# Validating the Measures of Path-Goal Leadership Theory in the Context of Academic Staff at Kyambogo University, Uganda

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Accepted 20 November 2024, published 30 November 2024

*https://doi.org/10.58653/nche.v12i1.10*

## Abstract

The study validated the measures of the path-goal leadership theory in the context of full-time academic staff at Kyambogo University. Based on House's conceptualisation (1971), the path-goal leadership theory was studied in terms of directive, supportive, participative and achievement-oriented leadership. In this cross-sectional study that involved a sample of 201 from among full-time academic staff at Kyambogo University, data was collected using a self-administered questionnaire. Descriptive statistics and structural equation modelling (SEM) using Smart PLS for partial least square structural equation modelling (PLS-SEM) were used to determine the presence of the four constructs of the path-goal leadership theory, namely directive, supportive, participative and achievement-oriented leadership behaviour. Descriptive results indicated that the above four constructs of the path-goal leadership theory were highly practised by managers at Kyambogo University. PLS-SEM showed that the indicators that were used to measure the above four types of leadership behaviour were appropriate measures. The study concluded that the indicators assessed in this article to measure the four leadership behaviours within the path-goal leadership theory, namely participative, supportive, directive and achievement-oriented leadership, are valid and reliable. It was recommended that researchers use the indicators assessed in this article to measure the four leadership behaviours within the path-goal leadership theory

**Keywords:** *Directive; Supportive; Participative; Achievement-oriented; Leadership behaviours.*

# Introduction

The path-goal leadership theory (House, 1971) is based on the expectancy theory of motivation (Vroom, 1964) in which employees believe they will be able to attain a set target by their employer, that they will be rewarded when the target is met, and that the reward will be valued. Leaders achieve followers' motivation by articulating goals, clarifying the path, removing obstacles, and providing the much-needed support to enable the attainment of the goal for both the organisation and the individual employee (Steinmann et al., 2018). The path-goal theory assumes that a leader selects the most suitable leadership behaviours based on subordinates' abilities and contextual circumstances, as well as incentive elements to be able to influence subordinates towards the achievement of the goals (Fred, 2011). The path-goal theory first appeared in leadership literature in the early 1970s in the work of Evans (1970), which explained what motivates followers (employees). Building on Evan's work, House (1971) came up with the path-goal theory in which he describes how leaders can assist followers in reaching their goals by selecting behaviours that are best suited to the demands of the followers and the circumstances in which they work. According to House and Dessler (1974) and House and Mitchell (1974), the purpose of the path-goal leadership theory is to improve follower performance and motivation by focusing on followers' needs. As such, leaders motivate followers by increasing the number and variety of payoffs they obtain from their work. According to House (1971), the path-goal leadership theory aims to clarify how leaders might assist their followers in achieving their goals. Therefore, the theory classifies leadership behaviours into four categories – participative, supporting, directive and achievement-oriented.

Participative leadership behaviours describe leaders' appreciation of subordinates' suggestions and opinions, as well as encouraging employees at all levels of the organisation to share ideas towards the achievement of organisational goals, problem-solving, and other organisational issues that may directly affect them. Therefore, participative leadership allows for the sharing of responsibilities among subordinates (Olowoselu et al., 2019). Supportive leadership behaviours denote a leader who shows emotional support for subordinates, shows concern for their personal needs and well-being, acts in a warm and approachable manner, and pays close attention to the comfort and needs of followers (Farhan, 2018). Directive leadership behaviour defines a leader who assigns tasks to subordinates, explains the ways to complete the tasks, schedules tasks for subordinates, establishes clear guidelines and policies, and states clearly what is expected of subordinates in terms of performance (Steinmann et al., 2018). On the other hand, achievement-oriented leadership behaviours characterise a leader who sets tough but reasonable goals for followers, sets high standards for followers, and continually looks for ways to better followers (Nzeneri, 2020). On their part, Oyetunji et al. (2019) contend that leadership behaviours are a prerequisite for successful employee performance, especially in the 21st Century business environment, given that it inspires employee behaviours and attitudes, thus playing a central role in improving employees' interest in the organisation. Further, Asena (2020) opines that leadership behaviours play a pivotal role in determining workers' performance in the organisation by influencing thinking and actions.

