



Exploring Cambodian Teachers' Views on Transformational Leadership of School Directors

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ABSTRACT

Purpose of the Study: To explore Cambodian teachers' perceptions of their school directors' transformational leadership and analyze variations based on gender, age, educational background, and provincial location.

Methodology: The study employed ANOVA for statistical analysis, using surveys with 20 statements to assess five aspects of transformational leadership. Data collection involved 639 participants across four provinces.

Main Findings: No gender differences were observed. Significant differences existed by age, education, and province. Younger teachers (20–30 years) showed more positive attitudes and educational attainment influenced leadership perception.

Novelty/Originality of this Study: This study highlights how age, education, and location shape teachers' views on directors' transformational leadership, emphasizing the need for adaptive leadership approaches to address diverse teacher expectations in Cambodia, where this type of study has not been done so far.

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1. INTRODUCTION

Cambodia, a Southeast Asian country with a profound cultural legacy with an area of 181,035 km² and an estimated population of 17 million, has been advancing its educational reforms significantly [1]. The nation acknowledges the crucial influence of leadership in determining the quality and trajectory of education. School directors, as pivotal players in the Cambodian education system, are responsible for addressing difficulties including resource limitations, teacher deficits, and inadequate infrastructure. Their capacity to lead with foresight and motivate others is essential for accomplishing the Ministry of Education, Youth, and Sport's objectives of enhancing access to quality education and promoting sustainable development. Transformational leadership, defined by the motivation and empowerment of educators and learners, is congruent with Cambodia's educational objectives, especially in fostering a culture of collaboration and innovation inside schools [2].

According to Em [3], transformational leadership fosters trust, promotes professional development, and establishes elevated performance requirements. In Cambodia, school directors employing this strategy can enhance teachers' self-efficacy and work performance. By cultivating a culture of collective objectives and ongoing enhancement, they assist in tackling significant issues, including teacher retention and student engagement. Research on Cambodian school directors' leadership styles underscores transformational leadership's capacity to address disparities in educational quality between urban and rural regions. This leadership approach enhances

educational results and supports the overarching goal of preparing Cambodian youth with the requisite skills and knowledge for a competitive global economy.

Directors' leadership can affect student outcomes and instructional strategies in educational settings [4]. More recent research has focused on the connection between teaching and leadership. Effective leadership practices are regularly emphasized in new school reforms, and research frequently identifies instructional leadership as a critical component of school effectiveness [5]. Likewise, American children start high school in their 12th year, and occasionally the location or caliber of these institutions can influence their academic performance and future paths [6]. One important factor affecting student outcomes is high schools and high school directors [7]. High school administrators and leaders are important members of the educational community who can potentially influence teaching and learning [8]. However, until recently, there has been a resurgence of interest in leadership development and the competencies needed for a high school director, leaving leadership largely ignored [9]–[10].

With the creation and incorporation of the educational leadership skills framework, which emphasizes stakeholder stewardship, change capability, and educational moral purpose, reform initiatives to transform leadership have reappeared [11]. It is crucial to acquire a deeper understanding of the specific leadership practices, if any, that might be more directly effective in the context of high schools, even though the best practices and successful director-led school-wide change strategies may be generally appropriate [12]–[13]. According to Promchart and Potipiroon [14], transformational school leaders can considerably lower teachers' intentions to leave by improving their sense of security and contentment at work. In particular, perceived safety and job satisfaction acted as a full and sequential mediator in the relationship between transformative leadership and turnover intentions at both the individual and organizational levels.

So far, very little research has been done on high school teachers and leaders, leadership, and leadership styles in connection to one another in the Cambodian context. This study aims to investigate how high school teachers felt about their leaders. High school teachers' opinions on the validity of directorial transformational leadership theories and applications are of special relevance. There are two objectives of the current study, as follows:

1. To explore high school teachers' perceptions of the director's transformational leadership.
2. To investigate whether there is a significant difference in perceptions among high school teachers' gender, age range, educational levels, and provincial areas.

2. RELATED LITERATURE REVIEW

Since its initial proposal in management, transformational leadership has garnered attention in professional literature, and it is currently one of the most researched leadership philosophies in organizations [15]. In education, transformational leadership also fosters trust and belief and modifies followers' attitudes and values [16]. Convergently, research at various educational levels, including university levels, as well as postsecondary and nonprofessional levels, has been done to examine the effects of transformational leadership on educational institutions [4], [17], [18].

More important than subject matter outcomes is changing teachers' perspectives; the majority of studies examine the connection between transformational leadership and teacher outcomes. Transformational leadership scholars in academia and industry typically seek teachers' or educators' outcomes by offering a model and validating understandings based on these studies [19]. As a result, historical paradigms and frameworks have proposed that the primary leaders act concerning the attitudes, beliefs, and dispositions of their followers [20]. Transformational leadership is known to be indicated by a neo-charismatic leadership model. Transformational leadership is said to have its roots in instructional leadership [21]. College students' civic involvement can also be enhanced by transformational leadership in higher education institutions. Higher education students run the risk of forming unfavorable opinions as civic participation wanes during the session because they do not trust or believe in transformational leaders in higher education [22].

