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Integration of the Porter Five Forces Model and the House of Risk from a Service Performance Perspective to Increase Competitiveness (Case Study at UNIBA Madura)

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ABSTRACT

In managing a company, whether manufacturing or service, it will never be free from risks, including educational institutions. The increasingly fierce competition in creating a competent and quality educational institution begins with how to get new students. This certainly never escapes risk management. Bahaudin Mudhary Madura University tries to reduce the level of risk as little as possible in order to improve the quality of existing education and compete in getting new students with other universities in Madura, especially Sumenep. Registration of new students is the initial activity in higher education because it requires innovation and creative ideas in recruiting prospective students. This research uses the House of Risk method to prioritize risk agents and determine the most effective actions against risks that occur and is integrated with Porter's five forces to describe the framework as an analysis of business strategy development or the competitive environment that contributes to competitiveness and competitive advantage. The results of the analysis based on Porter's Five Forces model show that for the bargaining power of new student admissions at UNIBA Madura, there are several things that UNIBA Madura must do to attract and increase the interest of new students, namely increasing information and promotion of UNIBA Madura. The results of the first phase of HOR showed that the most dominant sources of risk at UNIBA Madura were the cost of developing a large campus, the lack of interest of doctoral lecturers in teaching, and the number of relationships was still small and based on phase 2 of HOR, it was found that risk mitigation strategy actions to minimize the risks that occurred were by collaborate with foundations/institutions related to funding so that UNIBA Madura can minimize the risk of accepting new students

Keywords: house of risk, porter five force, risk management

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1. Introduction

In every activity in all companies, risks are never free. Because risks definitely exist in every activity, whether in a manufacturing or service company. Why is risk management necessary? To be able to handle and avoid existing levels of risk so that in the future the company does not experience greater losses, apart from that, risk management can also help the Company to establish procedures for dealing with threats, minimizing the impact and overcoming threats that occur.

So far, manufacturing companies are considered to need to be addressed in reducing existing risks because it cannot be denied that a large level of risk can increase losses. The ability to understand and control risks makes companies more confident in making business decisions. In addition, strong corporate governance principles and a focus on risk management can help achieve company goals.

Risk management is a systematic process for identifying, analyzing and responding to risks throughout an organization[1]. In another definition according to The Institute of Risk Management, risk management is defined as a process that aims to help an organization understand, evaluate and take action on all risks with the aim of increasing the probability of success and reducing the possibility of failure.[2]

Of the many studies that have been conducted previously, rarely has anyone conducted research that focuses on risk management for service companies, especially in institutions or educational institutions. As we know, in risk management there are several actions such as risk identification, risk analysis, risk evaluation, development of risk management strategies, implementation and execution and finally monitoring and review.

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House of Risk (HOR) is a model that refers to the idea that proactive supply chain risk management must try to focus on preventive actions, namely by reducing the possibility of risk agents occurring.[3]

This model comes from the integration of two research models, namely the Failure Mode and Effect Analysis (FMEA) and House of Quality (HOQ) methods. Firstly, FMEA in this model is used to analyze the level of risk obtained from calculating the Risk Potential Number (RPN) where the RPN is determined by three factors, namely the probability of risk occurrence, the level of loss (severity) and the probability of risk detection (detection). And secondly, HOQ is adopted from the Quality Function Deployment (QFD) method which is used in the strategy design process for a product so that it can be used to eliminate identified sources of risk.

So combining the two concepts above which carry out risk priority analysis in FMEA with the event source elimination model in HOQ gave birth to a new concept called HOR (House of Risk).

HOR was chosen by several researchers because the HOR model is different from existing models where in HOR a risk agent is chosen that has a high ARP (Aggregate Risk Potentials), which means that the risk agent has a high probability of occurrence and causes a lot of risk.
events with severe impacts. Then, mitigation actions are prepared for the selected risk agents based on the total effectiveness ratio for the level of difficulty and which mitigation actions can reduce the number of risk agents with high ARP values.[4]

Aggregate Risk Potential (ARP) obtained from the HOR phase 1 results shows a number of sources of risk that will be mitigated. The risk to be mitigated is the risk source that has the highest ARP value. In the final output of HOR phase 1, the Pareto diagram shows the ranking of priority risk sources based on the ARP value.[5]

In HOR there are two stages carried out, namely as follows.

