



The influence of principals' personal traits on leadership outcomes of change in Vietnamese secondary schools

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ABSTRACT

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This paper addresses the influence of personal traits on the leadership outcomes of change by principals in primary, lower secondary, and upper secondary levels in Vietnamese schools. The research employed a survey questionnaire method to collect data, which was processed using SPSS software version 22. The design of the practical study was carried out based on the literature review and theoretical research. The paper did not use the original research ideas of previous authors but made certain adjustments to align with the research objectives and context. Linear regression analysis was utilized, with six categories of personal traits as independent variables consisting of thirteen specific traits, and two dependent variables representing leadership outcomes, including teacher leadership outcomes and general leadership outcomes. The analysis results revealed that teacher leadership outcomes are negatively influenced by arrogance, dominance, authoritarian thinking, emotionality, and balanced thinking, and they are positively influenced by proactivity, adaptability and discipline, perfectionism, curiosity, and eagerness to learn. The initial study results provide a foundation for applying the role of school leaders' personal traits in management, leadership, evaluation policies, and personnel appointments in schools today.

Contribution/Originality: This study helps to close the gap in identifying the impact of six groups of factors measuring the personal attributes of school principals and two groups of factors measuring teacher leadership outcomes in the context of secondary education innovation in Vietnam.

1. INTRODUCTION

In Vietnam, the General Education Program accompanied by Circular No. 32/2018/TT-BGDĐT dated December 26, 2018, issued by the Minister of Education and Training, is gradually embodying the spirit of Resolution No. 29-NQ/TW on fundamental and comprehensive innovation in education and training. This involves changes to teaching plans and content, including the number of subjects, educational activities, a mandatory or elective nature, openness, flexibility, educational methods, and assessment of educational outcomes. These changes aim to meet the objective of developing students' qualities and capabilities (Ministry of Education and Training, 2018). Additionally, the implementation of a program with many textbooks under National Assembly Resolution 88

has impacted various aspects of teaching, education, and related issues. Therefore, the role of the school principal is crucial in influencing teachers' adaptation to changes in the educational program. School management skills, especially the ability to manage changes, need to be researched and emphasized, particularly to meet the requirements of current educational program innovation in Vietnamese high schools.

This paper focuses on a specific aspect of the research topic "Enhancing change management capabilities for school principals to meet the requirements of innovation in general education programs" (code: B2022-SPH-10, sponsored by the Ministry of Education and Training of Vietnam). The specific focus of this paper is on the influence of the personal qualities of school principals on leadership outcomes in implementing changes in Vietnamese high schools. The personal qualities of school principals and the outcomes of leadership changes in schools are the two variables measured in this study.

1.1. Existing Studies on the Personal Qualities of Leaders

Sankar (2003) suggests that "vision, goals, self-positioning, strategy, professional ethics, work attitude, perception, ethical standards, behavior, and the need for self-improvement" are personal qualities that contribute to the success of leaders in their work.

Derived from the field of psychology, but with a more clear and applicable categorization in the context of leadership research in management and business, Peterson and Seligman (2004) identified 24 notable characteristics in individual and group personalities, grouping them into six traits that contribute to individual and leadership success and job satisfaction. These traits are wisdom, courage, humanity, transcendence, temperance, and justice. Bass and Avolio (1995) proposed that leaders should possess the following four qualities: (1) Idealized influence: Leaders serve as role models, generating followers' desires to emulate and identify with them; (2) Inspirational motivation: Leaders motivate and inspire others; (3) Intellectual stimulation: Leaders stimulate rationality in problem solving, encourage independent and creative thinking, challenge old ideas, and question current situations; (4) Individualized consideration: Leaders understand each follower's unique goals and needs and provide coaching, mentoring, and counseling. They supervise, receive feedback on employees' needs, and connect with the organization's mission.

1.2. Existing Studies on Organizational Leadership Outcomes

Koene, Vogelaar Ad, and Soeters (2002) investigated the impact of leadership style on leadership outcomes by measuring two financial indicators (net profit and controllable costs) and three organizational environment indicators (business productivity, readiness for innovation, and communication within the business) in 50 supermarket branches belonging to a large supermarket chain in the Netherlands. The results indicated a clear relationship between leadership style and financial outcomes as well as the working environment in each supermarket.

Knippenberg and Hogg (2003) focused on a socially oriented model of leadership in organizations and emphasized the leader's individual characteristics as a member of the group and their ability to persuade and lead the other group members. To measure the impact or outcomes of this leadership, the authors used four group indicators—subordinates' performance and motivation; readiness for innovation; compliance; and the perception of effectiveness and the leader's personal credibility.

