

## **Entrepreneurial leadership for excellent technical and vocational education institutions**

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**ABSTRACT:** The aim of the research described here was to reveal the leadership strategies of entrepreneurial principals in building excellent schools and to outline their implementation focus in pursuing school excellence. The study was qualitative multi-site research conducted at five excellent technical and vocational education (TVE) schools in Malang, Indonesia. The informants were principals, vice principals, heads of study programmes, school committee members, teachers, students and parents. Data were collected through interviews, observation and documentation. Data credibility was assessed through triangulation technique. The analysis followed a three-step procedure, i.e. domain analysis, taxonomic analysis and theme analysis. Findings showed the principals' leadership strategies consist of promoting vision and mission, motivating and inspiring all school constituents to excel, and controlling and providing reinforcement. The excellence framework focused on the development of students' hard and soft skills. School branding and promoting student successes were part of the pursuit of excellence.

### **INTRODUCTION**

One of the major challenges faced by technical and vocational education (TVE) is how to produce highly competitive graduates. Competitive graduates are characterised by:

- a high level of competence;
- a product of a school curriculum that closely conforms to industry requirements;
- high public confidence in their quality;
- excellent performance in the workplace.

Producing highly competitive graduates requires a well-managed lengthy process that is planned, guided and organised. Facilitating this process is the responsibility of the school principal. The quality and capability of the principal is, therefore, regarded as a crucial factor in determining the quality of graduates [1-4].

The constraints faced by many TVE institutions in a developing country, such as Indonesia are:

- lack of teachers with industry-relevant competencies;
- poor quality of learning;
- lack of capacity and capability of leadership (principal);
- insufficient industrial support for TVE institutions;
- inadequate regulation of TVE institutions [5-11].

Shifts in skill demand and work patterns are correlated to work culture or climate. It is, therefore, requisite that a principal should make changes to culture or climate as appropriate in school, so as to simulate industrial work that is quality and profit-oriented. The effectiveness of the management of such work practices is closely linked to the leadership style of the principal [12][13].

The Indonesian national competency test of TVE principals revealed the following: an average score of 67.3 for personal competency, 47.1 for managerial competency, 55.3 for entrepreneurial competency, 64.2 for social competency and 40.4 for supervisory competency [14]. There has been an increase in the results for the latest competency test, with an average overall score of 56.37 and managerial and entrepreneurial competency scores of 58.55 and 58.75, respectively [14].

Entrepreneurial leadership has distinct advantages for a school. Entrepreneurial leadership is demonstrated by the principal's policies or actions in terms of updating the curriculum to meet industry needs and fostering learning innovation.

School leadership affects teaching and learning practice directly or indirectly. In fact, school principals or senior school leaders have a significant influence on staff expectations, pedagogical practices and work culture. According to Robinson et al, entrepreneurial principals in excellent schools demonstrate exemplary behaviour through direct involvement in curriculum development, close supervision of instructional practices and encouragement to all constituents of the school, especially teachers, to maintain discipline, honesty, courtesy and responsibility [15].

In this era of change, the success of the revitalisation of TVE will be influenced by the leadership of the school principal. Leadership becomes one of the keys to unlocking school success. Leadership is not only style; it is also related to the leader's ability to influence and encourage stakeholders to achieve organisational goals. The capabilities demonstrated through the leader's actions to facilitate positive change for the organisation will build stakeholder confidence, as well as create a clear culture and vision, so that the school can achieve success [1][16][17].

Dardiri et al reported that entrepreneurial leadership at TVE institutions has increased the loyalty to the organisation and improved the commitment to achieving school goals [1]. The vision and mission set by the principal must be well understood by all organisational elements and implemented in accordance with their respective objectives. Furthermore, as shown in Figure 1, excellent schools are the focus of entrepreneurial leadership. Excellent schools are schools that have good performance and effective management. The advantages of excellent TVE institutions are manifested in the following educational aspects:

- curriculum;
- students;
- teachers;
- budgeting/funding;
- management.

