The influence of university image on students’ enrollment decision: A literature review

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Abstract Recently, competition between universities in attracting new students has become increasingly fierce. One of the aspects to be considered in attracting new students is the university’s image. This literature review aims to systematically review previous studies that theoretically test the relationships among university image, university performance, and university choice. The design of the study is exploratory through a literature review to answer the research objectives. The researchers found various studies investigating the influencing factors of university choice based on the literature that have been collected. Likewise, academic image was found to have a significant effect on university choice. Various studies show that research performance can be measured by several variables, such as research excellence, scientific research capabilities, research productivity, strategic alliances through collaborative research, research quality, responsible scientific behavior, and salaries for scientific productivity. In addition, academic image can be measured from program-level image, institutional-level image, and academic performance.

Keywords: higher education, marketing, university choice, student choice, university image

1. Introduction

Education is a basic need that must be met and is one of the most important parts of life. With awareness of the importance of education, people compete to acquire knowledge through formal and informal education. The decision to choose a college is an investment decision. The investment must provide benefits to consumers after graduating from college. The reason is that university education also takes a long time and requires large costs. Therefore, consumers will be very careful in choosing a university so that the time and costs spent are comparable to what they receive from the university’s service products. This can usually be seen in what the university promotes in marketing and distributing the products and services it sells through the institution.

Education is the spearhead of a nation’s progress. Smartening the nation’s life will start with education. The government continues to prioritize development in the education sector, especially the quality of education, to produce quality and productive human resources. Educational institutions have the main function of providing graduates, not only in large numbers but also of high quality and discipline, becoming dynamists, innovators, motivators and drivers of development: producing quality workers for various types and levels of expertise. In this regard, services to the community, namely, students, must be improved both in terms of quality and quantity (Sultan et al., 2010). The driving factor for multidimensional satisfaction is service quality. Where the level of service quality can be seen from the perspective of customer assessment. Satisfaction from the consumer side is considered good if it meets what consumers expect, whereas service will be perceived as bad if it does not meet their expectations (Kotler, 2010). Consumers will feel satisfied if a product or service can meet their expectations. Consumer behavior theory states that customer satisfaction is the perspective of a consumer’s experience after consuming or using a product or service (Oliver, 1999). Customer satisfaction is expected to influence loyalty. Loyal customers can provide great benefits to an organization (Sum & Hui, 2009).

Over the last few years discussions about the construct and content of images have emerged in academic circles. Various studies have recognized the importance of image in the context of higher education (Vidaver-Cohen, 2007; Helgesen, 2008; Sung & Yang, 2008). Image building and branding have become central elements in new university management practices. Maintaining the quality and image of institutions has received considerable attention from researchers. Aula & Tienari, (2011) stated that fame (image) is one of the determining factors for students in choosing a university. Overall, the most important factors are: program (choice of major), fame (image), price (tuition fees), prospectus (communication via direct mail), people (interaction with teachers, employees and other students), promotions (publicity and e-media), and bonuses (a combination of offers).

Mazzarol and Soutar, (2012) call "strong image" a key competency for educational institutions to successfully compete in the global market. Many universities use image reconstruction strategies to reposition themselves in the...
education market and improve their image. Specifically, institutional norms, incentive mechanisms, university image, intermediary agents, and faculty characteristics have been described as playing a fundamental role in making some universities more entrepreneurial than others. Regarding the image of the university institution, Finch et al., (2013) found that the university's image is important for understanding when a new graduate is looking for work. This is because the university creates its image and carries it among the industry. Universities have become more competitive in a market that is trying to attract the best students and subsequently provide the best job opportunities for accepted students. This leads university institutions to create competitive advantages by attracting the best students and subsequently the best companies.

The image of a university graduate working in a company was found to be related to employee performance. In addition, students feel that studying at a particular university indicates their level of success in obtaining a job and their perceived salary range after graduation, the company’s preference for them in the job market, students’ sense of pride and worthiness of their level in the job market (Sultan & Yin Wong, 2012). Although image plays an important role, in reality, Järvinen and Suomi, (2011) revealed that only sixteen percent of companies have formalized a quantification process to measure and monitor image. Others use informal information and published ratings. Global rankings and accreditation have gained importance in the academic world, and image has become a major concern for decision-makers. Universities are encouraged to compete globally to attract the attention of financiers, academics, students, and companies.

