

Link and Match Strategy Management in Building Graduate Competitiveness

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Abstract:

This research aims to examine strategic management (Fred R David) link and match (Prosser & Quigley) in growing the competitiveness of graduates through strategy formulation, implementation, evaluation and control. A qualitative approach with a case study method was used in this research. Data collection was carried out through interviews, observation and documentation. Data analysis was conducted using the Miles and Huberman model and then tested through triangulation credibility, transferability, dependability and confirmability. The research results show that Vision and mission, external environmental analysis, future goals, implementation plans, and policies are part of the strategy formation process. The formulation of the link and match strategy involves all interested parties. Implement the link-and-match strategy by optimizing the formation of noble morals and character, increasing competence, optimizing cooperation, and forming entrepreneurship. Strategy evaluation and control are done through review, performance measurement and revision. The implications of this research provide new solutions for educational institutions, especially in increasing the competency of more competitive graduates.

Keywords: *Management-Strategy, Link and Match, Graduate Competitiveness*

Abstrak:

Penelitian ini bertujuan mengkaji manajemen strategi (Fred R David) link and match (Prosser & Quigley) dalam menumbuhkan daya saing lulusan melalui formulasi, implementasi, evaluasi dan pengendalian strategi. Pendekatan kualitatif dengan metode studi kasus digunakan dalam penelitian ini. Pengumpulan data dilakukan melalui wawancara, observasi dan dokumentasi. Analisis datanya dilakukan dengan model Miles dan Huberman lalu diuji melalui Kredibilitas triangulasi, transferabilitas, dependabilitas, dan konfirmabilitas. Hasil penelitian menunjukkan bahwa; Visi dan misi, analisis lingkungan eksternal, tujuan masa depan, rencana implementasi, dan kebijakan merupakan bagian dari proses pembentukan strategi. Perumusan strategi link and match dilakukan dengan melibatkan semua pihak yang berkepentingan. Implementasi strategi link and match melalui optimalisasi pembentukan akhlak dan budi pekerti luhur, peningkatan kompetensi, optimalisasi peningkatan kerjasama dan optimalisasi pembentukan kewirausahaan. Evaluasi dan pengendalian strategi dilakukan melalui Peninjauan ulang, pengukuran kinerja, dan revisi. Implikasi penelitian ini memberikan solusi baru untuk lembaga pendidikan khususnya pada peningkatan kompetensi lulusan yang lebih kompetitif.

Kata Kunci: *Manajemen Strategi, Link And Match, Daya Saing Lulusan*

INTRODUCTION

The Indonesian government faces significant challenges in creating skilled employment opportunities (Rosyadi et al., 2022). This challenge will be responsible for educational systems (Indrawati et al., 2021). Vocational education may have positive effects on the labour market, such as reducing the likelihood of youth unemployment (Bolli et al., 2021; Oswald-Egg & Renold, 2021; Hoidn & Šťastný, 2023). Any student may benefit from gaining industry-specific information and abilities via a vocational education program inside an organizational structural school.

According to Li & Pilz (2023), nations with vocational education programs tailored to individual needs and implemented in partnership with businesses, like Germany's dual system, get the most advantages from vocational education (Ogawa, 2023). According to their research, there was a transfer effect, wherein employees with a vocational high school diploma were held in more esteem than those with a bachelor's degree. Other empirical research has shown that vocational education aids in the transition from school to the working world (Kovalchuk et al., 2022). Concerns about the economy's stability and the marginalization of those with lower levels of education also arise about vocational education (McGrath & Yamada, 2023). Therefore, the study of strategic management in the realm of link and match in vocational education institutions is essential to study, especially in the competitive development of graduates.

