# A systematic review of the factors influencing the motivation to lead among students in higher education

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**Introduction:** Institutions of higher education are considered a grooming ground for future leaders in the workplace and society at large. Several reasons can be attributed to why students are motivated to engage in leadership within these institutions. Research on motivation to lead highlights variables such as personality, values, leadership self-efficacy (LSE), and leadership experience as antecedents of motivation to lead.

**Methods:** To identify other factors that could influence students' motivation to lead, this paper reviewed published research from 2001 to 2024 investigating higher education students' motivation to lead. The study included 13 articles that met the criteria for inclusion.

**Results:** Thematic analysis was carried to identify the factors and then categorized the identified factors into internal and external factors to the students in the higher education environment. This was done based on the self-determination theory on motivation highlighting intrinsic and extrinsic motivators to human behavior.

**Discussion:** Internal factors include emotion perception, race, need for power, affiliation and accomplishment, emotional intelligence, and LSE. External factors include leadership courses, programs and training, opportunities to lead, involvement in co-curricular clubs, campus support for leadership development, and classroom-based team experiences. This categorization aims to facilitate the design of interventions to enhance students' motivation to engage in leadership activities and assume leadership roles. Limitations of this study include the small number of analysed studies, limited geographic representation, and restriction to English-language articles only.

KEYWORDS

motivation to lead, students, higher education, systematic review, SDG4

# 1 Introduction

Over the years, institutions of higher education have been saddled with the responsibility of training, preparing, and equipping students with transferable skills for technical and practical work and the fostering of civic engagement (Solbrekke and Karseth, 2006; Succi and Canovi, 2020). This aligns to the United Nations Sustainable Development Goals on quality education (SDG 4) to ensure an improvement in the number of individuals who gain the relevant skills to attain financial success (United Nations, 2015). To this end, institutions of higher education remain committed to providing students with education and training for the professional and moral responsibilities encountered in the world of work and society at large. According to Rosch et al. (2015), the mission statements and responsibility of

institutions of higher learning suggest that higher educational systems around the world have embraced a commanding role of developing leaders of the future. Student participation in taking up leadership roles and responsibilities is beneficial and linked to several developmental outcomes, such as developing leadership skills and growth in civic responsibility (Cress et al., 2001).

Student leadership in higher education can be described as a critical area which is considered pervasive, ranging from the highest level of institutional structures down to individual units and classes and co-curricular programs that deliver leadership outcomes (Skalicky et al., 2020). Thus, student leadership in higher education comes in different forms which includes leadership in formal structures (student representative bodies, professional student bodies, fraternities etc.) recognized by the institution and informal structures that provide leadership opportunities incidentally (tutoring peers, peer mentors or campus volunteer activities) (Skalicky et al., 2020).

The higher education environment provides interested students with various opportunities to develop and take up leadership roles. Institutions of higher learning create these opportunities by implementing leadership development programs (Brewer and Devnew, 2022; Kiersch and Peters, 2017), offering support for student leaders (Skalicky et al., 2020), and providing mentorship opportunities (Campbell et al., 2012; Shalka et al., 2019).

While institutions of higher learning implement various leadership development programs, there remains a persistent gap between these initiatives and the development of competent, effective student leaders (Rosch and Villanueva, 2016). This gap suggests that simply providing leadership opportunities is insufficient without understanding the motivational factors that drive students to pursue and persist in leadership roles.

The current theoretical framework for motivation to lead (MTL) developed by Chan and Drasgow (2001) was primarily designed for organizational contexts and fails to adequately address the unique characteristics of the higher education environment. These characteristics may include the temporary nature of student leadership positions, the academic pressures and or the socio-economic challenges that compete with leadership responsibilities (Soria and Stubblefield, 2015), leadership self-efficacy (Dugan and Komives, 2010; Hutchins, 2015) and the developmental stage of traditional university students. The complexities associated with performing as a leader require individuals to have the drive to constantly seek out developmental experiences and practice their leadership skills intentionally to attain significant levels of performance (Day, 2011; Ericsson, 2009). In addition to the necessity for exerting effort to develop as a leader, some students lack the ability to appreciate the need for intentional practice that may influence and maintain their interest for longer periods of time (Coughlan et al., 2014).

Despite extensive research on leadership development in higher education, there remains limited understanding of what specifically motivates students to seek leadership opportunities and how these motivational factors might differ from those in professional settings.

Therefore, this systematic review aims to address the critical research question: 'What factors influence the motivation to lead among students in higher education?' By synthesizing the existing literature on this topic, this study seeks to develop a more comprehensive understanding of student MTL that accounts for the contextual nuances of higher education environments, ultimately enabling institutions to design more effective leadership development initiatives.

## 2 Motivation to lead

Chan and Drasgow (2001) maintain that when people have the desire to act like a leader, either to achieve personal goals or to meet societal expectations, their motivation to lead (MTL) increases. According to Mitchell and Daniels (2003), motivation reflects the drive a person experiences when trying to achieve a set goal. There is sometimes a sense of divergence between what is required to achieve these goals and their existing beliefs and capacities to act (Rosch and Villanueva, 2016). This drive that is oriented toward a goal is a result of complex interaction of both psychological and physiological variables that are not observable directly. Without this motivation to participate in the process of leading, the person's willingness to develop leadership capabilities will suffer as a result.

Chan and Drasgow (2001) originally introduced the multidimensional theory of MTL, which aids in the explanation of why people would place importance on engaging and performing in leadership roles. MTL is an individual-difference construct that affects the decision of a leader or a leader-to-be to assume leadership training, roles, and responsibilities; and that affects their intensity of effort at leading and persistence as a leader. Chan and Drasgow (2001) explain that an individual decision to either engage or not engage in leadership is linked to three components of MTL: (a) affective-identity (i.e., the emotional connection a person has with leading); (b) social-normative (i.e., the social norms and expectations that follow leading); and (c) non-calculative (i.e., the person's belief about the cost and benefits of engaging in leadership see Figure 1).