1. HOR1, which is used to determine which risk agents will be given priority for corrective action.
2. HOR2, which is used to prioritize several actions that are considered effectively with financial feasibility and resource fulfillment.

New Student Admissions is one of the most important routine agendas in higher education. PMB is the initial gateway to the higher education business process, searching for and selecting prospective students who will then be educated to produce quality human resources as alumni. Failing at this stage could have fatal consequences for a university, where from year to year the number of interested students and new students decreases, this will have an impact on many things for a university.

College of Economics. KH. Bahaudin Mudhary Madura (STIEBA MADURA) is a newly established campus and was inaugurated in 2018 when it was first established, the STIEBA MADURA campus consists of 2 study programs, namely Bachelor of Accounting and Bachelor of Management. Then in 2019, precisely in September, STIEBA MADURA changed its form to a University after being inaugurated through a decree from the Minister of Education and Culture which then changed its name to University KH Bahaudin Mudhary Madura (UNIBA MADURA) with two faculties, namely the first Faculty of Economics and Business, the second Faculty of Science and Technology with the addition of 3 study programs, namely Maritime Industrial Engineering, Informatics and Information Systems.

According to data from the UNIBA Madura New Student Admissions Committee in 2020, there was a fairly large reduction in the number of students registering and the number of students who had re-registered.

Table 1. Table of New Students 2021

No	Program studi	Gelombang			Jumlah
		Gel 1	Gel 2	Gel 3	
1	S1-Managemen	41	41	38	120
2	S1-Akuntansi	27	11	10	48
3	S1-Teknik Industri	21	3	12	36
4	S1-Ilmu Informatika	13	5	22	40
5	S1-Sistem informasi	6	3	8	17
		108	63	90	261

Data Source: 2021 UNIBA Madura PMB Committee

From the table above, the number of new students at UNIBA Madura is 261 new students with the number of Wave 1 being 108 students, Wave 2 being 63 students and Wave 3 being 90 students.

Table 2. Table of 2021 New Students who have Re-Registered

No	Program studi	Gelombang			Jumlah
		Gel 1	Gel 2	Gel 3	
1	S1-Managemen	34	33	34	101
2	S1-Akuntansi	23	9	10	42
3	S1-Teknik Industri	17	3	11	31
4	S1-Ilmu Informatika	10	3	15	28
5	S1-Sistem informasi	6	3	7	16
Total		90	51	77	218

Data Source: 2021 UNIBA Madura PMB Committee

From the table above, the number of new students who have re-registered at UNIBA Madura is 218 new students with the number of Wave 1 being 90 students, Wave 2 being 51 students and Wave 3 being 77 students, from the difference in the number between registrants and students who have re-registered. as many as 261-218 = 43 students did not register at UNIBA Madura

From the above, the author wants to know the risks in admitting new students. The risks in determining prospective students are quite varied, including students not choosing that campus or being hampered by their family's decision to continue studying or not.

Porter's five forces analysis is a basic supporting tool used to formulate a company's competitive strategy. The purpose of carrying out a Porter analysis is to determine the company's competitive advantage. Porter's five forces analysis model is a strategy development method that has generally been used in many industries. Porter believes that the competitive nature of an industry can be seen as a mixture of five forces, namely competition among similar companies, the possibility of new competitors entering, the potential to develop alternative products, the bargaining power of sellers/suppliers, and the bargaining power of buyers/consumers.[6].

In Porter's five forces there are five factors depicted in Figure 2.1. which is used to formulate the level of competition and market attractiveness of an industry

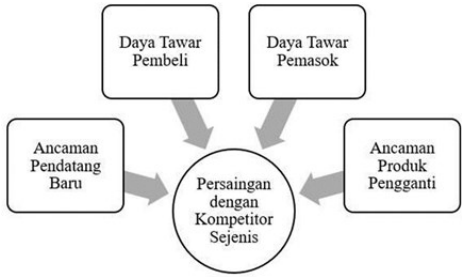

Figure 1. Porter's five forces

Competition with similar competitors is the most important factor in business competition. The more companies compete for market share, the tighter the business competition in the industry becomes. All aspects are used to improve position, such as in terms of price competition strategies, promotions and improving service or guarantees to customers[7].