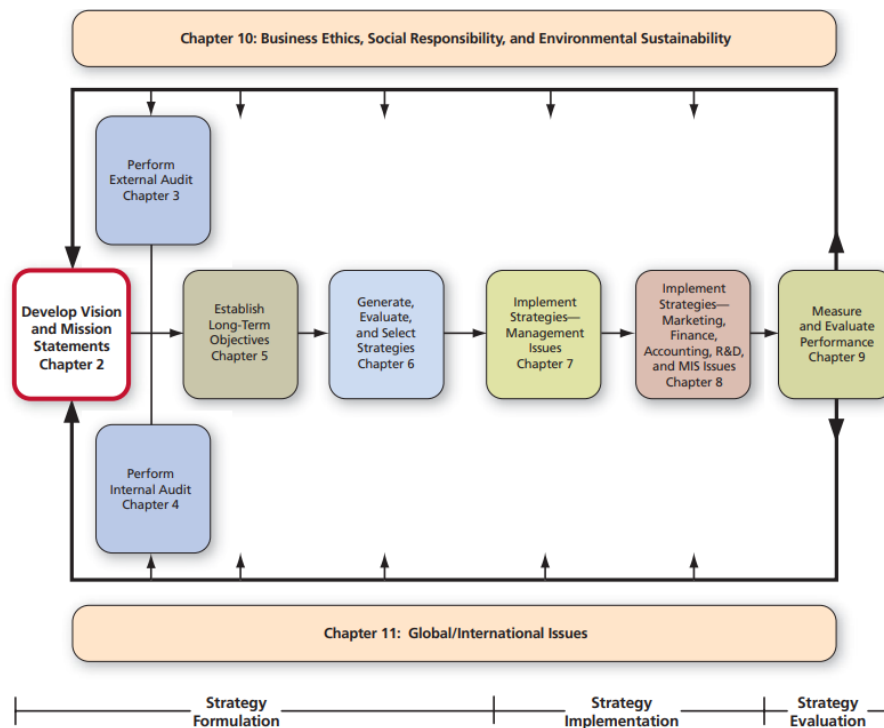
Link and Match Strategic Management is widely applied in business contexts as found in articles (Rabetino et al., 2021; Das & Canel, 2023), agriculture (Koul et al., 2022), organizations (Grewatsch et al., 2023), and environmental modelling (Arnold et al., 2020). This research strengthens the concept of link and matches articles (Mufidah, 2021; Maulana & Yoenanto, 2022) on strategic management (Sukma & Hariyati, 2021) in vocational education institutions. This study focuses more on developing graduates' competitiveness so that they can adapt according to future job qualifications.

However, compared to graduates of other levels of education, vocational school graduates were the most significant contributor to unemployment (Demissie et al., 2021). Furthermore, (Ohara et al., 2020) discovered that in 2016, the average unemployment rate for those who had completed high school was 8.72%, while the rate for those who had completed technical school was 11.11%. In 2019, the unemployment rate for SMA was 7.92%, and for SMK, it was 10.42%, according to the findings of Handoyo (2020). With an unemployment rate of 8.92% in 2020, the rate for graduates of technical schools is greater than that of high school graduates. Because the quality of teaching is not yet ready to produce student competency to enter the world of work (Darling-Hammond, 2021), fail to include stakeholders, irrelevant teaching materials, poor vocational management, low graduate competency, and ineffective student (Anisah et al., 2020) that do not comply with industry standards, the unemployment rate in Indonesia is high students from vocational high schools, polytechnics, or government training centres were unable to produce a high-quality workforce. Thus, it is clear that

management problems need to be corrected in vocational school-level educational institutions (Maulina & Yoenanto, 2022).

The Principal's strategy plays a very important role in improving the quality of school graduates (Sitanggang et al., 2022). By implementing strategic management, educational institutions can compete to improve the quality of education (DZ et al., 2024) and respond to challenges that arise in the near external environment of academic institutions (Wright et al., 2024).

According to Eriksson et al. (2022), strategic management entails the following skills and knowledge for an organisation to accomplish its objectives: planning, executing, and assessing cross-functional decisions. Model for strategic management Formulating a company's strategy entails taking stock of its strengths and shortcomings (SWOT) to devise a long-term plan for dealing with environmental opportunities and threats through developing a vision and purpose for the organization: recognizing internal and external opportunities and risks; Planning for the future; Investigate potential other approaches; Methods used to accomplish objectives. Research shows that nations with vocational education programs that are both employer-driven and highly specialized, like Germany's dual system, get the most advantages from vocational training (Shavit & Müller, 2000). According to their research, there was a transfer effect, wherein employees with a vocational high school diploma were held in more esteem than those with a bachelor's degree. Other empirical research has shown that vocational education aids in the transition from school to the working world (Kovalchuk et al., 2022). Vocational education is also a concern when the economy is unstable and people with lower levels of education are marginalized (Kim, 2021; Levels et al., 2022).



Source: Fred R. David, "How Companies Define Their Mission," *Long Range Planning* 22, no. 3 (June 1988): 40.