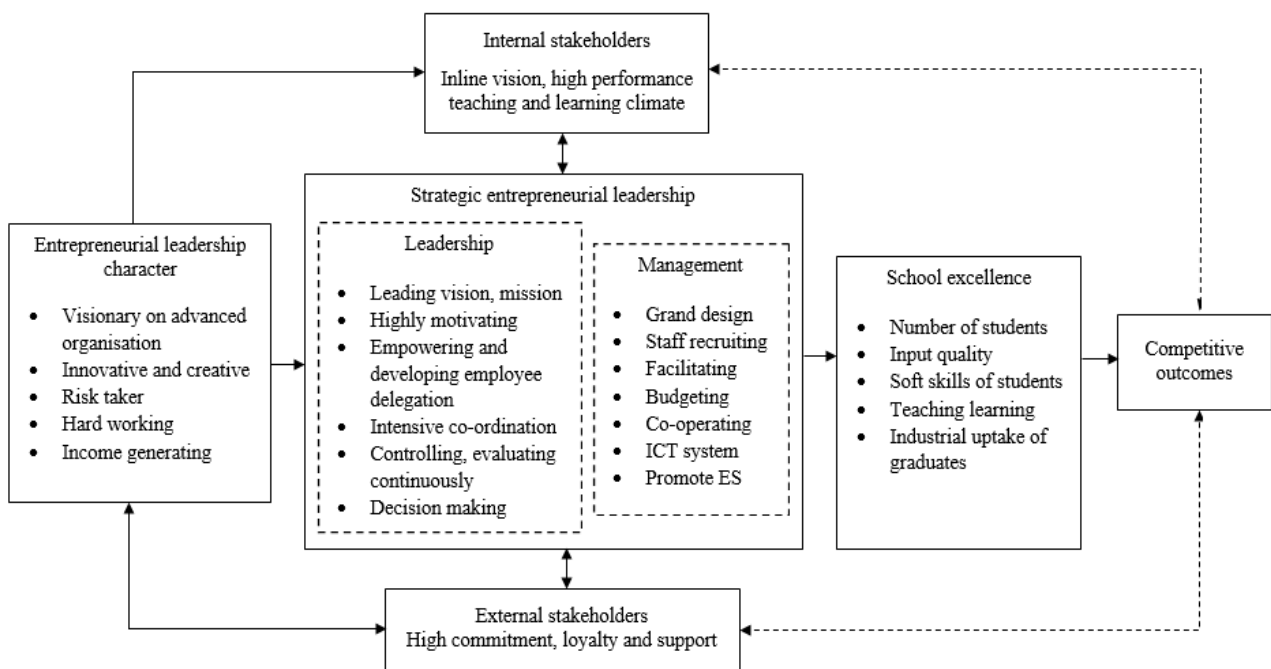


Figure 1: Entrepreneurial leadership for the development of excellent schools.

This finding has been validated through focus group discussions by experts and practitioners with the following results:

- completeness of the model = 92.94 (very good);
- structure of the model = 82.22 (good);
- relation of components = 81.1 (good);
- eligibility of the model = 84.44 (good);
- legibility of the model = 82.22 (good).

Entrepreneurial leadership in TVE leads to the following outcomes:

- an increase in the relevance of graduates as a result of a jointly planned curriculum;
- industry obtaining information on the quality of prospective workers;
- industry taking responsibility for preparing candidates for the workforce;
- help in preparing competent workforce candidates for industry;

- joint research conducted with industry;
- funding assistance for apprentices;
- students determining preferred jobs for their future careers;
- students gaining experience working in a relevant field;
- students experiencing a real workplace, work ethic and work climate [18-22].

Indicators of excellent schools include excellence in learning, teaching and leadership [23]. In excellent schools, teachers are committed to appreciating, guiding, inspiring and challenging students. By doing so, students can gain skills, be motivated to excel and have a strong sense of confidence in achieving future success. Principals of excellent schools have a strong commitment to supporting the development of learning, encouraging the building of hopes and aspirations, and maintaining communications. In a dynamic and challenging context, leaders need to have an unshakable belief in their capabilities. Entrepreneurial leaders with a strong sense of self-efficacy are more powerful in their actions, particularly in managing new ventures because they make most managerial decisions [24].