Competition can occur if several companies can recognize opportunities to improve their position better. In some cases in industry, competitive movements carried out by one company have an attraction for its competitors and this encourages resistance to competition[8].

2. Research methods

This type of research is descriptive, analytical, quantitative and qualitative research. Data collection was carried out using a questionnaire filled out by UNIBA Madura students. The questionnaire consists of assessing severity scores, occurrence and correlation between risk agents and risk events, correlation between risk causes and mitigation actions, (degree of difficulty) level of difficulty in implementing mitigation actions.

House of Risk is a method used to analyze the occurrence of risks, so that with the HOR method you can identify, analyze, measure and mitigate risks that have the potential to arise. The implementation of HOR has two phases, namely:

1.HOR Phase 1

HOR phase 1, which is the initial stage in this research, aims to identify risk events and the risk agents that cause them. The stages required in HOR phase 1 are as follows:

1.Identification of activity processes aimed at identifying the emergence of these risks.

2. Identify risk events (Ei) in each activity that was identified in the previous stage.

3. Measuring the level of impact (Si) of a risk event on company activities. The scale of the severity factor can be seen as follows.

Table 3 Severity factor scale

Rating	Effect	Saverity of effect
10	Berbahaya tanpa peringatan	Tingkat keparahan sangat tinggi ketika mode kegagalan potensila mempengaruhi sistem operasi tanpa peringatan
9	Berbahaya dengan peringatan	Tingkat keparahan sangat tinggi ketika mode kegagalan potensial mempengaruhi sistem operasi dengan peringatan
8	Sangat tinggi	Sistem tidak dapat beroperasi dengan kegagalan yang menyebabkan kerusakan tanpa membahayakan keselamatan
7	Tinggi	Sistem tidak dapat beroperasi dengan kerusakan peralatan
6	Sedang	Sistem tidak dapat beroperasi dengan kerusakan kecil
5	Rendah	Sistem tidak dapat beroperasi tanpa kerusakan
4	Sangat rendah	Sistem dapat beroperasi dengan kinerja mengalami penurunan secara signifikan
3	Kecil	Sistem dapat beroperasi dengan kinerja mengalami beberapa penurunan
2	Sangat kecil	Sistem dapat beroperasi dengan sedikit gangguan
1	Tidak ada	Tidak ada pengaruh

Source:[9] (Wang et al., 2019)

4. Identify risk-causing agents (Aj), namely any factors that can cause previously identified risk events to occur.

5. Measuring the probability value of a risk agent's occurrence.

6. Measuring the correlation value between a risk event and the risk-causing agent.

7. Calculation of risk priority index values / Aggregate Risk Potential (ARP). The priority index will be used to determine risk management priorities which will later become input in HOR phase 2.

2. HOR Phase 2

HOR phase 2 is the design of a mitigation strategy to handle risk agents that have been identified and are at the priority risk level. The stages carried out in HOR phase 2 are as follows:

1. Select risk agents from the highest ARP value to the lowest using Pareto diagram analysis. The risk agent who has the highest ARP value will be input into HOR phase 2.

2. Identify relevant mitigation actions (Pak) against emerging risk agents.

3. Measuring the correlation value between a risk agent and risk management. This relationship will be taken into consideration in determining the degree of effectiveness in reducing the emergence of risk agents.

4. Calculate the total effectiveness (TEk) for each risk agent using the following calculations:

$$TEk = \Sigma j\ ARPj\ Ejk$$

5. Measuring the level of difficulty in implementing mitigation actions (Dk) in an effort to reduce the emergence of risk agents.

6. Calculate the total calculation of the implementation of mitigation actions/effectiveness to difficulty ratio (ETDk) with the following calculations:

$$ETDk = TEk / Dk$$

7. Carry out a priority scale starting from the highest ETD value to the lowest. The main priority value is given to the mitigation action that has the highest ETD value.

