

Empowering leadership, work group cohesiveness, individual learning orientation and individual innovative behaviour in the public sector: empirical evidence from Norway

Empowering in
public sector in
Norway

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Received 1 July 2019
Revised 26 November 2019
20 February 2020
Accepted 20 February 2020

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Abstract

Purpose – This study clarifies the factors that foster individual innovative behaviour in the public sector by examining the effects and roles of empowering leadership, work group cohesiveness and individual learning orientation. This study also explores the direct effect of empowering leadership on work group cohesiveness and individual learning orientation, the influence of work group cohesiveness on individual learning orientation and the mediating roles of work group cohesiveness and individual learning orientation.

Design/methodology/approach – Data were collected from an online survey of respondents working in a public sector organization. Partial least squares structural equation modelling and mediation analysis by the bootstrap method were used for the data analysis.

Findings – Empowering leadership and individual learning orientation had significant direct effects on individual innovative behaviour. Both empowering leadership and work group cohesiveness have significant direct effects on individual learning orientation. Empowering leadership was positively related to work group cohesiveness. The mediation analysis revealed that individual learning orientation mediates the relationships between empowering leadership and individual innovative behaviour and between work group cohesiveness and individual innovative behaviour.

Research limitations/implications – The study focuses on three factors that foster individual innovative behaviour in a public sector organization.

Originality/value – This study offers new insights into the factors that foster individual innovative behaviour in the public sector. The findings reveal the importance of using a balanced leadership style and encourage learning in the workplace for individual innovativeness by public leaders.

Keywords Individual innovative behaviour, Empowering leadership, Work group cohesiveness, Individual learning orientation, Public sector

Paper type Research paper

Introduction

Increased attention to innovative behaviour by innovation researchers has strengthened the focus on employees, prompting more studies of successful factors in human resource

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The authors wish to express their gratitude to the two anonymous reviewers for their constructive feedback. In addition, the authors wish to express their gratitude to the respondents for their willingness to participate in this research.



development and drawing greater attention to innovation at the individual level in the public sector (Borins, 2002; Bason, 2010, 2018; Podger, 2015; Suseno *et al.*, 2019). While it is generally believed that public sector innovation improves organizational outcomes, the individual innovative behaviour of employees remains underexplored (Rhee *et al.*, 2010; Bos-Nehles *et al.*, 2017a). Individual innovative behaviour is defined as adoption, implementation or use of new ideas by employees to solve problems at work (Scott and Bruce, 1994). Scholars have identified individual innovative behaviour as a key factor for public organizations seeking to maintain organizational success, effectiveness and a competitive advantage (Imran *et al.*, 2010; De Vries *et al.*, 2016; Bason, 2018; Hansen and Pihl-Thingvad, 2019) as this contributes to work performance, motivation, effectiveness and other outcomes.

Recent studies have indicated that despite the growing interest in innovation at the firm level (Isaksen and Tidd, 2007), there is still little focus on the individual level (Montani *et al.*, 2014). A recent systematic review by Bos-Nehles *et al.* (2017b) argued that there is limited knowledge on how modern organizations can foster individual innovation, specifically in the public sector. This is a critical issue because public sector employees are currently experiencing a shift in their contextual work conditions, as well as in new work roles that affect individuals differently (Bason, 2018). This calls for empirical investigation into how factors such as leadership – specifically, empowering leadership – influence, encourage and facilitate innovative employee behaviour. Another recent review by Lukes and Stephan (2017) on the state of innovative behaviour called for a deeper understanding of the factors that foster individual innovativeness at work. Although Thurlings *et al.* (2015) focused on explaining innovative behaviour by teachers, they also called for more cross-sectional studies to explore the complexity and distinct nature of individual innovative behaviour at work.

Mulgan and Albury (2003) recognized that public needs and expectations are constantly growing; thus, public employees are under pressure to be innovative and efficient in resolving challenges at work. The challenge for public sector organizations is that they often operate under competitive pressure that impedes individual innovativeness (Bysted and Jespersen, 2014; Hartley, 2005). Scholars who have studied the influence of innovative behaviour have found that it is likely to be restrained by barriers in the public sector (Borins, 2002; Fernandez and Moldogaziev, 2012; Damanpour *et al.*, 2009). These barriers are erected by “a political environment that lacks the competitive pressures and demands for performance improvement seen in private firms” (Bos-Nehles *et al.*, 2017a, p. 380). Such barriers impede – and in the worst cases, decrease – the fostering of individual innovativeness by empowerment and empowering leadership. Organizations of this type often face obstacles such as a lack of non-profit-related goals, a high degree of political control and a variety of social and political interventions (Suseno *et al.*, 2019).

The goal of this paper is to address the knowledge gap identified by Shanker *et al.* (2017) and Bos-Nehles *et al.* (2017a) regarding the factors that foster individual innovative behaviour in the public sector. To achieve this goal, the study examines such behaviours by individuals in a public sector organization in terms of the following three influential factors: (1) empowering leadership, (2) work group cohesiveness and (3) individual learning orientation. Specifically, the value of testing these relationships in the public sector is that employees often use the available resources to innovate (Bysted and Jespersen, 2014). In a hierarchical system – i.e. the government system – the forms of creative and innovative outputs are restricted (Bos-Nehles *et al.*, 2017a, b; Bysted and Jespersen, 2014). In addition, as this study investigates individual innovative behaviour in the public sector, it adds to the currently limited knowledge on how to foster individual innovative behaviour.

This study makes four specific contributions to public sector innovation research on individual innovative behaviour. First, it responds to calls for more research on innovative behaviour at the individual level in the public sector (Bos-Nehles *et al.*, 2017b). Second, it focuses on individual innovative behaviour by junior employees (Choi and Chang, 2009). Third, it examines the combined influence of empowering leadership, work group

cohesiveness and individual learning orientation on individual innovative behaviour in organizations and offers new insights (Lukes and Stephan, 2017). Fourth, it uses advanced quantitative research techniques such as partial least squares structural equation modelling (PLS-SEM) (Thurlings *et al.*, 2015) to examine the role of individual innovativeness in the public sector. Overall, the study extends the sparse literature on individual innovative behaviour in the public sector, highlights the distinctive nature of individual innovative behaviour and explores how it may be fostered at work.

The structure of this paper is as follows. We start by defining the concept of individual innovative behaviour, and then discuss the role of empowering leadership, work group cohesiveness and individual learning orientation on individual innovative behaviour. Next, we present the conceptual model of the study, followed by the methodology. We proceed by reporting the findings and implications of the study. The paper concludes with insights for leaders and organizations in the public sector, as well as suggestions for future research.