1.3. Existing Studies on the Influence of Leaders' Personal Qualities on Leadership Outcomes

According to Northouse (2015), transformational leadership is a process of changing and transforming individuals involving emotions, values, ethics, standards, and long-term goals. It represents a unique form of influence that motivates followers to achieve more than they initially expect. Rather than offering a model of what leaders should do, transformational leadership provides a general perspective on leadership, emphasizing elements

to apply, such as the qualities of idealized influence, motivational inspiration, intellectual stimulation, and individualized consideration.

By examining values and specific behaviors, Reave (2005) explored the relationship between these factors and leadership effectiveness. Personal traits, such as integrity, honesty, and altruism, were examined alongside leadership behaviors and skills, such as respect, fairness, empathy, active listening, recognizing employee contributions, and having faith in the connection between leadership outcomes and effectiveness. To measure leadership outcomes, Reave focused on individual-level outcomes, including awareness, work motivation, job satisfaction, commitment, and professional ethics under leadership (Barkman, 2015).

Thun (2009) studied the influence of six categories comprising 24 personal traits categorized by Peterson and Seligman (2004), including wisdom, courage, humanity, transcendence, temperance, and justice. Thun employed three criteria groups to measure leadership outcomes: Personal behavior (job satisfaction, trust, dedication), commitment, and well-being. He also developed a 26-item questionnaire and demonstrated the reliability of the measurement scale (Character Strength in Leadership Survey) by comparing results with other established measurements such as the Leader-Member Exchange and the Multi-Factor Leadership Questionnaire (Furnham, Trickey, & Hyde, 2012; Le, 2006; Northouse, 2015; Vu, 2009).

Strohhecker and Größler (2013) utilized the PPIK model (Process, Personality, Interest, Knowledge) to investigate the influence of four qualities of inventory management performance (IMP), namely intelligence-as-process, personality, interest, and intelligence-as-knowledge. Their findings indicated that intelligence had the closest relationship with operational outcomes, while other factors had weaker but relatively clear associations (Ardueser & Lehenbauer, 2020).

In Vietnam, there has been limited research on personal traits of leaders in general and specifically on the personal traits of school principals and their impact on leadership outcomes. These studies have followed certain fundamental directions:

Some studies adopted a political ideological approach, applying Marxist–Leninist perspectives and the ideology of Ho Chi Minh regarding the ethical requirements of leadership style, work style, and work ethics for party members, leaders, and managers. Accordingly, leaders and managers must consistently cultivate and train themselves to mitigate shortcomings and enhance strengths focused on five virtues (Tran, 2015; Do 2006): Benevolence (compassion for comrades, readiness for sacrifice and hardship); Righteousness (integrity, selflessness, commitment to tasks); Wisdom (avoiding shortsightedness, making decisions based on the best interests of the party and the nation); Bravery (courageousness, embracing difficulties, rectifying shortcomings); and Honesty (avoiding greed for position and wealth, refraining from vanity). Other studies concentrate on leadership within state agencies by examining leaders' psychological aspects (Le, 2006; Nguyen, 2004; Vu, 2009) as well as leaders' personalities (Avolio, Bass, & Jung, 1999; Bass & Avolio, 1995; Tran, 2007). These viewpoints examine leaders' personalities from the perspectives of psychology and sociology, often with a focus on affective and theoretical assessments. Notably, research by Tran (2007) and Nguyen (2004) identified 23 psychological qualities (similar to personal traits) necessary for leaders in general and leaders in the present era (each quality had an average value > 2.44). These qualities were grouped into three categories: "ethical qualities," "competence qualities," and "distinctive psychological qualities," with "ethical qualities" being evaluated as more necessary than the other two categories.

Studies on leadership and its impact on organizations have garnered considerable attention. Research has explored the impact of individual factors related to leaders of organizations. The commonality among the aforementioned studies is their focus on factors related to the qualities and abilities of individual leaders and how these factors influence leadership effectiveness within organizations and businesses. However, studies on educational leadership, especially leadership in educational change, that focus on the relationship between the personal traits of leaders and their leadership outcomes, remain relatively sparse. Specifically, there is a lack of

research on the influence of the personal traits of principals in secondary schools (from primary to upper secondary levels) on the effectiveness of leading educational program changes.