The importance of rankings that has grown significantly as the demand for the evaluation of academic institutions has increased and its mode of governance has become more market-based. Global ranking lists have become an important quality assessment tool for universities. However, the ranking has also been criticized because it is assessed using criteria that favor universities already on the list (Aula & Tienari, 2011). Accreditation offers another way to consider image building at universities. Universities in particular have become active in external audits by well-recognized international accreditation bodies to obtain and maintain a global seal of excellence (Aula & Tienari, 2011). Increasing attention to external accountability has driven research on image building. This study describes the dynamics of image building within a university. Competition between universities occurs not only locally and nationally, but also globally. In the global economy, building images and branding are very important. Therefore, future studies that focusing on the context of higher education will be very useful Järvinen & Suomi, (2011).

2. Literature Review

2.1. University Research Performance

Many researchers have examined the link between university research performance and university image. Excellence in research becomes a source of competitive advantage helping universities improve their image, and thus attracts funding, students, and talented employees. As part of tacit organizational knowledge, the excellence in research supports the university's image (Li et al., 2014). Linton et al., (2012), found a relationship between research productivity and university image rankings. The greater amount of research produced by university researchers has been proven to be able to encourage improvements in university image rankings. According to these authors, the publication of research results in various international scientific journals has improved the image of researchers. This is because every scientific publication also includes the name of the research institution, so the image of the university institution will also increase. Moreover, many university ranking agencies use scientific productivity as one of the ranking benchmarks.

The quality and motivation of researchers are the main factors determining the productivity and quality of scientific work. Moraru (2012) emphasized that only when universities improve the quality of personnel training and scientific research capabilities can they gain a better image and be able to attract more talented students. Therefore, various training programs for researchers must be developed at universities. In certain situations, strategic alliances are also useful vehicles that can enhance status and image in the academic community through collaborative research, especially when local universities find prestigious global partners for collaboration. Global alliances in scientific research can increase the productivity and quality of scientific research to a greater extent. Therefore, universities must ensure that alliance partners have a good research image at the international level (Jurše & Mulej, 2011).

The aim is to support an international orientation and the international image of teachers. The quality of research and education are important parts of the strategy for building an international academic image (Järvinen & Suomi, 2011). Considering the increasingly thin barriers with universities abroad due to the development of internet technology, universities inevitably have to become global universities. Likewise, the research image must lead and be related to leading research and researchers at the global level. Finch et al., (2013) found that qualitative research and a literature review influenced both program- and institution-level images. Good research performance also has a large and significant impact on funding for universities (Muscio et al., 2013). Therefore, a researcher must exhibit responsible behavior by contributing to scientific work. The consequences of this kind of behavior determine the annual ranking, which influences salaries for scientific productivity, and in general, the image of the university (Urbanovič & Tauginienė, 2013).
2.2. Image: Definition and Development

Corporate image has been conceptualized and measured as both a one-dimensional and multidimensional concept. Several researchers measure corporate image as a one-dimensional concept, as revealed by Skallerud, (2011), who assess it as a multidimensional concept and consider it a theoretical concept that is ambiguous or has multiple meanings, and is longitudinal in nature. In summary, various definitions of the image concept can be grouped into six categories where image is defined as: (1) the process of evaluating and assessing an entity by stakeholders; (2) intangible valuable assets; (3) characteristics or character of an organization; (4) one dimension of service quality; (5) number of interactions with stakeholders; and (6) shaping performance.

Most researchers classify image an process of continuous evaluation and assessment of an entity by relevant stakeholders. Image assessment is a function of the degree to which key constituents feel that an organization and its practices meet their unique expectations for quality. This assessment indicates the level of trust, admiration, good feelings and overall perception of public appreciation for the organization (Järvinen & Suomi, 2011). The assessment of an entity may relate to the financial, social and environmental impacts of an entity over time. The image of higher education can be interpreted as a subjective and collective recognition, perceptions, attitudes and evaluations of higher education institutions established among all stakeholder groups (internal and external) of higher education over a certain time based on indicators of quality, past behavior, communication, symbolism, and the possibility and potential to fulfill/satisfy future expectations compared to competitors (Šontaite & Bakanauskas, 2011).

2.3. University image and university choice

The study of image in the context of companies and businesses has been widely conducted. The implementation of images in the educational context, especially in higher education, has also shown an increasing trend. The concept of corporate image has been adapted to the field of educational management (Skallerud, 2011). In general, there is growing recognition among academics and educational practitioners that the image of universities is becoming increasingly important. The image is measured by how good the image of the university and the study programs are (Dehghan et al., 2014; Fakhrudin et al., 2024). Sustainable leadership principles relate to image enhancement. Sustainable leadership practices improve the image (Kantabutra & Saratun, 2013). One way for universities to fulfill students' personal values is to differentiate their university from others (through positioning/advertising) by emphasizing the ranking and image of the institution, and the existence of a strong alumni network (Durvasula et al., 2011).