Literature review and hypotheses

Individual innovative behaviour

According to Hult *et al.* (2004), an “innovation can be a new product or service, a new production process, or a new structure or administrative system” (p. 430). The general agenda of innovation in organizations seems to overlook a crucial but complex phenomenon, i.e. individual innovative behaviour.

Scott and Bruce (1994) proposed three main factors that foster individual innovative behavior as follows: leadership, work groups and individual attributes. Although there has been much research on these factors (e.g. Rhee *et al.*, 2010; Slåtten and Mehmetoglu, 2015; Hülshager *et al.*, 2009), there has been little attention to the combined effect of all three on individual innovative behaviour in the public sector. Therefore, this paper proposes that empowering leadership concerns leadership style, work group cohesiveness corresponds to work groups and individual learning orientation is an individual attribute.

The definition of individual innovative behaviour proposed by Scott and Bruce (1994) has laid the foundation for various other definitions (e.g. Zhou and George, 2001; Yuan and Woodman, 2010). Some scholars have defined individual innovative behaviour as a multi-stage process of implementing new and novel ideas (Scott and Bruce, 1994; Amabile *et al.*, 1996). Others have defined it as the way an individual recognizes a problem, generates ideas or solutions and sets a course to implement the perceived solution (Waheed *et al.*, 2016). Individual innovative behaviour has also been described as a process with a variety of activities requiring different individual behaviours at each stage (Scott and Bruce, 1994). Part of the basis of individual innovative behaviour is formed by empowering leadership, work group cohesiveness and individual learning orientation (Amundsen, 2019; Bos-Nehles *et al.*, 2017b; Mullen and Copper, 1994; Gong *et al.*, 2009).

In this paper, individual innovative behaviour is defined as the ways in which employees adopt, implement or use creative ideas to solve problems in their work role, unit or organization (Yuan and Woodman, 2010). Therefore, the nucleus of individual innovative behaviour is individual behaviour before and during the implementation of a creative idea (Janssen, 2005). Examples of such behaviours include individuals' search for new technology or processes, suggestions for new ways of achieving goals, finding the necessary resources to implement new ideas and applying new working methods.

Empowering leadership

In a review of empowering leadership, Amundsen and Martinsen (2014) noted that it “emerged as a particular form of leadership, distinct from other approaches such as directive, transactional, and transformational leadership” (p. 487). Although this management style has received some attention (e.g. Slåtten *et al.*, 2011; Cheong *et al.*, 2016), the influence of

empowering leadership on an individual employee's innovative behaviour in the public sector remains uncharted. Empowering leadership is defined in this paper as subordinates' belief that their leaders have transferred, shared or delegated power (Zhang and Bartol, 2010; Amundsen and Martinsen, 2014) to enable subordinates to make independent choices in their work roles (Slåtten *et al.*, 2011).

Organizational theorist(s) have previously studied empowerment as a form of self-efficacy or self-determination that enhances employee motivation at work (Houghton and Yoho, 2005; Amundsen and Martinsen, 2014). Scholars have recognized two main perspectives on empowerment as follows: socio-structural empowerment and psychological empowerment (Amundsen, 2019). Psychological empowerment focuses on the micro level (individuals) and refers to intrinsic task motivation engendered by meaning, choice, competence and impact. Socio-structural empowerment is studied at a macro level (organizations and leaders) and focuses on the socio-structural/contextual conditions that allow employees at lower levels of the organization a high degree of autonomy. Socio-structural empowerment is where the empowering leadership style is found (Amundsen, 2019). Empowerment is derived from the belief that subordinates who are given more opportunities for autonomous self-leadership will achieve great outcomes that benefit the long-term performance of an organization. Thus, scholars have argued that modern organizations would benefit greatly from the outcomes of empowering leadership (Humborstad *et al.*, 2014; Amundsen, 2019; Cheong *et al.*, 2016). Empowerment can provide many positive results, such as increased power sharing, support, decentralization, flexible organizational structure and work design, autonomy in work tasks and human resource development, to name a few.

Carmeli *et al.* (2006) recognized that this new line of thinking about leadership, especially in the public sector, would benefit individual innovative behaviour as "subordinates are not controlled, influenced and managed by a single individual leader" (p. 75). Srivastava *et al.* (2006) and Houghton and Yoho (2005) supported this notion by arguing that empowering leadership influences individuals to lead themselves and empower individuals. Moreover, Cheong *et al.* (2016) found that the complexity of empowerment could be both enabling and burdensome. For example, empowered employees may take greater initiative in implementing ideas at work. However, owing to the increased responsibilities of their work roles, empowered employees may also face various challenges (Humborstad *et al.*, 2014).

Few studies have indicated a positive link between empowerment and innovative behaviour in the public sector (e.g. Fernandez and Moldogaziev, 2012), and more research is needed. In addition, Humborstad *et al.* (2014) urged further study on the multifaceted nature of empowerment in organizations. While exploring the effects of empowering leadership on frontline service employees in a hospitality organization, Slåtten *et al.* (2011) found an indirect relationship between empowering leadership and innovative behaviour through creativity. Similarly, Cheong *et al.* (2016) found that once individuals are empowered to take independent action, they are more likely to demonstrate innovative behaviour.

The overall performance of empowered employees at work improves because they are quick to try new ways of resolving issues and are confident in their ability to generate and implement useful ideas (Fernandez and Moldogaziev, 2012). Consequently, we argue that failure to encourage such behaviour may have devastating consequences, such as reduced effectiveness, poor performance and low internal motivation. For example, while investigating the role of empowerment among US federal government employees, Fernandez and Moldogaziev (2012) found that too much autonomy could hinder innovative behaviour as it resulted in a lack of clearly defined goals and performance expectations. Moreover, Humborstad *et al.* (2014) observed that too little empowerment for certified accountants could limit their performance or result in negative outcomes for expected work tasks. However, as current research on the role of empowering leadership in the public sector is insufficient, scholars have recommended further research on the influence

of empowering leadership on individual innovative behaviour in the public sector (Fernandez and Moldogaziev, 2012; Chang and Liu, 2008). The public sector is known to suffer from various issues, such as high levels of formalization, that can hamper empowerment (see Rainey, 2009). Consequently, there are good reasons to examine the positive influence of empowering leadership on individual innovative behaviour in the public sector. Hence, this study proposes the following hypothesis:

H1. Empowering leadership is positively related to individual innovative behaviour.