Therefore, general leadership theories predominantly developed and validated in Western countries with advanced economies and well-established management science need to be adapted to or validated for the Eastern cultural context, business traditions, economic development levels, management competencies, etc. This study selected Bắc Ninh, Hà Nội, Đà Nẵng, Thành Phố Hồ Chí Minh, and Lâm Đồng in Vietnam as the research context. Through statistical analysis, the impact of the personal traits of secondary school principals on the effectiveness of leading educational program changes in Vietnam was investigated.

The research was conducted by addressing the following questions:

- What qualities of principals influence the effectiveness of leadership in the school's change process?
- Which studied qualities have a negative impact on overall leadership outcomes and on the leadership outcomes of teachers implementing changes in the school according to the requirements of the 2018 General Education Program?

2. METHOD

2.1. Research Methodology

This practical study was designed based on existing literature and theoretical research. Following the main perspective of the economics of education (the application of economic theory to educational management), the concept of leadership effectiveness in business was applied to the educational context. Consequently, the original research ideas of previous authors were not used, but certain adjustments were made to align with the research objectives and context. Specifically, (1) the approaches and classifications of Peterson and Seligman (2004), Thun (2009) and Judge et al. (2009) were utilized as the basis for analyzing and evaluating the influence of personal qualities on leadership outcomes in schools; and (2) the additional outcomes of evaluation indicators were introduced to measure leadership outcomes more accurately and comprehensively. All these additions aimed to align with the changing educational leadership context in Vietnam. Details of the research area and sample are presented in Table 1.

Table 1. Characteristics of the research sample.

Research area	Quantity/Education level						Total females
	Primary school		Lower secondary school		Upper secondary school		
	Principal	Head of department and teachers	Principal	Head of department and teachers	Principal	Head of department and teachers	
Bac Ninh	10	20	15	25	10	20	65
Ha Noi	10	20	20	20	10	20	70
Da Nang	4	15	15	20	10	20	56
Ho Chi Minh city	10	20	20	20	10	20	68
Lam Dong	6	15	15	20	10	10	50
Total	40	90	85	105	50	90	

The study was conducted in Vietnamese secondary schools, specifically targeting 240 principals (20 principals per educational level per province/city), along with 400 department heads and teachers from primary, lower secondary, and upper secondary schools in Bac Ninh, Ha Noi, Da Nang, Ho Chi Minh City, and Lam Dong. A survey questionnaire was employed as the data collection instrument. Among the 640 distributed questionnaires, 460 valid responses met the criteria for data entry and analysis. Statistical methods were employed to process the survey data. The reliability of the personal traits and leadership outcome scales was assessed using Cronbach's

alpha coefficient and total variance correlation, followed by exploratory factor analysis (EFA), regression analysis, and hypothesis testing using statistical techniques.

Figure 1 illustrates the influence of personal traits of secondary school principals on leadership outcomes.