2.1. Transformational Leadership Theory

A popular method in leadership studies that emphasizes the interaction between a leader and their followers is transformational leadership theory [23]. According to the theory's premise, transformational leaders engage in four interconnected contingent behaviors, or "I" factors, that have a profound effect on their followers [24]. A transformational leader creates a new consciousness and leaves a lasting impression on the hearts and souls of the people in their group. Such interactions result in major personal transformations as well as increased awareness of the moral and emotional spheres [25].

Leaders who exhibit transformational leadership traits may motivate their staff, put forth more effort, and improve their overall academic achievement [26]. According to universal perspectives, transformational leadership elements are helpful in a leadership approach that strives for accountability and produces high student accomplishment [27]. Transformational leaders create an environment that is mind-enhancing, empowering, and

stimulating in such a connection. According to Gichuhi [28], leadership success in transactional educational contexts is linked to the subordinates' adherence to job criteria, roles, and agreed-upon activities and objectives outlined in job descriptions. In this regard, school directors can benefit from practical experiences with transformational leadership effects by improving transactional and rewarding behaviors like applying more rules and procedures, increasing job orientation, and supplementing employee job content [29]. As Crowley [25] and Hawkins [30] say, these things give work its value and significance, show spirit and vision, show care, make each follower important, give everyone a reason to work hard, and stress intelligence, discernment, and reason.

2.2. Impact of Transformational Leadership on Teachers' Self-Efficacy

According to certain research, teachers' self-efficacy is positively impacted by a director's transformational leadership [31]. Teachers' self-efficacy and several transformational leadership characteristics, including the leader's charisma, intellectual stimulation (IST), inspirational motivation (IMO), and individualized consideration (ICT), were found to be somewhat correlated in studies of directors and teachers in public middle schools [32]–[33]. Furthermore, it was discovered that these same transformative factors had a weaker correlation with teachers' happiness with their directors and dedication to their schools [34].

Through verbal persuasion, the development of efficacy-enhancement leadership advocacy, the promotion of efficacy-enhancing emotions, and the provision of direct mastery experiences for self-doubters, transformational leaders build their followers' self-efficacy [35]. School culture can also be influenced by the conduct, leadership style, and personality of school directors, according to empirical research [36]–[37]. Teachers' enthusiasm and dedication to their jobs can be significantly impacted by the emotional environment that directors foster. It is mentioned that the school's professional culture is strengthened by the director's transformative leadership style [38].

In the same way that followers look to their leaders for guidance, they also look to them for inspiration [15]. Leaders have the power to inspire followers to be more motivated, which boosts their self-esteem and confidence in their talents as workers [39]. Leaders who inspire and instill confidence in their followers are known as transformational leaders [40]–[41].

2.3. Impact of Transformational Leadership on Teachers' Performance

Research has demonstrated that effective leadership techniques can enhance teachers' performance. Accordingly, teachers' attitudes and behaviors in the educational sector are positively impacted by transformational leadership [42]. Transformational leaders impact their followers' actions by promoting a shift in how they view their work, inspiring people to go above and beyond the call of duty, assisting those with ICO, and using IST to increase members' consciousness and awareness [43]. Strong organizational commitment, contentment with the immediate supervisor, confidence in management, a decreased intention to leave, and the choice of employees to join the organization are all examples of this [44].

Whether transformative leadership has a direct impact on teachers' performance is still up for debate [45]. According to the social exchange theory, which holds that followers will only choose to have a mutually advantageous relationship with their leaders, several researchers have demonstrated a direct correlation between transformational leaders and personal satisfaction [46]. Additionally, instructors deal with several challenges when working with children, and these may make them less interested in teaching. It can include mood swings, dealing with students' verbal attitudes, feeling under pressure from superiors, and exhaustion [47].

3. RESEARCH METHOD

3.1. Research Design

This study employs a quantitative method to fully examine teachers' perceptions of their school directors' transformational leadership using survey and causal-comparative approaches [48].

3.2. Sampling Technique and Sample Size

Figure 1 below depicts the sampling procedure for selecting participants from the entirety of Cambodia's high school teacher population. Cambodia, situated in Southeast Asia, possesses a diversified educational landscape characterized by distinct problems and opportunities across its regions. The figure illustrates the process of selecting a representative sample of high school teachers from this diverse community. Cambodia comprises four primary regions: Central Plain, Tonle Sap, Coastal and Maritime, and Plateau and Mountains. Every region possesses distinct geographical and socioeconomic attributes that affect the educational landscape. The clustering procedure is initiated by segmenting the entire population of high school teachers into four areas, guaranteeing equitable representation from each area.

A province is randomly chosen from each region to refine the sample further. The chosen provinces are Kampong Cham from the Central Plain, Kampong Chhnang from Tonle Sap, Kampot from the Coastal region,

and Kampong Speu from the Plateau and Mountains. Emphasizing these provinces concentrates the investigation on certain, manageable areas within each region, facilitating more detailed and region-specific conclusions.

In each selected province, two high schools are designated to symbolize the province's educational environment. A simple random sampling procedure is employed to pick teachers from these high schools. This final phase guarantees that the selected teachers for the study accurately represent the wider population, yielding dependable data for comprehending the educational complications and requirements in Cambodia.

