambidextrous leadership model

Rosing et al. (2011) proposed a ambidextrous leadership model based on their extensive research. The model suggests that innovation consists of two tasks: creativity and implementation. Ambidextrous leadership consists of opening and closing behaviours which lead to exploration and exploitation. Finally, these behaviours together will lead to innovation. The model is visible in figure 6.

Figure 6 | Ambidextrous leadership model by Rosing et al. (2011)
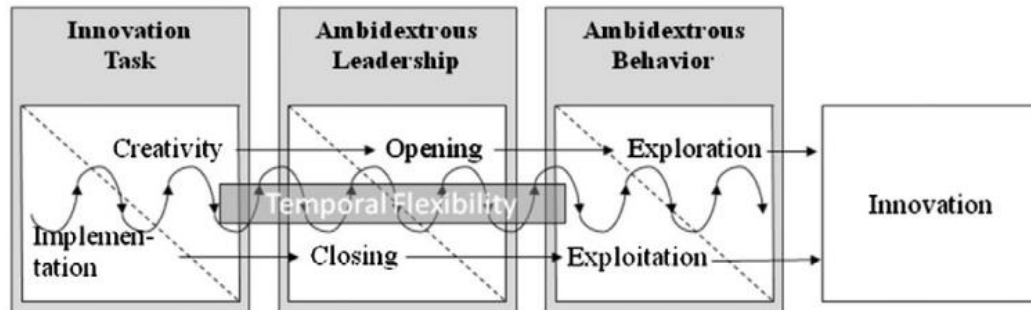
Appendix 6 | Overarching categories

Based on table 2 in the main text, different overarching behavioural categories were created using the Gioia method (Gioia et al., 2013) that influence idea generation, promotion and application. The process is visible in table 26, 27 and 28.

Table 26 | Overarching categories idea generation

Behaviours - Codes	Second order behaviours	Overarching category
Innovative role modelling	Exemplary behaviour	**Inspiring**
Providing vision	Trigger novel ideas	
Intellectual stimulation		
Encouragement to think differently		
Encourage creativity	Encourage novel ideas	
Encourage initiatives		
Encourage experimenting		
Encourage risk taking		
Consulting	Giving advice on ideas	**Advising**
Providing feedback	Reflecting on ideas	
Freedom	Freedom to explore	**Empowering**
Room for own ideas		
Delegating	Opportunity to explore	
Allow and encourage error	Possibility to explore	
Allow for contesting		
Stimulating KD	Encourage KD	**Knowledge diffusion**
Facilitating KD	Ensure KD	
Recognition	Feel appreciated	**Supporting**
General support	Feel supported	
Idea, work and social support	Personal support	

Table 27 | Overarching categories idea promotion

Behaviours	Second order behaviours	Overarching category
Acquiring resources	Get resources from MT	
Allocating resources	Give resources to employee	**Providing resources**
Handling with change	Anticipate on change in resources	
Persuading MT	Convincing MT to sponsor	
Overcoming resistance MT		**Finding sponsors**
Effective communication MT	Communicating with sponsors	
Negotiating MT	Find best sponsorship in MT	
Overcoming resistance team	Convincing team members	
Effective communication team	Inform team members	**Realizing support**
Realizing support	Enthusiasm team members	

Table 28 | Overarching categories idea realization

Behaviours	Second order behaviours	Overarching category
Take corrective action		
Sanctioning error	Correcting deviations	
Control of rules		**Structuring**
Establish routines	Ensuring uniformity	
Use of guidelines		
Monitoring	Monitor the process	
Decrease variance	Monitor deviations in the process	**Monitoring**
Follow plans		
Broad output expectations	Voice expectations of process	
Providing resources	Facilitate needed resources	
Facilitating knowledge sharing	Facilitate needed knowledge	**Facilitating**
Information exchange	Facilitate needed information	
Giving feedback	Feedback from line manager	**Providing feedback**
Organizing feedback	Feedback from others	
Recognition	Personal acknowledgement	**Acknowledging**
Rewards	Financial/material acknowledgment	

The behaviours in the first column were all provided by literature. They were grouped together based on similarities and interpretation of what those behaviours enfold in the second column. Based on this, this study proposes different overarching categories for idea generation, idea promotion and idea realization.

Appendix 7 | Interview questions

The questions are based on themes, every theme will be introduced by the interviewee, with the what the phase enfolds (described in italic), and the comprehension of the explanation will be verified. An overview of what will be said by the interviewer is provided in table 29. It is also of importance that the interviewees will fill in the interview consent form, which will be provided by the interviewer. When the interview is finished, the interviewer will thank the interviewee and they will receive the transcription afterwards, via e-mail to verify the transcription.