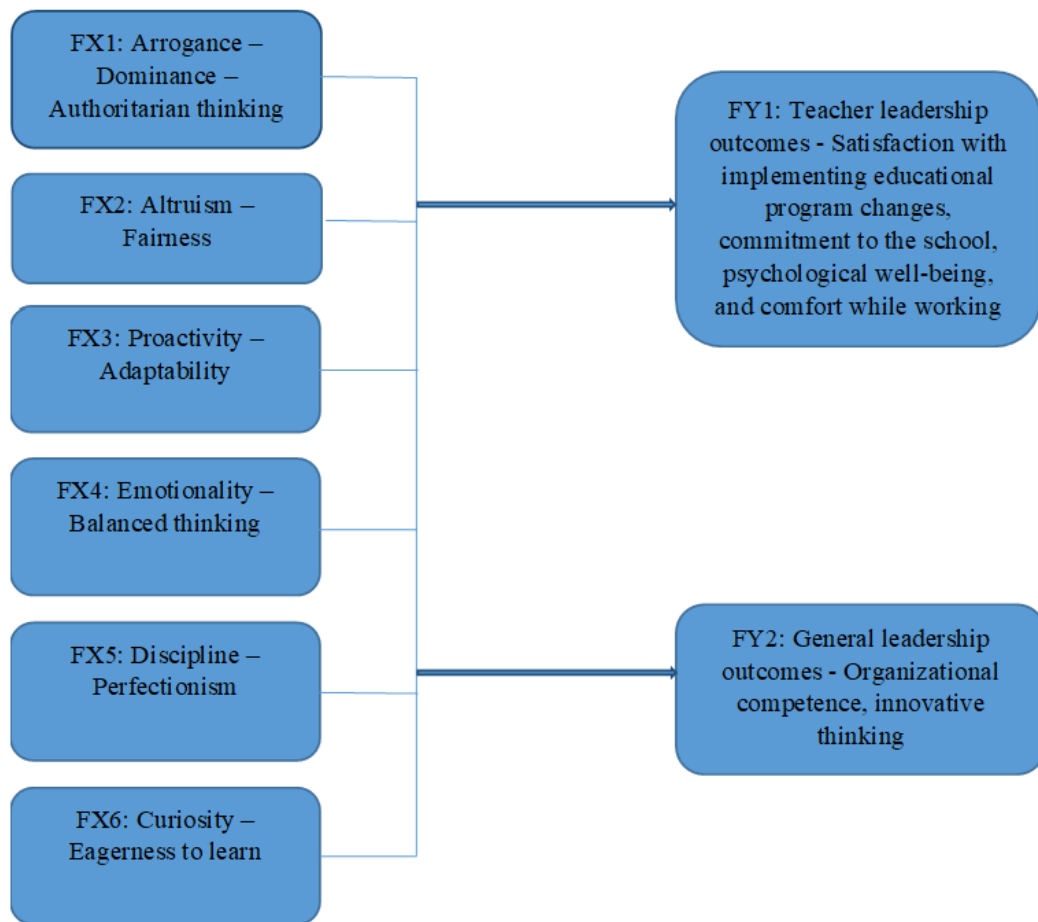


Figure 1. Research model of the influence of personal traits of secondary school principals on leadership outcomes.

Source: Bass and Avolio (1995); Nguyen (2004); Cavazotte, Moreno, and Hickmann (2012); Jonason, Slomski, and Partyka (2012); Barkman (2015); Ardueser and Lehenbauer (2020); Northouse (2015) and Peterson and Seligman (2004).

2.2. Research Model

Specifically, we examine the relationships between the independent variables (FX) and the dependent variables (FY) through two linear regression models and formulate the following hypotheses for testing:

First Hypothesis Model: To assess the influence of the personal traits of secondary school principals, including hubristic pride, arrogance, and dominance (FX1); benevolence and equity (FX2); proactivity and the ability to navigate situations (FX3); emotional stability and balanced thinking (FX4); discipline and thoroughness (FX5); and inquisitiveness and desire to learn (FX6) on teacher leadership outcomes (FY1: satisfaction in implementing educational program changes, commitment to the school, psychological well-being, and mental comfort while working). The regression equation is: $FY1 = \alpha + \beta_1(FX1) + \beta_2(FX2) + \beta_3(FX3) + \beta_4(FX4) + \beta_5(FX5) + \beta_6(FX6)$.

Second Hypothesis Model: To evaluate the impact of the six aforementioned groups of personal traits of secondary school principals on general leadership outcomes (FY2: organizational competence and innovative thinking). The regression equation is: $FY2 = \alpha + \beta_1(FX1) + \beta_2(FX2) + \beta_3(FX3) + \beta_4(FX4) + \beta_5(FX5) + \beta_6(FX6)$.

The formulated hypotheses for testing are:

Hypothesis 1: FX1 and FX4 negatively influence FY1 and FY2.

Hypothesis 2: FX2, FX3, FX5, and FX6 negatively influence FY1 and FY2.

Hypotheses 1 and 2 consist of specific sub-hypotheses that need to be tested, as outlined in section 2.2 and detailed in Table 4. To validate H1, the sub-hypotheses from H1.1 to H1.4 must be validated, and to validate Hypothesis 2, the sub-hypotheses from H2.1 to H2.8 must be validated.

2.3. Model Testing Results

Using SPSS for Windows 22.0 data analysis software, we constructed a model to assess the impact of the personal traits of secondary school principals, including FX1, FX2, FX3, FX4, FX5, and FX6, on the leadership outcomes variables FY1 and FY2.

