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The Impact of Leadership Behaviour Factors on Work Productivity – measuring the impact of factors of the Full Range Leadership Model and the Leadership Task Model

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Summary

- Research questions:** What are the core leadership behaviour factors that are relevantly contributing to work productivity of managers in the lower and middle management? What is the impact of leadership behaviour factors on leadership performance?
- Methods:** Empirical study across different organisations using the Leadership Productivity Survey and the Multifactor Leadership Questionnaire as instruments to survey 183 managers in the lower and middle management in organisations in Germany about the impact of their leader's performance on their individual work productivity, task motivation and job satisfaction.
- Results:** The analysis shows that leadership behaviour factors have significant positive impact on work productivity of leaders in organisations. However, situational, generational and organisational aspects are necessarily to be considered in order to achieve leadership success on all levels. Moreover, the analysis shows that managers in the lower and middle management miss a motivational lead, meaningful interpersonal relationships with their leaders and approval from those with whom they have regular contact, which have been proven to have significant impact on work productivity of leaders.
- Structure of the article:** Introduction; Literature Review; Research questions & methods; Empirical results; Conclusions; About the author; Bibliography

Introduction

Nowadays, organisations have to compete in environments characterised by volatility, uncertainty, complexity and ambiguity as a result of constant technological, social, political and economic changes (Lawrence, 2013). Given this environment, organisations need effective leaders that influence and facilitate individual and collective efforts to accomplish shared objectives (Yukl, 2012b).

In this vein, an important objective in leadership research has been the identification of aspects of effective behaviour that explain leadership influence on productivity of followers (Yukl, 2012a). However, a major problem in research on effective leadership behaviour has been the identification of behaviour categories that are relevant and meaningful for all leaders (Yukl, 2012a). Hence, diverse studies have produced a variety of different sets of behaviour categories, making it difficult to compare and integrate the results across studies into practical leadership tasks that are conducive to work productivity in organisations (Bass, 1985; Blake & Mouton, 1964; Desjardins & Baker, 2013; Fleishman et al., 1991; Katz, Maccoby, & Morse, 1950; Mintzberg, 1973; Yukl, 2012a; Yukl, Gordon, & Taber, 2002).

Therefore, this study aims to provide leaders a results-oriented set of leadership behaviour factors derived from scientific theory that help to create a performance-promoting climate, where employees are motivated show their best performance and effort, which will lead to an overall higher work productivity. In the end, creating such an environment facilitate tremendous competitive advantage for organisations.

Literature Review

Leadership

The term leadership is a commonly used vocabular in research without having a precise definition (Winston & Patterson, 2006). Consequently, it carries countless connotations that lead to an indistinctness of meaning (Winston & Patterson, 2006). Leadership has been defined in terms of traits, behaviours, perspectives of influence, interaction patterns, role relationships and occupation of a management position (Mintzberg, 1973; Yukl, 2012b).

For the purpose of this research, leadership is considered as the influence and process that takes into account several things that determine the success of a

collective effort by people of an organisation to accomplish organisational goals, which is the essence of leadership (Desjardins, 2012; Porter, Hackman, & Lawler, 1974; Rauch & Behling, 1984; Yukl, 2012b).

Leadership effectiveness

Considering the above definition of leadership, effective leaders perform leadership tasks that enhance the productivity of their followers and themselves (Desjardins, 2012; Yukl, 2012a). Notably, like definitions of leadership, conceptions of effective leadership vary in a broad range. Therefore, researchers often evaluate leadership effectiveness by evaluating the consequences for followers and other stakeholders of organisations, whereby the choice of indicators of effectiveness differ considerably (Yukl, 2012a). Examples of indicators of leadership effectiveness include whether subjective or objective measures are used and how narrowed the scope of outcome is (Felfe, 2006a). In the most common category of leadership effectiveness indicator, leaders are evaluated based on the extent to which the actual performance of their team or organisational unit is enhanced and the attainment of goals is facilitated (e.g. Bass, 2008; Bass, Avolio, Jung, & Berson, 2003; Curphy, 1993; de Luque, Washburn, Waldman, & House, 2008; Gottfredson & Aguinis, 2017; Hogan, Curphy, & Hogan, 1994; House, Spangler, & Woycke, 1991; Kaiser, Hogan, & Craig, 2008; van Dijk, Van Engen, & van Knippenberg, 2012)

Notably, recent research on leadership effectiveness shows a consistently trend that can be summarised under three headings. First, leadership effectiveness should be defined and evaluated on the basis of the performance of the team for which a leader is responsible, however, the data needed to make this evaluation are often difficult to obtain or badly contaminated by external factors (Burke et al., 2006; Hogan et al., 1994; Kaiser et al., 2008). Therefore, an alternative is to ask followers, peers, and superiors to evaluate a leader (Bass & Avolio, 1997).

Second, leadership research is concerned how leaders are subjectively perceived (Burke et al., 2006; Kaiser et al., 2008; Yukl, 2012a). As a result, confusion between the actual leadership effectiveness and followers' perceptions of leadership effectiveness emerge (Dinh et al., 2014). This confusion is generated through a lack of distinct conceptual definitions resulting in considerable overlap between diverse concepts and a lack of coherent causal models that include specific mediating and moderating processes (van Knippenberg & Sitkin, 2013). Therefore, models of effective leadership should consolidate fundamental findings of past leadership

research with well-established theories to sharpen concepts of effective leadership (Behrendt, Matz, & Göritz, 2017)

Third, recent research shows how leadership affects organisational performance, however, it focuses more on follower, team, and organisational processes than on organisational outcomes, as it may be easier to measure internal outcomes as external outcomes (Hogan et al., 1994; Kaiser et al., 2008). Thus, to deal with the complexity of factors, multiple criteria are to be considered when evaluating leadership effectiveness (Northouse, 2016). Nevertheless, leaders should be evaluated based on the leadership responsibility of influencing the process of accomplishing organisational goals, although being judged by followers (Yukl, 2012a).

This leads to the question which leadership aspects have an impact on leadership effectiveness. In this context, most of the research on leadership can be classified into one of three major categories, namely, trait theories (e.g. Bass & Stogdill, 1990; Boyatzis, 1982; Bray, Campbell, & Grant, 1974; Howard & Bray, 1988; Katz & Kahn, 1978; McCall & Lombardo, 1983; McCartney & Campbell, 2006; McClelland & Boyatzis, 1982), situational or contingency theories (e.g. Evans, 1970; Fiedler, 1978, 1986; Fiedler & Chemers, 1967; Fiedler & Garcia, 1987; Hersey & Blanchard, 1977; Hersey, Blanchard, & Natemeyer, 1979; House, 1971; Howell, Bowen, Dorfman, Kerr, & Podsakoff, 1990; Kerr & Jermier, 1978; Podsakoff, Niehoff, MacKenzie, & Williams, 1993; Yukl, 1989, 2009) and behavioural theories (e.g. Avolio & Bass, 1993; Bass, 1985; Behrendt et al., 2017; Burns, 1978; Conger & Kanungo, 1987; Desjardins, 2012; Fleishman et al., 1991; Judge & Piccolo, 2004; Mintzberg, 1973; Tichy & Devanna, 1986; Yukl, Gordon, & Taber, 2002).