## 2.1 Dimensions of MTL

According to Chan and Drasgow (2001), affective-identity as a component of MTL is linked to an individual's innate want to lead, having a preference for leadership roles and a sense of fit between their nature and the requirements of leadership. This dimension shows a strong individual desire, "I want to lead" (Dobbs et al. 2019).

The second component of MTL social-normative, is a motivation for leadership that stems from a sense of obligation and perceived need for a person to step up and take on leadership roles. This drive to lead is based on a sense of responsibility to the community or environment the individual finds themselves, reflecting the sentiments "I should lead" (Dobbs et al. 2019).

The third component of MTL identified by Chan and Drasgow (2001) is the non-calculative MTL. This motive to lead arises from evaluating the cost and benefits of engaging in leadership roles, putting into consideration the gains and sacrifices and evaluating the leadership role on these bases. According to Dobbs et al., (2019), the non-calculative MTL is bound by a general evaluation of one's eagerness to lead and an assessment of the cost benefit to the individual.

From a theoretical viewpoint, affective MTL is related to intrinsic motivation to lead, whereas social-normative and non-calculative MTL is closely linked to external influences, such as a sense of duty or responsibility (social-normative) or belief of the costs and benefits related to leading (non-calculative) (Chan and Drasgow, 2001; Guillén et al., 2015).

FIGURE 1
Parsimonious model of antecedents to the three MTL factors. Source: adapted from Chan and Drasgow (2001, p. 492).

## 2.2 Antecedents of MTL

### 2.2.1 Personality

According to Chan and Drasgow (2001) personality is considered a distal antecedent of motivation to lead. The big five personality traits are related to MTL. The sociable and domineering characteristics associated with extraversion have been found to predict high levels of Affective-identity motivation to lead as a result of these individuals enjoying leading (Kennedy et al., 2021). Similarly, conscientiousness, openness to experience and emotional stability are strongly related to social-normative and affective-identity MTL (Stiehl et al., 2015; Tafero, 2007).

### 2.2.2 Values

Values are beliefs that pertain to desirable end states or modes of conduct that transcends specific situations, provide guidance for the evaluation of behavior, people and events, and are ordered by relative importance (Schwartz, 1994). Chan and Drasgow (2001) described values as distal antecedents of MTL. According to Jenni (2017), values play a vital role in how we perceive and approach the world. Cultural and personal values have been found to have an impact on MTL and its dimensions (Clemmons and Fields, 2011; Tanaka et al., 2024; Van Doorn and Raz, 2023).

### 2.2.3 Leadership self-efficacy (LSE)

A critical variable in the Chan and Drasgow (2001) motivation to lead model is leadership self-efficacy. Bandura (1982) conceptualized self-efficacy as how well a person can take actions needed to deal with prospective problems. In Chan and Drasgow (2001) MTL model, which is based on Bandura's idea, the social-cognitive variable LSE is considered a proximal antecedent of MTL and the latter through LSE is related to other distal antecedents' personality, values and past leadership experience. According to Paglis (2010), LSE is defined as a leaders' confident assessment of his or her capacity to effectively and efficiently exhibit leadership behaviors.

### 2.2.4 Past leadership experience

Chan and Drasgow (2001) further evaluated the quality and quantity of previous leadership experience. Past leadership experience was described as a semi-distal antecedent of MTL because it is considered critical for leadership development. Olivas, 2014 demonstrated that a significant relationship exist between past leadership experiences and motivation to lead and leadership self-efficacy.

There is no assumption that people are willing and able to engage in leadership by birth. Hence, various characteristics such as values, personalities, past leadership experience, and leadership efficacy play a role—either directly or indirectly—in influencing different individuals' motivation to lead (Chan and Drasgow, 2001). During the individual's lifespan, these influences are responsible for the varying interest in leadership opportunities among individuals.

One assumption of the Chan and Drasgow (2001) MTL model is that, regardless of the reason for engaging in leadership, being motivated to lead aids emerging leaders to identify and optimize leadership development opportunities presented to them. Since MTL is understudied as it relates to students in the higher education environment, the current study aims at synthesizing the relevant literature through a systematic review that investigates and explores the MTL of students in higher education and its influencing factors. Developing a more holistic view of MTL and identifying areas that influence it may equip institutions of higher learning with a deeper understanding of what motivates students to seek leadership opportunities.

Therefore, it is important to understand the antecedents of students' motivation to take advantage of leadership development opportunities presented at these institutions. To this end, the objective of the study is to determine the various factors associated with MTL among students enrolled in institutions of higher learning.

## 3 Research methodology

## 3.1 Research design

The researcher conducted a systematic review of published research articles on student MTL in institutions of higher education. This review used the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA statement) guidelines (Page et al., 2021).

## 3.2 Eligibility criteria

For articles to be included in the review, the following inclusion criteria had to be fulfilled: (a) studies must report on MTL in higher education; (b) participants in the reported studies must be students (undergraduates and postgraduates) in universities, colleges, or any institution of higher learning; (c) studies conducted on MTL between 2000 and 2024 will be included in the study because of the limited availability of studies; (d) studies conducted in all continents of the world will be considered; (e) participants of all genders will be considered; (f) articles published in English will be considered as part of the sample; (g) only full-text, peer-reviewed journal articles will be considered; (h) studies must have applied either quantitative, qualitative, or mixed research methods; and (i) all articles must focus on motivation to lead as described by Chan and Drasgow (2001). All studies that failed to meet the eligibility criteria were excluded, in particular articles that required a subscription or were not on the open access databases of the researchers' library access.

## 3.3 Search strategies

The study used electronic databases such as Science direct, EBSCOhost, Emerald Insight, and SAGE because of their relevance to the topic under review. The researcher searched these databases for the period November 2023 to March 2024, using the following keywords: motivation to lead, students, undergraduates, postgraduates, learners, higher education, university, college. Additionally, the researcher created strings of keywords, using the Boolean operator "AND" that was entered into "All fields" in the respective databases.

