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Kasetsart Journal of Social Sciences 42 (2021) 914–923 Kasetsart Journal of Social Sciences journal homepage: <http://kjss.kasetsart.org> Perception of lecturers of [public and private universities](#) on [the importance of university's intellectual capital](#): A case study in West Sumatra province of Indonesia Fivi Anggrainia,^{*} Darius El Pebrianb,[†] a Faculty of Economics and Business, Universitas Bung Hatta, Padang, West Sumatra 25133, Indonesia b Faculty of Plantation and Agrotechnology, Universiti Teknologi MARA Melaka, Jasin Campus, Merlimau, Melaka 77300, Malaysia Article Info Article history: Received 21 October 2020 Revised 11 January 2021 Accepted 7 February 2021 Available online 3 December Keywords: human capital, [intellectual capital](#), [relational capital](#), [structural capital](#), university's [performance Abstract](#) [The intellectual capital is an important element that](#) must be managed seriously because it is believed to be able to increase the ranking of a

university. [This study was conducted to examine the](#) lecturers' perceptions [on the importance of intellectual capital in public and private universities in](#) West Sumatra province [of](#) Indonesia. [The](#) sampled universities for this study were taken from [www.4icu.org](#) website. The Independent Sample t-test [was used to test the hypotheses. The findings](#) proved that there was difference on the perception on the importance of intellectual capital between the lecturers in [public and private universities in](#) West Sumatra. [The public](#) university lecturers gave a better perception of intellectual capital compared to the private university lecturers. In fact, with regards to the individual element of intellectual capital, the lecturers' perceptions on the relational capital were also different. However, there was no difference in perceptions between the lecturers in public and private universities concerning the human capital and structural capital. © 2021 Kasetsart University. Introduction Higher education institutions play a vital role to develop a high quality of human resources in a country, that can be adapted to meet various challenges as impact of advancement of new era (Urdari, Farcas, & Tudor, 2017). Thus, Silvestri and Veltri, (2011), Naidu and Derani (2016) stated that the higher education institutions should raise their superiority and resources to face global * Corresponding author E-mail address: fivianggraini@bunghatta.ac.id (F. Anggraini). † Co-author E-mail address: darius@uitm.edu.my (D.E. Pebrian). <https://doi.org/10.34044/j.kjss.2021.42.4.27> 2542-3151/© 2021 Kasetsart University. competition. According to Leitner (2004), university is a part of a nation's system of science, education, and innovation and knowledge producer as well. Generally, types of university are classified into two, namely public universities and private universities. Public universities have historically had a better institutional image when compared to private universities. In Indonesia, according to the 1989 Law No. 2 in Indonesian Education Law, the difference between [public and private universities](#) only lies [in the](#) ownership, management and funding sources, while their basic curriculum is the same because they are developed on the basis of the national curriculum that is regulated by the ministry. Since the last decade, the growth of the number of universities in Indonesia has drastically increased. According to the [Ministry of Research, Technology and Higher Education, Republic of Indonesia \(2015\)](#), [the number of public and private universities in Indonesia increased](#) by around 19 percent and 5.40 percent respectively from 2005 to 2016. Anggraini, Ali, and Aza (2018a) stated that the increase growth of higher institutions in Indonesia is in line with the efforts of improving the quality of education, services and quality by their management. The most valuable resources or main assets owned by a university are the lecturers and students, who integrate to form the organization (Pucci, Simoni, & Zanni, 2015; Secundo, Margherita, Elia, & Passiante, 2010). These assets can be used as an advantage in making of a comparison between universities, (Anggraini, Ali, & Aza, 2018b). Normally, such main assets cannot be identified clearly and they are referred to as intangible assets. The concept of intangible assets, known as intellectual capital, has been developed for non-profit organizations such as universities (Ramírez & Gordillo, 2014). Meihami and Karimi, (2014) stated that the university's [intellectual capital](#) (IC) [consists of human capital, structural capital and relational capital, which are](#) very important in line with the aim of the university to produce knowledge, research and human resources. All these things should receive a great deal of attention in the effort of improving university performance (Anggraini et al., 2018a; Lu, 2012; Sánchez, Elena, & Castrillo, 2009; Veltri, Mastroleo, & Linzatti 2012; Wu, Chen & Chen, 2012). They are the input and output of a university and are categorized as intangible (Canibano & Sanchez, 2008; Jones, Meadow, & Sicilia, 2009). In regards to study on perception on intellectual capital in university, most past studies separated the focus, either on public or private universities. In fact, they did not look into the perception