Behaviour theories focus on measuring the cause and effects relationship of specific leadership behaviour and outcomes (Behrendt et al., 2017). Here, leadership behaviour is seen as the most feasible predictor of leadership influence and thus, is the best determinant of leadership effectiveness (Yukl, 2012a). Therefore, the most relevant behavioural theories are examined for relevance in terms of effective leadership.

Behavioural Theories of Effective Leadership

To this day, research on effective leadership behaviour produced a somewhat different set of behaviour categories, making it difficult to compare and integrate the results across studies (Yukl, 2012b). In this context, taxonomies are widely used to specify leadership

behaviours, simplify complex concepts, define distinctions and consolidate redundant constructs (Fleishman et al., 1991). However, many divergent taxonomies have emerged from different research disciplines, making it difficult to translate from one set of concepts to another (Yukl et al., 2002). Also, taxonomies of behaviour categories can differ in purpose, can be formulated at different levels of abstraction and can be developed with different methods (Behrendt et al., 2017; Fleishman et al., 1991; Yukl et al., 2002), which lead to a wide variety of behaviour concepts relating to leadership effectiveness (Northouse, 2016).

Some of the most researched behavioural theories of effective leadership, albeit having different names, are task-oriented and relations-oriented leadership, (Blake & Mouton, 1964; Derue, Nahrgang, Wellman, & Humphrey, 2011; Fleishman, 1953; Halpin & Winer, 1957; Hersey et al., 1979; House, 1971; Katz & Kahn, 1952; Katz, Maccoby, Gurin, & Floor, 1951; Katz et al., 1950; Kerr & Jermier, 1978; Likert, 1961, 1967), participative leadership (Conger & Kanungo, 1988; Dirks & Ferrin, 2002; Huang, Iun, Liu, & Gong, 2010; Spreitzer, 1995; Thomas & Velthouse, 1990) and charismatic leadership (Conger & Kanungo, 1987; Conger, Kanungo, & Menon, 2000; de Hoogh et al., 2004; DeGroot, Scott Kiker, & C. Cross, 2000; Gang Wang, Oh, Courtright, & Colbert, 2011; Kirkpatrick & Locke, 1996; Rowden, 2000; Shea & Howell, 1999; E. Wang, Chou, & Jiang, 2005; Weber, 1947). However, the stated theories are either too vague or too flawed to describe a complete set of leadership behaviour contributing to work productivity (Desjardins & Baker, 2013; Judge & Piccolo, 2004; Yukl, 1999, 2012a). By contrast, two theories, namely Transformational Leadership (Bass, 1985) and Leadership Productivity (Desjardins, 2012), incorporate empirically profound concepts of effective leadership and offer a holistic view on the leadership role in organisations. The two theories shall be considered more precisely in the following.

Transformational Leadership

The concept of transforming leadership has been first introduced by Burns (1978) in his descriptive research as a process in which leaders and followers help each other to advance to a higher level of morale and motivation. In the following, Bass (1985) introduced the term transformational instead of transforming and described how transformational leadership can be measured and its impact on follower motivation and performance. Transformational leadership achieves its

goals by raising individuals' awareness as well as consciousness about what needs to be done, the value of designated outcomes and how to achieve it by facilitating the process of setting own self-interests aside for the sake of the organisation (Bass, 1985). Thus, transformational leaders transform values, needs and beliefs of followers (Kuhnert & Lewis, 1987), inspire them to go beyond their own self-interests for the good of shared objectives (Avolio & Bass, 2004), and motivate them to achieve out-of-range goals (Antonakis, Avolio, & Sivasubramaniam, 2003) by engaging in behaviours that trigger admiration and respect in their followers and showing special attention to the needs of their followers (Barling, Slater, & Kevin Kelloway, 2000; Bass, 1985). Furthermore, transformational leaders encourage continued individual development by motivating followers to engage in creative thinking and problem solving (Dionne, Yammarino, Atwater, & Spangler, 2004) and by inspiring followers (Den Hartog, Vanmuijen, & Koopman, 1997).

Transformational leadership style is postulated as positively associated with organisational success (Bass, 1994; Eisenbach, Watson, & Pillai, 1999), consolidated-business-unit performance (Geyer & Steyrer, 1998; Howell & Avolio, 1993), team performance (Bass, Avolio, Jung, & Berson, 2003b; Braun, Peus, Weisweiler, & Frey, 2013; Dionne et al., 2004; Rao & Kareem Abdul, 2015; Schaubroeck, Lam, & Cha, 2007), employee sustainable performance (Jiang, Zhao, & Ni, 2017), follower task performance (Bacha, 2014), trust in the leader (Casimir, Waldman, Bartram, & Yang, 2006; Philip M Podsakoff, MacKenzie, Moorman, & Fetter, 1990), employee well-being (J. Liu, Siu, & Shi, 2010), followers' extra effort and job satisfaction (Judge & Piccolo, 2004; Seltzer & Bass, 1990; Yammarino & Bass, 1990), sales performance (MacKenzie, Podsakoff, & Rich, 2001), and organisational citizenship behaviour (Mekpor & Dartey-Baah, 2017). Also, transformational leadership has been found to be associated with the work behaviour of followers by triggering intrinsic motivation (Shin & Zhou, 2003) and by enhancing leader follower exchange quality (H. Wang, Law, Hackett, Wang, & Chen, 2005). Thus, transformational leadership style is considered as an important influence on leaders and their followers, producing various positive outcomes conducive to work productivity (Bass, 1985; Bass & Riggio, 2010).

Transformational leadership is incorporated in the Full Range Leadership Model of Bass & Avolio (1997), along with transactional leadership and laissez-faire leadership. The taxonomy of leadership behaviours

incorporated in the Full Range Leadership Model has been identified by a factor analysis of a behaviour description questionnaire called the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1990). The label Full Range Leadership Model, however, is criticised by several researchers, because some important leadership behaviours are not included (Antonakis & Atwater, 2002; Yukl, 1999). Furthermore, reviews and meta-analyses on this topic have found that transformational leadership is related to indicators of leadership effectiveness in a majority of studies, but the results are inconsistent for transactional leadership though (DeGroot et al., 2000; Gang Wang et al., 2011; Judge & Piccolo, 2004; Lowe, Kroeck, & Sivasubramaniam, 1996; Yukl, 2012a). In summary, the Full Range Leadership Model is widely used through the application of the MLQ (Avolio, 2010), and seems to be an appropriate basis for research about leadership effectiveness and the attempt to define leadership behaviour factors that contribute to work productivity. However, the question is to what extent the model incorporates all relevant aspects of leadership behaviours contributing to work productivity.

Leadership Productivity

The Leadership Productivity Model by Desjardins (2012) aims to answer the questions of what the core dimensions of leadership productivity are, and which leadership tasks need to be performed to increase the productivity of employees. Here, leadership productivity means, that leaders have the responsibility for the work productivity of their teams, cause changes of this productivity by their performance and therefore need to consider their personal productivity as well as the productivity of their team to increase overall work productivity.