Figure 1. A Comprehensive Strategic Management Model

This study's research begins with data collection related to strategic management, including SWOT FR David, entering, using, and then combining it with a link and match in the sense of labour market needs and acceptance of competitive graduates of Al-Hidayah Vocational School in Cirebon City in the world of work.

RESEARCH METHODS

In this study, the author chose a qualitative approach (Sugiyono, 2022) to obtain rich and in-depth data related to the management of the link and match strategy on the development of graduate competencies and then analyzed narratively with a case study approach (Creswell & Creswell, 2018) through interviews documentation and in-depth observation to find meaning and phenomena. The author used a purposive approach with an emergent sampling design and snowball sampling technique to get maximum information (Enworo, 2023) and structure. Data were analyzed using field research methods (Miles & Huberman, 1984) and tested for validity and credibility through triangulation to check data from various sources in various ways and times (Denzin & Lincoln, 2018), transferability on the element of external data comparison, dependability at the reliability stage through rechecking all stages of research and confirmability where data testing is carried out simultaneously with dependability so that the data is saturated. The research was conducted on managerial activities, which included the preparation, organizing, implementation, and supervision stages at a Vocational High School, namely Al-Hidayah Vocational School, Cirebon City; the location of Al-Hidayah Vocational School is in an urban area close to the city centre located in Cirebon City.

Information was gathered from five sources: the head of counselling guidance, the chair of the Al Hidayah Foundation, the deputy principal for curriculum, the deputy principal for student affairs, the head of industrial relations, and the Principal of Al-Hidayah Vocational School in Cirebon City. The procedure is carried out during the first step of data collection. The data is then reduced, sorted into notes, and shown to comprehend it. Finally, conclusions are drawn from the analyzed data.

RESULTS AND DISCUSSIONS

Formulation of the Link and Match Strategy in Building Competitiveness

The link-and-match strategy formulation at SMK Al Hidayah involves several stages, namely developing a vision and mission objectives, analyzing the internal and external environment, and determining alternative strategies.



Figure 2. Stages of Link and Match Strategy Formulation

The results of the interview with Ahmad Mujayyin, the Chairman of the Al Hidayah Foundation, regarding the philosophical development of the school vision in the context of link and match are insightful. Human resources, namely placing education as a subsystem that has the role of developing human resources, as the nation's assets; that the current educational product is the result of past educational products, and the current educational process is for the future, upholding the professionalism of graduates. For this reason, the three-year learning period must be utilized to form professional habits. The school environment, teaching and learning climate, and value system must be similar to the industrial environment. Vocational Schools must be programmed to function as centres for developing industrial culture. The motto of SMK is Honest, Smart, and Right. This is explained by one of the founders of the Al Hidayah Foundation, who states that SMK Al Hidayah is determined to produce graduates who are intelligent, righteous, honest, attractive, and competitive.

The internal environment analysis includes vocational schools' strengths and weaknesses in developing their graduates' competitiveness. At the same time, the external environment includes opportunities and threats to the school. The interview results with Jaelani obtained data that SMK Al Hidayah has professional teaching staff according to the field of graduates. This supports the learning process so that learning effectiveness occurs. The impact on competence is by market needs. This information supports the claim made by Mulders et al. (2024), that vocational training will yield positive results. Vocational education's effectiveness depends on teachers' track record in the practical application of what they teach in the classroom to real-world tasks and processes (Cattaneo et al., 2022).

Developing the curriculum ensures that educational institutions are close to the industrial world so that they can adapt their curriculum to developments, such as technological adjustments, standardization, and educational programs. Because the success of the link-and-match policy depends on the quality of the education program. Hasanudin further added that the level of public trust in SMK is increasing. Of course, by meeting the community's expectations, namely providing quality learning services to produce competent and noble graduates. The school raises cooperation in updating entrepreneurial competencies through coaching in the teaching factory activity program. So, a *Sharia* mini bank, vehicle service, and grocery store were opened.

According to Puyt et al. (2023), During the matching step, internal and external aspects must be considered to produce a viable alternative method. The SWOT matrix is used as a matching step. The SWOT matrix is a strategy formulation tool at the matching stage. This analytical tool uses internal and external factors. In the SWOT matrix, there are nine cells consisting of four critical factor cells, four alternative strategy cells named SO, WO, ST, and WT, and one always left blank that refer to Table 1.