The Boolean strings of keywords and search terms are as follows:

a   "Motivation to lead" AND students
b   "Motivation to lead" AND students AND higher education
c   "Motivation to lead" AND (undergraduate OR postgraduate)
d   "Motivation to lead" AND (undergraduate OR postgraduate) AND higher education
e   "Motivation to lead" AND students AND (higher education OR universities OR colleges).

The researcher applied limiters to all searches, which included peer-review, full-text, English medium, and published between 2000 and 2024.

## 3.4 Study selection

The researcher conducted the selection, screening, and data extraction of studies using Covidence software. "Covidence is a web-based collaboration software platform that streamlines the production of systematic and other literature reviews" (Covidence, 2024). To conduct the process, two reviewers were included and a third to resolve any differences. In instances where there was a disagreement between reviewers one and two, a third reviewer unaware of the positions of both was called to evaluate the article based on the inclusion criteria to give a final verdict.

The population of target considered for inclusion in this study were registered students at an institution of higher learning, from all parts of the globe. Also included were studies of quantitative, qualitative, and mixed designs, which were required to report on the population of target, the setting, and the identified factors influencing MTL. As this is a systematic review, other systematic reviews are excluded from the study. Ultimately, studies not focused on students as the target population, not set within a higher education setting, or not including primary data were not considered for review. In selecting the studies for inclusion,

The research team assessed and screened the full text of potential studies for inclusion using the PRISMA critical appraisal tool on Covidence (see Figure 2). The PRISMA critical appraisal tool consists of three dimensions: identification, screening, and inclusion. The PRISMA appraisal tool was rated using a dichotomous scale of yes (1) or no (0), resulting in a composite score indicating the methodological quality and reporting on the intervention. The study omitted articles that scored less than 70%, demonstrating that they were poorly developed or executed. Two independent researchers conducted all three levels of review. Moreover, these reviewers deliberated on any discrepancies regarding the inclusion criteria, and if no compromise was reached, the research team consulted a third independent reviewer.

# 4 Data extraction

After completing the search for eligible studies, we extracted data from these studies using the Covidence software and captured the data on a modified data extraction sheet (Isaacs et al., 2018). The data extraction sheet included six categories: (a) author and year; (b) country/location; (c) target population; (d) influencing variable; (e) consequence on MTL; and (f) research aim/objectives. The results of the data extraction are reported in Table 1.

## 4.1 Data analysis

The research team deemed a narrative synthesis suitable for the review, as it included quantitative, qualitative, and mixed-method study designs. According to Popay et al. (2006), narrative synthesis requires transparency in the process of summarizing studies to avoid bias and ensure that findings are dependable and reproducible. As outcomes of the included studies are heterogeneous in nature, a meta-analysis would not have been feasible. The findings section below presents the themes that emerged from the data.

## 4.2 Ethical considerations

The study made use of published sources that are either freely available, or available on subscription to researchers. In addition, the researcher obtained the required ethical approval from the host institution via the relevant higher degrees' committees.

# 5 Study selection and retrieval process

The systematic search generated 179 articles, of which 20 were excluded for being duplicates. The research team reviewed the titles, abstracts, and keywords of these articles. Out of this batch, 117 studies were excluded because they did not meet the eligibility criteria, and

**FIGURE 2**
PRISMA flowchart. Source: Covidence (2024).
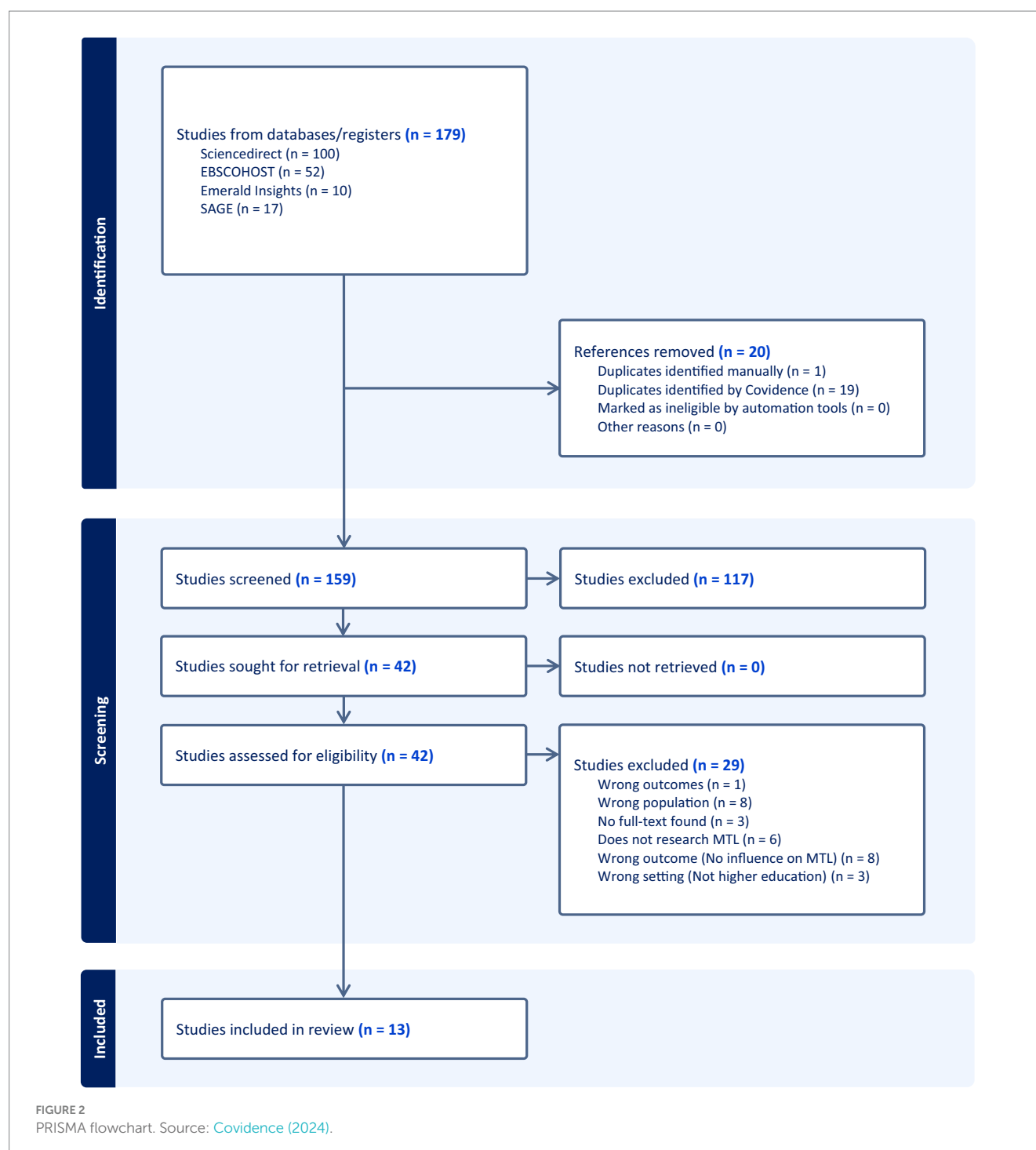
only 42 articles indicated their relevance to the topic under study. Some of the studies were excluded because of their sole focus on MTL, without any consideration of higher education or students. Other studies excluded at this stage were conceptual studies or reviews and did not contain empirical results. Out of 42 articles, only 13 warranted meticulous reading. Ultimately, the research team screened and analyzed the selected 13 articles, using the adapted version of the methodological quality appraisal tool (Roman and Frantz, 2013).