The next method for analyzing competition and what strategies must be implemented to increase bargaining power and competitiveness is to use the Porter Five Forces method. This method is very suitable to use because the results of this method can determine strategies that can compete with competitors. According to[10]Competition in an industrial environment depends on five basic factors of competition, including:

1. Potential Entrants
2. Suppliers
3. Buyers
4. Substitutes
5. Competitors (Existing Firms)

Based on this, UNIBA Madura must pay attention to and analyze the external environment in increasing the competitiveness of new student admissions.

3. Results and Discussion

Data collection for this research was taken from December 2022 to April 2023 by conducting surveys and filling out questionnaires with students in the UNIBA Madura environment. The data taken is primary data and secondary data. The data obtained was immediately analyzed with the following results:

3.1. Porter Five Forces Analysis

Porter's Five Forces analysis is to carry out an external analysis of the company based on competition between similar competitors, threat of new entrants, threat of substitute products, bargaining power of buyers, and bargaining power of suppliers.

3.1.1 Competition with Similar Competitors

Competition analysis with similar competitors is based on several indicators and the analysis process is carried out by analyzing each indicator. The results of competition analysis with similar competitors can be described as follows.

Table 4. Competition analysis with similar competitors

No	Indikator	Analisis	Bobot	Peringkat	Nilai
1	Jumlah Pesaing	Jumlah Universitas di Kabupaten Sumenep sebanyak 12 Universitas. Namun pesaing potensial di Kabupaten Sumenep sebanyak 2 Universitas	0,2	7	1,4
2	Peningkatan Jumlah Pesaing	Peningkatan jumlah pesaing tiap tahunnya bertambah 1 Universitas	0,1	5	0,5
3	Akreditasi Perguruan Tinggi	Semakin tinggi nilai akreditasi perguruan tinggi, semakin menarik minat mahasiswa baru	0,4	9	3,6
4	Fasilitas Perguruan Tinggi	Lengkapnya fasilitas yang dimiliki, semakin memudahkan dalam proses pembelajaran	0,3	8	2,4
		Total	1		7,9

The large number of private higher education institutions that have been established for a long time now greatly increases the competitiveness of UNIBA Madura. Competitors currently also offer a wider variety of similar programs and facilities. Plus, other private universities are aggressive in recruiting students. Based on the table above, the highest ranking for competitive analysis with similar competitors is in higher education accreditation. Higher education accreditation is very important in choosing a campus for prospective students.

3.1.2 Threat of New Entrants

Table 5 Analysis of the threat of new entrants

No	Indikator	Analisis	Bobot	Peringkat	Nilai
1	Kebutuhan Modal	Pembukaan perguruan tinggi membutuhkan modal yang tidak sedikit dan juga fasilitas yang harus memadai	0,1	4	0,4
2	Biaya per semester	Biaya yang diberikan harus sesuai dengan keadaan ekonomi sekitar namun juga bisa memberikan fasilitas yang baik	0,5	8	4
3	Jenjang Pendidikan Dosen	Semakin tinggi jenjang pendidikan dosen, semakin menarik untuk mengikuti mata kuliah yang diajarkan	0,3	7	2,1
4	Komponen Regulasi	Regulasi baru dan penerapan secepatnya dari regulasi dapat mempengaruhi peranan perguruan tinggi menjadi dinamis	0,1	3	0,3
		Total	1		6,8

The cost of education at UNIBA Madura is actually relatively low compared to other universities and has been adjusted to the economic situation of the people of Sumenep, especially remote areas, which in fact have educational levels, especially suburban and island areas with low economic levels. Meanwhile, UNIBA Madura itself was founded to be able to penetrate remote areas so that its people can receive proper education and can compete with urban communities who have a different orientation towards education. However, this does not mean that the cost per semester indicator for the threat of new entrants is low because even though the cost per semester is relatively low, public trust is still lacking because the community believes that if the cost per semester is low, the campus will not be able to provide good facilities for its students and this must be achieved. It has been proven that low costs per semester will result in small facilities and low quality of existing graduates.