Work group cohesiveness

According to Anderson and West (1998), a work group consists of a “permanent or semi-permanent team to which individuals are assigned” (p. 236), and these individuals interact on a regular basis to perform work tasks. In their study, Amabile *et al.* (2005) found that the quality and cohesiveness of the given work group can determine the level at which individuals feel and believe themselves to be creative. Mudrack (1989) argued that cohesiveness is a critical group-level variable; i.e. it is not only challenging to define but also dynamic in nature. Consequently, definitions of work group cohesiveness vary, and many functions have been attributed to it. For example, according to Forsyth (2018), work group cohesiveness can include group behaviour, support, trust and attraction. Although the focus areas of scholars vary (see Mudrack, 1989), this study has chosen to incorporate group behaviour, group support and group attraction into one factor, i.e. work group cohesiveness.

Amabile *et al.* (1996) acknowledged the significance and the influence of work groups, as well as their influence on people’s experiences of the work environment. In addition, Anderson and West (1998) argued that working in a group has both advantages and disadvantages, according to which of the various individuals perform which roles. Pierce and Delbecq (1977) found that the attitudes and behaviours of employees predict innovation in organizations. In practice, the size, quality and cohesiveness of a work group affects individual innovative behaviour at work (Amabile *et al.*, 2005).

Scholars have defined a cohesive work group as one that “sticks together”, is bonded into a whole and the members experience feelings of solidarity, harmony and commitment (Mudrack, 1989, p. 39). Drawing on Van der Vegt and Janssen (2003) and Mudrack (1989), we define a cohesive work group as a group of individuals in a permanent or semi-permanent team who interact on a regular basis and feel their group to be highly competent at solving problems creatively. Instead of understanding work group cohesiveness on a macro-organizational level, we have shifted our focus to the micro-organizational level (Barile *et al.*, 2016), such as the individual dynamics in innovative behaviour in the public sector.

Mudrack (1989) found that although cohesiveness in a work group is highly beneficial, not all perspectives have been equally appreciated. Wang *et al.* (2006) noted that “group cohesion is the best summary representation of the social–psychological variables present in the study of groups” (p. 236). West and Farr (1989) explored the relationship between work group cohesiveness and individual innovative behaviour in the private sector and found that the cohesion of a work group was strongly correlated with individual innovation. Hülshager *et al.* (2009) demonstrated that work group cohesiveness is a vital precondition for individual innovative behaviour as it “creates a psychologically safe environment in which team members feel free to challenge the status quo and explore new ways of doing things” (p. 1132). However, group cohesion can also influence group members negatively as some may feel inadequate in terms of solving problems, sharing knowledge or exchanging advice (Van Woerkom and Sanders, 2010). Therefore, the pressure to perform collectively may have a negative influence on individual innovative behaviour.

Previous studies reporting a positive relationship between teams, work groups and individual innovative behaviour have focused on organizations in the private sector.

For example, for knowledge-intensive services, De Jong and Kemp (2003) found that the quality of a work group determines improvement and the successful implementation of novel and useful ideas. In other words, the consistent determination of a work group was found to influence individuals' belief in their ability to introduce and implement new ideas without personal censure (Scott and Bruce, 1994; Amabile *et al.*, 2005). However, public sector innovation research has revealed variations in organizational performance in terms of workforce quality (see Arshad *et al.*, 2019); therefore, we argue that it is important to propose hypotheses concerning the relationship between work group cohesiveness and individual innovative behaviour in the public sector. This study proposes a positive relationship between work group cohesiveness and individual innovative behaviour because previous research has shown that group cohesion is strongly related to innovation at work (Hülshager *et al.*, 2009). Therefore, we propose the following:

H2a. Work group cohesiveness is positively related to individual innovative behaviour.

Employees are currently expected to go beyond their formal work roles (Rego *et al.*, 2012). Thus, employee empowerment has found an important place in organizational research because "it enables employees to increase effectiveness of their formal work roles by fostering autonomy and self-responsibilities" (Cheong *et al.*, 2016, p. 1). The augmentation effect of empowering leadership has been linked to an empowering leader's ability to motivate and inspire followers to perform beyond expectations. Although Cheong *et al.* (2016) cautioned that although empowerment is widely associated with positive effects and outcomes, such as greater internal motivation, unregulated empowerment can have negative outcomes such as overconfidence. However, Mullen and Copper (1994) observed the influence of work group cohesiveness and found that it predicts group performance. Research has found that its influence on performance depends on leadership style. For example, in their study on organizational innovation, Li *et al.* (2018) found that transformational leaders were better at inspiring or stimulating innovation at work, whereas transactional leaders had a positive influence on organizational culture and innovation. Transformational leaders recognize subordinates' needs "through personal attention and [use] them to motivate their followers" (Harun *et al.*, 2019, p. 186). On the one hand, their goal is to increase positive outcomes, such as increased resilience and self-efficacy at work. On the other hand, empowering leaders distribute power to entrust subordinates with additional responsibilities and autonomy that may instil self-leadership skills (Humborstad *et al.*, 2014). This study has chosen to focus on the role of empowering leadership on work group cohesiveness because the objective for an empowering leader is to encourage independence by removing the limitations of powerlessness to boost motivation and inspire self-development (Lee *et al.*, 2018). Therefore, we predict that an empowering leadership style will influence work group cohesiveness positively because leaders influence the harmony and the well-being of their employees (Barile *et al.*, 2016). Therefore, we propose the following hypothesis:

H2b. Empowering leadership is positively related to work group cohesiveness.

The comprehensive meta-analysis by Hülshager *et al.* (2009) called for more research on the mediating role of work group cohesiveness at the individual level as this is "a necessary precondition for" (p. 1132) individual innovative behaviour. Mediation is an underlying mechanism whereby an independent factor predicts a dependent factor through an intervening factor (for more details, see Mathieu *et al.*, 2008). We believe that work group cohesiveness may function as an important mediator between empowering leadership and individual innovative behaviour. As suggested above, empowering leadership positively influences and motivates individual innovative behaviour at work. For this reason, employees who experience a high level of work group cohesion because of an empowering leader will encourage colleagues to seek out and implement new ideas at work. As such, it

may be assumed that work group cohesion could mediate the relationship between empowering leadership and individual innovative behaviour. This conceptualization is consistent with that of Evans and Dion (1991), who argued that “within real organizations there are a number of sources of variance” (p. 694). We believe that these sources of variance can strengthen the relationship between empowering leadership and individual innovative behaviour. There are other variables that have generally been ignored in group cohesion research (Van Knippenberg *et al.*, 2004). The view of work group cohesiveness as a mediator may resolve some inconsistent findings from previous group cohesion research. Consistent with this view, Slåtten and Mehmetoglu (2011) suggested exploring different levels of relationships between empowering leadership and individual innovative behaviour at work and examining whether other factors could indirectly influence these relationships. For example, Jung and Sosik (2002) found a positive link between transformational leadership and group cohesiveness and advocated further studies to “expand other types of potential mediating/moderating variables” (p. 329). In addition, examining the role of group cohesion on management goals, Wang *et al.* (2006) noted that more research is needed on the moderating role of group cohesion. Consequently, when the cohesion of a work group is increased by an empowering leader, the overall level of innovative behaviour should improve. Therefore, the following hypothesis is proposed:

H2c. The relationship between empowering leadership and individual innovative behaviour is mediated by work group cohesiveness.