Table 1. Link and Match Strategy Alternative Matching Table

| | OPPORTUNITY O | CHALLENGES (THREATS) Q |
|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INTERNAL AND EXTERNAL ENVIRONMENT | <ol style="list-style-type: none"> 1. Support from stakeholders (government / DUDI for schools) 2. The development of information technology that provides convenience | <ol style="list-style-type: none"> 1. other vocational school competitors have been around for a long time, are large and experienced 2. There are DU/DI that cannot accept work/internships for students or teachers |
| POWER (STRENGTH) S | STRATEGY (SO) | STRATEGY (ST) |
| <ol style="list-style-type: none"> 1. Religious values and character 2. Teacher's educational background | Optimization of character formation (Character Building) | Optimizing competency improvement |
| WEAKNESS W | STRATEGY (WO) | STRATEGY (WT) |
| <ol style="list-style-type: none"> 1. Lack of facilities and infrastructure 2. Lack of understanding of vision and mission | Optimizing increased cooperation | Optimizing entrepreneurship formation |

Thus, the results of the analysis of alternative link and match strategies above are then used as a basis for consideration for SMK Al-Hidayah in carrying out the program to be implemented by taking advantage of opportunities and optimizing strengths to suppress threats and weaknesses. This is based on FR David's theory of strategic management, which includes SWOT. Meanwhile, in its implementation, link and match combines four SWOT things with SO, ST, WO, and WT.

Implementation of the Link and Match Strategy in Building Competitiveness

The implementation of Link and Match, assisted by the development of character values through the Faith and Piety Program (Imtaq) at SMK Al Hidayah, includes short-term goals where students can understand character values through activities (Imtaq) and long-term goals where students are expected to be able to implement character values in everyday life both in the family, school and community environment.

Budget is a critical support. Based on interviews with the Deputy BK Teacher, Jaelani, the budget used in the development of IMTAQ funds comes from student operational assistance funds (BOS) and the support of parents. The procedure for Strengthening Character Education Program (PPK) activities carried out to realize links and matches to foster graduate competitiveness is carried out with Integrity, Honesty, Love of truth, Responsibility, Role model, Independent Hard work, resilient, creative, lifelong education, lifelong learners, cooperation;

Greeting, smiling, being polite and courteous, Instilling respect, empathy, and collaboration, Free from Bullying, Nationalism; Leadership, Creative and innovative, Law-abiding and disciplined. The Imtaq program enhances the empowerment of a culture of quality and service at work. In practice, Hidayatullah explained that the industry as a place of work internship benefits not only students but also the industry. The same thing was conveyed through previous research by Alif Sukma Prasetyo and Nunuk Hariyati (2021) that an indicator of the success of schools in collaborating with DU / DI is the implementation of various activity programs such as internships to increase competence and insight (Prasetyo and Heriyati, 2021).

Based on previous research, it was also mentioned that Soemarso, as the Chairman of the Polytechnic Board of Trustees and UI lecturer, said that the concept of link and match between educational institutions and the world of work is considered ideal, where this concept will create a relationship between labour suppliers and users. Soemarso further stated that a reciprocal relationship allows vocational education to develop a curriculum according to work needs. The actual implementation of the Link and Match policy is the internship program, which can be used to provide opportunities for students. Also, the industry is different from Cahyani's opinion, and the industry even gets complicated during the internship program.

In conclusion, the implementation of the LAM strategy in vocational schools has resulted in students taking part in internship programs with industries that have collaborated after completing both related vocational material and Imtaq programs at school.

Evaluation and Control of the Link and Match Strategy in Building Competitiveness

Strategic assessment is strategic management's final stage (Fred R. David (2002)). SMK Al Hidayah constantly reviews internal and external factors in strategy formulation. The combination of these two environmental factors is shown in the SWOT analysis in the form of the SO (Strength - Opportunity) Strategy, where internal and external factors utilize opportunities and strengths to support SMK Al Hidayah's objectives. ST (Strength - Threat) strategy, where internal-external threat elements are considered and focus more on SMK's strengths to optimize the strategy, WO (Weakness - Opportunity); This approach includes internal elements that contribute to weaknesses and external elements that contribute to opportunities. This approach is done by utilizing what the school already has and minimizing its shortcomings. The WO strategy is to open further business units from the teaching factory, including mini sharia banks, grocery stores, workshops, and screen printing. So that graduates of SMK Al Hidayah not only become workers but can become entrepreneurs. The WT (Weakness - Threat) strategy considers internal and external elements that can pose a danger to mitigate the school's vulnerabilities by focusing on defensive actions and avoiding potential external threats. The WO strategy sees weaknesses as things that must be minimized, overcome, and improved so that they do not become threats in the future.