3.1.3 Threat of Substitute Products

Table 6 Analysis of the threat of substitute products

No	Indikator	Analisis	Bobot	Peringkat	Nilai
1	Kebutuhan Produk Pengganti	Memiliki berbagai jenjang pendidikan (Diploma dan Strata)	0,5	7	3,5
2	Biaya Produk Pengganti	Modal yang dibutuhkan untuk membuka kelas Diploma	0,1	5	0,5
3	Memiliki Lembaga Lain	Pada Perguruan Tinggi tidak hanya berfokus pada pembelajaran, namun juga terdapat Lembaga Penelitian dan Pengabdian Masyarakat untuk menerapkan ilmu yang telah diperoleh	0,4	7	2,8
		Total	1		6,8

Currently UNIBA Madura only has 2 faculties and 5 study programs. Due to the threat of substitute products, it is felt necessary for the campus to have other levels of education such as diplomas, even masters or add new study programs. Because if a university already has several different levels of education, it will certainly add to the bargaining value of the campus itself. Apart from that, it is felt necessary to have other institutions apart from focusing on learning, for example there is a need for research and community service institutions to be able to develop and apply the knowledge that has been obtained in the classroom.

3.1.4 Bargaining Power of Buyers

Table 7 Analysis of buyers' bargaining power

No	Indikator	Analisis	Bobot	Peringkat	Nilai
1	Sering melakukan MoU	Perguruan Tinggi yang sering mengadakan kerja sama dan dipercaya pihak swasta, bisa meningkatkan minat mahasiswa baru	0,5	7	3,5
2	Pertumbuhan Pangsa Pasar	Pertumbuhan minat untuk melanjutkan pendidikan sampai jenjang Strata 1 selalu meningkat setiap tahun	0,2	5	1
3	Tingkat Kejelasan Informasi	Perguruan Tinggi memberikan kejelasan informasi terkait segala hal yang menjadi daya tarik mahasiswa baru	0,3	7	2,1
		Total	1		6,6

Bargaining power of buyers, in this case the buyers are prospective students who will continue their education at UNIBA Madura. Based on the analysis of buyers' bargaining power, it was found that the highest ranking was the number of MoUs with several parties, including the private sector, state-owned enterprises or ministries. With so many MoUs, it is certainly an attraction for prospective students. Collaboration between universities and industry is very important in creating an inclusive and quality educational environment. Universities have a big task in providing quality education and research, as well as preparing graduates who are ready to work and understand the industrial world. Meanwhile, industry has a responsibility to help create jobs and strengthen the country's economy.

3.1.5 Bargaining Power of Suppliers

Table 7 Analysis of supplier bargaining power

No	Indikator	Analisis	Bobot	Peringkat	Nilai
1	Lembaga Pendidikan	Lembaga pendidikan yang dapat memproduksi lulusan S1 dan S2 terutama terdapat paket fast track, semakin menarik minat mahasiswa baru	0,7	5	3,5
2	Lembaga Informasi	Memiliki perpustakaan lengkap, ruang internet, media massa semakin menambah minat mahasiswa	0,3	7	2,1
		Total	1		5,6

Information institutions such as the UNIBA Madura library, internet space and social media are ones that can attract prospective students to choose UNIBA Madura as their campus of choice. The UNIBA Madura Library is one of the libraries with a fairly complete book collection compared to other campuses thanks to a grant from the National Library. The Uniba Madura Library has also been very well accredited in November 2023. The comfortable and very representative condition of the library is also a bargaining power for prospective students.

3.2 House of Risk (HOR)

House of Risk (HOR) is a method for knowing the risks that exist in a business and also handling these risks

3.2.1 HOR Phase 1

House of Risk phase 1 determines the risk (risk event) that exists in the business and also determines the source of risk (risk agent). After finding the risk and source of risk, an assessment of Severity and Occurrence is carried out. The results of determining risk and risk sources can be described as follows