Individual learning orientation

The conceptualization of individual learning orientation has two focus areas. One group of scholars has broadly defined learning orientation as knowledge development (e.g. Huber, 1991), while another sees it as the application of knowledge to problem-solving (e.g. Senge, 1990). In line with Huber (1991), this study views individual learning orientation as knowledge development, defining it as “the development of new knowledge or insights that have the potential to influence behaviour” (Hult *et al.*, 2004, p. 431) and as the drive of individuals to be creative and innovative in their work (Gong *et al.*, 2009).

Three types of orientation have been proposed to explain learning as an important variable in the development of knowledge and skills as follows (Jha and Bhattacharyya, 2013): learning orientation (Wang, 2008), performance orientation (Lu *et al.*, 2012) and work avoidance orientation (Meece *et al.*, 1988). Individuals with learning orientation are highly motivated to learn and perceive knowledge to be valuable and treasured (Jha and Bhattacharyya, 2013). In contrast, individuals with performance orientation have a “strong desire to impress others with their achievements and avoid negative evaluations” (Lu *et al.*, 2012, p. E180). Individuals with work avoidance orientation have a strong inclination to accomplish their work tasks with minimal effort (Meece *et al.*, 1988). Because individual innovative behaviour focusses on the adoption and implementation of ideas, rather than finding the fastest route to accomplish a task or concerns about performance, it is best to evaluate the influence of individual learning orientation on an individual employee’s innovative behaviour. This argument is supported by Lu *et al.* (2012), who noted that more research into the relationship between individual learning orientation and innovativeness is needed.

As individual innovative behaviour concerns the adoption and implementation of creative ideas, employees are required “to update relevant skills and knowledge continually” (Park *et al.*, 2014, p. 81). Similarly, Rhee *et al.* (2010) observed that “a continuous commitment to learning is central to innovativeness” (p. 66). In contrast to Park *et al.* (2014), who focused on the effect of a learning organization on individual innovative behaviour in the private sector, this paper offers new insights into the relationship between individual learning orientation and individual innovative behaviour in the public sector.

In their study, [Gong et al. \(2009\)](#) demonstrated that individual employees' learning orientation is positively related to their creativity. Although [Gong et al. \(2009\)](#) focussed on employee creativity, [Weisberg \(1999\)](#) considered that learning was indispensable for creativity. Creative idea generation is a stepping stone to individual innovative behaviour ([Scott and Bruce, 1994](#)). Research on individual learning orientation has highlighted the advantages of individual learning orientation in employees' innovativeness (e.g. [Hult et al., 2004](#)). While previous reports have indicated a positive association between learning and individual innovative behaviour in the private sector (e.g. [Calantone et al., 2002](#); [Rhee et al., 2010](#)), few studies have examined the linkages between the constructs of individual learning orientation and individual innovative behaviour in the public sector.

Despite the paucity of empirical evidence in the literature on the relationship between individual learning orientation and individual innovative behaviour, there are reasons to anticipate a direct link between individual learning orientation and individual innovative behaviour in the public sector. For example, examining employees and their supervisors in diverse industries in China, [Lu et al. \(2012\)](#) found a positive and significant relationship between learning orientation and innovative performance. [Sujan et al. \(1994\)](#) and [Hess \(2014\)](#) found that individuals with learning orientation often seek challenges that increase their individual motivation, stimulate personal growth and provide opportunities to master any given task. [Calantone et al. \(2002\)](#) examined the direct influence of individual learning orientation on factors such as firm innovativeness and performance. They found that the learning orientation of senior executives was associated with the innovativeness of their firms. In addition, examining the determinants and effects of employees' creative self-efficacy on innovative activities in hospitality organizations in Norway, [Slåtten \(2014\)](#) found an indirect link between individual learning orientation and innovative activities.

In line with previous research, this study posits that individual learning orientation should have a positive influence on individual innovative behaviour at work because learning encourages people to "exert extra effort to acquire new knowledge and experiment with various solutions" ([Lu et al., 2012](#), p. E182). For example, scholars have found that individual learning orientation increases knowledge, competence, commitment and motivation, which all are linked to innovation ([Jha and Bhattacharyya, 2013](#); [Gong et al., 2009](#); [Lu et al., 2012](#)). [Bates and Khasawneh \(2005\)](#) emphasized that "learning and its application are principal processes in innovation" (p. 98), and because innovative behaviour is a process of idea adoption and implementation, the acquisition of new knowledge is crucial for problem-solving. Individual learning orientation emphasizes the opportunity to develop and acquire new knowledge that facilitates problem-solving at work. In effect, individual learning orientation is a crucial facilitator of creativity and innovation because it supports inquiry, experimentation and motivation to try new ways of resolving issues at work. Therefore, this study proposes the following hypothesis:

H3a. Individual learning orientation is positively related to individual innovative behaviour.

At present, expert competence in hierarchies is shifting. Some knowledge-intensive organizations are learning to rely more on their employees because subordinates possess far more expert skills and competence than their leaders ([Amundsen, 2019](#)). Therefore, the roles of leaders are shifting as they are encouraged to focus more on empowering rather than just leading their subordinates. Such leaders have been found to promote strong and healthy learning environments ([Amundsen, 2019](#)). Thus, [Cheong et al. \(2016\)](#) urged further study of the role of empowering leadership in factors such as learning orientation.

The complex nature of empowerment as a leadership style provides autonomy for employees to learn and receive support to grow ([Fernandez and Moldogaziev, 2012](#); [Afsar and Badir, 2016](#)). For example, [Chang and Liu \(2008\)](#) found that employee empowerment had little

influence on the job productivity of public health nurses in Taiwan, but those with high competence showed higher job productivity. This highlights the important role of leaders in empowering, supporting and giving autonomy to their followers to foster learning at work. For instance, [Jung and Sosik \(2002\)](#) found empowerment to be positively related to collective efficacy. Likewise, [Laschinger et al. \(2001\)](#) found both structural and psychological empowerment to be positively related to job satisfaction, which in turn facilitates innovative behaviour at work ([Sinha et al., 2016](#)) and is an outcome of learning ([Lim, 2010](#)).