Regarding the issues above, several questions arise:

- how a principal creates an excellent school;
- which specific leadership style to adopt to create an excellent school;
- what are the indicators of an excellent school.

## METHOD

The study was qualitative, phenomenological, multi-site research [24-26]. The subjects were selected from five excellent vocational schools in Malang, Indonesia viz. Public TVE3, Public TVE4, Public TVE5, Public TVE6, and Private TVE PGRI 3 (PGRI stands for - in Indonesian - Teacher's Union of the Republic of Indonesia). According to the Ministry of Education and Culture, Indonesia, these schools qualify as excellent due to the following indicators:

- having more than 1,200 students;
- a short waiting period for graduates to secure jobs (more than 70% of graduates are employed immediately in industry);
- strong partnership with industry;
- a lead school serving as a model to its sister schools in a cluster;
- having a brand value as an innovative school that improves graduates' competitiveness.

The principals were the key informants, while other informants were selected by snowball sampling based on the results of interviews with the key informants. The number of research informants is presented in Table 1.

Table 1: Research informants.

No.	Informant (N)	Site I	Site II	Site III	Site IV	Site V
1.	Principal	1	1	1	1	1
2.	Vice Principal	3	2	3	1	3
3.	Head of Department	3	2	3	2	2
4.	Teacher	4	2	1	3	3
5.	Staff	1	1	-	-	1
6.	Parent	2	1	1	1	1
7.	Student	2	2	-	2	2
Total		16	11	10	10	13

Note: Site I = Public TVE 6 Malang; Site II = Public TVE 3 Malang; Site III = Public TVE 2 Malang; Site IV = Public TVE 5 Malang; Site V = Private TVE PGRI 3 Malang

Informal interviews were conducted, in which subjects were asked open questions and could answer freely. Statements and responses were validated using secondary sources, such as documentation and observations as evidence of the impact of actions and policies. After being classified and reduced, the collected data were analysed.

Each datum was given a code for tracking purposes. Cross-case data analysis was conducted to compare and contrast the data. The analysis steps followed Spradly [27]:

1. domain analysis;
2. taxonomic analysis to collect uniform elements and components;
3. theme analysis.

Data credibility was assessed through data source triangulation, member checking and peer discussion. Examples of assigned codes for research data are as follows:

1. (I.A1.N1.F2) where I = Interview; A = Case/site ; N1 = Primary informant/principal; F2 = Theme/focus on the second question
2. (D.A1.N1.F2), where D = Documentation; A1 = Case/site; N.1 = Primary informant/principal; F2 = Theme/focus on the second question
3. (O.A1.N1.F2), where O = Observation; A1 = Case/site; N1 = Primary informant/principal; F2 = Theme/focus on the second question.

## RESULTS AND DISCUSSION

### Leadership

Data derived from the analysis of five research sites indicate that creating an excellent school starts from the development of a school vision, mission and goals. Principals of excellent schools have promoted a long-term vision and mission to pursue excellence in learning, graduates, infrastructure and facilities and co-operation with industry. They have also branded their school an innovative school. They have outlined a shared vision that excellent school graduates must have not only superior technical skills, but also good soft skills (see (I.A1.N1.F1.1); (I.A2.N1.F1.1); (I.A3.N1.F1.1); (I.A4.N1.F1.1); (I.A5.N1.F1.1)).

All of the school components must share the common vision and mission of the school. To this end, the principal seizes every opportunity to promote the school's vision and mission as an excellent school ((I.A3.N1.F1.1); (W.A3.N2.F1.1); (I.A2.N1.F1.1); (I.A1.N1.F1.1)). They stated that *...we along with the other board members have developed and communicated our school's vision and mission, that will motivate all school elements - from the principal to the cleaning staff - to motivate them to pursue school excellence* ((I.A3.N2.F1.2); (I.A3.N4.F1.2); (I.A3.N3.F1.2)).