Potential biases that could have an impact on the study include language bias. Only articles that were published in the English language were included and other languages excluded from the current study. Secondly, the reviewer only searched open source databases and databases linked to their institution in search journal articles that were included in the current review.

# 6 Methodological quality appraisal

The team assessed the methodological quality, using the methodological quality appraisal tool, adapted from Roman and

TABLE 1 Data extraction results.

| S/N | Author/s and year | Country/ location | Target population (sample size) | Influencing variable | Consequence on MTL | Aim of the study |
|---|---|---|---|---|---|---|
| 1 | Hamid and Krauss (2013) | Malaysia | Students (380) | Campus experience *Opportunities for leadership on campus Quality of leadership training programs* | Predicted MTL Predicted MTL | To explore whether campus experience facilitates Malaysian undergraduate student leadership development to the level of MTL or to the level of leadership readiness. |
| 2 | Krishnakumar and Hopkins (2014) | USA | Students (172) | Emotion perception Alexithymia | Positively related to overall MTL Negatively related to overall MTL Emotion perception ability predicts MTL | To investigate the role of emotion perception ability on an individual's motivation to lead. |
| 3 | Rosch et al. (2015) | USA | Students (1,338) | Race | MTL levels differ in different racial groups | To examine how students' MTL scores compare across race and gender categorizations. |
| 4 | Krauss and Hamid (2015) | Malaysia | Students (368) | Campus support for leadership development Involvement in leadership programs | Predicted MTL Predicted MTL | To understand the role of perceived campus support for leadership development and involvement in leadership programs and experiences in predicting motivation to lead among undergraduates in Malaysia. |
| 5 | Dunn and Moore (2022) | USA | Students (14) | Need for power Need for affiliation Need for achievement | Found evidence of all three of McClelland's identified needs categories, but noted the need for power as the most prevalent need behind the peer mentors' motivation to lead | The aim of this study, conducted as part of a larger study, was to better understand and describe what motivated students to choose to be a peer mentor. |
| 6 | Hong et al. (2011) | Canada and USA | Students: Study 1 (309) Study 2 (225) | Emotional intelligence: (use of emotion) | Use of emotion predicted MTL | The purpose of this research is twofold: First, to examine the role of MTL in predicting leadership emergence. Second, to examine the connection between emotional intelligence and leadership emergence through motivation, which has not been tested to date. |
| 7 | Keating et al. (2014) | USA | Students (165) | Leadership courses | Students reported significant gains in MTL after engaging in the leadership course | This study represents an effort to determine the differential effects of an introductory leadership course on students' comprehensive leadership capacity, based on their incoming degrees of leadership skill, leadership self-efficacy, and MTL |
| 8 | Polatcan (2023) | Türkiye | Students (545) | Leadership self-efficacy (LSE) | LSE was found to be directly and significantly related to MTL | The study sought to examine the role of leadership self-efficacy and motivation to lead in student leadership practices. |
| 9 | Rosch (2015) | USA | Students (285) | Engagement in classroom-based team experience Involvement in co-curricular clubs and organizations | Slight increase in social-normative MTL Slight increase in social-normative MTL | This study represents an effort to determine the degree to which team experiences, when isolated from other structured leadership curricula, can support student leadership development. |

*(Continued)*

TABLE 1 (Continued)

| S/N | Author/s and year | Country/ location | Target population (sample size) | Influencing variable | Consequence on MTL | Aim of the study |
|---|---|---|---|---|---|---|
| 10 | Rosch and Nelson (2018) | USA | Students (757) | Prior involvement in high school student organizations Involvement in college student organizations | Predicted MTL | This research study was designed to examine the process of how leader development unfolds through formal involvement in high school and collegiate student organizations. |
| 11 | Rosch et al. (2016) | USA | Students (1,279) | Participation in a leadership-immersion program | MTL increased from pre-test to post-test | The research focused on university students' gains in broad-based leadership capacity that lasted beyond the end of the programmatic intervention. |
| 12 | Waldman et al. (2013) | USA | Students (251) | Introduction to a leadership course | Recorded an increase in social-normative MTL between pre- and post-test | To understand whether MTL (social-normative) and leader role identity would increase in business students exposed to behavior-modeling methods emphasizing the importance of transformational leadership. |
| 13 | Zhao et al. (2022) | China | Students (426) | Self-regulatory focus *Promotion–focus* *Prevention–focus* | Significant positive effect on affective-identity MTL Significant positive effect on social-normative MTL | The current research aims to propose a research model of the influence of regulatory focus on leadership emergence. |

Frantz (2013). The methodological quality appraisal sheet, presented in Table 2, consists of 14 questions evaluating each article based on six categories used to appraise the sampling methods, namely: (a) sampling method; (b) response rate; (c) validity and reliability of the measuring tool; (d) data source; (e) definitions of the variables; and (f) exploration of these variables in the higher education sector. A possible inclusion in the review is considered when the methodological quality appraisal score obtained is above 70%.