This research developed interview questions for line managers as well as their team members. Therefore, two interview question lists are provided, one for each. These lists are categorized on topics, and since the interviews will be semi-structured, the specific questions asked will depend on the responses. The proposed questions can be found in table 30 and 31. The questions are given in English, however they will be translated into Dutch because that is the spoken language at Flex People.

Table 29 | Text interviewer during interview

Welcome, thank you for coming! I appreciate that you want to assist me in my research! First, I would like to ask you to fill out this form (informed consent), this gives me permission to use the information provided in this interview. Do you have any questions about this? Also, I would like to record this interview, is this okay for you?
Interviewee fills out the informed consent form
The subject of my research is the innovative behaviour of employees. These are small innovations like process improvements, big innovations like new products or services and everything in between. First of all, I would like to ask you some general questions about innovation within Flex People.
General questions about innovation and IWB
My research looks at the role of the line manager in the process of IWB. I would like to get insight into how your line manager / you plays a role in this process. I would like to emphasize that this is a complex process, with different phases, that together form the IWB process. The first step is creativity, the generation of novel ideas. The second step is finding support and promotion of the idea. The last step is the actual implementation of the novel idea. First, I would like to discuss the first phase with you: idea generation.
Questions about idea generation
The second phase is about promoting the idea, involving others and finding sponsors and support to allow realization of the new idea.
Questions about idea promotion
The last phase is about the actual implementation of the idea. It concerns the whole process after permission is granted and resources are acquired.
Questions about idea realization
I want to thank you for your time and efforts! I will write out this interview, and I will send it to you via email so you can verify my findings. If you have any questions, do not hesitate to contact me.

Interview questions for line managers

Table 30 | Interview questions for the line manager

Theme	Questions
General	What is innovation according to you? In your opinion, how innovative is Flex People? In your opinion, how innovative is your team? Why do you think innovation is important? How do you think organizations should stimulate innovative behaviour? How do you see your role in the innovation process?
Idea generation	How do you stimulate creativity and generation of new ideas of your team members? How do you advice and/or provide feedback on developed innovative ideas team members when they are developing a novel idea? • (Why do you think this is important?) How do you inspire team members to come up with novel ideas? How do you empower do team members when they have a novel idea? How do you ensure a good relationship with your team members? • (Why do you do this?) How do you ensure knowledge diffusion to facilitate novel ideas?
Idea promotion	If your team member has worked out a novel idea with potential, how do you assist him/her with taking the next steps? • (What are the next steps you take to facilitate your team members in the innovation process?) In what way do you help employees to get support from the organization for their innovative ideas? In what way do you help employees attract sponsorship from management for their innovative ideas? Which resources do you acquire for innovative team members? • (How do you allocate them?) How you connect team members with novel ideas to other collegues/networks? • (With which aim?) Are there any other ways that you support team members in this phase?
Idea realization	How do you facilitate your team members to get the innovation implemented in the organization? How do you provide feedback to team members when they are implementing a novel idea? • (Which feedback and from who?) What is needed to get the idea used according to you? • (How would you describe your role in this process?) How do you provide structure when implementing new ideas? How do you monitor the process of idea implementation? How do you facilitate your team members in the implementation of a novel idea? How do you acknowledge successful innovations from team members?

Interview questions for employees

Table 31 | Interview questions for employees

Theme	Questions
General	What is innovation according to you?
	In your opinion, how innovative is Flex People?
	In your opinion, how innovative is your team?
	Why do you think innovation is important?
	How do you think organizations should stimulate innovative behaviour?
	How do you see your role in the innovation process?
Idea generation	How do you feel creatively stimulated by your line manager?
	How do you feel inspired by your line manager?
	• (Or how do you feel inspired by others?)
	What advice or feedback would you need from your line manager to develop novel ideas?
	• (Why do you think this is important?)
	Which empowerment would you need to generate novel ideas?
	• (How autonomously would you like to make decisions?)
	• (Why do you need this autonomy and freedom?)
	How does knowledge play a role in creating novel ideas for you?
	How important is the relationship between you and your manager for new ideas?
	In general, what do you need from your line manager to generate novel ideas?
	• (Why is this important?
Idea promotion	How does your line manager assist you with taking the next steps when you generate a novel idea?
	• (What are the different steps needed in this process?)
	In what way does your supervisor help you to get support from others within the organization?
	In what way does your supervisor help you to get sponsorship from top management?
	Which resources would you need in this stage?
	• (What role does the line manager play in this?)
	How does your line manager connect you to others in the organization?
	• (With whom?)
	Are there other ways how your line manager supports you in this phase?
	In general, what do you need from your line manager in this phase?
	• (Why is this important?)
Idea realization	How does your line manager assist you in getting the idea implemented?
	What feedback would you need from your line manager to implement new ideas?
	• (Why is this important for you?)
	What is needed to get the idea used according to you?
	• (How would you describe the role of your line manager in this process?)
	How does your line manager provide structure when implementing new ideas?
	How does your line manager monitor the process of idea implementation?
	How does your line manager facilitate the implementation of a novel idea?
	In general, what do you need from your line manager in implementation?