However, the leadership behaviours of Kyambogo University administrators leave much to be desired. For instance, a study by Kato et al. (2023) reports that Kyambogo

University leadership lacked a unifying vision, inclusivity, collegiality and coherence. Okello (2019) points out the existence of non-inclusiveness and leaders exhibiting incoherent leadership skills, which led to inefficient service delivery. Further, Kasule (2019) calls for Kyambogo University leaders to address concerns in governance at both unit and institutional levels through the establishment of representative committee structures, transparency in decision-making, genuine consultation processes and open channels of multi-directional communication. Nevertheless, Namubiru et al. (2017) note that power-sharing has been a challenge since the establishment of Kyambogo University, with power being held by those in higher leadership positions at the expense of the majority, who also have a stake in the institution. Similarly, Tumuhimbise (2017) reveals that the management of Kyambogo University failed to properly perform their administrative duties and tasks, which hurt the university's overall performance. The above contextual and empirical evidence seems to suggest that the Kyambogo University managers seem low on the scores for leadership behaviours of the path-goal theory. Therefore, this study aimed to validate the measures of the path-goal leadership theory and proffer the indicators that can be used to measure participative, supportive, directive and achievement-oriented leadership behaviour in the context of academic staff at Kyambogo University. The study specifically tested whether leaders at Kyambogo University engaged in (i) participative leadership, (ii) supportive leadership, (iii) directive leadership and (iv) achievement-oriented leadership behaviours. It also proffered indicators that can measure the four leadership behaviours.

## Literature Review

The path-goal theory proposes four behavioural leadership styles, namely participative, supportive, directive, and achievement-oriented. Participative leadership involves delegating authority to subordinates, engaging them in decision-making, and seeking their input. By doing so, leaders empower subordinates to contribute to decisions that impact their work and well-being within the organisation (Usadolo, 2020). Scholars (Arnold et al., 2002; Batubara et al., 2020; Ochieng et al., 2023) have measured participative leadership behaviour. For instance, Arnold et al. (2002) developed a scale with indicators such as encouraging idea sharing, listening to suggestions, using collective input for decision-making, and giving all members a chance to voice their opinions. Batubara et al. (2020) used indicators like coordinating work, involving employees in activities, accepting suggestions, and providing solutions to employee problems. Ochieng et al. (2023) used indicators like consulting employees when facing problems, seeking suggestions on assignments, and involving employees in decision-making. Although these studies demonstrate the measurement of participative leadership, some of the indicators measured were different, suggesting the lack of a standardised tool to measure this construct. This highlights the need to validate the indicators used in the current measurement scale.

Supportive leadership refers to a leader's ability to be approachable, demonstrate concern for subordinates' well-being, and attend to their needs (Farhan, 2018). Scholars (McGilton, 2010; Prihandaka et al., 2022; Uman et al., 2024; Mutonyi et al., 2021a) have measured supportive leadership in their investigation. For instance, supportive leadership refers to a leader's ability to be approachable, demonstrate concern for subordinates' well-being, and attend to their needs (Farhan, 2018). For instance, Uman et al. (2024) developed

a scale with indicators such as providing support and feedback, involving subordinates in decision-making, and encouraging professional development. Prihandaka et al. (2022) created a scale with indicators like providing assistance to improve performance, encouraging others to produce better work, and maintaining positive relationships. McGilton (2010) developed a supportive leadership scale with indicators like recognising the abilities of subordinates, meeting their needs, understanding their concerns, and providing subordinates' feedback. Mutonyi et al. (2021a) measured supportive leadership based on indicators like showing concern for employees' well-being, creating a pleasant work environment, and enabling idea generation and promotion. These studies demonstrate that scholars have varied indicators to measure supportive leadership, although some were similar. This highlighted the importance of a standardised tool to measure this construct, hence this measurement scale.