An important aspect of the Leadership Productivity Model is to broaden the focus of leadership research from the behaviour of a leader towards the impact of a leader's performance on the goal achievement success of his followers (Desjardins, 2012). Currently, the Leadership Productivity Model is part of the Leadership Task Model by Desjardins & Baker (2013) in form of the You-Level that focuses on the leader follower interaction.

The You-Level, i.e., the Leadership Productivity Model is a taxonomy of effective leadership tasks, however there are defining distinctions to the existing leadership models and taxonomies (Desjardins, 2012). In detail, the Leadership Productivity Model sees the leadership roles of task-orientation and people-orientation, leadership and management or transactional and

transformational leadership as holistic, since the performance of leadership is about tasks, which are nothing else as the necessary process steps towards leadership's prime responsibility of achieving organisational goals (Desjardins, 2012). A second distinction to other models is that leadership is seen as an organisational role with specific tasks that need to be consciously performed and that can be taught (Desjardins, 2012). A third differentiation is the replacement of the term leadership effectiveness by the term leadership productivity, since leadership effectiveness is to be seen as pleonasm (Desjardins, 2012). Normally, the term leadership implies leadership performance that is supposed to be effective, whereas non-effectiveness would imply that a leadership role has not been performed (Desjardins, 2012). Moreover, the definition of leadership as performance of leadership tasks allows for differentiation between high performance and low performance (Desjardins, 2012).

Empirical research show that the leadership tasks that have been defined in the Leadership Productivity Model have a clear impact on the work productivity of a leader's followers (Desjardins, 2012; Zebal, 2017). The different leadership tasks can be all derived from current literature in leadership research and are proven enablers for leadership success (Desjardins & Baker, 2013). Currently, the model does not describe the interaction between the leadership tasks at the micro (leadership variables and processes) and macro level (organisational context) as required for a meso-model for leadership (Gardner & Coglisier, 2009), but acknowledges that the organisational context has a moderating impact on the dyadic interactions as well as on the self-management of a leader (Desjardins & Baker, 2013). Moreover, the Leadership Task Model sees the idea, that leadership is contingent on the specific organisational context and the needs of the follower (Fiedler & Chemers, 1967; Hersey, Blanchard, & Johnson, 1977), as a basic assumption for every reflection on leadership behaviour (Desjardins & Baker, 2013).

The model does not claim to integrate all leadership tasks, since the number of possible moderators and the combination of organisational and personal variables is seen as too high (Desjardins & Baker, 2013).

In summary the Leadership Task Model incorporates the concept of leadership productivity, offers a holistic view on the leadership role in organisations, provides practical leadership tasks conducive to leadership productivity and seems to be an appropriate basis for research about leadership effectiveness and the attempt to define leadership behaviour factors that contribute to

work productivity (Desjardins & Baker, 2013). However, the question arises whether there are relevant leadership tasks contributing to work productivity which have not being considered in the model yet.

Research Questions & Methods

Conceptual Framework

The conceptual framework shall integrate leadership behaviours and basic leadership tasks from the proven concepts of Transformational Leadership (Bass, 1985) and Leadership Productivity (Desjardins, 2012) into one systematic taxonomy of Leadership Behaviour Factors, thereby eliminating potential overlaps among the concepts and expand the knowledge with potential new findings.

To answer the question which measure is appropriate to evaluate the leadership performance of leaders, several aspects have to be taken into account. Certainly, the most common outcome measure is examining consequence of leader action (Bass, 1985; Bennis & Nanus, 1985; Burns, 1978; Conger, 1990; Dhar & Mishra, 2001; Kouzes & Posner, 2007; Shamir, House, & Arthur, 1993; Tichy & Devanna, 1986). However, measuring specific leadership outcomes, e.g. group performance and success of group goals, often require a greater timescale to get proficient results (Yukl, 2012a), which is a limitation of this study. Therefore, the measure shall be a capture of the moment, which has an influence of affect. According to several researchers, outcomes that reflect the perception of followers, mainly performance and ratings, are useful indicators of leadership effectiveness (Bono & Ilies, 2006; Humphrey, 2002; Madanchian, Hussein, Noordin, & Taherdoost, 2017; van Knippenberg, 2014). For instance, if a leader is able to influence his followers in a way that positive outcomes are realised, which again contribute to the accomplishment of organisational goals, an effective leader is constituted (Yukl, 2012b). Therefore, the leadership performance achieved through performing leadership behaviour factors, found in this study, shall be measured through individual perceived outcomes of followers.

In light of past research and taking into account that leadership is about influencing people, aspects of individual work productivity, job satisfaction and task motivation are the most common outcomes investigated in leadership research (Behrendt et al., 2017; Best, 2008; Hendricks & Payne, 2007; Iaffaldano & Muchinsky, 1985; Kian, 2014; Locke & Latham, 2002). Research suggests that there is a positive correlation between the aspects of individual work productivity, job

satisfaction and task motivation, and organisational productivity (e.g. Bakotić, 2016; Deci & Ryan, 1980; Locke & Latham, 2002; Ramirez, 2012; Robison & Unsworth, 2016; Srivastava & Barmola, 2012; Thomas & Velthouse, 1990). Notably, work productivity should be distinguished from work performance, two concepts that often seem to be used interchangeably in the literature (Koopmans et al., 2011). Work productivity is defined as input divided by output, whereas work performance are behaviours or actions that are relevant to the goals of the organisation (Koopmans et al., 2011). Thus, work productivity is a narrower concept than work performance. Furthermore, the accomplishment of a higher work productivity in an organisation requires a higher leadership performance, measured through follower perception, without any further input, e.g. increased labour force (Koopmans et al., 2011).

Especially early theories of job satisfaction and motivation suggest that satisfied and motivated employees tend to be more productive, creative and committed to their employers (Herzberg, Mausner, & Snyderman, 1959; Locke, 1976; Maslow, 1954).

A positive correlation between job satisfaction and productivity in organisations was found in some studies (e.g. Best, 2008; Böckerman & Ilmakunnas, 2012; Harter, Schmidt, & Hayes, 2002; Harter, Schmidt, & Keyes, 2003; Patterson, Warr, & West, 2004; Shobe, 2018; Tumen & Zeydanli, 2016). In contrast, other results are inconsistent regarding the job satisfaction – job performance relationship (Judge, Thoresen, Bono, & Patton, 2001). There may be a link between job satisfaction and organisational performance, but with a low correlation (Bakotić, 2016; Iaffaldano & Muchinsky, 1985; Ostroff, 1992).

The terms job satisfaction and motivation are now used interchangeably in many cases (Kian, 2014). However, it cannot be simply concluded that job satisfaction equals motivation, et vice versa (Kian, 2014). Job satisfaction is an emotional response, i.e. satisfaction from the present work role (Vroom, 1964) and pleasurable or positive emotional state resulting from the appraisal of ones work experience (Locke & Latham, 1991). Motivation refers to the motive that a person performs a particular job (Ryan & Deci, 2000).