In this context, principals are categorized as "frequent" if a certain trait is assessed at level 4 (fairly frequent) or 5 (frequent), and "infrequent" if assessed at level 1 (not at all), 2 (rarely), or 3 (sometimes). Thirteen independent variables were measured by 50 observation variables, and 15 observation variables measuring leadership outcomes were used for testing. The measurement scales were assessed for reliability using Cronbach's alpha coefficient and the total correlation coefficient. Variables meeting the criteria were subjected to exploratory factor analysis (EFA). EFA is employed to evaluate the validity of the measurement. This method assesses the internal consistency of component factors and is expected to have a significant relationship with the same factor. In this measurement, variables with factor loadings below 0.5 were excluded. The principal components extraction method with Varimax rotation was used, and factors were extracted until the Eigenvalues reached 1. The validity of the measurement scale was tested through factor analysis using indicators such as the Kaiser–Meyer–Olkin (KMO) index, communalities, and factor loadings. Specifically, the KMO values should fall between $0.5 < KMO < 1$; variables with communalities below 0.4 were excluded, variables with loading factors below 0.5 were excluded, and variables that fell into two or more factor groups were excluded.

Subsequently, the quantitative research results were statistically analyzed using parameters at different levels of measurement, including frequency (count), percentage, standardized coefficient (β), reliability coefficient (α), correlation coefficient (r), T-test, F-test, and regression analysis. The results of the first model analysis are presented in Table 2.

Table 2. Results of linear regression analysis for the first model.

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.	Correlation coefficients			Collinearity	
		B	Std. error	Beta			Zero order	Partial	Part	Tolerance	VIF
1	(Constant)	9.212E-17	0.033		0.000	1.000					
	FX1	-0.068	0.033	-0.068	-2.058	0.040	-0.068	-0.073	-0.068	1.000	1.000
	FX2	0.305	0.033	0.305	9.199	0.000	0.305	0.309	0.305	1.000	1.000
	FX3	0.073	0.033	0.073	2.199	0.028	0.073	0.078	0.073	1.000	1.000
	FX4	0.076	0.033	0.076	2.305	0.021	0.076	0.081	0.076	1.000	1.000
	FX5	0.100	0.033	0.100	3.009	0.003	0.100	0.106	0.100	1.000	1.000
	FX6	0.070	0.033	0.070	2.112	0.035	0.070	0.075	0.070	1.000	1.000

Note: Dependent variable: FY1.

To assess the suitability of the regression model for the dataset, we utilized the adjusted R-squared coefficient (R^2). The utilization of the adjusted R^2 is preferred as it provides a more realistic assessment of the model's fit for the data when multiple explanatory variables are present. Models often don't perfectly fit real data, as indicated by the R^2 value. The results revealed an adjusted R^2 value of 0.117, indicating that the linear regression model constructed was suitable for the dataset to an extent of 11.7%.

For the overall assessment of the linear regression model's appropriateness, we employed the F-test in the analysis of variance (ANOVA) table. The results indicated a very small Sig. value of the F-test (0.000a), suggesting the basis for rejecting the null hypothesis (Ho) that the regression coefficients are all zero. This implies that the linear regression model constructed was suitable for the overall data set.

The regression equation following the analysis resulted in:

$$FY1 = 0.040 - 0.068(FX1) + 0.305(FX2) + 0.073(FX3) + 0.076(FX4) + 0.1(FX5) + 0.07(FX6)$$

This signifies that at a significance level of 5%, all six groups of personal traits have an impact on the teacher leadership outcome. This implies that they all influence teachers' leadership outcome (satisfaction with implementing educational program innovations, commitment to the school, psychological well-being, and comfort while working). Among these, the positive impact of the factor groups FX2 (empathy and fairness), FX3 (initiative and adaptability), FX4 (emotional stability and balanced thinking), FX5 (discipline and thoroughness), and FX6 (inquisitiveness and learning enthusiasm) is evident, while the impact of FX1 (arrogance, dominance, and authoritarian ideology) is negative.

This means that:

In the case where FX2 (empathy and fairness), FX3 (initiative and adaptability), FX4 (emotional stability and balanced thinking), FX5 (discipline and thoroughness), and FX6 (inquisitiveness and learning enthusiasm) remain unchanged, if FX1 (arrogance, dominance, and authoritarian ideology) increases by one unit, the satisfaction with implementing educational program innovations, commitment to the school, psychological well-being, and comfort while working (FY1) decreases by 0.068.

In the case where FX1 (arrogance, dominance, and authoritarian ideology), FX3 (initiative and adaptability), FX4 (emotional stability and balanced thinking), FX5 (discipline and thoroughness), and FX6 (inquisitiveness and learning enthusiasm) remain unchanged, and FX2 (empathy and fairness) increases by one unit, the satisfaction with implementing educational program innovations, commitment to the school, psychological well-being, and comfort while working (FY1) increases by 0.305.