The study aimed to identify trends and patterns in the responses of a large sample size of 639 teachers, collected using multiple-stage sampling techniques from four different provinces in Cambodia. These 639 teachers were randomly selected from each high school in the selected province. The total population was 985. Thus, the sample size of 639 is more than perfectly representative of the population.

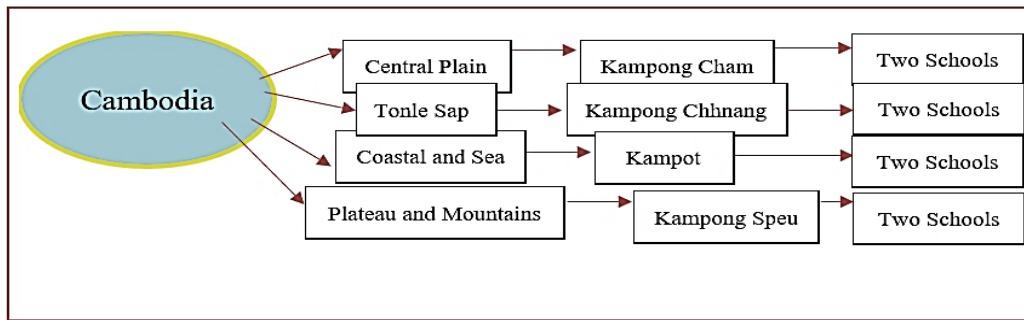


Figure 1. The process of clustering and simple random of research samples

3.3. Research Tool

A survey questionnaire was used as a research tool. The tool consisted of two parts: the first part contained demographic information such as gender, age range, educational degree, and provincial area, which the participants were required to select accordingly, and the second part contained 20 items based on a five-point Likert scale. The survey approach makes it easier to collect structured data from them.

3.4. Data Collection Procedure

As can be seen in Figure 2, to begin, the researcher provided the participants with an explanation of the goals of the data collection being conducted. In this regard, it was necessary to provide a concise summary of the objectives of the study, the significance of the findings, and how the data collected would help to answer the research questions. The participants would have a better understanding of their involvement in the research and would feel more confident about their contribution as a result.

Following that, the researcher attempted to make the structure of the questionnaire clearer. Participants received an explanation of each element of the questionnaire, as well as the exact type of information that was sought, as they were led through the various sections of the questionnaire. To ensure that participants had a complete understanding of how to respond to the statements that were supplied, any questions or uncertainties that might arise were addressed.

After that, each participant worked on the questionnaire on their own, giving serious consideration to each statement and providing comments wherever it was required. To maintain the reliability of the information that was gathered, this procedure allowed participants to freely and uninhibitedly express their honest thoughts and perspectives.

When everything was said and done, the researcher collected the questionnaires that had been filled out and expressed gratitude to all of the participants for their time and contributions.

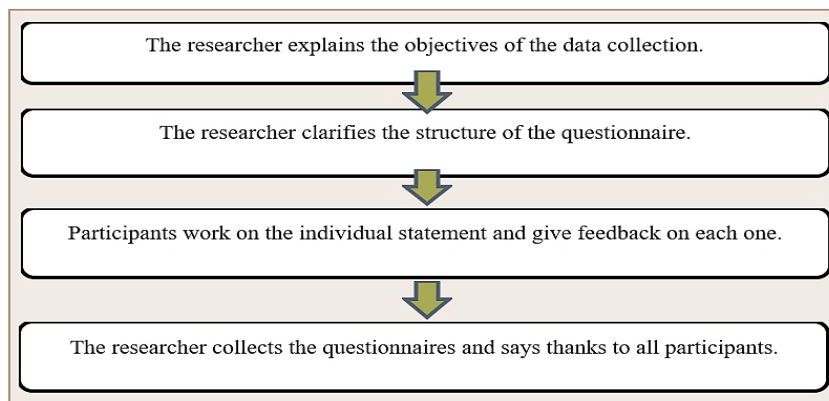


Figure 2. Data Collection Procedure

3.5. Data Analysis

A comprehensive quantitative methodology was used for the data analysis of this study, which included survey and causal-comparative methods as well as the computation of means and standard deviations for each statement about teachers' opinions of their school directors' transformational leadership, one-way ANOVA, and Post hoc analyses when there is a significant difference in ANOVA analysis. Figure 3 provides the details of the data analysis process of the current study.