Correspondingly, motivation can be defined as putting undistracted attention to achieve a goal (Rheinberg, 2008). The motivational need for goal setting can be derived from the psychological action theories (Frese & Zapf, 1994) and goal-setting theories (Locke & Latham, 1991). In general, there is a vast amount of research on motivation available (Deci & Ryan, 1980). For this study, the focus lies on intrinsic task motivation, which involves positively valued experiences that individuals

derive directly from a task that produce motivation and satisfaction (Thomas & Velthouse, 1990). Essentially, different authors emphasised the importance of engaging followers in the task, making work meaningful, so followers can identify themselves with the task or find expressive value in the task (e.g. Bennis & Nanus, 1985; Locke & Latham, 1991; Schein, 2010; Shamir, House, & Arthur, 1989; Thomas & Velthouse, 1990). Hence, this type of motivation occurs through individual pleasure or interest in the task and it does not involve working for the exchange of external rewards, it instead necessitates the feeling of inner pleasure in the activity itself, which leads to a higher performance in the end (Locke & Latham, 2002). Therefore, it can be concluded that the better a leader performs different leadership tasks that lead to intrinsic task motivation among his followers, the higher the work productivity (Locke & Latham, 2002; Thomas & Velthouse, 1990).

In summary, literature reviews show that a high leadership performance can produce a wide variety of benefits, inter alia, a high work productivity (C. S. Burke et al., 2006; Olivero, Bane, & Kopelman, 1997). However, it is nearly impossible to claim all leadership tasks and other relevant factors that contribute to work productivity, since the number of possible influencing factors is high. While work productivity depends on a number of factors, including organisational structure and access to different resources, it is also a direct result of the motivational aspects (Awasthi, 2017; Locke & Latham, 2002; K. W. Thomas & Velthouse, 1990; Vroom, 1964). Also, followers who are more satisfied in their jobs have more reasons to achieve a high work productivity (Böckerman & Ilmakunnas, 2012; Shobe, 2018). Therefore, the aim is to consider the most important factors influencing work productivity. Here, major factors impacting work productivity are motivation and job satisfaction (Locke & Latham, 2002; Ryan & Deci, 2000; Tietjen & Myers, 1998). To avoid the disproportionate effort of investigating minor influencing factors, perceived work productivity for itself will be a measure of leadership performance.

Figure 1 shows the proposed conceptual framework of this study. According to this framework, performed tasks of the leadership behaviour factors, impact follower perceptions of their own work productivity, job satisfaction and task motivation, which are the measures of the actual leadership performance.

Figure 1. *Proposed conceptual framework*

This study investigates the relationships within the Full Range Leadership Model of Bass (1985) and the Leadership Productivity Model of Desjardins (2012) to identify possible gaps or overlaps, tap unnoticed potentials and validate proven relationships. In addition, the study investigates whether there is untapped potential regarding leadership performance. Notably, although several survey studies among leaders and top management that examine the relationship of leadership performance to subjective and objective measures that affect productivity have already been conducted (Agle, Nagarajan, Sonnenfeld, & Srinivasan, 2006; Carter et al., 2014; Ensley, Hmieleski, & Pearce, 2006; Jung, Wu, & Chow, 2008; Ling, Simsek, Lubatkin, & Veiga, 2008b, 2008a; Makri & Scandura, 2010; Peterson, Walumbwa, Byron, & Myrowitz, 2009; Tosi, Misangyi, Fanelli, Waldman, & Yammarino, 2004; Uprety, 2016; Waldman, Ramirez, House, & Puranam, 2001; H. Wang, Tsui, & Xin, 2011; Zhu, Chew, & Spangler, 2005), most of the studies focus narrowly on one concept of leadership (e.g. transformational leadership) and thereby, neglect possible overlaps or gaps. Hence, the comparison of the Full Range Leadership Model of Bass (1985) and the Leadership Productivity Model of Desjardins (2012), in this study advances the theory and practice of productive leaders in organisations where both leader and follower interact and work together towards achieving organisational goals.

To investigate the stated relationships, the study tests the following hypotheses:

- Hypothesis 1:
Leadership Behaviour Factors consists of leadership behaviours from different leadership models as has been specified in the theory.
- Hypothesis 2:

Leadership Behaviour Factors correlate positively with the perceived work productivity of followers.

- Hypothesis 3:

Leadership Behaviour Factors correlate positively with the perceived task motivation of followers.

- Hypothesis 4:

Leadership Behaviour Factors correlate positively with the perceived job satisfaction of followers.

Methodology

To operationalise the stated theoretical concepts, the Leadership Productivity Survey (LPS), which is based on the theory of the Leadership Productivity Model (Desjardins, 2012, 2017) has been used to measure Leadership Behaviour Factors. The different leadership productivity factors can be all derived from the current literature in leadership research and are proven enablers for leadership performance (Desjardins, 2012; Desjardins & Baker, 2013). The second method to measure leadership behaviour is the Multifactor Leadership Questionnaire (MLQ), which is based on the theory of the Full Range of Leadership Model (Bass & Avolio, 1997). In general, the MLQ form 5X Short is considered to capture a broad range of leadership factors from passive leaders, to leaders giving contingent rewards to their employees, to leaders who transform and empower their employees and give them a chance to be leaders themselves (Avolio & Bass, 2004). Since the survey is conducted in Germany, a German translation of the MLQ 5X Short was used (Felfe, 2006a; Felfe & Gohl, 2002), which is an adapted version of the MLQ 5X Short.

To measure actual leadership performance, participants have been asked to rate their own work productivity, task motivation and job satisfaction. Furthermore, to enhance the quality of the analysis, the respondents are asked about age, educational pathway, years of leadership experience, hierarchy level and sphere of action.

The data required for this study will be obtained through an anonymised survey. The survey includes mainly closed questions, i.e., fixed-response questions, is structured, formal, direct, and the questions are asked in a prearranged order (Malhotra, Birks, & Wills, 2014). Hence, respondents choose from a predetermined response, based on a five-point Likert scale, using a range from *never* (1 point), to *regular, if not always* (5 points).

Leaders in the lower and middle management of different companies in the machinery and production industry in Germany have been asked to participate in

the survey. To guarantee the confidentiality of the research, the participating companies will not be mentioned by name. The companies have been informed that the aim is to gain as many respondents from each company as possible, so that a sufficient amount of answered questions allow generalisation of the results. To mitigate influence of personal factors, an email with the relevant web link to the online survey has been sent to the owners and managing directors of the companies, who distributed it then top-down to the employees with a request to conduct the survey.

Empirical results

Descriptive Statistics

A total of 183 leaders out of 211 possible participants in the lower and middle management participated in the survey. The majority of the leaders are 46 to 55 years old, have a technical educational background, are team or group managers, have 5 to 15 years of leadership experience and work in the operational field of production, manufacturing, logistics or similar.