Vision contains the ideals of the future or goals to be achieved by an educational institution. Vision is the direction in which every educational institution is heading. The clearer the school's vision, the easier it is for the principal to make a roadmap to achieve the goals. A principal has the duty of developing and promoting the vision and mission to all staff and community members in the school. With a complete understanding of the vision statement, all school members will have the same views, commitment, loyalty and spirit, to achieve the goals. Also, the stakeholders will be convinced that the educational goals will be achieved and the welfare of the members of the organisation will be improved.

A mission statement outlines the reason for an organisation's existence, and how it aims to serve stakeholders. Students, teachers, staff and investors are the most frequently noted stakeholders, but other stakeholders, such as government or communities (e.g. as a result of social or environmental impact) can also be counted. Mission statements are mostly longer than vision statements.

The principals should focus on striving for excellence in students, regarding both technical and behavioural skills. They need a strategic plan to achieve the primary objective of developing soft skills, i.e. discipline, honesty, responsibility, and loyalty to professional ethics ((I.A5.N1.F2.1); (I.A5.N2.F2.1); (I.A5.N3.F2.1); (I.A4.N1.F2.1); (I.A4.N2.F2.1)). Such action indicates that learning becomes the central focus of graduate quality improvement. In this era of global competition, TVE schools need to foster innovation to develop entrepreneurial learning (edupreneurship). Edupreneurship promotes the qualities of successful entrepreneurs viz. independence, honesty, creativity, responsibility and courage. In fact, possessing these traits may encourage students to start their own businesses and create employment not only for themselves but also for others. Thus, becoming a government employee (civil servant) is no longer the only option.

The role of the leader is emphasised in the era of change, with the need to encourage and facilitate individuals to innovate in teaching [16][17]. Education is oriented towards culture, empowerment and personality development. Well-rounded individuals possess noble characteristics such as honesty, kindness and independence. All parts of the school work together to develop those character traits, to achieve success.

### Resource Management

A school is an ecosystem - a place where there is an interdependent relationship between humans and the environment. A school should be a pleasant place where people (e.g. students, teachers, staff and parents) can interact with each other. The quality of student input is one of the principal elements to raising the quality of graduates. Therefore, students are selected strictly during the admission process. The admission round aims to assess student interests and strengths. In the selection of prospective students, all principals invite parents to help their son or daughter choose the right study programme ((I.A1.N1.F3.1); (I.A1.N1.2.F3.1); (O.A.N1.3.F3.1); (I.A2.N1.F3.1); (I.A2.N2.F3.1); (I.A3.N1.F3), (O.A3.N3.F3.1); (I.A4.N1.F3.1); (I.A5.N1.F3.1); (I.A5.N2.F3.1)). At Site 5 physical checks were conducted to determine the physical status of prospective students, e.g. whether they have tattoos or earrings (for males).

The teachers in charge of the school admission process stated that *...physical examination is necessary because tattoos and piercing hurt a student's chances of getting a job in industry* ((I.A5.N4.F3); (O.A5.N4.F3.2)). At this stage, the school also consults with parents and prospective students about potential career paths and the required competencies.

Alumni are a vital part in an excellent school. Alumni make a tangible contribution to the establishment of the brand identity of a school. Schools with well-established alumni can raise public confidence in the school. Interviews with informants at all sites confirm the view. *...in a private school like ours, school branding through promoting alumni successes is a must* (I.A5.N3.F2.1). Also, a school should be able to improve employment prospects for its alumni ((I.A1.N2.F2.2); (I.A2.N1.F2.2); (I.A3.N1.F3); (I.A3.N1.F2.3)). The principals have secured co-operation with industry through apprenticeships to promote the excellence of graduates. The final target of this joint partnership is graduate recruitment by industry [21][22].