on intellectual capital comprehensively. For example, Chepchieng, Mbugua and Kariuki, (2006) studied [university students' perception of lecturer-student relationships: a comparative study of public and private universities in Kenya](#). The study did not test the lecturers' perceptions on [intellectual capital at the university](#). Naidu [and](#) Derani (2016) compared [quality of education received by the students of private universities versus public universities](#) in Malaysia. However, [this study](#) only examined aspects [of the quality of education](#) at [the university](#) from [the](#) perspective [of](#) students and did not investigate its influences on intellectual capital. In the case of Indonesia, Ulum, Harviana, Zubaidah, and Jati (2019) explored [intellectual capital disclosure and prospective student interest](#) from [an Indonesian](#) perspective. Their study only investigated the perceptions of the universities' students in general, not specifically comparing the perception of public and private university students. Furthermore, their study also was also limited since it did not include the perceptions of lecturers, although it is known that the lecturers are a very important component in building knowledgeable students. West Sumatra region was selected for this study as the province is known as one of the regions in Indonesia that has been long renowned as a shed of scholars and thinkers for the country. Therefore, one of the education aspects that should be given a great deal of attention by the universities in West Sumatra is that they must develop a high quality of education to produce a high quality human resource that is able to contribute knowledge [at both national and](#) international [levels](#). However, nowadays, [the national](#) rankings of [the](#) universities in West Sumatra issued by [www.4icu.org](#) is still far from satisfactory. Only two public universities from the province were in the top 50 Indonesian universities, while another one public university was out of the top 50 rankings and had the same ranking as six private universities in the province, where they were placed above 100th rankings. It was identified that factors that caused the unsatisfactory ranking were the different perceptions [on intellectual capital consisting of human capital, structural capital and relational capital](#) among the university members. Therefore, the implemented programs and activities were not able to achieve high ranking requirements. For this reason, it is important to compare of the perceptions on intellectual capital of public and private universities' lecturers in West Sumatra province through an empirical study. It is believed that the comparisons will motivate the private and public universities to improve [intellectual capital in the development of](#) performance [of](#) a university. Through the comparisons, intellectual capital perception among lecturers of each type of university can be looked into seriously because later the lecturers may hold a management post at the university and will determine the direction to achieve the institution's goals. [Literature Review Intellectual capital \(IC\) represents knowledge-related intangible assets embedded in an organization](#) (Leitner, 2004). According to Ramirez and Gordillo (2014), said [intellectual capital](#) comprised [of three dimensions, namely human capital, structural capital and relational capital](#). [Human capital \(HC\) is defined as the knowledge that human resources \(teachers, researchers, Ph.D. students, administrative staff etc.\) carry home from organization at the end of the day](#). [Structural capital \(SC\) represents the knowledge that, on the contrary, at the end of the working day in the organization, remains and includes principles of university governance, organizational routines, procedures, systems, culture, databases, publications, intellectual property, etc](#). [Relational capital \(RC\) is defined as all resources associated with the external relations of the organization, such as customers and other organizations, suppliers, research partners, government](#), (Ramirez & Gordillo, 2014). A research conducted by Cricelli, Greco, Grimaldi, and Dueñas, (2018) has proved that public higher education tends to be more expressive in disclosing intellectual capital than private universities. Naidu and Derani (2016) stated that there is not much