Table 1 shows the means and standard deviations of the leadership behaviour factors and outcomes of leadership performance. In detail, relatively high results can be observed with the LPS leadership behaviour factors of Goal Orientation – Result Acceptance ($M = 4.54$, $SD = .69$), Support – Interaction ($M = 4.30$, $SD = .76$) and Motivation – Autonomy ($M = 4.56$, $SD = .57$). In contrast, MLQ scales are not as positively distinct as the LPS scales, most likely because MLQ scales are the mean of different items, whereas LPS scales are single items. Taking this into account, relatively high results can be observed with the factors of Inspirational Motivation ($M = 3.83$, $SD = .73$) and Laissez-faire ($M = 3.80$, $SD = .56$). On the other hand, relatively low results can be observed with the leadership behaviour factors of Support – Positive Feedback ($M = 3.12$, $SD = 1.04$), Support – Coaching ($M = 2.78$, $SD = 1.19$), Motivation – Growth 2 ($M = 3.28$, $SD = 1.08$), Management by Exception Active ($M = 3.03$, $SD = 0.62$) and Management by Exception Passive ($M = 2.28$, $SD = 0.70$). Finally, regarding leadership performance outcomes, the participating leaders see themselves oftentimes productive ($M = 4.24$, $SD = 0.48$), motivated in tasks ($M = 4.14$, $SD = 0.61$) and satisfied with their work ($M = 4.18$, $SD = 0.62$).

Table 1.

Means and Standard Deviations, N=183

Scale	Mean	SD
LPS		
Goal Orientation - Goal Definition	3.49	0.98
Goal Orientation - Goal Motivation	3.68	1.10
Goal Orientation - Goal Clarification	3.52	1.18
Goal Orientation - Result Acceptance	4.54	0.69
Support - Interaction	4.30	0.76
Support - Information	3.84	0.95
Support - Constructive Feedback	3.60	1.08
Support - Positive Feedback	3.12	1.04
Support - Coaching	2.78	1.19
Time Optimisation - Scheduling	3.56	0.84
Time Optimisation - Work Load	3.20	0.99
Time Optimisation - Meeting	3.79	0.79
Motivation - Affiliation	3.54	0.82
Motivation - Acknowledgement 1	3.80	0.95
Motivation - Acknowledgement 2	3.79	1.11
Motivation - Growth 1	3.44	1.09
Motivation - Growth 2	3.28	1.08
Motivation - Purpose/Sense	3.46	1.11
Motivation - Autonomy	4.56	0.57
Motivation - Performance/Goals	3.45	0.84
MLQ		
Idealised Influence Attributed	3.59	0.78
Idealised Influence Behaviour	3.62	0.66
Inspirational Motivation	3.83	0.73
Intellectual Simulation	3.43	0.69
Individual Consideration	3.35	0.79
Contingent Reward	3.45	0.73
Management by Exception Active	3.03	0.62
Management by Exception Passive	2.28	0.70
Laissez-faire	3.80	0.56
Leadership Performance Outcomes		
Work Productivity	4.24	0.48
Job Satisfaction	4.14	0.61
Task Motivation	4.18	0.62

Factor Analysis

To identify the leadership behaviour factors, that explain the pattern of correlations, the 29 items of the LPS and MLQ measuring leadership performance are subject to a principle component analyses (PCA). In detail, solely meaningful factor one is retained. Thus, all measured dimensions load on one single factor, which explains 42.5 % of the total variance (factor2: 7.430 %; factor 3: 6.242 %) and confirms the theoretical concept of one factor productive leadership performance by Desjardins (2012).

Next, Table 2 shows the component matrix of the second PCA, which is conducted with a fixed number of one factor to be retained.

Notably, especially motivational factors like Individual Consideration ($r = .908$), Motivation – Growth 1 ($r = .894$), Idealised Influence Attributed ($r = .857$),

Motivation – Purpose/Sense ($r = .808$), Goal Orientation – Goal Motivation ($r = .801$) and Motivation – Growth 2 ($r = .800$) load very high on the productivity factor. Hence, work productivity is likely significantly influenced through motivational aspects, implying that a motivational lead promote a productive work environment among leaders in the lower and middle management if and when they motivate their followers. Also, the theory of leadership productivity by Desjardins (2012) and Desjardins & Baker (2013) can be confirmed insofar, as work motivation has been proven as a key leadership task and a central source of leadership productivity.

Regarding the leadership task feedback, Support – Coaching ($r = .787$) loads high on the productivity factor, in contrast to Support - Constructive Feedback ($r = .563$). Hence, work productivity is likely stronger fostered through successful coaching than through giving constructive feedback. Similar, various researcher indicate that successful coaching increases the individual leadership performance of a leader as well as the overall work productivity in an organisation (Agarwal, Angst, & Magni, 2009; X. Liu & Batt, 2010; Olivero, Bane, & Kopelman, 1997; Peterson & Luthans, 2003; Smither, London, Flautt, Vargas, & Kucine, 2003).

Four out of 29 factors are extracted as they are considered too ambiguous indicated through a factorial loading less than $r = .3$, which are Support – Interaction, Motivation – Performance/Goals, Management by Exception Active and Motivation – Autonomy. Eventually, the final scales are tested positively regarding reliability, since the Cronbach's alpha values are higher than $\alpha = .85$ and therefore considered very good in terms of internal consistency for the type of quantitative research (Malhotra et al., 2014).

Table 2:
Component Matrix and Communalities of second PCA

Scale	Component	Communalities
	1	Extraction
	r	h ²
Leadership Behaviour Factors		
Individual Consideration	.908	.824
Motivation - Growth 1	.894	.799
Idealised Influence Attributed	.857	.735
Motivation - Purpose/Sense	.808	.653
Goal Orientation - Goal Motivation	.801	.642
Motivation - Growth 2	.800	.640
Support - Coaching	.787	.619
Contingent Reward	.784	.614
Motivation - Acknowledgement 2	.753	.566
Intellectual Simulation	.750	.563

Goal Orientation - Goal Clarification	.748	.560
Idealised Influence Behaviour	.745	.555
Inspirational Motivation	.706	.498
Support - Positive Feedback	.684	.467
Motivation - Acknowledgement 1	.664	.441
Time Optimisation - Meeting	.660	.436
Motivation - Affiliation	.653	.426
Goal Orientation - Goal Definition	.573	.328
Time Optimisation - Work Load	.568	.322
Support - Information	.567	.322
Support - Constructive Feedback	.563	.317
Management by Exception Passive	-.545	.297
Laissez-faire	.522	.272
Goal Orientation - Result Acceptance	.456	.208
Time Optimisation - Scheduling	.423	.179
Excluded		
Support - Interaction	.282	.079
Motivation - Performance/Goals	.235	.055
Management by Exception Active	.099	.010
Motivation - Autonomy	-.039	.002

Multiple Linear Regression Analysis

To analyse the relationship between leadership behaviour factors and leadership outcome scales, a multiple linear regression analysis is conducted, as shown in Table 3. In detail, the explained variance of the models are $R^2_{adj} = .399$ and $R^2 = .481$ for work productivity, $R^2_{adj} = .692$ and $R^2 = .735$ for task motivation, and $R^2_{adj} = .473$ and $R^2 = .545$ for job satisfaction. The F-test is highly significant for all models, thus, it can be assumed that all models explain a significant amount of the variance in the measures of leadership performance.