# Methodology

## Research design and sample

The study adopted a cross-sectional research design that enabled the gathering of data from study participants at a particular point in time to provide a snapshot of the current conditions regarding the studied variable (Wang & Cheng, 2020). While data was collected from a sample of 201 full-time academic staff of Kyambogo University out of a population of 415 based on the table for sample size determination provided by Krejcie and Morgan (1970), the results presented were based on data from 175 academic staff after data processing that eliminated missing data and outliers. Simple random sampling was used to collect information from respondents since it provided equal opportunities for all academic staff members to participate in the study. This made it feasible to collect the data needed to generalise the study's conclusions.

## Instrument

The data collection instrument was a self-administered questionnaire developed based on an earlier instrument developed by House (1996), which operationalised the path-goal leadership theory in terms of participative, supportive, directive and achievement-oriented leadership. The indicators were adopted from the comprehensive indicators developed by Yan-Li and Hassan (2018). The indicators for participative leadership were superiors consulting with subordinates; listening to ideas and suggestions receptively; seeking suggestions on assignment execution; considering suggestions even when disagreeing; promoting open and honest self-expression; involving staff in administrative activities; and using subordinates' suggestions in decision-making. The indicators for supportive leadership were superiors maintaining friendly and supportive working relationships; fostering a pleasant work environment; enhancing personal feelings; providing help when needed; being thoughtful; offering encouragement; being reliable; understanding the perspectives of others; and inspiring staff. Directive leadership was measured using indicators relating to superiors clearly communicating their expectations; providing guidance on role performance; requiring adherence to standard rules and regulations; explaining expected performance levels; giving clear job expectations; and setting achievable goals to accomplish. Achievement-oriented leadership behaviours utilised

indicators like superiors letting subordinates know that they expect them to perform at a high level; setting challenging goals for subordinates; encouraging subordinates' continuous improvement; showing confidence in their abilities; and consistently setting goals that push subordinates to achieve more. The indicators of different dimensions were scaled using the five-point Likert scale, with one as the minimum (worst-case scenario) and five as the maximum (best-case scenario). The anchors used were 1=Strongly disagreed (SD), 2= Disagreed (D), 3= Not sure (NS), 4=Agreed (A), and 5 = Strongly agreed (SA).

## Ethical Considerations

The researchers followed all appropriate ethical standards for conducting the study, including seeking free and informed consent, obtaining non-coercive disclaimers, respecting anonymity, confidentiality and privacy, as well as exhibiting honesty. To ensure free and informed consent, the investigators informed the study participants of the study's relevance so that they would voluntarily participate in it. For the non-coercive disclaimer, the researchers explained to the academic staff that no penalties were to be extended to those who refused to participate in the study and as such they were free not to participate. To ensure respect for anonymity, the investigators ensured that the identities of the study subjects were not linked to the personal responses of the study participants and this was done by not allowing the participants to indicate names or personal information on the questionnaire. To maintain confidentiality, the researchers explained to the study participants that they had the liberty to provide or withhold private information as much as they wished during the study. Further, the researchers confirmed to the study participants that they would not share private information with a third party without their consent. Additionally, to preserve privacy, the researchers let the study participants choose when, how much, and under what broad conditions they would provide private information. Further, the researchers acknowledged the sources of information used in the study and tried as much as possible to be honest in reporting the study findings. To ensure voluntary participation in the study by the participants, the researchers clearly explained the relevance of the investigation to the study participants. Further, this helped the study participants to understand the benefits of taking part in this study.