In the case where FX1 (arrogance, dominance, and authoritarian ideology), FX2 (empathy and fairness), FX4 (emotional stability and balanced thinking), FX5 (discipline and thoroughness), and FX6 (inquisitiveness and learning enthusiasm) remain unchanged, and FX3 (initiative and adaptability) increases by one unit, the satisfaction with implementing educational program innovations, commitment to the school, psychological well-being, and comfort while working (FY1) increases by 0.073.

In the case where FX1 (arrogance, dominance, and authoritarian ideology), FX2 (empathy and fairness), FX3 (initiative and adaptability), FX5 (discipline and thoroughness), and FX6 (inquisitiveness and learning enthusiasm) remain unchanged, and FX4 (emotional stability and balanced thinking) increases by one unit, the satisfaction with implementing educational program innovations, commitment to the school, psychological well-being, and comfort while working (FY1) increases by 0.076. This contrasts with the initial prediction of a negative impact of emotional stability and balanced thinking. In the survey sample, emotional stability and balanced thinking still has a positive impact on teacher leadership outcomes.

This implies that teachers will feel more satisfied, committed, and mentally comfortable in a work environment where school principals consider factors of emotional connection and balanced task-solving. The close relationships, bonds, and emotional factors between school principals and teachers; leadership decisions that consider emotional factors, harmony in relationships, and alignment of interests among parties have a positive influence on the Satisfaction with implementing educational program innovations, commitment to the school, psychological well-being, and comfort while working for teachers.

In the case where FX1 (arrogance, dominance, and authoritarian ideology), FX2 (empathy and fairness), FX3 (initiative and adaptability), FX4 (emotional stability and balanced thinking), and FX6 (inquisitiveness and learning enthusiasm) remain unchanged, and FX5 (discipline and thoroughness) increases by one unit, the satisfaction with

implementing educational program innovations, commitment to the school, psychological well-being, and comfort while working (FY1) increases by 0.1.

In the case where FX1 (arrogance, dominance, and authoritarian ideology), FX2 (empathy and fairness), FX3 (initiative and adaptability), FX4 (emotional stability and balanced thinking), and FX5 (discipline and thoroughness) remain unchanged, and FX6 (inquisitiveness and learning enthusiasm) increases by one unit, the satisfaction with implementing educational program innovations, commitment to the school, psychological well-being, and comfort while working (FY1) increases by 0.07.

Table 3 presents the linear regression analysis for the second model.

Table 3. Results of linear regression analysis for the second model.

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.	Correlation coefficients			Collinearity	
		B	Std. error	Beta			Zero order	Partial	Part	Tolerance	VIF
4	(Constant)	-1.244E-16	0.032		0.000	1.000					
	FX2	0.338	0.032	0.338	10.492	0.000	0.338	0.347	0.338	1.000	1.000
	FX5	0.091	0.032	0.091	2.841	0.005	0.091	0.100	0.091	1.000	1.000
	FX6	0.216	0.032	0.216	6.722	0.000	0.216	0.231	0.216	1.000	1.000

Note: Dependent variable: FY2.

The results indicate that the adjusted R² coefficient is 0.166, meaning that the linear regression model constructed is suitable for the dataset at a level of 16.6%.

The analysis results show that the significance value (Sig.) of the F-test is very small (0.000b), indicating a basis for rejecting the null hypothesis (H0) that the regression coefficients are equal to 0. Thus, the linear regression model constructed is suitable for the overall dataset.

The regression equation after analysis yields the following results:

$$FY2 = 0.338 (FX2) + 0.091 (FX5) + 0.216 (FX6)$$

This implies that at a significance level of 5%, only FX2 (empathy and equity), FX5 (discipline and thoroughness), and FX6 (curiosity and desire to learn) have an influence on FY2 (general leadership outcome). These influences are all positive.

Specifically, in the case where FX5 (discipline and thoroughness) and FX6 (curiosity and desire to learn) remain unchanged, and FX2 (empathy and equity) increases by one unit, the ability to organize activities and the willingness to innovate increase by 0.338.

In the case where FX2 (empathy and equity) and FX6 (curiosity and desire to learn) remain unchanged, and FX5 (discipline and thoroughness) increases by one unit, the ability to organize activities and the willingness to innovate increase by 0.091.

In the case where FX2 (empathy and equity) and FX5 (discipline and thoroughness) remain unchanged, and FX6 (curiosity and desire to learn) increases by one unit, the ability to organize activities and the willingness to innovate increase by 0.216.