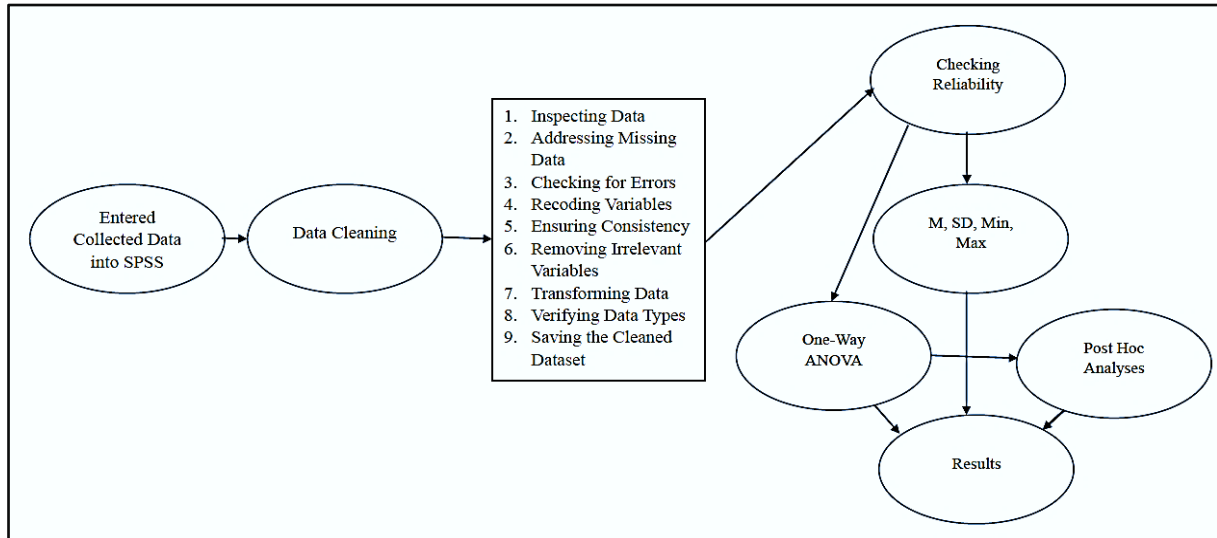


Figure 3. The process of data analyses of the current study

4. RESULTS AND DISCUSSION

4.1. Findings

Table 1. Participants' Demographic Information (n = 639)

Demographics	Values	Number	Percentage
Gender	Male	309	48.40
	Female	330	51.60
Age Range	20-30 Years	99	15.50
	31-40 Years	217	34.00
	41-Over	323	50.50
Degree	High School Degree	98	15.30
	Bachelor' Degree	442	69.20
	Master's Degree	99	15.50
Province	Kampong Cham	143	22.40
	Kampong Chhnang	195	30.50
	Kampong Speu	161	25.20
	Kampot	140	21.90

Table 1 offers a clear and organized presentation of the participants' demographic characteristics, allowing for a detailed understanding of the study's sample concerning key demographic variables. This facilitates a nuanced analysis of how these factors intersect with teaching experience, school environments, and geographical regions.

Table 2. Teachers' Perception of IIA (n = 639)

No.	Statements	Min	Max	Mean	SD
1.	My director instills pride in me for being associated with him/her.	2	5	3.88	0.57
2.	My director goes beyond self-interest for the good of the group.	2	5	3.86	0.49
3.	My director acts in ways that build my respect for him/her.	2	5	3.97	0.51
4.	My director displays a sense of power or confidence.	2	5	3.88	0.57

The mean scores for the four indicators range from 3.86 to 3.97, reflecting generally positive perceptions of directors' IIA. The standard deviations are relatively low, indicating a strong agreement among respondents regarding their directors' leadership qualities in these areas. This data suggests that teachers broadly view their directors as influential leaders who inspire pride, act ethically, foster respect, and project confidence. The mean scores are categorized as follows: 1.00-1.80 indicates the lowest level, 1.81-2.60 represents a low level, 2.61-3.40 signifies a moderate level, 3.41-4.20 corresponds to a high level, and 4.21-5.00 reflects the highest level.

Table 3. Teachers' Perception of IIB (n = 639)

No.	Statements	Min	Max	Mean	SD
1.	My director specifies the importance of having a strong sense of purpose.	2	5	3.86	0.48
2.	My director considers the moral and ethical consequences of decisions.	2	5	3.97	0.51
3.	My director talks about his/her most important values and beliefs.	2	5	3.82	0.48
4.	My director emphasizes the importance of having a collective sense of mission.	2	5	3.89	0.48

The mean scores for all indicators range from 3.82 to 3.97, reflecting positive perceptions of directors' leadership behaviors, particularly in terms of purpose, ethics, values, and a collective mission. The low standard deviations across indicators suggest a broad consensus among teachers regarding their directors' leadership qualities, indicating a stable perception of transformational leadership within the schools. The mean scores are categorized as follows: 1.00-1.80 indicates the lowest level, 1.81-2.60 represents a low level, 2.61-3.40 signifies a moderate level, 3.41-4.20 corresponds to a high level, and 4.21-5.00 reflects the highest level.

Table 4. Teachers' Perception of IMO (n = 639)

No.	Statements	Min	Max	Mean	SD
1.	My director talks optimistically about the future.	2	5	3.97	0.51
2.	My director talks enthusiastically about what needs to be accomplished.	2	5	3.84	0.48
3.	My director articulates a compelling vision of the future.	2	5	3.81	0.48
4.	My director expresses confidence that goals will be achieved.	2	5	3.97	0.51

The mean scores range from 3.81 to 3.97, indicating that teachers generally view their directors as inspiring and motivating, particularly through optimism and confidence about future achievements. The low variability in standard deviations reflects consistent perceptions across respondents regarding their directors' IM. The mean scores are categorized as follows: 1.00-1.80 indicates the lowest level, 1.81-2.60 represents a low level, 2.61-3.40 signifies a moderate level, 3.41-4.20 corresponds to a high level, and 4.21-5.00 reflects the highest level.