## Data Analysis

Data was analysed using partial least square structural equation modelling (PLS-SEM), specifically the SmartPLS 3 software, due to its ability to produce higher-order constructs and estimate complex models with many latent variables (Sarstedt et al., 2020). Partial least square structural equation modelling (PLS-SEM) was carried out to develop the model showing appropriate indicators for the different dimensions of the path-goal leadership theory.

# Results

## Background characteristics of the lecturers

The background information on the study participants involves respondents' sex, marital status, academic rank, time spent teaching at the university, and highest academic qualification. Regarding the respondents' sex, the results showed that 69% were male, with females being 31%. Data on the marital status of the respondents revealed that 85.9% were married, 11.5% were single and 2.6% were cohabiting. Results related to academic rank indicated that 41% were assistant lecturers, 39.1% were lecturers, 13.5% were senior lecturers, 3.2% were associate professors, graduate fellows accounted for 2.9%, and professors were 1.3%. The results regarding the period spent teaching at the university revealed that 73.7% of the teaching staff had spent over 5 years and above teaching at the university, 17.9% had taught for 3 to 4 years, 5.8% had taught for 1 to 2 years, and 2.6% had taught for less than a year. Results regarding the highest academic qualification indicated that 49.4% of the academic staff had master's degrees, 48% held PhDs, and 1.3% had bachelor's degrees and post-graduate diplomas. Thus, the results were generalisable to academic staff with different academic qualifications at the university.

## Measurement models

The measurement models included descriptive results in terms of means, validity tests, namely average variance extracted (AVE), and heterotrait-monotrait (HTMT) ratio of discriminant validity, as well as reliabilities in terms of composite reliability (CR) and Cronbach's alpha. Further, they included collinearity values in terms of value inflation factor (VIF) values. The results are set out in Tables 1 and 2.

***Table 1:*** Descriptive results, AVE and heterotrait-monotrait (HTMT) discriminant validity assessment

| Measures | Means | AVE | | AO | DL | PL | SL |
|---|---|---|---|---|---|---|---|
| AO | 3.84 | 0.610 | | 0.432 | | | |
| DL | 3.97 | 0.617 | | 0.768 | 0.769 | | |
| PL | 3.61 | 0.514 | | 0.794 | 0.465 | 0.900 | |
| SL | 3.76 | 0.554 | | 0.458 | 0.629 | 0.908 | 0.703 |

***Abbreviation**: AO= Achievement-oriented, DL= Directive Leadership, PL= Participative Leadership, SL= Supportive Leadership, AVE= Average Variance Extracted*

The descriptive results in Table 1 indicate that the scores for the path-goal leadership theory in terms of achievement-oriented leadership (mean=3.84), directive leadership (mean=3.97), participative leadership (mean=3.61), and supportive leadership (mean=3.76) were high. The AVE value for convergent validity revealed the different constructs that assessed the path-goal leadership behaviours and all the AVE values were above 0.5, which is the threshold level (Alarcón et al., 2015). The heterotrait-monotrait (HTMT) ratio of correlation measured discriminant validity to determine whether the constructs were independent and hence each construct/dimension independently measured the path-goal

leadership theory. The results also demonstrate that the heterotrait-monotrait ratio of correlations (HTMT) conditions was met because all the constructs of the theory did not exceed 0.90, which is the highest limit (Henseler et al., 2015). Therefore, the discriminant validity of all the constructs that measure the path-goal was confirmed (Hair Jr et al., 2020). This suggested that achievement-oriented leadership, directive leadership, participative leadership and supportive leadership independently measured the path-goal leadership theory.