In terms of work productivity, the leadership behaviour factor of Support – Constructive Feedback ($\beta = -.385$, $p < .001$) has a statistically significant negative impact, whereas Time Optimisation – Scheduling ($\beta = .281$, $p < .01$) and Motivation – Affiliation ($\beta = .473$, $p < .001$) have statistically significant positive impact.

In terms of task motivation, the leadership behaviour factors of Support – Constructive Feedback ($\beta = -.325$, $p < .001$) and Intellectual Simulation ($\beta = -.401$, $p < .001$) have a statistically significant negative impact, whereas Support – Information ($\beta = .279$, $p < .001$), Time Optimisation – Meeting ($\beta = .455$, $p < .001$), Motivation – Affiliation ($\beta = .219$, $p < .01$), Motivation – Purpose/Sense ($\beta = .246$, $p < .01$), Inspirational Motivation ($\beta = .333$, $p < .001$), Contingent Reward ($\beta = .552$, $p < .001$) and Management by Exception Passive ($\beta = .189$, $p < .01$) have a statistically significant positive impact.

In terms of job satisfaction, the leadership behaviour factors of Support – Constructive Feedback ($\beta = -.164$,

$p < .05$) has a statistically significant negative impact, whereas Goal Orientation – Result Acceptance ($\beta = .159$, $p < .05$), Time Optimisation – Meeting ($\beta = .290$, $p < .01$), Motivation – Affiliation ($\beta = .208$, $p < .05$), Motivation – Purpose/Sense ($\beta = .298$, $p < .01$), Contingent Reward ($\beta = .276$, $p < .05$) and Management by Exception Passive ($\beta = .183$, $p < .05$) have a statistically significant positive impact.

Notably, Support – Constructive Feedback has a statistically significant negative impact on all leadership outcome scales. Thus, constructive feedback should be avoided otherwise it has a negative impact on work productivity, task motivation and job satisfaction. This again confirms research on feedback insofar, as negative feedback should be avoided in order to prevent inefficient self-reflections (Desjardins & Baker, 2013; Kluger & DeNisi, 1996). Instead, successful coaching to motivate and support followers in explorative learning should be used to improve follower performance (Desjardins & Baker, 2013; Evered & Selman, 1989; Gilley & Boughton, 1995; Graham, Wedman, & Garvin-Kester, 1994; Kluger & DeNisi, 1996).

Furthermore, Motivation – Affiliation has a statistically significant positive impact on all leadership outcome scales. Thus, affiliation motivation, which is described

as the motivation to establish, preserve and restore positive emotional relationships (Atkinson & Walker, 1956), leads to a higher work productivity, task motivation and job satisfaction. Similar, researchers show that the need for affiliation positively relate to leadership success (Cornelius & Lane, 1984; Kirkpatrick, Wofford, & Baum, 2002). Further, the need for affiliation contribute to effective leadership insofar, as leaders seek to work toward organisational objectives together with their followers (Boyatzis, 1979), are perceived more effective and enhance followers' extra effort and work-related attitudes, which is closely related to followers' satisfaction (Steinmann, 2017; Steinmann, Dörr, Schultheiss, & Maier, 2015; Steinmann, Ötting, & Maier, 2016).

Finally, considerable more leadership behaviour factors have a statistically significant impact on task motivation, than it is the case with work productivity and job satisfaction. Hence, the framework of leadership behaviour factors assesses rather more motivational aspects than aspects of work productivity and job satisfaction.

Table 3:

Summary of Multiple Regression Analysis predicting Leadership Performance, N=183

	Work Productivity		Task Motivation		Job Satisfaction	
	r	β	r	β	r	β
Goal Orientation - Goal Definition	.094	.020	.276***	.020	.319***	.063
Goal Orientation - Goal Motivation	.236**	-.024	.449***	.087	.515***	.191
Goal Orientation - Goal Clarification	.256***	-.080	.407***	-.121	.457***	.038
Goal Orientation - Result Acceptance	.324***	.109	.353***	.068	.395***	.159*
Support - Information	.29***	.046	.46***	.279***	.283***	.051
Support - Constructive Feedback	-.059	-.385***	.1	-.325***	.26***	-.164*
Support - Positive Feedback	.352***	.103	.527***	.119	.432***	.037
Support - Coaching	.346***	-.009	.487***	.079	.503***	-.030
Time Optimisation - Scheduling	.338***	.281**	.268***	.012	.386***	.118
Time Optimisation - Work Load	.274***	-.063	.33***	-.088	.441***	.112
Time Optimisation - Meeting	.281***	-.008	.562***	.455***	.471***	.290**
Motivation - Affiliation	.487***	.473***	.475***	.219**	.453***	.208*
Motivation - Acknowledgement 1	.248***	-.113	.299***	-.130	.374***	.106
Motivation - Acknowledgement 2	.398***	.171	.52***	.149	.445***	-.136
Motivation - Growth 1	.316***	.083	.56***	-.122	.464***	-.238
Motivation - Growth 2	.332***	.016	.515***	-.040	.413***	-.120
Motivation - Purpose/Sense	.282***	-.056	.502***	.246**	.562***	.298**
Idealised Influence Attributed	.312***	.135	.436***	-.132	.456***	-.070
Idealised Influence Behaviour	.247***	.030	.366***	-.205*	.425***	-.044
Inspirational Motivation	.336***	.145	.398***	.333***	.389***	-.017

Intellectual Simulation	.19**	-.146	.272***	-.401***	.351***	-.135
Individual Consideration	.292***	-.119	.512***	-.058	.51***	.169
Contingent Reward	.207**	.138	.518***	.552***	.495***	.276*
Management by Exception Passive	-.17*	.134	-.212**	.189**	-.219**	.183*
Laissez-faire	.044	-.042	.167*	.021	.19**	-.090
R ² (R Square)		.481		.735		.545
R ² _{adj} (adjusted R Square)		.399		.692		.473
Durbin-Watson		1.896		1.811		2.188
F-Value		5.829***		17.394***		7.526***

*p < .05; **p < .01; ***p < .001, all one-tailed, r (Pearson correlation coefficient), β (standardised regression coefficient)

Hierarchical Multiple Regression

To analyse the relationship between independent (leadership behaviour factors), dependent (work productivity, task motivation and job satisfaction) and control variables (demographics) a hierarchical multiple regression is conducted, as shown in Table 4.