# 7 Findings

Of the selected articles, nine of the studies were conducted in the United States of America, while the others were conducted in China, Austria, Canada, Türkiye, and Malaysia—no study from the southern hemisphere was eligible for inclusion in this review. Participants of the studies were either undergraduate or postgraduate students registered in tertiary institutions (universities and colleges). The 13 selected studies had collected data by using surveys, questionnaires, and semi-structured interviews.

Of the 13 studies selected, only three indicated the sampling techniques used, which included simple random sampling (Rosch et al., 2015), convenience sampling (Polatcan, 2023), and purpose sampling (Dunn and Moore, 2022). All the included studies were conducted within tertiary institutional settings (i.e., institutions of higher learning). Finally, all studies considered MTL as an outcome of their studies.

The identified variables that have an impact on or predict MTL, as reported in the identified articles are shown in Table 3. We extracted definitions of the variables from the reviewed articles and supplemented them with additional information from the literature.

All definitions from the included articles were thematically analyzed and two broad categories of factors were identified. Firstly, there were factors that were related to the individual participants of the various studies and secondly there were factors in the higher education environment. Based on the self-determination framework of motivation (Deci et al., 2017), the researcher compiled the table based on internal and external influences on the individual. SDT is a theoretical framework on motivation that explains human motivation by focusing on human needs for personal development and proposes that intrinsic and extrinsic factors determine motivation (Öqvist and Malmström, 2018).

## 7.1 External factors

External factors, which can also be considered as environmental factors within the higher education environment, were identified as, (a) the availability of formal leadership courses, programs, and training (Hamid and Krauss, 2013; Keating et al., 2014; Krauss and Hamid, 2015; Rosch et al., 2015; Rosch et al., 2016; Waldman et al., 2013); (b) opportunities to lead on campuses (Hamid and Krauss, 2013); (c) involvement in student organizations (Rosch, 2015; Rosch and Nelson, 2018); (d) support for leadership development (Krauss and Hamid, 2015); and (e) engaging in classroom team-based experiences (Rosch, 2015). This shows that there are several factors within the higher education environment that encourage students to engage in leadership and assume leadership roles. It is evident that the presence of these factors within the higher education environment creates opportunities for students to learn more about themselves and develop an interest in taking on leadership roles. While there is a direct relationship between the external factors and MTL, the researcher also proposes that these

TABLE 2 Methodological quality of included articles.

| Questions | Hamid and Krauss (2013) | Krishnakumar and Hopkins (2014) | Rosch et al. (2015) | Krauss and Hamid (2015) | Dunn and Moore (2022) | Hong et al. (2011) | Keating et al. (2014) | Polatcan (2023) | Rosch (2015) | Rosch and Nelson (2018) | Rosch et al. (2016) | Waldman et al. (2013) | Zhao et al. (2022) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| In the empirical analysis of the study, is MTL specifically discussed/ Defined? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Are the influencing factors MTL explored in the study? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Was the study conducted within the HE environment? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Was the context for the study clear? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Was there a connection to a theoretical framework/wider body of knowledge? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Was the sampling method representative of the population intended to study? | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Was the data collection method clearly described? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Did the study report any response rate? (If the reported response rate is less than 60%, the question should be answered 'No'). | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| Was the measurement tool used valid and reliable? | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |

*(Continued)*

TABLE 2 (Continued)

| Questions | Hamid and Krauss (2013) | Krishnakumar and Hopkins (2014) | Rosch et al. (2015) | Krauss and Hamid (2015) | Dunn and Moore (2022) | Hong et al. (2011) | Keating et al. (2014) | Polatcan (2023) | Rosch (2015) | Rosch and Nelson (2018) | Rosch et al. (2016) | Waldman et al. (2013) | Zhao et al. (2022) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Is the objective sufficiently described? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Is the study design evident and appropriate? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Are the analytical methods described/ justified and appropriate? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| What was the source of the data? (Primary: 1 Secondary: 2) | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Were the conclusions supported by the results? | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Calculation | 14/14*100 | 14/14*100 | 13/14*100 | 14/14*100 | 11/14 | 12/14*100 | 13/14*100 | 13/14*100 | 13/14*100 | 12/14*100 | 14/14*100 | 12/14*100 | 14/14*100 |
| Total | 100% | 100% | 92% | 100% | 78% | 85% | 92% | 92% | 92% | 85% | 100% | 85% | 100% |
| Comments | Good | Good | Good | Good | Good | Good | Good | Good | Good | Good | Good | Good | Good |

TABLE 3 Variables identified in the systematic review.