***Table 2:*** Reliability and collinearity

| Constructs | (α) | CR | VIF |
|---|---|---|---|
| Achievement-oriented | 0.838 | 0.886 | 2.037 |
| Directive | 0.875 | 0.906 | 1.854 |
| Participative | 0.838 | 0.880 | 2.441 |
| Supportive | 0.899 | 0.918 | 1.542 |

The reliability results in Table 2 show that for both Cronbach's alpha (α) and composite reliability (CR), the values were above the minimum of 0.70, implying that the indicators of the measures of variables were reliable. In testing reliability, composite reliability was preferred, the reason being that Cronbach's alpha had limitations of assuming that all indicator traits are the same in the study population, thus lowering the reliability values. Further, Cronbach's alpha is sensitive to the number of items on the scale and typically underestimates the reliability of internal consistency (Hair Jr. et al., 2021). However, composite reliability is liberal because it considers the external characteristics of the indicator variables (Dash & Paul, 2021). On the other hand, the collinearity (VIF) test revealed the non-existence of a high correlation (collinearity) between the constructs that measured the path-goal leadership theory because the values were less than 5, which is the maximum (Kim, 2019). The VIF values implied that the constructs that measured the path-goal leadership theory were independent and hence measured the theory independently.

## Structural model for path-goal leadership theory

The structural equation modelling was done to determine the measures of path-goal leadership theory. The results are indicated in Figure 1.

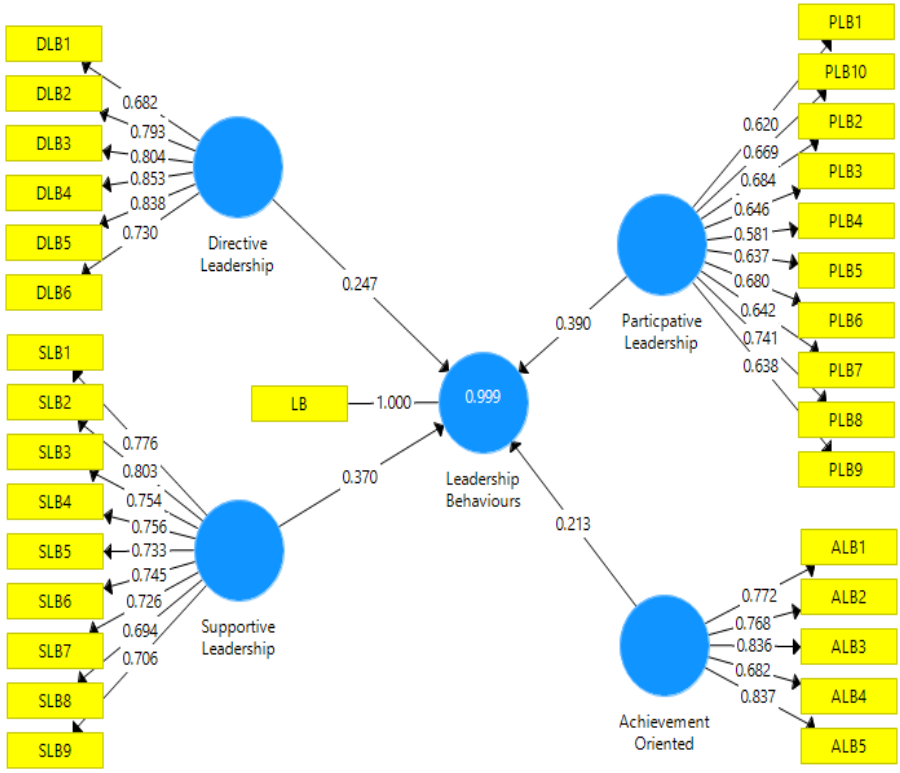


***Figure 1:*** Structural model for path-goal leadership theory

The results in Figure 1 show the four constructs that measured the path-goal leadership theory, namely directive, supportive, participative and achievement-oriented leadership behaviours. The factor loading shows that for directive leadership behaviour, all the six items that measured this construct loaded above the minimum validity value of 0.5, as recommended by Hair Jr. et al (2021). For supportive leadership behaviour, all nine items measuring the same loaded highly. For participative leadership behaviour, all the 10 items that measured this construct loaded highly. The same goes for achievement-oriented leadership behaviour, where all the five items measuring it loaded highly. Thus, all the items were retained for all the dimensions in the model and, as such, were valid measures of the respective constructs that measured the path-goal leadership theory.