difference between [public and private universities from the perspective of students on satisfaction and quality](#). Comparison [of intellectual capital disclosure](#) between [universities in](#) Indonesia and Malaysia tends to disclose more information in a narrative format, (Ulum [et al., 2019](#)). [Intellectual capital is](#) an important component [for](#) universities from [the](#) perspective of the Stakeholders Theory (Cricelli et al., 2018; Pedro, Alves, & Leitao, 2020). Related to that theory, they said that all stakeholders, both internal and external, have the right to access information about university activities for satisfying the community in greater supervision and accountability. Based on the above-mentioned theory, the development of this research hypotheses for this study were [as follows: H1: There is a difference](#) in perception of [the importance of](#) intellectual capital between lecturers of public and private universities. Human resource is the most important factor that determines the performance of a university (Shehzad, Fareed, Zulficar, Shahzad, & Latif, 2014; Zlate and Enache, 2015). Teaching capacity and research competence of a lecturer is a very important human resource in the public and private university lecturers (Cadez, Dimovski, & Groff, 2017; Cricelli et al., 2018). Human capital of public and private universities among students and lecturers is seen differently in terms of socio-cultural, political, religious and racial background (Barbosa, Vale, Vale, & Branco, 2016). Thus, human capital is a major resource as well as a driver of higher education management that encourages performance of [public and private universities](#) H1a: [There is a difference in](#) perception of the importance of human capital between lecturers of public and private universities Pedro, Leitão, and Alves, (2019) classified [structural capital into company's culture](#), organizational [culture](#), organizational [structure](#), organizational [learning, operational process and information system](#). [Generally, the structural capital of](#) organizations [comprises infrastructure, system policies and procedures](#) (Khalique, Shaari, Isa, & Noridah 2013) According to Chatterji and Kiran (2017), Pedro et al., (2020), Ramirez and Gordillo, (2014), [structural capital mainly provides the environment that supports individuals to invest their human capital to create the innovation, creativity and](#) organizational strategies [and leverage its knowledge to enhance](#) private and public university [performance. Structural capital creation of knowledge by individuals is useless without a structure to determine how that knowledge leads to be better products](#), (Hejazai, Ghanbari, & Alipour, 2016). H1b: There is a difference in perception of the importance of structural capital between lecturers of public and private universities Relational capital is defined as an interlink between organizations and their customers, (Virzcaino, Gutierrez, Barrea, & Ramos, 2016). Pedro et al. (2020) stated that relational capital university is a network of cooperation between educational and non-educational institution companies, local governments, communities. Cooperative relationships with the public and private universities in the form of training activities, international student exchanges and international recognition are part of the university's relational capital, (Paoloni, Cesaroni & Dermartini, 2019). Therefore, public and private universities must have a strong network of cooperation with many stakeholders because it can provide benefits for the university, (Anggraini et al., 2018a). Relational capital serves as a means for universities to promote and [contribute to economic development by transferring knowledge](#) both internally and [externally through research activities](#) (Lu, 2012; Wahid, Abu, Latif, & Smith, 2013). H1c: There is a difference in perception of the importance of relational capital between lecturers of public and private universities Methodology This study used a quantitative approach to empirically prove the lecturers' perceptions of [the importance of intellectual capital and its](#) relevant items in [the](#) sampled universities. [The](#) sampling technique used was nonprobability. The research population included all lecturers in public and private universities in West Sumatra. Samples from the