Table 5. Teachers' Perception of ICO (n = 639)

No.	Statements	Min	Max	Mean	SD
1.	My director spends time teaching and coaching me	2	5	3.86	0.48
2.	My director treats me as an individual rather than just as a member of a group.	2	5	3.97	0.51
3.	My director helps me to develop my strengths.	2	5	3.84	0.48
4.	My director considers me as having different needs, abilities, and aspirations from others.	2	5	3.88	0.48

The mean scores range from 3.84 to 3.97, showing that teachers generally have positive perceptions of their directors' ICO. The low standard deviations suggest consistency in these perceptions across the respondents, highlighting that teachers feel recognized and supported by their directors on a personal level. The mean scores are categorized as follows: 1.00-1.80 indicates the lowest level, 1.81-2.60 represents a low level, 2.61-3.40 signifies a moderate level, 3.41-4.20 corresponds to a high level, and 4.21-5.00 reflects the highest level.

Table 6. Teachers' Perception of IST (n = 639)

No.	Statements	Min	Max	Mean	SD
1.	My director gets me to look at problems from many different angles.	2	5	3.81	0.48
2.	My director seeks different perspectives when solving problems.	2	5	3.97	0.51
3.	My director re-examines critical assumptions to question whether they are appropriate.	2	5	3.85	0.48
4.	My director suggests new ways of looking at how to complete assignments.	2	5	3.80	0.48

The mean scores across the four indicators range from 3.80 to 3.97, demonstrating that teachers generally perceive their directors as intellectually stimulating leaders who promote critical thinking and diverse approaches to problem-solving. The relatively low standard deviations reflect the consistency of responses.

Table 7. Teachers' Perception of Directors' Leadership Based on Gender (n = 639)

Constructs	Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
IIA	Between Groups	0.280	1	0.280	1.588	0.208
	Within Groups	112.233	637	0.176		
	Total	112.513	638			
IIB	Between Groups	0.015	1	0.015	0.081	0.776
	Within Groups	118.895	637	0.187		
	Total	118.910	638			
IMO	Between Groups	0.023	1	0.023	0.130	0.718
	Within Groups	113.069	637	0.178		
	Total	113.092	638			
ICO	Between Groups	0.020	1	0.020	0.106	0.745
	Within Groups	120.160	637	0.189		
	Total	120.180	638			
IST	Between Groups	0.017	1	0.017	0.091	0.763
	Within Groups	119.668	637	0.188		
	Total	119.685	638			

Table 7 presents the ANOVA results examining teachers' perceptions of school directors' transformational leadership based on gender across five constructs: IIA (Idealized Influence of Attribute), IIB (Idealized Influence of Behaviours), IMO (Inspirational Motivation), ICO (Individual Consideration), and IST (Intellectual Stimulation). The results show no statistically significant differences between male and female teachers' perceptions, as indicated by p-values greater than 0.05 for all constructs: IIA ($p = 0.208$), IIB ($p = 0.776$), IMO ($p = 0.718$), IC ($p = 0.745$), and IST ($p = 0.763$). These findings suggest that gender does not significantly influence teachers' perceptions of directors' leadership in the examined constructs.

Table 8. Teachers' Perception of Directors' Leadership Based on Age Range (n = 639)

Constructs	Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
IIA	Between Groups	1.200	2	0.600	3.428	0.033
	Within Groups	111.313	636	0.175		
	Total	112.513	638			
IIB	Between Groups	1.480	2	0.740	4.007	0.019
	Within Groups	117.431	636	0.185		
	Total	118.910	638			
IMO	Between Groups	0.617	2	0.308	1.744	0.176
	Within Groups	112.476	636	0.177		
	Total	113.092	638			
ICO	Between Groups	1.386	2	0.693	3.709	0.025
	Within Groups	118.795	636	0.187		
	Total	120.180	638			
IST	Between Groups	1.332	2	0.666	3.579	0.028
	Within Groups	118.353	636	0.186		
	Total	119.685	638			

Table 8 presents the ANOVA results examining teachers' perceptions of school directors' transformational leadership based on age. The analysis covers five constructs: IIA, IIB, IMO, ICO, and IST. The results indicate significant age-based differences in perceptions for IIA ($p = 0.033$), IIB ($p = 0.019$), ICO ($p = 0.025$), and IST ($p = 0.028$), while no significant difference was found for IMO ($p = 0.176$). These findings suggest

that age influences teachers' perceptions of directors' leadership in most constructs, except for Inspirational Motivation.