Previous studies have shown that a university's image is an important determining factor for international students when choosing to study abroad. Increasing investment in higher education is necessary to enable educational services to become internationally competitive (Cheung et al., 2011). Institutions with an established or strong brand image enjoy a superior market position, although they must continually reinvest in resources and skills to maintain their competitiveness (Mazzarol & Soutar, 2012). University administrators can handle parental satisfaction to achieve a good university image. A carefully crafted and implemented program to improve parent satisfaction and the university's image will be an important tool for attracting future students (Skallerud, 2011).

The most important attribute considered by students is “teacher image”. The same emphasis on instructor image for English language teaching has been put forward by (Ivy & Al-Fattal, 2010). The importance of these attributes suggests that institutions are advised to invest in improving the quality and image of teaching staff. For example, an institution may hold an event to honor a staff member covered by public media, such as a national television channel. Such events may help in expanding educators' awareness of the public. Another possible strategy is to look for leaders and recruit teachers who already have a good image (Al-Fattal & Ayoubi, 2012). The image of a university is built in a variety of ways (Linton et al., 2012). Three main themes characterize image-building efforts: societal significance, interdisciplinary innovativeness, and a symbolic break from the past. According to them, the three themes above are the three main pillars for building the image of a new university. The image is not seen as a result or as something achieved at a certain time, but rather because of constant (re)-construction (Aula & Tienari, 2011).

Building an image needs to emphasize innovation driven by technology and combined with design, emphasizing the unique opportunities provided by combining combined competencies. The development of more valuable innovations is positively related to the university's image because the university's image is a signal of high scientific quality, which has been shown to influence university-company relationships (Petruzzelli, 2011). The newly formed interdisciplinary unit at Aalto University, for example, spearheaded this building of Aalto's image: Design Factory, Media Factory and Service Factory are the first joint projects of Aalto University, so they are called New Expertise Workshops (Aula & Tienari, 2011). In another study, Finch et al., (2013) studied academic image in another study. According to Finch et al., (2013), academic image is one of five categories of employability factors. Academic image can be measured by academic performance, institutional image, and program image. In their study, the program-level image was one of the individual factors identified most consistently in the study of company recruitment managers. The academic image dimension was identified as a consideration in recruiting new employees to the company. Specialized training that is unique to a particular program at a
university is very important. In this case, recruiting managers often cited program image as more relevant than institutional image. The image of the institution is important for understanding the search for high school graduates who want to continue higher education.

According to Aula & Tienari, (2011), the image has been widely studied concerning trust. In the absence of a history of cooperation and mutual trust, prospective new students, as university partners will make judgments based on the university’s image. Therefore, the quality of relations between universities and students should continue to be well maintained to foster mutual trust. Image has many advantages, including being considered one of an organisation’s most valuable intangible assets. The university’s image should be based on students as customers, so it is important to emphasize efforts to build students’ personal experiences with the university and students’ positive perceptions of the university. However, Šontaitė & Bakanauskas, (2011) found that the importance of image in higher education institutions is decreasing consistently. Along the way, the image concept continues to develop and begins to accommodate its ethical aspects. As a result, the concept of ethical image (ethical reputation) emerged. Järvinen & Suomi, (2011), for example, stated that a good image includes environmental attributes, such as the recycling and reusability of products. Currently, ethics is beginning to be seen as an aspect that can support the creation of an image. According to Mulki & Jaramillo, (2011) in the corporate context, ethical image in the context of higher education marketing can also play an important role in a world connected by the internet. Students tend to look for university characteristics that differentiate one university from another, and a university's ethical image has the potential to be a key differentiator.

Quintal & Phau, (2014) explain that universities have an "image for being an institution of higher learning". According to them, the perception of the university’s image is related to providing a supportive learning environment, such as an international environment. There are significant differences in how students perceive the teaching image of their college. In the context of registration for a doctoral program, the decision-making stage of prospective students has the widest range of criteria for rejecting a doctoral program, such as job placement and university images. In addition, the accreditation of a study program is of particular concern in the decision-making stage of prospective students because this factor acts both as a selection criterion and a rejection criterion, as does the curriculum/research area and university image (M. Forray & E. Goodnight, 2014). Šontaitė & Bakanauskas, (2011) effective corporate image factors most relevant to higher education institutions’ customers: emotional appeal, performance, academic performance, leadership, and studies. They also mentioned five less relevant factors to customers: innovation, attitude toward customers, citizenship and social responsibility, governance, and workplace. However, the five less relevant factors may become relevant in a different context.