## Discussion

The results show that the four constructs of directive, supportive, participative and achievement-oriented leadership were appropriate measures of the path-goal leadership theory. For instance, for participative leadership, it was affirmed that the indicators measured the construct in a manner consistent with that of previous scholars. The analysis, for example, indicated that superiors consulted with subordinates (Ochieng et al., 2023); listened to ideas and suggestions receptively (Arnold et al., 2002); sought suggestions on assignment execution (Arnold et al., 2002; Batubara et al., 2020; Ochieng et

al., 2023); considered suggestions even when disagreeing; promoted open and honest self-expression; involved staff in administrative activities; and used subordinates' suggestions in decision-making (Arnold et al., 2002; Batubara et al., 2020; Ochieng et al., 2023). With the current study's findings being consistent with the previous measurement scales, it can be affirmed that the indicators studied are valid measures of participative leadership.

Secondly, for supportive leadership, it was confirmed that the indicators that measured the construct were consistent with those of the previous researchers. The analysis, for example, indicated that superiors had concern for subordinates' well-being; understood their concerns; provided feedback; involved the subordinates in decision-making; encouraged subordinates' professional development (Farhan, 2018; Uman et al., 2024); urged subordinates to produce better work; and maintained positive relationships (Prihandaka et al., 2022). In line with McGilton (2010) and Mutonyi et al (2021a), it was further noted that superiors assisted subordinates in improving their performance; recognised subordinates' abilities; met their needs; created a pleasant work environment; and enabled idea generation and promotion. With the findings being consistent with the previous measurement scales, it can be affirmed that the indicators studied are valid measures of supportive leadership.

Thirdly, for directive leadership behaviours, it was established that the items that measured the construct were consistent with the findings of earlier researchers. In tandem with Yan-Li and Hassan's (2018) earlier findings, this study found that superiors provided clear expectations to subordinates; established standard rules and regulations; provided explanations of performance expectations; and set goals. Superiors also provided instructions that motivate work; scheduled work responsibilities; set specific guidelines; set key performance indicators (Oketch & Karyeija, 2022); and provided clear instructions and performance standards. Furthermore, they communicated clear performance expectations; and generated, promoted and realised new ideas based on clear instructions and performance standards (Mwaisaka et al., 2019b; Mutonyi et al., 2021b). With the findings being consistent with the previous measurement scales, it can be confirmed that the indicators studied are valid measures of directive leadership.

Finally, for achievement-oriented leadership, it was confirmed that the items that measured the construct were consistent with those of previous scholars. Some of the items included clear goal-setting; giving feedback; having in place a reward system; and leaders setting challenging goals, encouraging employees, setting specific and clear goals, and designing performance strategies (Lumbasi et al., 2015; Yan-Li & Hassan, 2018). In line with Rana et al.'s (2019), the current study established that superiors let subordinates know what is expected by setting challenging goals (Rana et al., 2019). With the findings agreeing with the previous measurement scales, it can be confirmed that the indicators studied are valid measures of achievement-oriented leadership.

## Conclusion

The study concluded that indicators assessed in this article to measure the four leadership behaviours within the path-goal leadership theory, namely participative leadership, supportive leadership, directive leadership and achievement-oriented leadership, are valid

and reliable. For participative leadership, the indicators are encouraging idea sharing; listening to suggestions; using collective input for decision-making; giving all members a chance to voice their opinions; involving employees in activities; accepting suggestions; and providing solutions to employee problems; consulting employees when facing problems; seeking suggestions on assignments; and involving employees in decision-making. For supportive leadership, the indicators are: providing support and feedback; involving subordinates in decision-making; encouraging professional development; providing assistance to improve performance; encouraging others to produce better work; maintaining positive relationships; recognising the abilities of subordinates; meeting their needs; understanding their concerns; providing subordinates feedback; showing concern for their well-being; creating a pleasant work environment; and enabling idea generation and promotion.