Research on the relationship between empowering leadership and individual learning orientation is rather scarce, and the influence of empowerment on learning has had varying outcomes. For example, [Fernandez and Moldogaziev \(2012\)](#) argued that empowerment is vital for motivating employees' learning. In addition, [Humborstad et al. \(2014\)](#) found a positive link between empowering leadership and goal orientation. Although goal orientation focuses on the reasons for knowledge acquisition, learning orientation focusses on the motivation for it; a meta-analysis by [Lee et al. \(2018\)](#) identified a need for further exploration of the effects of empowering leadership on various outcomes. There are good reasons to suspect a positive relationship between empowering leadership and individual learning orientation. Therefore, the following hypothesis is proposed:

H3b. Empowering leadership is positively related to individual learning orientation.

Learning orientation is presumed to be one of many motivational orientations. According to [Sujan et al. \(1994\)](#), it leads the individual employee to participate in activities that support innovation at work. Therefore, work provides many opportunities to learn, and work groups in particular are becoming a source of motivation and inspiration to learn ([Hogg, 1992](#)). For instance, a work group may consist of individuals with varying backgrounds, skills and experiences that benefit a group's overall performance and efficiency ([Wang et al., 2006](#)). [Hogg \(1993\)](#) observed that work groups can influence the attitudes and behaviours of their members, while [Barile et al. \(2016\)](#) reported that group cohesiveness would have varying outcomes. For example, [Tekleab et al. \(2009\)](#) found that the cohesiveness of a work group had negative outcomes, such as a lack of communication affecting the perceived safety of knowledge-sharing among members. However, [Evans and Dion \(1991\)](#) observed that group cohesiveness had positive outcomes, such as improved performance and greater satisfaction at work. Accordingly, [Slåtten \(2014\)](#) called for further research on "whether the sources of individual learning orientation are located to sources within the organization (co-workers)" (p. 343).

[Wang et al. \(2006\)](#) considered that there were two ways to build work group cohesiveness as follows: willing participation by group members and commitment to learning orientation. The positive association between group cohesion and learning orientation in the private sector provides reasons to explore the relationship between work group cohesiveness and individual learning orientation in the public sector ([Wang et al., 2006](#)). Consequently, this study investigates whether the cohesiveness of a work group encourages learning at work and therefore proposes the following hypothesis:

H3c. Work group cohesiveness is positively related to individual learning orientation.

Most studies have focused on the direct influence of learning orientation on factors such as firm innovation ([Calantone et al., 2002](#)), employee creativity ([Gong et al., 2009](#)), performance orientation ([Jha and Bhattacharyya, 2013](#)) and innovation ([Lu et al., 2012](#)). However, few studies have considered learning orientation as a mediator. For example, examining the mediating role of learning orientation in UK firms, [Wang \(2008\)](#) found that it was key in maximizing the effects of entrepreneurial orientation on firm performance. In addition, [Rhee et al. \(2010\)](#) examined the mediating effects of learning orientation in firms in South Korea, finding that it was a crucial mediator of the relationships between market orientation,

entrepreneurial orientation and innovativeness. Therefore, it is reasonable to assume that individual learning orientation can mediate the relationship between empowering leadership and individual innovative behaviour.

Gong *et al.* (2009) observed that employee learning orientation and transformational leadership positively influenced employee creativity and self-efficacy and that employees' belief in their capacity to innovate mediated these relationships. In addition, Lu *et al.* (2012) called for more research on the diverse nature of the learning orientation and its effect on innovation, as well as the indirect effects of the learning orientation in various types of organizations. Similarly, Rhee *et al.* (2010) observed that a strong desire to learn increased employee knowledge and competence, which in turn stimulated employee innovativeness. In this way, fear of failure decreases as internal motivation and open-mindedness increase (Lu *et al.*, 2012).

Amundsen (2019) maintains that as autonomy is fundamental in empowering leadership, promoting learning at work is the key to innovation. Thus, as a mediator, individual learning orientation varies in its effects on relationships; therefore, this study proposes that the relationships both between work group cohesiveness and individual innovative behaviour and between empowering leadership and individual innovative behaviour are mediated by individual learning orientation. The following hypotheses are proposed:

H3d. The relationship between empowering leadership and individual innovative behaviour is mediated by individual learning orientation.

H3e. The relationship between work group cohesiveness and individual innovative behaviour is mediated by individual learning orientation.

In summary, this study tests nine hypotheses as follows: three concerning mediators and six regarding direct relationships. The conceptual framework of the study (Figure 1) shows the six direct relationships.

Methodology

In view of the aim of this paper, data were collected from Norway's largest public transportation organization to investigate how individual innovative behaviour is fostered in

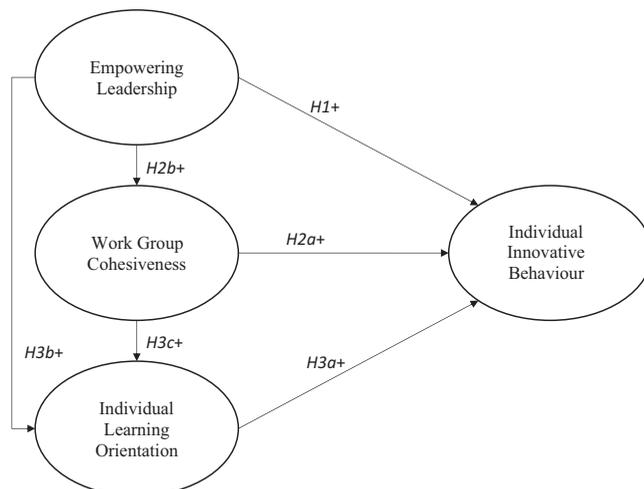


Figure 1.
Conceptual model of
the study

the public sector. Although this organization is a state-controlled government agency, it acts independently. The organization offers nationwide land transportation services for passengers and goods. Today, the organization has become one of the leading transportation corporations in Norway, with innovation at its core. Employees come from various occupational backgrounds, including customer service, finance, human resources, marketing and operations. Following the guidelines of [Huber and Power \(1985\)](#) for gathering data from individual respondents, a pre-test was completed by two experts in the field with eight randomly selected respondents to ensure the quality of the overall research design.

This study utilized a structured questionnaire in which all the validated variables required individuals to respond to statements on a seven-point Likert scale, ranging from (1) “strongly disagree” to (7) “strongly agree”. The respondents were asked to assess their innovative behaviour in their current work role, their leaders, their motivation to acquire new knowledge and their work group cohesion. The five items used to measure individual innovative behaviour were adopted from [Scott and Bruce \(1994\)](#). The three items used to measure empowering leadership at the individual level were adopted from [Amundsen and Martinsen \(2014\)](#). The three items used to measure work group cohesiveness were adopted from [Amabile et al. \(1996\)](#), and the three items used to measure individual learning orientation were adopted from [Sujan et al. \(1994\)](#).