Every school administrator is required to comply with the National Education Standards reflected in Government Regulation No. 19/2005. This strategic planning aims to ensure that SMK Al Hidayah students graduate with quality skills. The following are the average results of school exam scores in the last three years. Refer to table 2:

Table 2. Data on average school exam scores

| YEAR | TKJ | TKRO | AKL | PPS | Average |
|------------------|------|------|------|-----|---------|
| 2019/2020 | 81 | 81 | 80 | 1 | 80.75 |
| 2020/2021 | 83 | 82 | 82 | 2 | 82.25 |
| 2021/2022 | 85 | 84 | 84 | 4 | 84.25 |
| Average/Program | 83.0 | 82.3 | 82.0 | 2.3 | 82.40 |
| Average/ 3 years | 82.4 | | | | |

Academic achievement results are seen from the School Examination (US) or Summative Assessment of Final Level (PSAJ) scores, which are 100% pass rate. In the last three years, the results have shown improvement. In the 2019/2020 school year, the average score was 80.75; the 2020/2021 school year obtained an average US score of 82.25. This shows that in the 2019/2020 school year and 2020/2021 school year, the average US score increased by 1.5. In addition, in the 2020/2021 school year, the average US score was 84. Based on the 2020/2021 school year and the 2021/2022 school year, the average AS score has increased by 2.0. Meanwhile, the academic achievement of the School Examination (US) scores over three years based on the skills program, the data for the Computer Network Engineering Skills Program (TKJ) reached an average of 83.0 (with an average increase of 2 per year); Automotive Light Vehicle Engineering (TKRO) Skills Program reached an average of 82.3 (with an average annual increase of 1.5); Institutional Financial Accounting Skills Program (AKL) reached an average of 82.0 (with an average yearly increase of 2); and Sharia Banking Accounting Skills Program (APS) reached an average of 82.3 (with an average yearly increase of 1.5). This shows that academically, the learning services provided to students are increasing every year.

The table above shows that in addition to achieving character values, students also achieve achievements from interest—and talent-based activities, namely in extracurricular competitions or championships. Silat Extracurricular won 2nd and third place in the Cirebon Region. In addition, the Youth Red Cross (PMR) won third place at the Cirebon City level.

Based on the Evaluation and Control of the Link and Match Strategy in Building Competitiveness, vocational education institutions, in this case, SMK AL-Hidayah, can improve the competence of their graduates to carry out the strategy well, as evidenced by the various achievements obtained.

Implementing the Link and Match Strategy in Building Competitiveness

Departing from this stigma, "Graduates of SMK Al Hidayah end up not working or unemployed." Meanwhile, based on the data, the percentage of absorption of graduates in the world of work is as follows, refers to Table 3.

Table 3. Percentage of Graduate Absorption in the World of Work at Al Hidayah Vocational School, Cirebon City, 2019 to 2022

| No. | Expertise Program | Year | Work % | Businessman % | Not yet working % | Studying % | Not recorded % | The number of students % |
|-----|-------------------|-----------|--------|---------------|-------------------|------------|----------------|--------------------------|
| 1 | TKJ | 2019/2020 | 44.23 | 2.08 | 32.69 | 4.81 | 16.35 | 100 |
| | | 2020/2021 | 76.60 | 5.17 | 0.00 | 0.00 | 18.00 | 100 |
| | | 2021/2022 | 78.95 | 6.84 | | | 14.00 | 100 |
| 2 | TKRO | 2019/2020 | 42.65 | 2.04 | 8.82 | 7.35 | 36.76 | 100 |
| | | 2020/2021 | 82.35 | 4.59 | 0.00 | 0.00 | 7.00 | 100 |
| | | 2021/2022 | 83.33 | 1050 | | | 9.00 | 100 |
| 3 | AKL | 2019/2020 | 55.56 | 1.80 | 22.22 | 4.44 | 15.56 | 100 |
| | | 2020/2021 | 88.24 | 5.44 | 0.00 | 0.00 | 7.00 | 100 |
| | | 2021/2022 | 81.08 | 10.36 | | | 9.00 | 100 |
| 4 | PBS | 2019/2020 | 42.65 | 2.04 | 8.82 | 7.35 | 36.76 | 100 |
| | | 2020/2021 | 82.35 | 4.59 | 0.00 | 0.00 | 18.00 | 100 |
| | | 2021/2022 | 83.33 | 1.50 | | | 14.00 | 100 |