For directive leadership, the measures are providing clear expectations to subordinates; establishing standard rules and regulations; providing explanations of performance expectations; and setting goals by superiors. It further involves leaders scheduling work responsibilities; setting specific guidelines; setting key performance indicators; providing clear instructions for tasks; scheduling tasks; and setting performance standards. In addition, leaders are expected to provide clear instructions and performance standards; communicate clear performance expectations; and generate, promote and realise new ideas based on clear instructions and performance standards. Last but not least, for achievement-oriented leadership, the indicators are clear goal-setting, feedback, and a reward system. It also involves supervisors defining clear goals for employees to achieve and giving employees feedback on the achievement of goals. In addition, it is expected that the supervisor will reward the employees after the latter have accomplished tasks, and that the former will set challenging goals for high performance. Also, leaders are expected to set challenging goals; give feedback for continuous improvement in job performance; encourage team members to perform their duties and tasks to the best of their abilities; and set specific and clear goals, aligning performance with company strategy; and design job performance strategies and reward systems for employees. Further, indicators include letting subordinates know what is expected of them; setting goals for subordinates that are quite challenging; encouraging subordinates' continual improvement in their performance; showing confidence in their ability to meet most of the job objectives; and consistently setting challenging goals for subordinates to attain.

## Recommendations

The study recommends that researchers use the indicators assessed in this article to measure the four leadership behaviours within the path-goal leadership theory, namely participative leadership, supportive leadership, directive leadership and achievement-oriented leadership. These indicators have been tested and validated, providing a robust framework for scholars to investigate the theory in various contexts. By using these indicators, researchers can confidently explore how these leadership behaviours influence different behavioural variables.

For participative leadership behaviour, the indicators include leaders encouraging ideas sharing; listening to suggestions; using collective input for decision-making; and giving all members a chance to voice their opinions. Scholars should consider that participative leadership is indicated by leaders involving employees; accepting suggestions; providing solutions to employees' problems; consulting employees when facing problems; seeking suggestions on assignments; and involving employees in decision-making.

Concerning supportive leadership behaviour, the indicators are that the leader provides support and feedback; involves subordinates in decision-making; encourages subordinates' professional development; provides assistance to improve performance; encourages others to produce better work; and maintains positive relationships. Other indicators of supportive leadership include leaders recognising the abilities of subordinates; meeting subordinates' needs; understanding subordinates' concerns; providing subordinates with feedback; being concerned about the well-being of subordinates; creating a pleasant work environment; and enabling idea generation and promotion.

To measure directive leadership behaviour, there is a need to consider indicators of the leader: providing clear expectations to subordinates; establishing standard rules and regulations; providing explanations of performance expectations; providing instructions that motivate work; scheduling work responsibilities; setting specific guidelines; and communicating key performance indicators. Other indicators of directive leadership include: providing clear instructions for tasks; scheduling tasks; setting performance standards; providing clear instructions and performance standards; communicating clear performance expectations; and generating, promoting and realising new ideas based on clear instructions and performance standards.

Finally, the indicators of achievement-oriented behaviour for the superiors include: establishing high expectations for their followers; holding followers to high standards; seeking methods to improve their followers; defining clear goals for subordinates to achieve; giving subordinates feedback on the achievement of goals; rewarding subordinates after the successful accomplishment of assigned tasks; and setting challenging goals for high performance. Further, indicators of achievement-oriented leadership include setting challenging goals, giving feedback for continuous improvement; letting subordinates know what is expected of them; setting goals for subordinates that are quite challenging; encouraging subordinates' continual improvement; showing confidence in their ability to meet most of the job objectives; and consistently set challenging goals for subordinates to attain.

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