Another important issue regarding images that many researchers have studied is the benefits of image measurement for universities. It should be noted that the conceptualization and measurement of institutional image have attracted attention in the management and marketing literature. Higher education institutions that measure their corporate image can determine the opportunities and potential for a better corporate image and competitive advantage against competitors (Skallerud, 2011). Šontaitė & Bakanauskas, (2011) proposed ten factors that could be indicators for measuring corporate image in higher education institutions: emotional appeal, behavior, study, citizenship and social responsibility, leadership, performance, workplace, competition, career and innovation. The factors considered to be the most important for customers of higher education institutions/institutions are innovation, behavior, performance and studies. The least important indicators for measuring corporate image for customers of higher education institutions are attractive leaders, environmental responsibility, value for money, and admiration. From a customer perspective, the corporate image measurement model in higher education institutions can be used practically as follows: (1) a tool that helps to evaluate the corporate image of higher education institutions, the potential of higher education institutions, and the main areas that need improvement; (2) instruments for deeper self-examination and evaluation; (3) guidelines for creating programs for developing corporate image and management in higher education institutions; (4) practical ways to help build and manage the corporate image of higher education institutions; and (5) topics of scientific discussion and objects of further research.

Skallerud, (2011) designed a four-dimensional scale to assess parent-based school image: parent orientation, learning quality, a safe environment, and good teachers. The IQS contains six dimensions: financial performance, products and services, emotional appeal, workplace environment, vision and leadership, and social and environmental responsibility. The five dimensions contained in the customer-based image scale are: customer orientation, good employer, financially strong and trustworthy company, product and service quality, and social and environmental responsibility. Various existing university rankings utilize image measurements. The UK’s Times Higher Education Supplement (THES) rankings, for example, rely on university image indicators derived from expert opinion (Saisana et al., 2011). A college's image in the community, its learning image, and its ranking relative to other colleges set the stage for students' perceptions of the international learning environment. However, international rankings often compare only images and ignore what truly matters in terms of the quality of higher education (Quintal & Phau, 2014).

3. Results and Discussion
This study was conducted to theoretically examine the relationships among research performance, university image, and university choice. Based on the results of a literature review of previous studies in various leading journals, the researchers found that university research performance influences academic image. Similarly, academic image significantly affects students' choice of university. Currently, competition between universities in attracting prospective new students is becoming tighter. Every university tries to design various marketing strategies to attract high-quality or high-achieving high school graduates. High-quality graduates are considered capable of supporting the creation of a quality teaching and learning process in higher education. Quality in a learning process is the main basis for creating quality and a good image for a university. Although the quality of students is an important determining aspect, the quality of teachers is no less decisive in realizing a quality learning process. A teacher will not be able to share knowledge if he or she does not have sufficient knowledge to share with students. Teachers must continue to hone their intellectual abilities from time to time. The development of science, especially a teacher's specialty, must always be followed and considered. Therefore, reading the latest literature and conducting studies or research in specialized scientific fields are inherent in teaching.

If a university wants to create a high-quality (international standard) learning process, the teachers' knowledge will not be sufficient if they rely only on reading books. One way to improve the scientific quality of teachers is through research activities following the scientific specialization of interest. A teacher should also be a researcher. Research and teaching are inseparable units. A university needs good and superior research performance to become a university with a great global image. This research performance can be measured from several perspectives: research excellence, capabilities, productivity, strategic alliances through collaborative research, research quality, responsible scientific behavior, and wages for scientific productivity. If all the above aspects are managed well, the dream of becoming a university with a global image will come true. Therefore, all university resources should be directed, centralized, and focused on efforts to build and improve the university's research performance.

Universities need to map and identify the profiles/call their characteristics and problems, including scientific research capabilities. All of them may have different fields of interest, research abilities, and problems so each researcher has different needs to support their research activities. Therefore, policies regarding research at universities should consider and accommodate the various research needs of researchers to improve university research performance. To enhance scientific research capabilities, it is necessary to create a tiered coaching/mentoring system among existing researchers. For more experienced researchers, it is better to coach researchers who are still inexperienced. One way to build an effective coaching/mentoring system is to conduct joint research. The suitability of the scientific field of specialization is certainly an important consideration when conducting joint research. Research skills can also be achieved by organizing various training programs to improve technical research skills.