| Variables | Type | Definition |
|---|---|---|
| Leadership courses, programs, or training | External | Refers to any formal or informal programs provided by their universities related to leadership development (Krauss and Hamid, 2015). |
| Opportunities to lead | External | Creating an environment for students to pursue leadership experience in formal or informal settings within institutions of higher learning and to demonstrate leadership skills in class projects and student bodies or organizations (Hamid and Krauss, 2013). |
| Involvement in co-curricular clubs and student leadership organizations | External | Actual participation in activities or events and bodies such as student government (Krauss and Hamid, 2015). |
| Campus support for leadership development | External | Perceptions of how campuses provide support and prepare students for leadership and leadership development (Krauss and Hamid, 2015). |
| Engaging in classroom-based team experience | External | The process of placing students in groups or teams to complete class projects and assignments to provide the opportunity for students to develop and learn (Smith et al., 2005). |
| Emotion perception | Internal | The ability to "eavesdrop on feelings" or to accurately read emotions expressed by people or situations, including oneself (Elfenbein and Ambady, 2002). |
| Alexithymia | Internal | The inability of individuals to identify, differentiate, and describe feelings (Grynberg et al., 2012). |
| Race | Internal | Race is perceived as a concept of population genomics to describe groups of humans with shared genetic features (Grandner et al., 2016). |
| Need for power | Internal | The need to influence or inspire others, on the positive end, and control and exploit others, on the negative end (Royle and Hall, 2012). |
| Need for affiliation | Internal | The need for building and maintaining interpersonal relationships, actively seeking social activities, and joining groups or organizations (Lussier and Achua, 2010). |
| Need for achievement | Internal | The need for personal success and a continual desire for personal improvement (McClelland and Burnham, 1995). |
| Emotional intelligence: Use of emotion | Internal | The ability of individuals to make use of their emotions by directing them towards constructive activities and personal performance (Wong and Law, 2002). |
| Leadership self-efficacy | Internal | An individual's confidence in their knowledge and skills to meet their needs and overcome hitches while performing a task (Paglis, 2010). |
| Promotion–focus | Internal | A self-regulatory process in which individuals are more concerned with accomplishments and aspirations, are likely to be sensitive to the presence or absence of rewards, use approach as a goal-attainment strategy (Kark and Van Dijk, 2007). |
| Prevention–focus | Internal | A self-regulatory process in which individuals are more concerned with duties and obligations, are likely to be sensitive to the presence or absence of punishments, use avoidance as a goal-attainment strategy, and experience emotions ranging from agitation or anxiety to quiescence or calmness (Kark and Van Dijk, 2007). |

external variables provide a distal influence on students' motivation to lead by creating opportunities for students to gain leadership experience and improve their leadership self-efficacy (LSE), which then influences their MTL levels.

Although the included articles were from different regions in the world, there was minimal focus on the impact of culture on motivation to lead of students in these regions (Hamid and Krauss, 2013). However, there are some institutional contexts that could have an impact on the motivation to lead of students. Some public institutions in the United States of America had leadership courses as part of the academic curriculum for all students ensuring that all students are exposed to knowledge of leadership (Keating et al., 2014; Waldman et al., 2013). Leadership exercises were also embedded in courses taken by students at some of the institutions in the United States (Rosch, 2015). Students were afforded the opportunity to be part of formal and informal students organizations that gave students to opportunity to gain leadership experience (Rosch and Nelson, 2018; Rosch et al., 2016; Dunn and Moore, 2022). Similarly, Malaysian

institutions afforded students the opportunity to engage in informal leadership programs.

## 7.2 Internal factors

These factors are personal to the students and include variables such as, but not limited to, (a) emotion perception (Krishnakumar and Hopkins, 2014); (b) The inability of individuals to identify, differentiate, and describe feelings (Krishnakumar and Hopkins, 2014); (c) race (Rosch et al., 2015); (d) need for power, affiliation and achievement (Dunn and Moore, 2022); (e) emotional intelligence: use of emotion (Hong et al., 2011); (f) leadership self-efficacy (Polatcan, 2023); and (g) promotion and prevention focus (Zhao et al., 2022). These factors differ in levels among students. These internal factors are proposed to play an initial role in the early stages of students developing their motivations to engage in leadership. The

researcher maintains that these variables have a proximal influence on students' motivation to engage in leadership.

## 7.3 Review of the empirical relationship between the MTL and the external and internal factors

The empirical relationship between MTL and the identified internal and external factors is shown in Table 1. The results from the selected studies had expected outcomes on MTL and its domains. The most researched variable was involvement in leadership courses, programs, or training, which reported significant positive relationships and predicted MTL and its domains (Hamid and Krauss, 2013; Keating et al., 2014; Krauss and Hamid, 2015; Rosch et al., 2016; Waldman et al., 2013). Also, involvement in co-curricular clubs and student organizations had an impact on students' MTL levels (Rosch, 2015; Rosch and Nelson, 2018). Finally, the results showed that creating opportunities for students to engage in leadership and providing the right support have an impact on their willingness to take on leadership roles and responsibilities (Hamid and Krauss, 2013; Krauss and Hamid, 2015).

The results also showed that individual needs for power, affiliation, and achievement played a role in students' decision to be peer mentors (Dunn and Moore, 2022). Students' emotion perception ability and the use of their emotion had positive relationships and predicted MTL (Hong et al., 2011; Krishnakumar and Hopkins, 2014). Conversely, students' inability to identify, differentiate, and describe their feelings had a negative relationship on MTL (Krishnakumar and Hopkins, 2014). Consistent with Chan and Drasgow's (2001) MTL model, LSE was confirmed to be an antecedent directly and significantly related to MTL (Polatcan, 2023). The MTL level was also found to differ among racial groups displaying differing levels of MTL (Rosch et al., 2015). Finally, promotion-focus had a significant relationship with affective MTL, while prevention focus was significantly related to social-normative MTL (Zhao et al., 2022).

## 8 Discussion

The primary purpose of this systematic review was to identify the influencing factors on motivation to lead by reviewing and analyzing peer-reviewed and published studies on MTL of students in higher education. This was conducted by identifying variables internal or external to the students that have an impact on their motivation to lead. The review focused on research articles published between 2001 and 2024 that met the inclusion criteria. The review specifically identified unique variables internal to the students or external within the higher education environment that affected their motivation to lead in any capacity.

While the focus of the current study is on the motivation to lead of students in higher education, some cultural differences between the Eastern and Western regions were highlighted as playing a critical role in influencing motivation to lead. According to Hamid and Krauss (2013), Malaysia similar to other Southeast Asian cultures generally discourages self-promotion. Rather leaders in these institutions are generally group-nominated or given an invitation to take part in leadership roles. This passive approach to developing and becoming a leader is well embedded in the ideology of leadership development in institutions of higher education in Malaysia. In contrast to Western campuses in countries like the United States where students are more expressive and influenced by political and social trends, Malaysian students are restricted socially and politically and are not afforded the freedom Western students have to express themselves (Hamid and Krauss, 2013). This is also supported by studies conducted by Rosch et al. (2015) at an American university, African American, Latino and Caucasian students displayed similar levels of motivation to lead while the Asian American students displayed significantly lower levels of motivation to lead compared to their peers.