The online questionnaire was distributed to 256 employees in 2016, who returned 96 completed useable surveys, representing a 37.7% response rate. To avoid non-response bias, the respondents were assured of anonymity. Furthermore, to focus exclusively on the viewpoint of ordinary employees, individuals in management or leadership positions were excluded.

Of the respondents, 56.3% were women, 60.4% held a bachelor’s/master’s degree, 67.7% worked in sales and 80% were full-time workers. The average participant (32.3%) was between 41 and 50 years of age, and their organizational tenure was between 1 and 5 years (30%).

Following data collection, a two-step analysis ([Ringle et al., 2018](#)) was conducted using PLS-SEM with Stata software (version 15.0; StataCorp, College Station, TX, USA). First, a confirmatory factor analysis was performed to calculate the significance, means, standard deviations and composite reliability – also known as Dillon–Goldstein’s rho – and average variance extracted (AVE) for the standardized indicator loadings. The results are summarized in [Table 1](#), below.

The study tested the discriminant validity of the squared inter-factor correlations in relation to the AVE of the latent variables and checked for multicollinearity issues ([Venturini and Mehmetoglu, 2017](#)). As shown in [Table 2](#), the structural model was not biased as all variance inflation factor values were less than the 2.5 threshold ([Venturini and Mehmetoglu, 2017](#)). The results of the cross-loadings (not reported here) of the latent variables showed that the reflective variables shared more variance with their own indicators than with other indicators in the structural model ([Hair et al., 2016](#)).

The results of the measurement model indicated good model quality. As a second step of PLS-SEM, the structural model was estimated and evaluated ([Ringle et al., 2018](#)). We followed the recommendation of [Hair et al. \(2019\)](#) concerning model fit statistics in PLS-SEM. Therefore, we measured the coefficient of determination (R^2), effect size f^2 , goodness-of-fit (GoF) and average cross-validated redundancy to determine the fit statistics of the PLS-SEM model. The results are reported below.

Control variables

This study included control variables (see attachment). However, tests of independent hypotheses found no significant results to report. Hence, the control variables were removed from the study.

Constructs	Indicators	Loadings	Mean	SD	CR(DG)	AVE	A
<i>Individual innovative behaviour</i>			4.65	1.20	0.896	0.634	0.85
	I try out new technology, processes and techniques to complete my work	0.750					
	I promote my ideas so that others might use them in their work	0.783					
	I investigate and find ways to implement new ideas	0.878					
	I develop plans and schedules to realize my ideas	0.719					
	I try out new ideas in my work	0.842					
<i>Empowering leadership</i>			5.45	1.27	0.898	0.746	0.83
	My leaders assigns me responsibility	0.834					
	My leader encourages me to take initiative	0.879					
	My leader listens to me	0.879					
<i>Work group cohesiveness</i>			5.45	1.01	0.814	0.589	0.66
	There is open communication within my work group	0.730					
	It is permitted for employees to solve the same problem in different ways	0.729					
	There is high «ceiling» for making mistakes among colleagues	0.838					
<i>Individual learning orientation</i>			5.82	0.99	0.840	0.636	0.71
	I learn new things in my work	0.749					
	It is worth spending a great deal of time learning new ways to accomplish my work	0.818					
	I acquire new knowledge when it is necessary	0.823					

Table 1.
Measurement model results

Note(s): SD: Standard deviations CR(DG): Composite reliability or Dillon-Goldstein's rho; AVE: average variance extracted; α : Chronbach alpha All of the loadings are statistically significant

Data analysis and results

The results from evaluating the fit of the SM model to the data showed good predictive power ($R^2 = 0.41$) and a small effect size ($f^2 = 0.06$). The structural model's predictive relevance had an average redundancy value of 0.25, and the model yielded an acceptable fit (GoF = 0.515).

The results from bootstrapping the conceptual model (as hypothesized in [Figure 1](#) and summarized in [Figure 2](#)) reveal both significant and non-significant findings. Specifically, empowering leadership is positively and significantly related to individual innovative behaviour ($\beta = 0.411$, $p < 0.000$), which supports [H1](#). [H2b](#), which states that empowering leadership is positively related to work group cohesiveness, was also supported ($\beta = 0.574$, $p < 0.000$). [H2a](#), which concerns the relationship between work group cohesiveness and individual innovative behaviour, was not supported by our results ($\beta = 0.047$, $p < ns$). [H3b](#),

Latent variable	IIB	EL	WGC	ILO
IIB	1.000	0.367	0.200	0.307
EL	0.367	1.000	0.330	0.380
WGC	0.200	0.330	1.000	0.365
ILO	0.307	0.380	0.365	1.000
AVE	0.634	0.747	0.589	0.636

Multicollinearity check of the structural model (VIFs)				
Variable	IIB	EL	WGC	ILO
EL	1.799		1.000	1.492
WGC	1.757			1.492
ILO	1.899			

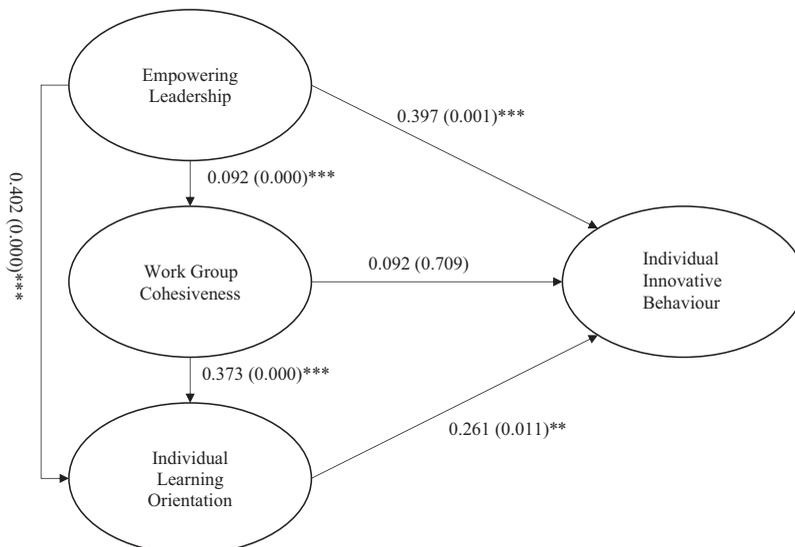
Note(s): IIB, individual innovative behaviour; EL, empowering leadership; WGC, work group cohesiveness; ILO, individual learning orientation

Table 2. Discriminant validity - squared interfactor correlation vs average variance extracted (AVE)

which concerns the relationship between empowering leadership and individual learning orientation, was supported ($\beta = 0.402, p < 0.000$). **H3a**, which states that individual learning orientation is positively related to individual innovative behavior, was supported ($\beta = 0.272, p < 0.008$). **H3c**, which concerns the relationship between work group cohesiveness and individual learning orientation, was supported ($\beta = 0.373, p < 0.000$).