In terms of work productivity, leadership behaviour factors are significant positive predictors ($\Delta B = .252$, $p < .001$). Thus, performing leadership behaviour factors lead to a higher work productivity among leaders of the lower and middle management. Regarding age, there are no significant predictors of work productivity when including leadership behaviour factors, although there are significant predictors of work productivity in form of the groups < 35-year old and 46-55-year old leaders ($\Delta B = -.302$, $p < .05$) when leadership behaviour factors are excluded. Thus, the age of leaders does not significantly predict work productivity if leadership behaviour factors are performed. Likewise, there are no significant predictors of work productivity among the groups of educational pathway and level of hierarchy. Therefore, both control variables do not significantly predict work productivity, leadership behaviour factors included or excluded. Hence, performing leadership behaviour factors likely have the same positive impact on work productivity within the different groups of educational pathway and level of hierarchy. Regarding leadership experience, there are significant predictors of work productivity in both situations, leadership behaviour factors included or excluded. Also, leaders with 5-15 years ($\Delta B = .376$, $p < .001$) leadership experience and leaders with more than 15 years ($\Delta B = .601$, $p < .001$) leadership experience have a higher perception of their work productivity than leaders with less than 5 years of leadership experience. This likely indicates that leaders with more experience are more productive within a field that they know well and where long experience is beneficial (Skirbekk, 2004; Van Dalen, Henkens, & Schippers, 2010).

Similar, regarding sphere of action, there are significant predictors in both situations, leadership behaviour factors included or excluded. Also, leaders in the engineering field ($\Delta B = .230$, $p < .01$) and leaders in the administrative field ($\Delta B = .394$, $p < .001$) have a higher perception of their work productivity than leaders in operational field. Thus, sphere of action of leaders does significantly predict work productivity, leadership behaviour factors included or excluded. This likely implies again situational effects, as described

with the contingency theories and thus, requires leadership behaviour adapted to the situation.

In terms of task motivation, leadership behaviour factors are significant positive predictors ($\Delta B = .513$, $p < .001$). Thus, performing leadership behaviour factors lead to a higher task motivation among leaders of the lower and middle management. Regarding age, there are no significant predictors when including leadership behaviour factors, although there are significant predictors of task motivation in form of the groups 35-45-year old leaders ($\Delta B = -.329$, $p < .05$) and 46-55-year old leaders ($\Delta B = -.356$, $p < .05$) when leadership behaviour factors are excluded. This implies that 35-45-year old and 46-55-year old leaders are less motivated when leadership behaviour factors are not performed. Thus, when performing leadership behaviour factors, age of leaders does not significantly predict task motivation, which implies again positive impact of leadership behaviour factors on task motivation. Notably, there are no significant predictors of task motivation among the groups of educational pathway. Hence, performing leadership behaviour factors likely have the same positive impact on task motivation within the different groups of educational pathway. Regarding level of hierarchy, there are significant predictors of task motivation in both situations, leadership behaviour factors included and excluded. In detail, leaders in the middle management ($\Delta B = .154$, $p < .05$) have a higher task motivation than leaders in the lower management, leadership behaviour factors performed or not. Thus, the level of hierarchy of leaders does significantly predict task motivation in any situation. Regarding leadership experience, there are some significant predictors of task motivation in both situations, leadership behaviour factors included and excluded. In detail, leaders with more than 15 years ($\Delta B = .447$, $p < .01$) leadership experience have a higher task motivation than leaders with less than 5 years of leadership experience. Thus, leadership experience does significantly predict task motivation. Similar, regarding sphere of action, there are significant predictors of task motivation in both situations, leadership behaviour factors included and excluded. In detail, leaders in the engineering field ($\Delta B = .394$, $p < .001$) and leaders in the administrative field ($\Delta B = .476$, $p < .001$) have a higher task motivation than leaders in operational field. Thus, sphere of action of leaders does significantly predict task motivation, leadership behaviour factors performed or not. This again, likely implies situational effects, as described with the contingency theories.

Table 4

Summary of Hierarchical Regression Analysis predicting Leadership Performance, $N=183$

	Work Productivity		Task Motivation		Job Satisfaction	
	Control Variables only	LBF included	Control Variables only	LBF included	Control Variables only	LBF included
	ΔB	ΔB	ΔB	ΔB	ΔB	ΔB
Age						
< 35	-	-	-	-	-	-
35-45	-.063	-.084	.029	-.013	.238	.188
46-55	-.302*	-.197	-.329*	-.115	.016	.267*
> 55	-.241	-.122	-.356*	-.113	.119	.405**
Educational Pathway						
Economical/Commercial education	-	-	-	-	-	-
Technical education	-.077	-.033	-.099	-.010	-.079	.026
Level of Hierarchy						
Lower Management	-	-	-	-	-	-
Middle Management	.026	-.002	.210*	.154*	.048	-.017
Leadership Experience						
< 5	-	-	-	-	-	-
5-15	.460***	.376***	.395**	.224	.296	.096
> 15	.690***	.601***	.630***	.447**	.326	.111
Sphere of Action						
Production, Manufacturing, Logistics	-	-	-	-	-	-
Engineering, Design, Development	.287**	.230**	.509***	.394***	.115	-.021
Administration, IT, Finance, Sales	.437***	.394***	.563***	.476***	.292*	.189*
Leadership Behaviour Factors		.252***		.513***		.602***
R Square	.234	.330	.273	.509	.085	.429
Adjusted R Square	.194	.291	.235	.480	.038	.396
Durbin-Watson	2.258	2.131	2.307	2.197	2.307	2.165
F-Value	5.861***	8.481***	7.218***	3.647***	1.792	12.934***

* $p < .05$; ** $p < .01$; *** $p < .001$, all one-tailed, LBF (leadership behaviour factors, CV (control variables), B (unstandardised regression coefficient)

In terms of job satisfaction, leadership behaviour factors are significant positive predictors ($\Delta B = .602$, $p < .001$). Thus, performing leadership behaviour factors lead to a higher job satisfaction among leaders of the lower and middle management. Regarding age, there are significant predictors of job satisfaction when including leadership behaviour factors. Also, 35-45-year old leaders ($\Delta B = .267$, $p < .05$) and 46-55-year old leaders ($\Delta B = .405$, $p < .01$) have a higher job satisfaction than < 35-year old leaders, when leadership behaviour factors are included. Thus, the age of leaders does not significantly predict job satisfaction and the impact of age on job satisfaction increases when leadership behaviour factors are performed. There are no significant predictors of job satisfaction among the

groups of educational pathway, level of hierarchy as well as leadership experience and therefore, these control variables do not significantly predict job satisfaction, leadership behaviour factors performed or not. Hence, performing leadership behaviour factors likely have the same positive impact on job satisfaction within the different groups of educational pathway, level of hierarchy and leadership experience. Regarding sphere of action, there are significant predictors of job satisfaction in both situations, leadership behaviour factors included or excluded. In detail, leaders in the administrative field ($\Delta B = .189$, $p < .05$) have a higher job satisfaction than leaders in operational field, leadership behaviour factors performed or not. Thus, sphere of action of leaders does significantly predict job

satisfaction. This again, likely implies situational effects, as described with the contingency theories.