The data shows that in 2020, there was an increase in alums's work capacity, with a percentage of 88.24%, in the Institutional Financial Accounting (AKL) skills program, and this is the highest percentage of the entire batch. Meanwhile, the lowest absorption in the world of work occurred in 2019, with a rate of 42.65% in the Sharia Banking (PBS) and Light Vehicle Automotive Engineering (TKRO) skills programs. The absorption of the world of work of graduates of SMK Al Hidayah Kota Cirebon has increased very significantly in the last three years, namely in 2021 by 32.37%, in the Computer Network Engineering skill program; in 2021 by 39.7% in the Automotive Light Vehicle Engineering (TKRO) skill program; in 2021 by 32.68% in the Institutional Financial Accounting (AKL) skill program; in 2021 by 39.7% in the Sharia Banking (PBS) skill program. Conclusion: The absorption rate of SMK Al Hidayah graduates is 90% (in the world of work and entrepreneurship). While those who are not registered or have not worked makeup 10%.

In conclusion, in terms of application, SMK AL Hidayah is successful, as evidenced by 90 per cent of graduates being directly absorbed by companies; this proves that there is a match between the provision of knowledge, skills, and competencies. Vocational education institutions and the jobs available today.

Evaluation of the Link and Match Strategy in Building Competitiveness

Based on previous research data, namely according to the Ministry of National Education (in Septiana Dewi Cahyanti¹, et al. 2018), SMK alums are considered successful if graduates are by their discipline and get a job. The one-year grace period is the most extended grace period that graduates can get. At least 75% of graduates get a job; only 5% of graduates produce new job opportunities. The four indicators are implemented well by SMK Al-Hidayah Kota Cirebon, namely the achievement of an average absorption over the last three years of 81% (more than 75%) in the Institutional Financial Accounting Skills Program (AKL), Sharia Banking (PBS) and Automotive Light Vehicle Engineering (TKRO), and Computer Network Engineering (TKJ).

In building competitive graduates who are easily absorbed by the world of work through the management link and match strategy, as previously explained, related to quality competency results to increase the company's labour market absorption, the strategies are 1) SO (Strength - Opportunity) strategy, namely the strategy of developing noble moral values and character; 2) ST (Strength-Threat) strategy, which is a competency improvement strategy. Both of these strategies emphasize the profile of graduates of SMK Al Hidayah, which prioritizes not only competence (worldly interests) but also the formation of noble morals derived from Quranic values. It is by the guidance of the Qur'an that we are encouraged to leave descendants with strong competence QS An-Nisa verse 9, which is supported by noble morals QS. Al-Isra` verse 3, "do not worship other than Allah (in a broad sense) and do good to both parents," QS Al-Hujurot verse 11 "prohibition of underestimating others" as exemplified by the Prophet Muhammad as stated in QS Al-Qolam verse 4 "Verily you (Rasulullah) are truly noble" and good manners QS Lukmat verses 12-14 "be grateful, believe and do well to both parents." Evaluation in SMK is excellent based on SO and ST strategies; through four assessments, 80% of school graduates can be absorbed.

CONCLUSION

Research on the link and match management strategy in fostering the competitiveness of SMK Al Hidayah graduates resulted in alternative methods, namely SO, ST, WO, and WT. In developing graduates, the emphasis on SO (Strength - Opportunity) and ST (Strength - Threat) strategies are implemented through policies and carrying out the learning process, including intracurricular, co-curricular, and extracurricular activities as outlined in the Faith-Taqwa Development Program (imtaq) and Strengthening Character Education (PPK), as well as the Competency Improvement Program. Evaluation and control of strategies include review measurement of performance results; SO (Strength-Opportunity) Strategy and ST (Strength-Threat) Strategy are implemented through activity programs, in line with the development of the school vision, and based on internal-external environmental analysis; Measurement of performance results of SO (Strength-Opportunity) Strategy and ST (Strength-Threat) Strategy can be seen in the graduation rate with School Examinations and Competency Tests and the percentage of absorption (DUDI) more than 75% and even 82% in the last three years. SO and ST strategies provide positive and significant results in increasing students' absorption to employment.

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