population were taken from data released by the Indonesian University Ranking the website, www.4icu.org. Only 9 (nine) universities in West Sumatra consisting of 3 (three) public universities and 6 (six) private universities were in the Indonesian University Ranking published by www.4icu.org on November 30, 2018. This study intentionally chose the website since it is the only website which provides the ranks of the Indonesian University Ranking including the universities in West Sumatra. [A total of 417 questionnaires were distributed to](#) the respondents [of](#) this study. The questionnaires were then collected within two weeks after submission. After the collection, it was found a total of 304 questionnaires got responses from the respondents, and data processing proceeded. The questionnaires which had responses consisted of 152 from public universities, and 152 from private universities. The response rate was 88.12 percent, which can be categorized as very high-level response, since according to Mardiyah and Gudono (2001), the level of response rate in Indonesia was usually in the range of 10 percent –16 percent of the total samples. Research Instrument The instrument for measuring [intellectual capital](#) was [adopted from Ramirez, Santos and Tejada \(2011\)](#). This [instrument](#) consists [of 1 to 5 Likert scales, where scale 1 is "not at all important" and scale 5 says that "it is very important"](#). [Human capital is the amount of explicit and hidden knowledge from university staff \(teachers, researchers, managers, administration and service staff\) obtained through formal and non-formal education and refresher processes included in their activities. A total of 12 questions were sent for human capital. Structural capital is explicit knowledge relating to the internal processes of dissemination, communication and management of scientific and technical knowledge in universities. A face-to-face interview technique was used to obtain the data from the respondents. Structural capital includes organizational capital and technology capital. Organizational capital is an operational environment that stems from interactions between research, management and organizational processes, organizational routines, corporate values, interagency procedures, quality and scope of information systems, etc. Technology capital is technology resources available at universities, such as bibliographic and documentary resources, archives, technical development, patents, licenses, software, databases, etc. A total of 13 questions were asked for structural capital. Relational capital is an extensive collection of economic, political and institutional relationships that are developed and upheld by universities and their non-academic partners, namely, companies, non-profit organizations, local governments and the community at large. This also includes the perception of other shaping of the university; image, appeal, reliability, etc. A total of 16 questions were sent for relational capital.](#) Data Analysis Hypotheses were tested by using the Independent Samples t-Test. This hypothesis testing is intended to determine the average difference in the perceptions of lecturers from each public and private university. [Independent Samples t-Test based on the results of](#) Levene's Test was used to make a decision. The basis for the decision is if the probability is greater than .05, then hypothesis is rejected, meaning [that there is no significant difference between the sample groups](#). Conversely, if [the](#) probability is smaller than .05, then hypothesis is [accepted, meaning that there is a significant difference between the](#) sample groups. Results and Discussion [The results of testing hypothesis 1 for elements of intellectual capital consisting of human capital, structural capital and relational capital is presented in Table 1. There was significant difference on the perception of the importance of intellectual capital between public and private universities \(.49 < .05\) as seen in Table 1. These results indicated that the H1 hypothesis is accepted because they are significant. The results of this study indicated that public lecturers perceive that intellectual capital is more important when compared to the private university lecturers. This is due to the roles and](#)

responsibilities of public universities being managed and financed by the government. Thus, public universities must carry out both the mission and government programs to develop higher learning institution in the country. Meanwhile, private universities are managed and funded by educational foundations, and very much depend on the finance from the foundations. Hence, development of intellectual capital also depended on the financial status. This is in accordance with research conducted by (Pedro [et al., 2020](#); [Tjahjadi, Soewarno, Astri, & Hariyati, 2019](#); [Ulum et al., 2019](#); [Urdari et al., 2017](#)). Table 1 Independent Sample T Test for Lecturers' Perception of Intellectual Capital Variable Group N Mean SD t p Result hypothesis

Intellectual Capital (IC)	Public	Private	152	182.493	179.454	13.021	14.219	1.944	Human Capital (HC)	Public	Private	152	52.961	52.336	5.321	5.365	1.020	Structural Capital (SC)	Public	Private	152	56.783	55.882	5.937	6.149	1.300	Relational Capital (RC)	Public	Private	152	71.164	69.592	5.753	7.226	2.099	.049*	.309	.195	.037*	H1 Supported	H1a Rejected	H1b Rejected	H1c Supported