2.4. Summary of Hypothesis Testing for the Research Model

Among the testing results, a notable finding is in the first model: FX4 (empathy and fair-mindedness) has a positive influence on teacher leadership outcome (FY1). This implies that leaders take into account emotional factors, personal relationships, local connections, etc., and consider balancing relationship factors and interests. This positive influence on teacher leadership outcomes leads to greater job satisfaction, mental comfort, and stronger organizational attachment (Le, 2006; Vu, 2009).

Table 4 presents the hypothesis testing results.

Table 4. Hypothesis testing results.

Hypothesis	Outcome
H1.1. Dominant, arrogant, and authoritarian principals negatively affect teacher leadership outcomes	Accepted
H1.2. Dominant, arrogant, and authoritarian principals negatively affect overall leadership outcomes	Accepted
H1.3. Emotional and reflective principals negatively affect teacher leadership outcomes	Rejected
H1.4. Emotional and reflective principals negatively affect overall leadership outcomes	Accepted
H2.1. Empathetic and fair principals positively affect teacher leadership outcomes	Accepted
H2.2. Empathetic and fair principals positively affect overall leadership outcomes	Accepted
H2.3. Proactive and adaptive principals positively affect teacher leadership outcomes	Accepted
H2.4. Proactive and adaptive principals positively affect overall leadership outcomes	Accepted
H2.5. Disciplined and meticulous principals positively affect teacher leadership outcomes	Accepted
H2.6. Disciplined and meticulous principals positively affect overall leadership outcomes	Accepted
H2.7. Inquisitive and eager to learn principals positively affect teacher leadership outcomes	Accepted
H2.8. Inquisitive and eager to learn principals positively affect overall leadership outcomes	Accepted

3. DISCUSSION

The study has achieved several noteworthy findings. Theoretical foundations regarding leadership attributes and characteristics, both positive and negative, were referenced. This included adopting the approach and classification of positive qualities by Peterson and Seligman (2004) and negative qualities by Judge et al. (2009) to examine the influence of principals' personal attributes on leadership outcomes in the context of educational reforms in Vietnamese secondary schools. Our research results align with those of Engelbrecht, Van Aswegen, and Theron (2005), who found that altruism positively influences transformational leadership. Additionally, Thompson and Klotz (2022) found that curiosity is associated with positive outcomes for leaders, which is consistent with the findings of this research. In the current study, teacher leadership outcomes are positively influenced by proactivity. This can be explained by the fact that proactivity focuses on action that aims to create changes that will mostly lead to positive outcomes (Wu & Wang, 2011). Various approaches and evaluation criteria for leadership outcomes were considered, which facilitated the selection of appropriate indicators to assess leadership outcomes in secondary schools. A survey was conducted involving principals from primary, middle, and high schools, as well as relevant individuals, to gather data on personal attributes and leadership outcomes. A suitable approach and classification of attributes were chosen, tailored to the practical conditions in Vietnam and aligned with the research purpose, contributing to the assessment and enhancement of essential personal attributes required for secondary school leaders amidst the current educational reform. Through reviewing existing studies by scholars in Vietnam and worldwide, this paper proposed new research variables related to the personal attributes of secondary school principals (proactive, adaptive and emotional, and reflective). Additionally, the study examined and evaluated the impact of these attributes on leadership outcomes in the current Vietnamese secondary school context.

The research identified a commonality in two leadership outcome groups—FY1: Teacher leadership outcomes (satisfaction in implementing educational reforms, commitment to the school, mental well-being, and comfort when working), and FY2: Overall leadership outcomes (organizational capability, and innovative thinking).

Clear distinctions were made in leadership outcomes and the influence of principals' personal attributes on leadership outcomes across various levels of secondary schools (primary, middle, and high).

The study revealed positive and negative influences as well as the strengths and weaknesses of different groups of personal attributes of principals on leadership outcomes. This provides direction for changes, adjustments, training, and encouragement of positive attributes, while mitigating negative attributes and aiming to improve leadership outcomes evaluated by staff. The study established a foundation to formulate recommendations and proposals for nurturing, training, and developing secondary school principals in line with the demands of educational reform in Vietnam. While the impact of leadership attributes on work effectiveness has received substantial attention globally, it is less explored in Vietnam. Ardueser and Lehenbauer (2020) conducted a comprehensive study on the personal attributes of leaders, highlighting various qualities contributing to leadership

effectiveness. Similar research has focused on the same themes, yet a deeper investigation into the influence of these attributes on school leadership outcomes within the context of Vietnamese educational reforms is lacking.