Researchers should also be equipped with various knowledge about the importance of responsible scientific behavior. This is closely related to philosophical aspects or primary values in research, including research ethics, independence, honesty, and plagiarism. This is very useful for researchers to build good moral character. Increasing research capabilities can have an impact on increasing research productivity or scientific work produced, but it can also be the other way around. Therefore, a university must identify various aspects that determine the research productivity of researchers. A university's research policies should show enthusiasm on the part of the university to encourage and motivate researchers to be able to productively produce various scientific works. For this reason, research must be viewed as a process and from a long-term perspective. As a process, there are various obstacles that researchers face in the research process until they are finally able to publish their scientific work, for example in a journal. Therefore, support from university research policies is expected to be the main payment for a researcher.

A researcher needs time to be able to conduct research and produce quality scientific work. This means that to become a good researcher, you need a continuous learning process through various research experiences. Thus, the quality of research is closely related to research experience. An experienced researcher should be responsible for conducting research and producing higher-quality scientific work. Their scientific work should be published in high-quality, prestigious international journals. It would be more appropriate for an inexperienced researcher to start by conducting simple research. The results of their scientific work can be published in various seminars or national journals. If researchers consistently research and produce scientific work productively, the quality of their research will gradually improve.

To achieve a high image as an international standard university, the research and scientific work produced must be superior to that of other universities at that level. Therefore, it is not enough for a university to conduct quality research; it must also conduct research excellently. Thus, universities can collaborate with other universities with a good image, especially internationally. Through strategic alliances like this, it is hoped that the quality of researchers and scientific work produced will increase to the world level and will be excellent. In principle, the positions of the collaborating parties are equal and collaboration will provide significant benefits for all parties. Another important aspect determining a university's research performance is appreciating research work. According to the previous description, it takes much effort from a researcher to carry out the research process until his or her scientific work is successfully published. This process may cause researchers to confront various obstacles, challenges, or obstacles that are not easy. It is highly appropriate for a researcher
to receive incentives for the research he has carried out. A university must provide a budget for research activities and adequate and fair wages for each publication of scientific work.

Remuneration for scientific work as a result of scientific research should be interpreted in depth as a long process and viewed from a long-term perspective for future institutional development toward a world-class university. The scientific work of a researcher should not only be seen as the work of an individual researcher but also be seen as the work of a university. Thus, a researcher’s research work is closely related to and cannot be separated from the university’s interests. A researcher’s research achievements should be viewed as university research achievements. This work should be seen as the university’s work because it can bring glory to its good name, image, and reputation, so the institution should be proud and appreciate it. Senthilkumar & Arulraj, (2011) emphasized that the publication and dissemination of research results obtained by researchers should be encouraged and facilitated to help them to gain an image. Aula & Tienari, (2011) added that ambitious academic research with publications in leading international journals can develop a university’s image. This indicates a competitive advantage which is a distinctive competency of universities. A strong, differentiated image is created if this is carried out successfully. Thus, good university research performance can improve a university’s academic image (Mazzarol & Soutar, 2012). The academic image of a university can be measured by the image at the program level, the image at the institutional level, and academic performance. In line with the development of the university’s image, it must be future-oriented so that it has the characteristics of an international-class university. Universities need to improve their rankings at the domestic level and become attractive and innovative global players (Aula & Tienari, 2011).

4. Final Considerations

Recently, competition between universities has become increasingly fierce in attracting new students. Through this literature review, it is found that university research performance influenced the university’s academic image and that the university’s academic image affected university choice. Several variables influencing research performance are research excellence, scientific research capabilities, research productivity, strategic alliances through collaborative research, research quality, responsible scientific behavior, and incentives for scientific productivity. In addition, academic image can be divided into two variables: program-level image, institution-level image, and academic performance. As previously explained, the image of a university is a very important determining factor for students when choosing to study (Mazzarol & Soutar, 2012). To make educational services competitive, universities need to increase their investment in higher education. It is hoped that it will further strengthen the university’s image in the future to enjoy a superior market position (Cheung et al., 2011). The importance of teaching image means that universities are advised to invest in improving the quality and image of teaching staff. Every teaching staff member should receive appreciation or recognition for their achievements. In addition, universities need to look for leaders and recruit teachers who already have a good image (Al-Fattal & Ayoubi, 2012). Similarly, programming must be created carefully and implemented to increase student and parent satisfaction. If all of them are done, images will become an important tool for attracting new students (Skallerud, 2011).

Ethical considerations

Not applicable

Conflict of Interest

The authors declare that they have no conflicts of interest.

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