Mediation analysis results

To test the proposed mediation relations, we followed the steps of estimating the indirect effect and then testing the statistical significance of both work group cohesiveness and



Note(s): Standardized path coefficients (Bootstrap by PLS-SEM) *p*-values in parentheses. ** $p < 0.05$, *** $p < 0.01$, $n = 96$

Figure 2. Structural model results

individual learning orientation as mediating factors. The results revealed that H2c was not supported by our study ($\beta = 0.027, p < ns$). In addition, the results revealed that H3d was supported as individual learning orientation partially mediated the relationship between empowering leadership and individual innovative behaviour ($\beta = 0.109, p < 0.009$). Moreover, H3e was supported as individual learning orientation fully mediated the relationship between work group cohesiveness and individual innovative behaviour ($\beta = 0.101, p < 0.052$).

Discussion and implications

The aim of this paper has been to examine factors that foster individual innovative behaviour in the public sector, thereby advancing the individual innovative behaviour literature by providing a different perspective on the relationships between empowering leadership, work group cohesiveness, individual learning orientation and individual innovative behaviour in the public sector. We found that some of these relationships are ambiguous in the public sector, contrary to a common assumption about innovative behaviour in the private sector literature. This finding contributes to a diverse view on the influence of leadership, work group and learning on innovation in general. More specifically, empowering leadership, work group cohesiveness and individual learning orientation influence individual innovative behaviour in the public sector, both theoretically and practically.

The empirical findings of this study imply that fostering innovative behaviour at the individual level is important for the overall innovative success of an organization in the public sector. Many public organizations are situated in environments that are hostile to innovation because of greater scrutiny of risk-taking behaviour and unclear goals (Flemig *et al.*, 2016; Van der Voet *et al.*, 2016). Therefore, leaders who behave in a transformative way are more likely to increase their employees' dependence (Amundsen, 2019). They are also expected to act in visionary and charismatic ways to influence their employees' emotions and instil a commitment to fulfil the organization's vision or goals (Kark *et al.*, 2003). This may very well have a negative impact on the duration of employees' individual innovative behaviour at work. However, we observe that empowerment in leadership can be far more beneficial for public sector organizations as it reduces dependency on superiors for ongoing decision-making, directives and management in daily work, as well as the emotional aspects of charismatic leadership. Furthermore, the influence of empowering leadership in the public sector benefits the relationship between leaders and their subordinates because the potential barriers to innovation that subordinates perceive are removed by their leaders.

In addition, recent research highlights the important role of leaders in motivating their employees through their behaviour, as well as by removing obstacles and unnecessary barriers to innovation (Hansen and Pihl-Thingvad, 2019). These findings demonstrate that taking time to listen to subordinates, assigning them responsibility and actively encouraging them in their work were the main tools by which leaders could motivate innovation. Subsequently, barriers and obstacles to employee innovativeness were minimized as a result of leaders focussing on developing and empowering their subordinates' individual innovative behaviour. That is, regardless of innovation in the public sector being viewed as an oxymoron (Borins, 2002), leaders should still seek support and motivate subordinates in on-the-job innovation (Bysted and Jespersen, 2014).

A further contribution of our study is that it shows the important role of leadership influence in creating and sustaining an organizational climate conducive to innovative behaviours. Specifically, the findings shown in Figure 2 suggest that leaders need to be aware of both empowering leadership and individual learning orientation as they were found to have a significant and positive effect in fostering individual innovative behaviour in the public sector. Furthermore, the results show the important role of leaders in empowering subordinates and their influence on work group cohesiveness and individual learning

orientation. In addition, the study found that perceived work group cohesiveness had a positive and significant effect on employees' individual learning orientation. In addition, the study found no direct influence of work group cohesiveness on individual innovative behaviour. Moreover, the findings suggest that a combination of empowering leadership, work group cohesiveness and individual learning orientation explained 40% of the variance in individual innovative behaviour. Empowering leadership explained 32% of the variance in work group cohesiveness, and empowering leadership and work group cohesiveness explained 46% of the variance in individual learning orientation. Therefore, these findings indicate that leaders who wish to foster individual innovative behaviour at work need to understand that to leverage the distinct nature of empowering leadership and extend its influence across work groups, learning and innovative behaviour, they should adopt this leadership style and implement it at high levels.

The results of the individual factors shown in [Figure 2](#) revealed that empowering leadership appeared to be the most important overall determinant of individual innovative behaviour. In previous research, leadership – and specifically empowering leadership – has been viewed as an important influence on innovative behaviour ([Slåtten et al., 2011](#); [Borins, 2002](#)). Given that empowering leaders delegate power and share authority in the workplace ([Amundsen and Martinsen, 2014](#)), the findings in this study suggest that employees who believe that they are empowered at work, or that their ideas are supported by their leaders, show greater perceived individual innovative behaviour. This finding indicates that the values emphasized in empowering leadership drive individual innovative behaviour. These findings support the empowering leadership and self-leadership hypotheses that the visibility, autonomy, support and acknowledgment that individual employees receive from their leaders could encourage them to act and motivate them to implement innovative ideas at work ([Carmeli et al., 2006](#); [Zhang and Bartol, 2010](#)). On the other hand, leaders need to be mindful of allowing too much empowerment as it can overburden subordinates with responsibilities. Therefore, it is crucial that leaders find a balanced empowering leadership style that is nurturing, encouraging and mentoring and allows employees to develop the confidence necessary to show individual innovative behaviour at work.

Previously, individual learning orientation has been viewed as necessary for individual innovativeness ([Wang, 2008](#)). Although our findings do not negate this view, they suggest that individual learning orientation plays an important role in maintaining and fostering innovative behaviour. These findings support the current learning orientation theory that when employees learn or are given opportunities to do so, their organization increases in innovativeness as a result ([Gong et al., 2009](#)). This suggests that the values emphasized by learning orientation are those of individual employees seeking to implement innovative ideas, which drive individual innovativeness. As learning is essential to knowledge development, the use and implementation of that knowledge is crucial for individual innovativeness. For that reason, leaders are encouraged to create a learning environment that emphasizes and motivates learning by valuing it. This is because innovativeness requires employees to keep their skills and knowledge current ([Park et al., 2014](#)), and leaders can establish a learning culture that motivates knowledge acquisition and boosts innovative behaviour. Although few studies have explored how individual learning orientation fosters individual innovative behaviour in the public sector, especially when it is closely linked to innovation ([Calantone et al., 2002](#)), this study offers a fresh outlook on the important relationship between individual learning orientation and innovative behaviour.