Tabel 8 Event Risk Table

Indikator	Risk Event	Kode	*Severity*
Jumlah Pesaing	Meningkatnya jumlah pesaing, namun tidak ada perkembangan dari universitas untuk lebih maju	E1	5
Akreditasi Perguruan Tinggi	Universitas belum terakreditasi	E2	7
Fasilitas Perguruan Tinggi	Tidak adanya fasilitas Sport Centre di lingkungan kampus	E3	6
	Belum memiliki lab bahasa inggris	E4	6
Biaya per semester	Belum adanya bantuan UKT seperti Bidikmisi	E5	8
Jenjang Pendidikan Dosen	Beberapa dosen yang baru memiliki gelar Doktor	E6	6
Komponen Regulasi	Regulasi baru dari pemerintah belum berjalan maksimal	E7	5
Lembaga Pendidikan	Jumlah prodi yang masih terbatas	E8	7
Lembaga Informasi	Belum memiliki lembaga informasi yang kredibel	E9	5
Kebutuhan Produk Pengganti	Belum memiliki jenjang pendidikan Diploma ataupun Magister	E10	7
Memiliki Lembaga Lain	Kolaborasi dengan pihak luar masih sedikit	E11	6
	Kurang aktif untuk melakukan kerjasama	E12	5

Tabel 9 Risk Agent Table

Kode	Risk Agent	Occurence
A1	Tidak adanya inovasi terbaru	8
A2	Karya ilmiah masih sedikit	7
A3	Biaya pengembangan kampus besar	9
A4	kurangnya tenaga dosen S3 untuk mengajar	7
A5	Relasi masih sedikit	7

After determining the risk and risk source, a correlation relationship is carried out between the risk and the risk source with the values 0, 1, 3, 9 where the number 0 does not represent a correlation, 1 has a low correlation, 3 has a medium correlation, and 9 has a high correlation. After that, the Aggregate Risk Potential (ARP) calculation is carried out. The incorrect results of the phase 1 HOR calculation are explained as follows.

ARPj = Oj Σ Si Rij

Information :

ARPj : Aggregate Risk Potential

Oj : Value of the opportunity for risk to occur (Occurence level of risk)

Si : Level of impact of risk events (Severity level of risk)

Rij : Correlation value between risk and risk agent

ARPj = Oj Σ Si Rij

ARPj = 8 x (5x9) + (7x3) + (6x3)

ARPj = 8 x (45+21+18)

ARPj = 8 x 84

ARPj = 672

Table 10 HOR phase 1

Risk Event	Risk Agent					Si
	A1	A2	A3	A4	A5	
E1	9	0	1	0	0	5
E2	3	9	3	9	1	7
E3	0	0	9	0	0	6
E4	0	0	9	0	0	6
E5	0	0	0	0	0	8
E6	0	3	0	0	3	6
E7	0	0	0	0	3	5
E8	0	0	9	3	0	7
E9	0	0	3	1	0	5
E10	0	0	3	3	1	7
E11	3	0	1	1	9	6
E12	0	0	0	1	1	5
Oj	8	7	9	7	7	
ARP	672	567	2052	847	742	
Pj	4	5	1	2	3	

Based on this table, it can be seen that the highest Aggregate Risk Potential (ARP) value is at risk agent A3, namely "Large Campus Development Costs", while the lowest ARP value is at risk agent A2, namely "Still Little Scientific Work".

Table 11 Ranking of ARP values

Ranking ARP	Kode	Risk Agent	ARP
1	A3	Biaya pengembangan kampus besar	2052
2	A4	Tidak adanya ketertarikan dosen S3 untuk mengajar	847
3	A5	Relasi masih sedikit	742

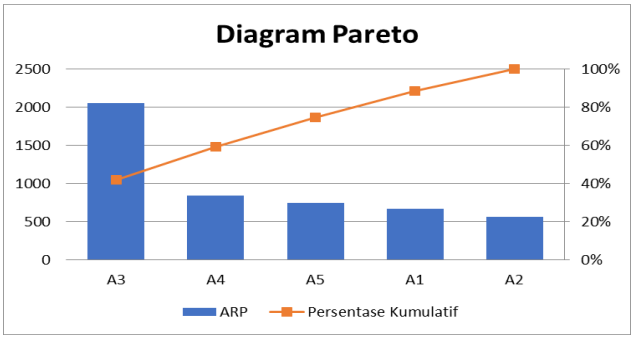

Figure 2 Pareto HOR phase 1 diagram

Based on the Pareto HOR phase 1 diagram, there are several risk agents that are most dominant to be handled. Among them are risk agents A3, A4, and A5. Once the most dominant risk agent is known, the next step is to design a risk mitigation strategy using the house of risk phase 2 model.