Table 9. Teachers' Perception of Directors' Leadership Based on Age Range (n = 639)

Dependent Variable	Age (I)	Age (J)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
IIA	20-30	31-40	-0.02452	0.05074	1.000	-0.1463 to 0.0973
		41-Over	-0.10202	0.04806	0.102	-0.2174 to 0.0133
IIB	20-30	31-40	-0.07750	0.03672	0.106	-0.1656 to 0.0106
		41-Over	0.13918*	0.05211	0.023	0.0141 to 0.2643
IMO	20-30	31-40	0.12751*	0.04936	0.030	0.0090 to 0.2460
		41-Over	-0.01167	0.03772	1.000	-0.1022 to 0.0789
ICO	20-30	31-40	0.08393	0.05100	0.301	-0.0385 to 0.2064
		41-Over	0.08702	0.04831	0.216	-0.0289 to 0.2030
IST	20-30	31-40	0.00309	0.03691	1.000	-0.0855 to 0.0917
		41-Over	0.13413*	0.05242	0.032	0.0083 to 0.2599
IST	20-30	31-40	0.12400*	0.04965	0.038	0.0048 to 0.2432
		41-Over	-0.01013	0.03793	1.000	-0.1012 to 0.0809
IST	31-40	41-Over	0.13160*	0.05232	0.036	0.0060 to 0.2572
		41-Over	0.12148*	0.04956	0.044	0.0025 to 0.2404
IST	31-40	41-Over	-0.01013	0.03786	1.000	-0.1010 to 0.0808

*. The mean difference is significant at the 0.05 level.

Table 9 presents the Bonferroni post hoc test results, examining significant differences in teachers' perceptions of school directors' transformational leadership based on age. For IIA, no significant differences were found between age groups. However, for IIB, younger teachers (20-30) had more favorable perceptions compared to teachers aged 31-40 ($p = 0.023$) and 41 and over ($p = 0.030$). Significant differences were also observed for ICO and IST, with younger teachers (20-30) perceiving these constructs more positively than older groups (31-40, $p = 0.032$ and 41 and over, $p = 0.038$ for ICO; 31-40, $p = 0.036$ and 41 and over, $p = 0.044$ for IS). No significant differences were found for IMO or IIA. Overall, younger teachers (20-30) had more positive perceptions of directors' leadership, especially in IIB, ICO, and IST.

Table 10. Teachers' Perception of Directors' Leadership Based on Education Degree (n = 639)

Constructs	Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
IIA	Between Groups	4.258	2	2.129	12.507	0.000
	Within Groups	108.255	636	0.170		
	Total	112.513	638			
IIB	Between Groups	4.580	2	2.290	12.739	0.000
	Within Groups	114.330	636	0.180		
	Total	118.910	638			
IMO	Between Groups	4.371	2	2.185	12.784	0.000
	Within Groups	108.722	636	0.171		
	Total	113.092	638			
ICO	Between Groups	4.777	2	2.389	13.165	0.000
	Within Groups	115.403	636	0.181		
	Total	120.180	638			
IST	Between Groups	4.802	2	2.401	13.291	0.000
	Within Groups	114.883	636	0.181		
	Total	119.685	638			

Table 10 presents the results of an ANOVA examining teachers' perceptions of directors' transformational leadership based on their education degrees. Significant differences were found across all five constructs: IIA ($F(2, 636) = 12.507$, $p < 0.000$), IIB ($F(2, 636) = 12.739$, $p < 0.000$), IMO ($F(2, 636) = 12.784$, $p < 0.000$), ICO ($F(2, 636) = 13.165$, $p < 0.000$), and IST ($F(2, 636) = 13.291$, $p < 0.000$). These results suggest that teachers' education degrees significantly influence their perceptions of directors' transformational leadership in all areas, highlighting the role of educational background in shaping these perceptions.

Table 11. Multiple Comparisons of Directors' Leadership Based on Education Degree (n = 639)

Dependent Variable	Edu Comparison	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
IIA	HS vs. BA	0.01726	0.04606	1.000	-0.0933 to 0.1278
	HS vs. MA	-0.21083*	0.05879	0.001	-0.3519 to -0.0697
	BA vs. MA	-0.22809*	0.04587	0.000	-0.3382 to -0.1180
IIB	HS vs. BA	-0.00941	0.04734	1.000	-0.1230 to 0.1042
	HS vs. MA	-0.24150*	0.06042	0.000	-0.3865 to -0.0965
	BA vs. MA	-0.23209*	0.04714	0.000	-0.3452 to -0.1189
IMO	HS vs. BA	-0.05014	0.04616	0.833	-0.1610 to 0.0607
	HS vs. MA	-0.26428*	0.05892	0.000	-0.4057 to -0.1229
	BA vs. MA	-0.21413*	0.04597	0.000	-0.3245 to -0.1038
ICO	HS vs. BA	-0.01281	0.04756	1.000	-0.1270 to 0.1013
	HS vs. MA	-0.24912*	0.06070	0.000	-0.3948 to -0.1034
	BA vs. MA	-0.23631*	0.04736	0.000	-0.3500 to -0.1226
IST	HS vs. BA	-0.01536	0.04745	1.000	-0.1293 to 0.0985
	HS vs. MA	-0.25167*	0.06056	0.000	-0.3970 to -0.1063
	BA vs. MA	-0.23631*	0.04726	0.000	-0.3497 to -0.1229

Note: HS = High School Degree, BA = Bachelor's Degree, MA = Master's Degree

Table 11 compares teachers' perceptions of directors' transformational leadership, based on their respective educational degrees. Significant differences were found between teachers with high school (HS), bachelor's (BA), and master's (MA) degrees across all constructs (IIA, IIB, IMO, ICO, IST). For IIA, IIB, IMO, ICO, and IST, teachers with an MA reported significantly higher perceptions than those with HS or BA. No significant differences were found between high school and bachelor's degree holders. These results indicate that higher educational qualifications are associated with more positive perceptions of directors' transformational leadership.