The findings indicate that, from an external perspective, engaging in leadership programs, training, or courses (Hamid and Krauss, 2013; Keating et al., 2014; Krauss and Hamid, 2015; Rosch et al., 2015; Rosch et al., 2016; Waldman et al., 2013). Although leadership courses, programs and training have are beneficial in leadership development, interventions targeted at motivation to lead are lacking. These curricular or co-curricular programs afford students the opportunity to learning about themselves because the design of these programs are based on knowledge acquisition, reflective learning and the development of leadership capacity in students (Peter Kuchinke et al., 2022). While these interventions are not targeted at students' motivation to lead directly, completing and participating in these courses improves their motivation (Keating et al., 2014). Waldman et al. (2013), demonstrated that leadership training utilizing behavior modeling can be useful in developing motivational factors relevant for effective leadership. Through the reinforcement of behaviors, attitudinal and beliefs systems are changed.

Involvement in student organizations (Rosch, 2015; Rosch and Nelson, 2018) have a significant impact on students' motivation to lead. This creates an opportunity to broaden the perspective of these students through experiential learning. According to Abdul and Krauss (2010), exposing students to such experiences tends to motivate them in incredibly positive ways to stimulate their interest in taking up leadership roles and responsibilities. Student involvement in these student organizations affords students the opportunity and motivation to be of service to fellow students to bring about desired changes and develop leadership skills (Krauss and Hamid, 2015). Studies show that students who get involved with students' organization as leaders gain a significant increase in their affective-identity and leadership self-efficacy (Rosch and Nelson, 2018). Non-calculative motivation to lead define by Chan and Drasgow (2001) as an individual's willingness to lead when cost outweighs the benefit to the individual. Developing capacity as a leader within student organizations means that most students have a sense of engagement with the organization they belong to. This commitment to the organization translates to selflessness to the organization and shouldering responsibilities not beneficial to them (Rosch and Nelson, 2018).

Students showed slight increase in their social-normative MTL while engaging in classroom team-based experiences (Rosch, 2015). In carrying out assignments and class projects students are often placed in groups to learn leadership and teamwork as soft skills through experiential learning (Lamm et al., 2014; Țebeian, 2012). In doing so some students develop social-normative motivation to lead when they step up and take charge to ensure the delivery of class projects (Rosch, 2015).

Students' awareness of the appropriate support from institutions of higher learning in creating opportunities to engage in leadership is a motivating factor, as determined from the findings in the extant literature (Krauss and Hamid, 2015). Research has also shown that with the appropriate support from institutions of higher education, students' interest in leadership and building leadership skills increase during their college and university years (Dugan, 2006). The institutional culture in creating an environment where students feel supported to engage in leadership is vital. According to Phillips et al. (2015), academic institutions that provide an environment for students to involve in leadership enhances their motivation.

From an internal perspective, leadership self-efficacy (LSE) was found to have a significant impact on students' motivation to lead (Polatcan, 2023). This supports the notion that LSE is an antecedent providing a direct relationship with MTL, as proposed by Chan and Drasgow (2001). According to Bandura (1995, 1999), LSE is established by individuals gaining experience, social persuasion, and other environmental factors. Research conducted by Cho et al. (2015) also supports the findings that students' LSE beliefs serve as a motivating factor that triggers their willingness to lead. Research has shown that as individuals develop LSE, their motivation to take on more leadership roles increases (Arvey et al., 2007; Keating et al., 2014).

Students' internal need for power, affiliation, and achievement played a role in their decision to be peer mentors (Dunn and Moore, 2022). The most prevalent, though, was the need for power, as this provides the ability to exert control over others, and this can be a struggle for students who want to lead (Collier and Rosch, 2016). Having the recognition of their peers is a considered an important motivator for students to engage in leadership (Dedicatoria et al., 2023). Other factor that influence the need for power include the networking opportunities leadership roles provides (Phillips et al., 2015) and the opportunity for students to contribute to the decision-making processes at management levels increases the feelings of control and influence they may have (Heystek and Emekako, 2020). It is also noteworthy that the need for achievement drives some students to seek out leadership roles. Their desire to gain leadership skills was found to be the driving factor in being peer mentors at an institution of higher learning (Dunn and Moore, 2022). Phillips et al. (2015), supports this in their research, highlighting that engaging in leadership role provides students with the opportunity to develop other soft skills such as teamwork and being part of professional organizations improved their need for achievement.

The internal emotion perception ability of students was found to have a significant impact on MTL (Krishnakumar and Hopkins, 2014). This finding is also supported by studies that indicate that emotion perception is a critical factor influencing the preliminary stages of leadership (Rubin and Bommer, 2010). Krishnakumar and Hopkins (2014) propose that with time, as students gain experience in recognizing the emotions of others, it influences their LSE, as their confidence in their ability to lead increases. Furthermore, emotion perception ability was found to be more significantly related to the non-calculative domain of MTL, indicating that students with better emotional perception ability are motivated to engage in leadership, irrespective of the cost to them.

The internal factor use of emotion as a domain of emotional intelligence was found to be related to both affective-identity MTL and social-normative MTL (Hong et al., 2011). Students with the ability to use their emotion to facilitate thought processes and motivate themselves may be inclined to achieve more and take on more leadership responsibilities and feel more confident about taking on leadership roles (Hong et al., 2011).

Promotion and prevention focus are self-regulatory constructs found to be positively and significantly related to affective-identity MTL and social-normative MTL, respectively, (Zhao et al., 2022). These findings are in harmony with previous findings that individuals with promotion focus are likely to have affective-identity MTL, as evident in their transformational and charismatic leadership styles, whereas prevention-focused individuals place value on conservation and are most likely social-normatively motivated, as evident in their transactional or monitoring leadership style (Kark and Van Dijk, 2007).