However, the research has some limitations in its findings. The study sample is limited due to convenience sampling. Although efforts were made to ensure representation across all three regions of Vietnam and various school levels, the sample may not fully capture the requirements for representativeness and generalizability. Translating terms related to personal attributes and leadership outcomes into Vietnamese is challenging due to the complexity of foreign language terms across different fields, making it difficult to find equivalent terms while preserving their original meanings. Some results lack a comprehensive explanation, such as the differences in leadership outcomes and the influence of personal attributes among principal groups based on geographic location, gender, and age. Additionally, some statistical results regarding the total variable correlation in testing principals' personal attributes are not favorable. Therefore, the paper proposes the following recommendations for future research:

- In-depth studies are necessary to further develop and refine the measurement of personal attributes of secondary school principals, suitable for practical conditions in Vietnam.
- To ensure representative and generalized conclusions, the research scope should be expanded, and sampling methods should be more scientifically rigorous.
- Secondary school principals should be examined from multiple perspectives and levels, considering attributes, behaviors, competencies, and perceptions, and their impact on subordinates within their leadership scope, as well as their contribution to overall school activities.
- Future studies should aim to enhance the explanatory power of linear regression analysis of the influence of school principals' attributes on leadership outcomes. This could involve discovering additional attributes or factors that affect leadership outcomes.
- Finally, in an integrated environment, where legal systems are still evolving, it is crucial to examine principal leadership outcomes from economic, educational management, and social responsibility perspectives. This would contribute to promoting educational development, enhancing adaptability to reforms, and fostering innovation.

4. IMPLICATIONS AND SUGGESTIONS

The research has truly contributed to the science and practice of educational management in the current context in Vietnam. The research involved selecting approaches and classifying qualities that are appropriate to the practical conditions of Vietnam. These approaches are consistent with the research purposes of the article and are meaningful in assessing and enhancing the personal qualities necessary for school leaders in today's integrated and changing environment. Additionally, the research focused on the compatible conversion and successful application in Vietnamese conditions of scales that have been used globally to measure personal leadership qualities. Only the variables that demonstrated reliability after testing were retained. The scale selected for testing included positive personal qualities based on Thun (2009) and classification derived from Peterson and Seligman (2004). Furthermore, a negative qualities scale was developed, following Judge et al. (2009), to study the characteristic qualities of Vietnamese high school leaders. The study aimed to point out the positive, negative, strong, and weak effects of each group of individual leader qualities on the results of leading change in education. This information provides directions for change, adjustment, training, and development to encourage qualities that have a positive influence and limit negative qualities on leadership results evaluated by teachers and overall leadership outcomes.

After reviewing research by scholars in Vietnam and around the world, along with practical research results, the article proposes several recommendations:

- Further research is needed to continue building and perfecting a scale to measure individual leader qualities suitable to Vietnamese conditions and schools in Vietnam's national education system.

- To ensure the representativeness and generalizability of the conclusions, it is necessary to expand the sample size and use more scientific methods for the sample selection.
- Leaders in schools need to be considered at various levels, focusing on their qualities, behaviors, abilities, awareness, and impact on subordinates within their scope of work, as well as their impact on the overall performance of the school.
- The results of the linear regression analysis evaluating the influence of personal leader qualities on school leadership outcomes indicate that the explanatory level of the model is not high. This suggests the need for further studies to discover other qualities or factors that affect leadership outcomes.
- In an integrated environment, the legal system is still lacking in uniformity and rigor. It is necessary to consider the leadership results of leaders from both the perspective of moral education and their social responsibility to the community, contributing to promoting educational development in general.

5. CONCLUSION

The factor analysis results have identified six groups of factors measuring the personal attributes of school principals: Hubristic leadership – arrogance and dominance; Altruistic leadership – equity; Insightfulness – courage; Emotional regulation – reflective thinking; Discipline – precision; and Curiosity – a love of learning. Additionally, two groups of factors measuring teacher leadership outcomes have been identified: Satisfaction in implementing educational reforms, commitment to the school, mental well-being, and comfort when working; and organizational capability and innovative thinking. At the significance level of 10%, hubristic leadership exhibits a negative influence, whereas altruistic leadership has a positive impact on satisfaction in implementing educational reforms, commitment to the school, mental well-being, and comfort when working, as well as organizational capability and innovative thinking. Emotional regulation only positively affects satisfaction in implementing educational reforms, commitment to the school, mental well-being, and comfort when working.

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