Note: *p < .05. Sources: Data processed with IBM SPSS Statistics for Windows, Version 21.0. However, there was no significant difference on the perception of the importance of human capital and structural capital between public and private universities (.309 < .05) and (.195 < .05) as seen in Table 1. The perception of lecturers at both types of university was the same because they have the same goals in improving the quality of human capital. Among the efforts that have been made by both types of university is encouraging lecturers to undertake further studies or trainings. It is concluded that increasing knowledge for lecturers including professional competence, social competence, and motivation, are the key factors for organizational success, and it can affect university performance (Mohammadi & Karupiah, 2019). In addition, it is expected to be able to increase accreditation, and compete with state and global universities. The results of this study support the research (Barbosa et al., 2016 ; Cricelli et al., 2018). Besides that, the results also proved the same perception between public and private university lecturers on the structural capital of universities. They realize that facilities and infrastructure, databases, organizational structures, process guidelines, strategies, routines, software, hardware are very important to support the optimal performance of a university. This is agreeing with statements by past studies (Hejazai et al., 2016 ; Pedro et al., 2020 ; Secundo, Perez, Martinaitis, & Leitner, 2017 ; Ulum et al., 2019) Furthermore, there was significant difference on the perception of the importance of relational capital between the lecturers of public and private universities (.037 < .05) as seen in Table 1. The difference in the perceptions of the lecturers is due to less optimal use of collaboration opportunities such as research, publication, lecturer internships, community service, student creativity programs, innovation incubators, anti-corruption education, and the anti-radicalism movement made by the private universities. Such collaborations will improve the quality of higher education, thereby increasing the nation's competitiveness. The intention of public and private universities in building collaboration are the same , but sources of management funds made the differences. Therefore, private universities have to be more aggressive in establishing relationships with various external institutions in order to further enhance the credibility of the institutions. (Naidu & Derani, 2016 ; Paoloni, Cesaroni & Dermartini, 2019 ; Pedro et al., 2020) The differences in each of the human capital items between public and private universities can be seen in detail in Table 2. The results of this study proved that public universities need more support and training for career development of lecturers, administration and staff as well as student mobility while the respondents at the private universities felt that the university lacked adequate support for the career development of lecturers and staff and student resources and mobility. The difference of each item of the structural capital items in detail																																											

can be seen in Table 4. The results of the study showed a significant difference of 3 (three) items out of 13 (thirteen) question items for structural capital elements. They were installation and internal resources that support pedagogical qualifications and innovation ($t = 3.261, p < .01$); teaching organization and management ($t = 2,191, p < .01$) and technological capacity ($t = 3.25, p < .05$). The results of [this study showed that public universities](#) provide a high standard lecture material. This is able to improve the university ranking. Table 2 The difference in items of human capital between public and private universities

Question item	Group	N	Mean	SD	t	p
Typology of university staff	Public	152	4.309	0.791		
(historical data on the increase and decrease of staffing number, staff age structure, type of contracts, etc.)	Public	152	4.309	0.791		
(HC1) Teaching and research staff academic and qualifications	Public	152	4.625	0.573		
(HC2) Mobility of teacher and researcher	Public	152	4.487	0.598		
(HC3) Scientific productivity (books)	Public	152	4.625	0.562		
(HC4) Teaching and research professional qualifications	Public	152	4.566	0.616		
(HC5) Mobility of graduate students	Public	152	4.863	1.342		
(HC6) Efficiency of human capital	Public	152	4.181	0.028*		
(HC7) Teaching capacities and competence	Public	152	4.086	0.616		
(HC8) Research capacities and competence	Public	152	4.205	0.683		
(HC9) Capacity for teamwork	Public	152	4.268	0.619		
(HC10) Leadership capacity	Public	152	4.353	0.619		
(HC11) Training activities	Public	152	4.533	0.619		
(HC12)	Public	152	4.533	0.619		
Private	Private	152	4.079	0.759		
Private	Private	152	4.625	0.573		
Private	Private	152	4.487	0.598		
Private	Private	152	4.625	0.562		
Private	Private	152	4.566	0.616		
Private	Private	152	4.863	1.342		
Private	Private	152	4.181	0.028*		
Private	Private	152	4.086	0.616		