From the findings of this systematic review, we conclude that both internal factors—pertaining to the individual, and external factors—pertaining to the higher education environment, play critical roles in influencing the MTL of students. Chan and Drasgow (2001) originally proposed that personality, values, LSE, and past leadership experience were influential in the differing levels of MTL of individuals. Results from this review further show that the environment that students are in and the exposure they have within this environment (opportunities to lead, access to leadership training and courses) has a significant impact on their MTL levels. Furthermore, besides personality, values, and LSE, other internal factors such as emotional intelligence (use of emotion), perceived needs of the individual have an impact on MTL. Hence, this study proposes a new theoretical model for investigating MTL (see Figure 3).

# 9 Implication and contribution

Given the importance of leadership development in today's world, the current study adds value and contributes to the body of knowledge on motivation to lead of students in higher education. The study suggests that students experience leadership differently and their motivators vary. This implies that leadership educators should consider including other pathways to leadership development such interventions designed to account for cultural influences on students motivation to lead.

Higher education institutions are saddled with the responsibility of developing leaders that can contribute meaningfully to society. This study informs the leadership development stakeholders within institutions of higher learning of specific factors (personal to the students and within the higher education environment) to be considered when designing interventions such as leadership programs that will encourage students to participate and take on leadership role.

Furthermore, a practical implication of this study is to inform management and policy makers at institutions of higher education of the importance of an institution culture that supports student leaders and leadership development of students. The perception of students about the support they get from institutions of higher learning
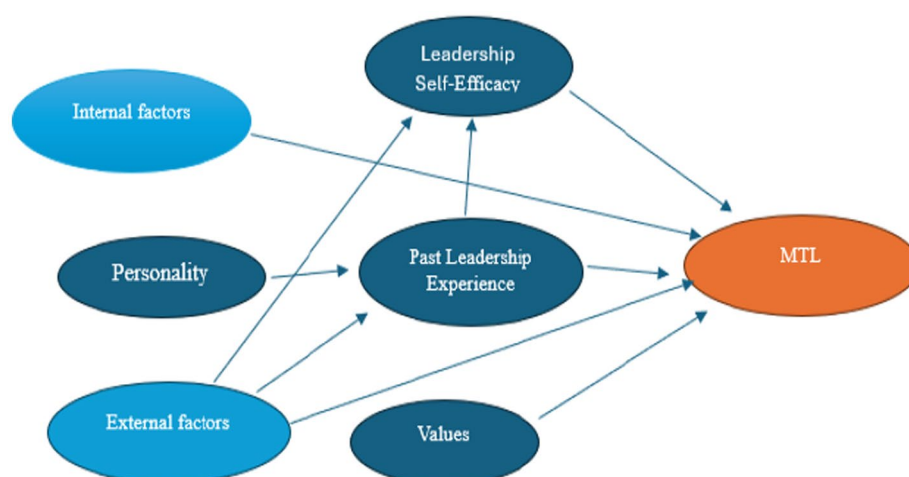
FIGURE 3
Proposed theoretical model describing the review findings.

significantly influences their motivation to engage in leadership and develop as a leader (Raboca and Carbunarean, 2024).

## 10 Limitations and recommendations

A limitation of the current study was the low number of studies that were included. This is because a limited amount of research has investigated students' MTL. This presents an opportunity for future quantitative and qualitative research to be conducted to gain more understanding of the construct motivation to lead. Another limitation of the study is that no study conducted in the southern hemisphere was included, which creates a gap in the body of knowledge. Included studies were conducted within the context of specific regions (United States of America, Malaysia and Canada) which provides a limited view. This presents an opportunity. Research should be carried out to better understand motivation to lead within the African, European and Australian context to provide a more balanced view on student motivation to lead. The impact of factors such as culture and socioeconomic status on students' motivation to lead can be investigated.

Yet another limitation is that the current study focuses only on students in colleges and universities, resulting in other studies conducted on students outside this environment being excluded. Articles that were not published in English or required a paid subscription to access it were similarly excluded from the current study. This was a limitation and potentially reduces the body of knowledge being used and could have an impact on the findings of the study.

Future research should continue to investigate potential influences of MTL, not only on students but also academic and non-academic staff in institutions of higher education. Emphasis can be placed on further researching the roles that institutions of higher education can play in encouraging students to take on leadership roles, as these are skills beneficial to them when they enter the workforce. Beyond the factors identified in the current study, the impact of other factors, such as role models and mentors, non-cognitive factors, such as grit and psychological capital can be investigated to gain more insights on what could motivate students to engage in leadership activities and roles.

Factors such as leadership courses, training or programs which are either designed as short courses or semester long courses were found to influence motivation. But there are no comparative studies to show which is more effective. Hence, it is recommended that for future research on the subject matter comparative studies on the effectiveness of short leadership programs and courses be undertaken in terms of impact and reach. Furthermore, interventions targeted at improving the levels of motivation to lead of students in higher education as an outcome should be designed, implemented and evaluated to provide empirical evidence.

## 11 Conclusion

The current study aimed at investigating the various factors that influence students' motivation to lead in higher education. It established that personal factors (internal to the individual) and factors in the higher education environment (external to the individual) play a vital role in encouraging students to engage in leadership activities and take on leadership roles and responsibilities. Hence, the institutions of higher education are tasked with the responsibility to ensure that the environment is conducive to encourage and improve students' MTL. This can be done by promoting a culture that supports student leaders and leadership development and creating opportunities for students to engage more in leadership. Information from this study can help institutions of higher education tailor interventions that can address the demand for students to engage in leadership activities and assume leadership roles and responsibilities. As a course of action, leadership programs and interventions should be developed utilizing experiential learning techniques that could improve students confidence in their leadership abilities thereby encouraging them to engage more in leadership roles.

## Data availability statement

## Author contributions

WA: Writing – original draft, Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources, Software, Validation, Visualization, Writing – review & editing. MP: Funding acquisition, Supervision, Writing – review & editing, Validation. TB: Writing – review & editing, Supervision.

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## Generative AI statement

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