Table 12. Teachers' Perception of Directors' Leadership Based on Provinces (n = 639)

Constructs	Source of Variance	Sum of Squares	df	Mean Square	F	Sig.
IIA	Between Groups	1.546	3	0.515	2.949	0.032
	Within Groups	110.967	635	0.175		
	Total	112.513	638			
IIB	Between Groups	1.154	3	0.385	2.074	0.102
	Within Groups	117.756	635	0.185		
	Total	118.910	638			
IMO	Between Groups	1.095	3	0.365	2.069	0.103
	Within Groups	111.997	635	0.176		
	Total	113.092	638			
ICO	Between Groups	1.260	3	0.420	2.244	0.082
	Within Groups	118.920	635	0.187		
	Total	120.180	638			
IST	Between Groups	1.280	3	0.427	2.288	0.077
	Within Groups	118.405	635	0.186		
	Total	119.685	638			

Table 12 presents the ANOVA results examining teachers' perceptions of directors' transformational leadership based on provinces. A significant difference was found for IIA, $F(3, 635) = 2.949$, $p = 0.032$, indicating varying perceptions across provinces. However, no significant differences were observed for the other constructs: IIB ($F = 2.074$, $p = 0.102$), IMO ($F = 2.069$, $p = 0.103$), ICO ($F = 2.244$, $p = 0.082$), and IST ($F = 2.288$, $p = 0.077$). These findings suggest that only IIA perceptions are influenced by province, while other constructs remain consistent across regions.

Table 13. Multiple Comparisons of Directors' Leadership Based on Provinces (n = 639)

Dependent Variable	Province	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval
IIA	Kampong Cham				
	Kampong Chhnang	-0.00490	0.04602	1.000	-0.1267 to 0.1169
	Kampong Speu	-0.04864	0.04804	1.000	-0.1758 to 0.0785
	Kampot	-0.12729	0.04970	0.064	-0.2588 to 0.0043
	Kampong Chhnang	0.00490	0.04602	1.000	-0.1169 to 0.1267
	Kampong Speu	-0.04374	0.04451	1.000	-0.1616 to 0.0741
IIB	Kampong Cham				
	Kampong Chhnang	-0.01072	0.04741	1.000	-0.1362 to 0.1148
	Kampong Speu	0.01270	0.04948	1.000	-0.1183 to 0.1437
	Kampot	-0.10065	0.05120	0.299	-0.2362 to 0.0349
	Kampong Chhnang	0.01072	0.04741	1.000	-0.1148 to 0.1362
	Kampong Speu	0.02343	0.04586	1.000	-0.0979 to 0.1448
IMO	Kampong Cham				
	Kampong Chhnang	-0.00233	0.04624	1.000	-0.1247 to 0.1200
	Kampong Speu	0.01622	0.04826	1.000	-0.1115 to 0.1439
	Kampot	-0.09418	0.04993	0.358	-0.2263 to 0.0380
	Kampong Chhnang	0.00233	0.04624	1.000	-0.1200 to 0.1247
	Kampong Speu	0.01855	0.04472	1.000	-0.0998 to 0.1369
ICO	Kampong Cham				
	Kampong Chhnang	-0.00816	0.04764	1.000	-0.1343 to 0.1179
	Kampong Speu	0.01736	0.04973	1.000	-0.1142 to 0.1490
	Kampot	-0.10244	0.05145	0.282	-0.2386 to 0.0337
	Kampong Chhnang	0.00816	0.04764	1.000	-0.1179 to 0.1343
	Kampong Speu	0.02552	0.04608	1.000	-0.0964 to 0.1475
IST	Kampong Cham				
	Kampong Chhnang	-0.00816	0.04754	1.000	-0.1340 to 0.1177
	Kampong Speu	0.01892	0.04962	1.000	-0.1124 to 0.1502
	Kampot	-0.10244	0.05134	0.279	-0.2383 to 0.0334
	Kampong Chhnang	0.00816	0.04754	1.000	-0.1177 to 0.1340
	Kampong Speu	0.02707	0.04598	1.000	-0.0946 to 0.1488
	Kampot	-0.09428	0.04783	0.295	-0.2209 to 0.0323

Table 13 presents the results of multiple comparisons of teachers' perceptions of directors' transformational leadership based on provinces. For IIA, significant differences were found between Kampong Cham and Kampot (Mean Difference = -0.12729, $p = 0.064$), and between Kampong Chhnang and Kampot (Mean Difference = -0.12239, $p = 0.051$). No significant differences were observed for IIB, IMO, ICO, and IST across provinces. These findings suggest that teachers' perceptions of directors' leadership vary primarily between Kampong Cham and Kampot, with no substantial differences for the other constructs.

4.2. Discussion

The findings of this study reveal several important insights regarding teachers' perceptions of their school directors' transformational leadership based on gender, age, education degrees, and provinces. When examining perceptions based on gender, the ANOVA results indicated that gender did not significantly influence teachers' views across all five transformational leadership constructs: IIA, IIB, IMO, ICO, and IST. These findings bear a resemblance to the findings of Sims et al. [49]. The current findings suggest that both male and female teachers hold comparable perceptions of directors' transformational leadership behaviors. Such consistency indicates that directors' leadership practices are perceived similarly by teachers regardless of gender, reinforcing the notion of equitable leadership impact within the educational environment [23].