3.2.2 HOR Phase 2

The House of Risk (HOR) phase 2 determines the most effective risk mitigation actions to minimize the most dominant risk events based on the known risk agents in HOR phase 1. Several risk mitigation actions are obtained based on references and also direct observation by considering the level of difficulty and effectiveness when implemented. The results of risk mitigation that have been designed based on the three most dominant risk agents can be described as follows.

Table 12 Design of risk mitigation strategies

Kode	Mitigasi	Dk
PA1	Melakukan kerja sama dengan yayasan/lembaga terkait pendanaan	4
PA2	Rutin membuat karya ilmiah yang potensial di danai oleh pemerintah	5
PA3	Rutin melakukan MoU dengan pihak pemerintah/swasta	4
PA4	Memberikan tunjangan yang menarik untuk para dosen	4
PA5	Sering melakukan promosi pada media sosial	3
PA6	Memperkuat komunikasi antar perguruan tinggi	3

Based on this table, six risk mitigation strategy designs were obtained and the degree of difficulty in implementing them. Once the risk mitigation strategy design is known, the Total Effectiveness of Action and Effectiveness to Difficulty Ratio are calculated. An example of the calculation results is described as follows.

TEk = Σj ARPj Ejk

Information :

Tech = Total effectiveness of preventive actions

ARPj = Aggregate risk potential value

Ejk = Correlation between preventive actions (k) and risk agents (j)

Tech = Σj ARPj Ejk

Tech = 2052 x 9

Tech = 18,468

ETDk = TEk/Dk

Information :

ETDk = Total value of difficulty level ratio

Tech = Total value of effectiveness of preventive actions

Etc = Assess the level of difficulty of implementing preventive measures

ETDk = TEk/Dk

ETDk = 18.468 / 4

ETDk = 4.617

Table 13 HOR phase 2

Risk Agent	Strategi Penanganan (*Prevention Action*)						ARP
	PA1	PA2	PA3	PA4	PA5	PA6	
A3	9	9	3	1	1	0	2052
A4	0	1	1	9	3	1	847
A5	0	3	3	0	9	9	742
Total Effectiveness of Action	18.468	21.541	9.229	9.675	11.271	7.525	
Degree of Difficulty Performing Action	4	5	4	4	3	3	
Effectiveness to Difficulty Ratio	4.617	4.308	2.307	2.419	3.757	2.508	
Rank Priority	1	2	6	5	3	4	

Based on this table, it can be seen the sequence of risk mitigation strategies based on the highest ETDk value. Where the main risk mitigation strategy design is in PA1, namely "Collaborating with foundations/institutions related to funding", then followed by PA2 "Routinely creating scientific works that have the potential to be funded by the government", then PA5 "Frequently promote on social media" , PA6 "Strengthening communication between universities", then PA4 "Providing attractive allowances for lecturers", and finally PA3 "Routinely conducting MoUs with government/private parties".

4. Conclusion

1. The results of the analysis based on Porter's Five Forces model can be seen for the bargaining power of new student admissions at UNIBA Madura. There are several things that UNIBA Madura must do to attract and increase the interest of new students, namely increasing information and promotion of UNIBA Madura.

2. The risk results for accepting new students at UNIBA Madura use the House of Risk (HOR) method, which is divided into two phases. In the first phase, the most dominant risks and sources of risk at UNIBA Madura were obtained, namely the costs of developing a large campus,

the lack of interest of doctoral lecturers in teaching, and the number of relationships that were still small.

3. The results of HOR phase two obtained risk mitigation strategy actions to minimize risks that occurred during the admission of new UNIBA Madura students, where the main strategy for handling risks was obtained, namely collaborating with foundations/institutions related to funding. If this can be achieved then UNIBA Madura will receive a budget to carry out better development so that it can minimize the risk of accepting new students at UNIBA Madura.

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