In summary, results show that participating leaders work very autonomously, which is a prerequisite for productivity, as self-perceived autonomy is a major driver of intrinsic motivation (Deci & Ryan, 1980) and also directly increases work productivity (Desjardins, 2012). However, the participating leaders miss the basic need of a personal relationship with their superior, indicated through diverse measures like coaching, support and growth motivation. Coaching has been empirically proven to increase work productivity (Agarwal et al., 2009; X. Liu & Batt, 2010), as it attempts to observe and measure the individual performance and adapt the individual work behaviour to increase performance skill levels through triggering self-discovery and self-actualisation processes (Graham et al., 1994). Although being in high demand of followers (Ellinger, Ellinger, & Keller, 2003), coaching is barely used in the daily leadership practice, as a result of underdeveloped coaching skills or a general lack of insight in its benefits (Heslin, Vandewalle, & Latham, 2006). Similarly, growth motivation is seen as an essential leadership task (Herzberg et al., 1959; Maslow, 1954), since it is a basic motivational need that varies in its strengths on the basis of individual personal attributes (Hackman & Oldham, 1976). Therefore, a low score in growth motivation can be considered as a lack of basic needs (Herzberg et al., 1959; Maslow, 1954).

Furthermore, participating leaders only receive little guiding and personal feedback, indicated through measures like management by exception, laissez-faire and feedback. In terms of Passive Management by Exception, leaders with a low score in this scale routinely provide negative feedback, since they do not get involved with followers until failures or deviations in workflow occur (Bass, 1985, 1990). In the same manner, a low score in positive feedback confirms this fact. Hence, this form of feedback likely stimulates followers to maintain their performance, however, does not encourage or foster growth or job performance, since followers have not been given the chance to develop confidence or to learn from experiences (Bass, 1985, 1990).

Regression analyses show that need for affiliation has a significant influence on all measures of leadership performance, which implies that participating leaders seek interpersonal relationships and approval from those with whom they have regular contact (Boyatzis, 1973; Hill, 1987). Also, the greater the leadership experience and the higher the hierarchy level, the more basic motivational needs in form of personal relationships

with their superiors are necessary for leaders to be productive. Notably, giving constructive feedback has a statistically significant negative impact on work productivity, task motivation and job satisfaction. This again confirms research on feedback insofar, as negative feedback should be avoided in order to prevent inefficient self-reflections (Desjardins & Baker, 2013; Kluger & DeNisi, 1996). Instead, successful coaching to motivate and support followers in explorative learning should be used to improve performance of leaders in the lower and middle management (Desjardins & Baker, 2013; Evered & Selman, 1989; Gilley & Boughton, 1995; Graham et al., 1994; Kluger & DeNisi, 1996).

Finally, significant differences in the means of the single measures occur, especially in terms of demographic variables like sphere of action and age. This indicates situational and generational factors having a significant impact on the individual leadership performance.

Conclusions

The objective of this study was to provide a scientific study based on recent and relevant findings in the global literature, focused on the most important pillars of leadership performance: work productivity, task motivation and job satisfaction of followers. The challenge is to provide results-oriented leadership behaviour factors that are contributing to a higher work productivity of leaders in the middle management in organisations.

In summary, all stated hypotheses can be supported statistically, implying that identified leadership behaviour factors positively impact leadership performance in a significant way. In terms of research framework, the theoretical concept of one factor leadership performance by Desjardins (2012) can be confirmed. Especially motivational factors load very high on the leadership performance factor. Hence, work productivity is likely significantly influenced through motivational aspects, implying that leaders in the top management likely promote a productive work environment if and when they motivate their followers, i.e. leaders in the middle management. Also, the theory of leadership productivity by Desjardins (2012) and Desjardins & Baker (2013) can be confirmed insofar, as motivational support has been proven as a key leadership task and a central source of leadership productivity.

Defined leadership behaviour factors significantly predict leadership performance if demographic variables are included. Furthermore, demographic variables like

sphere of action and leadership experience significantly predict leadership performance and influence the relationship of impact of leadership behaviour factors on leadership performance, which again indicates that situational and generational aspects of leadership are necessarily to be considered in order to accomplish a high leadership performance. Similar, age significantly predicts task motivation and the impact of leadership behaviour factors on job satisfaction. Whereas the educational pathway does not significantly predict any leadership performance measure, level of hierarchy significantly predicts task motivation and the impact of leadership behaviour on task motivation. Hence, task motivation necessarily requires the consideration of the organisational aspects in form of hierarchy in order to achieve a high leadership performance.

Findings of this study indicate that proposed leadership behaviour factors have a significant positive impact on the work productivity, task motivation and job satisfaction of leaders in the line and middle management. Taking this into account, organisations can develop strategies that can increase the overall work productivity by appropriate leaders. In detail, a motivational lead is required to motivate leaders in the line and middle management to be maximal productive. Therefore, trainings and programs that aim to improve motivational leadership in the individual organisations will have future benefits with regard to the overall work productivity.

This study has limitations due to the use of the questionnaires LPS and MLQ. Although the LPS offers a unique and holistic view on leadership productivity, it is relatively new and may require further empirical support (Desjardins & Baker, 2013). Also, the MLQ is one of the most widely used instruments to measure leadership ability in organisations, but there have always been critique regarding its validity (Heinitz, 2007; Yukl, 1999). Research reveals that different cultures differ in the value they give to certain leadership styles, resulting in problems in the potential application of the MLQ as an instrument to measure leadership (Heinitz, 2007; Jogulu, 2010; Rowold & Heinitz, 2007). Using LPS and MLQ solely might lead to a loss of validity, as relevant leadership behaviours might not be considered. However, both leadership models, LPS (Desjardins, 2012; Desjardins & Baker, 2013; Zebal, 2017) and MLQ (Avolio, 2010; Felfe, 2006b) have been proven to consider at least the most important leadership aspects.

Regarding the sample, randomly chosen leaders of the line and middle management of different companies in Germany have been asked to participate, which might

lead to a loss of validity, since cultural aspects and insights from employees with no leadership role are neglected. In future research, a wider range of sample from leaders to non-managerial employees as well as different types of organisations across various industries and cultures should be considered to investigate the impact of the proposed leadership behaviour factors on different hierarchy levels and to generalise the findings across industries and cultures.

Findings show that situational, generational and organisational aspects are considered in order to achieve a high leadership performance. To investigate these findings in detail and to overcome chosen constraints of quantitative research, qualitative research methods such as in-depth interviews with leaders and followers can be applied to provide thorough explanations about situational, generational and organisational constraints while incorporating different perspectives to the research of leadership productivity.

About the author

Striving for more humanity in the world, Peter Schrade creates the space for people to unfold their inner human potential, brings people closer together and helps people to establish bonds between them.

Peter is an entrepreneurial spirit, having a family-run agricultural business and working in the machinery industry at the same time. Upon completion of a Bachelor programme in Mechanical Engineering, Peter studied Product Development in Mechanical and Plant Engineering, graduating with a Master in Engineering while working. Having pursued both an MBA and a keen interest in Leadership, Peter graduated in International Business Management and Leadership at the Professional School of Business and Technology Kempten. His work experience lead him to further his involvement in the field of Leadership and Human Development, developing criteria for the successful leading of managers in the middle management and improving work productivity in organisations.

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