School facilities and infrastructure are an element of excellence that requires the principal's attention. School principals at all research sites regarded facilities and infrastructure, particularly laboratories/workshops, as essential to supporting teaching and learning activities. Each principal has shown great creativity in managing the school facilities and infrastructure to create a distinctive brand identity. Laboratories/workshops are organised and managed to industry standards. Adequate and modern facilities can cultivate a sense of pride in the school. Also, a conducive school environment will allow students to feel more comfortable and engaged with the learning.

The findings indicate that the principal has a significant influence on the building of the commitment of students, teachers and other school components, to increasing the quality of student competence [28-30]. Entrepreneurial principals view the promotion of school excellence as necessary to building the commitment and loyalty of stakeholders [1]. Applying this concept, all principals of the five excellent schools have employed different approaches to promoting their school. Nevertheless, the promotion of school excellence primarily consists of three activities, which are: ((I.A1.N1.F3.1); (I.A2.N1.F3.1); (I.A5.N1.F3.1); (I.A5.N2.F3.1); (I.A3.N1.F3.1); (I.A3.N2.F3.1); (I.A2.N1.F3.1); (I.A4.N1.F3.1)):

1. positioning, which is selecting a target market;
2. branding, which is creating a positive image towards the school;
3. differentiating the products and services produced by the school.

The principals promote their school excellence to junior high-school students who are prospective students. They have formed a special team to highlight the achievements of the school, especially the academic and behavioural quality of graduates ((I.A3.N3.F3.2); (D.A3.N2.F3.2)). The school marketing is in the form of community service activities, such as free motorcycle repairs performed by students, teachers and industry. Another marketing strategy is selling cheap staple foods in the neighbourhoods of prospective students ((I.A5.N2.F3.2); (O.A5.N2.F3.2)). At Sites 1, 2 and 4 school excellence is promoted by inviting parents and industry personnel to the school's open day ((D.A1.N2.F3.2); (I.A2.N1.F3.2)). The principals also outline graduate portfolios, profiles and records of accomplishments to market their school. The expected outcome of school marketing is primarily the willingness of industry to employ graduates from that school. Through effective school promotion, many firms immediately recruit graduates. Some companies might also invest in excellent graduates by training them on the job through graduate training programmes.

Sharing information about high graduate employment rates can also be an effective approach to attracting prospective parents. In fact, the main reason for parents sending their children to TVE schools is for them to secure employment within a short period of graduation. This is in line with the key aim of technical and vocational education, i.e. equipping graduates with the necessary competencies to meet employer demands.

The attractiveness of technical and vocational education includes the support for individuals in developing an expertise in particular trade areas and the capacity of individuals to function well in a new occupational situation (transferability) and to ease the transition from school to work [31].

In the business world, promoting product excellence is one of the winning business strategies for enticing customers; this is the approach of the excellent schools with their graduates. Various studies have shown that excellent educational graduates improve organisational performance significantly [32]. Sirisookslipa et al report that participative leadership and supportive leadership significantly influence school performance [33][34]. The promotional tactics employed by the principals of the excellent schools under study comprise:

1. building the organisational commitment to achieve the vision and mission;
2. providing support to stakeholders to improve the quality of entrants and graduates;
3. generating community interest;
4. building pride;
5. fostering the trust of stakeholders.

These five dimensions of promoting excellence are a consequence of principals adopting an entrepreneurial leadership style.

## CONCLUSIONS

The above findings and discussion suggest that the leadership strategies of entrepreneurial principals in building excellent schools should consist of:

- establishing and communicating a vision and mission, motivating, inspiring and maintaining school excellence;
- instruction and curriculum to produce high quality, excellent graduates;
- teaching *factory* facilities to reflect industry standards;
- good communications with parents and mutually beneficial relationships with industry, to enhance graduate employability.

The principals' managerial practices for excellent schools are as follows:

- planning, implementation and evaluation that focus on improving the quality of graduates and promoting graduates to employers;
- implementing a strict and transparent selection procedure to obtain the best entrants;
- showcasing the excellence of students to industry.

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