Appendix 8 | Online questionnaire

er   Wissen   Mobiele weergave aan 🔵   Hulpmiddelen ⌄

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Informatie overeenkomst

Wat fijn dat je er bent! Je bent uitgenodigd om mee te doen aan een onderzoek naar innovatief werkgedrag en de rol van de leidinggevende in de verschillende fasen van innovatief werkgedrag. Deze studie wordt uitgevoerd door Emma Grobben, student van de faculteit Behavioural, Management en Social Sciences aan de Universiteit Twente en tevens jullie collega in team Flexpertise :) .

Het doel van dit onderzoek is om inzicht te krijgen in de rol van leidinggevende in de drie fases van innovatief werkgedrag: het bedenken van nieuwe ideeën, het promoten van nieuwe ideeën en het implementeren van nieuwe ideeën. Het invullen van deze vragenlijst zal ongeveer 5 - 10 minuten duren. De data zal worden gebruikt in de master thesis van Emma Grobben als afsluiting van de Master Business Administration.

Deelname aan deze studie is volledig vrijwillig en je kan op elk moment stoppen. Voel je vrij om vragen te stellen mocht je deze hebben. Voor zover bekend zijn er aan dit onderzoek geen privacy-risico's verbonden. Uiteraard is er met elke online gerelateerde activiteit een risico op een lek aanwezig. Ik doe er alles aan om je antwoorden vertrouwelijk en anoniem te behandelen. Zo zullen de antwoorden niet te herleiden zijn tot bepaalde personen en zijn de uitkomsten alleen zichtbaar voor de onderzoeker en begeleidende docenten.

Indien je vragen hebt, neem dan gerust contact op met mij via egrobben@ddfpeople.nl.

Ik wil je ontzettend bedankt voor het invullen van de vragenlijst!

○ Akkoord

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er   Wissen   Mobiele weergave aan 🔵   Hulpmiddelen ⌄

Om te beginnen wil ik jullie graag een aantal algemene vragen stellen over het onderwerp innovatie. In het kader van dit onderzoek, wordt innovatie gezien als vernieuwing en verbetering van bestaande producten, diensten en processen. Daarnaast is innovatief werkgedrag het gedrag van medewerkers gericht op innovatie binnen de werkomgeving.

Hoe belangrijk is innovatie **voor jou** op werkgebied?

[   ]

Denk je dat innovatie **in het algemeen** belangrijk is?

[   ]

Wat heb je nodig van jouw manager om innovatief werkgedrag te vertonen?

[   ]

Wat heb je nodig van de organisatie om innovatief werkgedrag te vertonen?

[   ]

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Mobiele weergave aan ⬤ Hulpmiddelen ⌄

Deze stellingen zijn gerelateerd aan **innovatief werkgedrag op individueel niveau binnen de werkomgeving**, geef hieronder aan in hoeverre je het met de volgende stellingen eens bent:

	Helemaal niet mee eens	Enigszins mee oneens	Noch eens noch oneens	Enigszins mee eens	Helemaal mee eens
Ik vraag me regelmatig af hoe dingen kunnen worden verbeterd op het werk	○	○	○	○	○
Ik heb aandacht voor problemen die geen onderdeel zijn van mijn dagelijkse werkzaamheden	○	○	○	○	○
Ik zoek nieuwe methoden en technieken om mijn werk (beter) te kunnen doen	○	○	○	○	○
Ik zoek in mijn werk nieuwe originele oplossingen voor problemen	○	○	○	○	○
Ik zoek actief nieuwe manieren om mijn werk te doen	○	○	○	○	○
Belangrijke mensen binnen de organisatie worden enthousiast van mijn innovatieve ideeën	○	○	○	○	○
Ik kan mensen overtuigen om mijn innovatieve idee te steunen	○	○	○	○	○
Ik kan innovatieve ideeën systematisch introduceren in mijn werk	○	○	○	○	○
Ik draag bij aan de implementatie van nieuwe ideeën	○	○	○	○	○
Ik steek energie in het ontwikkelen van nieuwe ideeën	○	○	○	○	○

← →


Mobiele weergave aan ⬤ Hulpmiddelen ⌄

De onderstaande stellingen hebben betrekking op **de rol van jouw manager in het proces van innovatief werkgedrag**, geef aan in hoeverre je het eens bent met deze stellingen:

	Helemaal niet mee eens	Enigszins mee oneens	Noch eens noch oneens	Enigszins mee eens	Helemaal mee eens
Mijn manager daagt mij uit na te denken over betere manieren om mijn werk te doen	○	○	○	○	○
Mijn manager praat enthousiast over wat we moeten bereiken	○	○	○	○	○
Mijn manager stimuleert mij om vanuit verschillende hoeken naar een probleem te kijken	○	○	○	○	○
Mijn manager helpt mij om mijn ideeën te verbeteren	○	○	○	○	○
Mijn manager heeft aandacht voor verschillende soorten hulp, kwaliteiten en ambities	○	○	○	○	○
Mijn manager moedigt me aan als ik een moeilijke taak heb	○	○	○	○	○
Mijn manager stimuleert het maken van eigen beslissingen zonder toestemming vooraf	○	○	○	○	○
Mijn manager geeft me voldoende verantwoordelijkheden in mijn werk	○	○	○	○	○
Mijn manager betrekt anderen met de juiste kennis om mijn idee te verbeteren	○	○	○	○	○

← →

De onderstaande stellingen hebben betrekking op **de rol van jouw manager in het proces van innovatief werkgedrag**, geef aan in hoeverre je het eens bent met deze stellingen:

	Helemaal niet mee eens	Enigszins mee oneens	Noch eens noch oneens	Enigszins mee eens	Helemaal mee eens
Mijn manager maakt belangrijke mensen binnen de organisatie enthousiast over mijn idee	○	○	○	○	○
Mijn manager kan mij goed vertegenwoordigen tegenover hoger management (brengt mijn ideeën goed over tegenover het management)	○	○	○	○	○
Mijn manager kan anderen in de organisatie te overtuigen van mijn idee	○	○	○	○	○
Mijn manager kan mij goed vertegenwoordigen tegenover mijn collega's (brengt mijn ideeën goed over tegenover collega's)	○	○	○	○	○
Mijn manager geeft mij de tijd die ik nodig heb voor een project / nieuw idee	○	○	○	○	○
Mijn manager geeft me budget als ik dit nodig heb voor een project / nieuw idee	○	○	○	○	○

← →

De onderstaande stellingen hebben betrekking op **de rol van jouw manager in het proces van innovatief werkgedrag,** geef aan in hoeverre je het eens bent met deze stellingen:

	Helemaal niet mee eens	Enigszins mee oneens	Noch eens noch oneens	Enigszins mee eens	Helemaal mee eens
Mijn manager geeft mij complimenten wanneer ik effectief werk / succesvol nieuwe ideeën implementeer	○	○	○	○	○
Mijn manager laat zien dat hij/zij tevreden is als ik mijn werk naar behoren doe	○	○	○	○	○
Mijn manager bepaald hoe tijd en geld gebruikt moeten worden om het werk efficiënt uit te voeren	○	○	○	○	○
Mijn manager plant en coördineert activiteiten van ons team op een efficiënte manier	○	○	○	○	○
Mijn manager controleert de voortgang en kwaliteit van mijn werk en zorgt er voor dat de planning klopt	○	○	○	○	○
Mijn manager zorgt ervoor dat we op een effectieve manier organisatie doelstellingen halen	○	○	○	○	○
Mijn manager zorgt er voor dat ik heb wat ik nodig heb om mijn werk te doen	○	○	○	○	○
Mijn manager zorgt er voor dat ik heb wat ik nodig heb als ik met een project bezig ben	○	○	○	○	○
Mijn manager zorgt dat ik feedback ontvang van anderen die belang hebben bij mijn idee	○	○	○	○	○
Mijn manager geeft mij feedback op mijn ontwikkelde nieuwe idee	○	○	○	○	○

Mobiele weergave aan Hulpmiddelen

Wat is je geslacht?

○ Man
○ Vrouw
○ Niet-binair/derde geslacht
○ Zeg ik liever niet

Hoe oud ben je?

○ 20 jaar of jonger
○ Tussen de 21 en 25 jaar
○ Tussen de 26 en 30 jaar
○ Tussen de 31 en 35 jaar
○ Ouder dan 35 jaar
○ Zeg ik liever niet

Wat is je opleidingsniveau (afgerond of mee bezig)?

○ Middelbare school
○ MBO
○ HBO
○ Universiteit
○ Zeg ik liever niet

Hoelang werk je al binnen deze organisatie?

○ Korter dan 1 jaar
○ 1 - 2 jaar
○ 2 - 3 jaar
○ Langer dan 3 jaar
○ Zeg ik liever niet

12:29

Wat is je geslacht?

○ Man
○ Vrouw
○ Niet-binair/derde geslacht
○ Zeg ik liever niet

Hoe oud ben je?

○ 20 jaar of jonger
○ Tussen de 21 en 25 jaar
○ Tussen de 26 en 30 jaar
○ Tussen de 31 en 35 jaar
○ Ouder dan 35 jaar
○ Zeg ik liever niet

Wat is je opleidingsniveau (afgerond of mee bezig)?

○ Middelbare school
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○ HBO
○ Universiteit