Conversely, when analyzed based on age, significant differences emerged across four constructs: IIA, IIB, ICO, and IST, teachers' perceptions varied significantly by age, indicating that directors' leadership behaviors are experienced or interpreted differently among teachers of different age groups. The Bonferroni post hoc analysis explained these differences, showing that teachers between the ages of 20 and 30 consistently had better feelings

about their directors in terms of IIB, ICO, and IST than teachers over the age of 30. This finding implies that younger teachers may be more receptive to or have a greater affinity with their directors' leadership styles, especially about their directors' ability to inspire, intellectually stimulate, and provide individualized support.

The lack of significant differences in perceptions based on age for IMO suggests that directors' ability to articulate and instill a shared vision resonates similarly across age groups. This might point to the universality of this aspect of transformational leadership, regardless of the teachers' age [35]. However, the distinct differences between other constructs underscore potential generational gaps in how leadership behaviors are interpreted or valued. Older teachers may hold different expectations or experiences regarding transformational leadership, potentially shaped by longer professional tenures or varying generational perspectives on leadership effectiveness.

The analysis based on education degrees revealed that teachers with an MA consistently perceive their school directors' transformational leadership more positively across all five constructs—IIA, IIB, IMO, ICO, and IST—compared to those with an HS or BA. This trend suggests that higher educational qualifications may enhance teachers' awareness and appreciation of transformational leadership qualities, potentially due to their broader exposure to leadership theories and professional practices [17, 50]. Notably, significant differences were consistently observed between teachers with an MA and those with lower qualifications, indicating that these advanced degree holders may possess a more nuanced understanding of leadership behaviors, thus recognizing and valuing the directors' transformational attributes more. However, the lack of significant differences between teachers with HS and BA degrees in all constructs suggests that foundational leadership perceptions may plateau at a certain level of education. This highlights the potential influence of higher educational attainment on teachers' perceptions of leadership, calling for targeted professional development initiatives to enhance leadership recognition among teachers with varying qualifications [51].

The study also examined teachers' perceptions based on the province where they work. The ANOVA results indicated significant differences between provinces in perceptions of IIA while differences for other constructs—IIB, IMO, ICO, and IST—were not statistically significant. The post-hoc Bonferroni analysis revealed that teachers from Kampot perceived their directors less favorably in terms of IIA when compared to those from Kampong Cham and Kampong Chhnang, though the difference with Kampong Speu was not statistically significant.

These findings suggest that while most aspects of directors' transformational leadership are perceived consistently across provinces, there are notable differences in how directors' attributed influence is perceived in Kampot. This could indicate localized challenges or variations in leadership styles, possibly influenced by differing administrative or school contexts across the provinces.

The above findings underscore the need for school directors to be cognizant of varying perceptions across age groups, degrees, and provinces and to adopt adaptive leadership strategies that effectively address the diverse expectations of their teaching staff. The results advocate for leadership development initiatives that emphasize differentiated approaches, particularly those that foster IST and ICO among both younger and more experienced teachers. Additionally, the absence of gender-based differences in leadership perception suggests that gender-equitable leadership practices are in place, highlighting an inclusive leadership culture within these schools. Meanwhile, the findings on province-based differences point to the need for further investigation into specific regional or contextual factors that may impact leadership perceptions, particularly in Kampot.

In brief, the study reveals that teachers' perceptions of school directors' transformational leadership vary by age, education, and province, while showing no gender-based differences, reflecting an inclusive leadership culture. Younger teachers and those with higher qualifications rate leadership more positively, highlighting generational and educational influences on perceptions. Provincial disparities, particularly in Kampot, suggest localized challenges requiring targeted interventions. These findings underscore the need for adaptive leadership strategies to address diverse teacher needs, enhance professional development, and ensure equitable and effective educational practices across Cambodia.

5. CONCLUSION

The current study investigates teachers' perceptions of their school directors' transformational leadership, examining the influence of gender, age, education degrees, and province. The results reveal moderate and high perceptions of the director's transformational leadership and indicate that gender does not significantly affect perceptions across the five constructs of transformational leadership, including IIA, IIB, IMO, ICO, and IST. This uniformity suggests that both male and female teachers, regardless of educational qualifications, view directors' leadership practices as equitable and effective, highlighting an inclusive leadership culture within the educational settings studied.

In contrast, age, degree, and provincial differences reveal significant variations in perceptions. Younger teachers (aged 20 to 30) reported more favorable views regarding IIB, ICO, and IST than their older colleagues, emphasizing the need for adaptive leadership strategies that address generational expectations. Additionally, significant differences in perceptions of IIA across provinces suggest that local educational contexts influence

teachers' experiences of leadership. These findings underscore the importance of considering demographic factors in leadership development initiatives to enhance transformational leadership effectiveness and promote positive educational outcomes. Future studies should consider more advanced statistical designs such as correlation, regressions, and structural equation modeling (SEM). Qualitative and mixed-methods designs are also recommended.

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