In the literature review, [Thurlings et al. \(2015\)](#) call for the exploration of indirect relationships between individual innovative behaviour and other mediating factors. This study answers that call and considers the three mediating relationships proposed in H2c, H3d and H3e. The findings indicate that individual learning orientation mediates the relationships between empowering leadership and individual innovative behaviour and between work

group cohesiveness and individual innovative behaviour. The findings also suggest that individuals with a strong learning orientation tend to demonstrate more innovative behaviour under strong empowering leadership and that leaders who empower their subordinates influence the cohesiveness of work groups, which in turn positively influences individual innovative behaviour. Hence, leaders need to pay attention to the multifarious nature and role of individual learning orientation as a mediator. Leaders should place great emphasis on creating, cultivating and motivating a learning culture conducive to innovative behaviour. For example, leaders can design work tasks or offer courses in skills that employees consider important to solve problems at work and which are valuable for subordinates to acquire to increase their self-confidence, which in turn drives empowerment.

Indeed, the findings shown in [Figure 2](#) do not support the hypothesis concerning a relationship between work group cohesiveness and individual innovative behaviour, H2c. Therefore, the relationship between work group cohesiveness and individual innovative behaviour is fully mediated by individual learning orientation. Accordingly, the findings add fresh insights into public sector innovation research on the challenges of work group cohesiveness. This is consistent with the findings of a meta-analysis by [Hülsheger et al. \(2009\)](#) that members of a group need to feel psychologically safe in their environment to create positive group cohesion. However, public sector employees face the challenges of a culture of control instead of one of trust and learning ([Podger, 2015](#)). This makes their environment feel less psychologically safe as they may feel controlled by the rules and the regulations of public sector organizations, which impedes innovative behaviour. As a result, the cohesion of the group will not lead to positive outcomes as long as group members face performance inadequacy issues. Consequently, leaders should create a culture and climate of trust and learning that help group members feel psychologically safe.

These additional outcomes can help leaders across sectors understand the complex processes and possible outcomes of work group cohesiveness in their organizations, as well as the mediating role of individual learning orientation at work. Specifically, to foster individual innovative behaviour at work, leaders are advised to look at both direct and indirect influences on the innovative behaviour of their employees.

Limitations and suggestions for future research

To the best of the authors' knowledge, this is the first empirical study to examine how individual innovative behaviour can be fostered in the public sector. More research is essential to understand the multifaceted relationship between individual innovative behaviour and its key factors in this domain. Thus, the results of this study should be interpreted in light of several limitations.

First, the present study is limited to one public sector organization, making it challenging to generalize the findings. This is recognized in its cross-sectional nature, as cross-sectional studies are rather stringent. Therefore, the limitations of the current study offer future research opportunities. In addition, further study could explore potential discrepancies in a variety of contexts. For example, [Miao et al. \(2018\)](#) note that process and regulations, if implemented correctively, can drive innovative behaviour.

Second, as with our online survey, issues of self-selection bias can occur, as well as possible reversal of causality in relationships. For that reason, the results of this study should be interpreted carefully as they may be subject to bias. For example, the characteristics of the relationships studied in this study could result in preferences for prediction control. If so, self-selection bias may have distorted the results of the study. To avoid this, future researchers could compare their findings with population data, use other means of gathering data or weight their results. In addition, future research may include other important factors, such as individual innovative behaviour that could influence the public sector. For example, factors

such as organizational commitment (Mangundjaya and Mufidah, 2018) and employer attractiveness (Slåtten *et al.*, 2019) are potential outcome variables of individual innovative behaviour.

Third, this study focused on three factors (empowering leadership, work group cohesiveness and individual learning orientation) and their relationship with individual innovative behaviour. To our knowledge, this is the first empirical study to propose a direct relationship between these factors in the public sector. Future research should add other variables and compare the public and private sectors in terms of leadership style or support.

Fourth, this study emphasized the important role of leaders and empowering leadership in creating, facilitating and investing in a culture and climate conducive to innovative behaviour. To expand existing theories about factors that foster or impede individual innovative behaviour in the public sector, future studies should explore the influence of factors such as organizational vision (see Liu, 2006) or internal market orientation (see Slåtten *et al.*, 2019).

Fifth, the findings of this study may be a stepping stone to a much larger discussion. For example, empowering leadership may share features of collaborative governance, whereby employees with high degrees of autonomy and self-confidence experience outcomes such as job satisfaction and commitment. While investigating the value of collaborative governance empowerment, Erickson *et al.* (2003) observed that support was necessary to initiate collaborative governance, and to succeed in collaborative governance, members need to feel that they have a say in decisions at work. These two key factors in empowering leadership – autonomy and support – influence employee innovativeness.

Conclusions

To conclude, this study extends our current understanding of ways to foster individual innovative behaviour in the public sector. It reveals the value of practising an empowering leadership style and encouraging learning for public leaders who wish to foster positive individual innovative behaviour. In addition, the study shows the value of employing factors such as work group cohesiveness to mediate the relationships between leadership and behaviour and thus stimulate innovation by employees. To empower employees, it is critical that leaders pay attention to the empowering leadership style to ensure a balance between nurturing, encouragement and support. Thus, more innovative behaviour by employees can be fostered, motivated and inspired in a very competitive market.

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Further reading

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Appendix

Respondents' sample characteristics ($n = 96$)

Section	Frequent	%	Mean	SD
<i>Gender</i>			1.44	0.50
Male	54	56.25		
Female	42	43.75		
<i>Age</i>			2.58	1.14
21–30	23	23.96		
31–40	19	19.79		
41–50	31	32.29		
51–60	21	21.88		
61 +	2	2.08		
<i>Department</i>			9.66	3.09
Sales	65	67.71		
IT	12	12.50		
Market	9	9.38		
HR	3	3.13		
Finance	7	7.29		
<i>Education level</i>			3.02	2.83
Primary school	1	1.04		
High school	27	28.13		
Certificate of apprenticeship	10	10.42		
Bachelor/Master	58	60.42		
<i>Employment type</i>			3.41	1.20
Full-time	77	80.21		
Part-time	19	19.79		
<i>Tenure</i>			4.76	3.10
Under a year	10	10.42		
1–5 years(s)	29	30.21		
6–10 years	15	15.63		
11–15 years	14	14.58		
16–20 years	11	11.46		
20 +	17	17.71		

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