Private	Private	152	4.205	0.683		
Private	Private	152	4.268	0.619		
Private	Private	152	4.353	0.619		
Private	Private	152	4.533	0.619		
Private	Private	152	4.533	0.619		
Private	Private	152	4.079	0.759		
Private	Private	152	4.625	0.573		
Private	Private	152	4.487	0.598		
Private	Private	152	4.625	0.562		
Private	Private	152	4.566	0.616		
Private	Private	152	4.863	1.342		
Private	Private	152	4.181	0.028*		
Private	Private	152	4.086	0.616		
Private	Private	152	4.205	0.683		
Private	Private	152	4.268	0.619		
Private	Private	152	4.353	0.619		
Private	Private	152	4.533	0.619		
Private	Private	152	4.533	0.619		
Private	Private	152	4.079	0.759		
Private	Private	152	4.625	0.573		
Private	Private	152	4.487	0.598		
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institution's assessment and qualification processes (SC15) Public Private 152 4.389 4.278 0.576 0.739 1.472 .142 Organisational structure (SC16) Public Private 152 4.342 4.329 0.631 0.707 0.171 .864 [Teaching management and organisation \(internal communication of result, periodical exchange with foreign teachers, teaching incentives, etc.\) \(SC17\)](#) Public Private 152 4.309 4.145 0.622 0.685 2.191 .029* [Research management and organisation \(internal communication of results, efficient management of research projects, research incentives, these read, etc.\) \(SC18\)](#) Organisation of scientific, cultural and social events (SC19) Productivity of the administration, academic and support services (SC20) Organisation culture and values (SC21) Efforts innovation and improvement (expenditure on innovation, staffing level, etc.) (SC22) Management quality (SC23) Information system (document processes, database, ITC use, etc.) (SC24) Technological capacity (total expenditure on technology, availability and use of computer programmes, intranet/internet use, etc.) (SC25) Public Private 152 Public Private Public Private Public Private Public Private 152 152 152 152 Public Private Public Private Public Private 152 152 152 4.316 4.296 0.603 0.629 4.290 4.283 4.441 4.401 4.303 4.270 4.461 4.474 0.637 0.624 0.595 0.612 0.641 0.651 0.640 0.586 4.474 0.597 4.382 0.650 4.625 0.536 4.520 0.651 4.612 0.553 4.362 0.768 0.279 0.091 0.570 0.444 -0.187 1.286 1.538 3.257 .780 .928 .569 .657 .852 .199 .125 .001** Note: **p < .01; *p < .05.

Sources: Data processed with IBM SPSS Statistics for Windows, Version 21.0. stronger, and students are really diligent and able to mentally retain all the material given. Although some lecturers at private universities really focus on being lecturers, some of the lecturers also have businesses at outside, (Paoloni et al., 2019). This is possible because many lecturers at private universities are not bound by government regulations because most of them are not civil servants. Cooperation of private universities with other organization is rarely found at both national and international levels. This is due to foreign cooperation partners usually looking for collaborative partners who are of the same level or quality because they want both parties to have benefits. The [results of this study](#) proved [that there are differences in](#) the perception [among](#) lecturers at the public and private universities in West Sumatra. It means public university lecturers have indicated important perception of intellectual capital for universities when compared to the [private universities'](#) lecturers. [The](#) results [of this study](#) supported [the](#) findings [of](#) Table 4 The difference in items of relational capital between public and private universities Question Item Group N Mean SD t p [Effectiveness of graduate teaching \(average duration of studies, dropout rate, graduation rate, etc.\) \(RC26\)](#) Public Private 152 4.329 4.007 0.639 0.768 Student satisfaction (RC27) Public Private 152 4.566 4.526 0.536 0.630 Graduate employability (RC28) Public Private 152 4.513 4.507 0.587 0.651 [Relations with students \(capacity of response to student's needs, permanent relations with graduates, etc.\) \(RC29\)](#) Public Private 152 4.447 4.447 0.584 0.584 [Relations with students \(capacity of response to student's needs, permanent relations with graduates, etc.\) \(RC29\)](#) Public Private 152 4.474 4.336 0.630 0.650 [Relations with society in general \(institutional representation in external organisations, collaboration in national and international projects, etc.\) \(RC31\)](#) Applications and dissemination of research (dissemination of result, social appropriateness of research) (RC32) Public Private 152 4.362 4.349 0.646 0.623 Relations with media (RC33) Public Private 152 4.210 4.210 0.725 0.725 University image (RC34) Public Private 152 4.599 4.671 0.555 0.512 Collaborations and contacts with public private organisations (RC35) Public Private 152 4.388 4.486 0.553 0.609 Collaboration with other universities (RC36) Public Private 152 4.473 4.500 0.597 0.587 Strategic links (RC37) Public Private 152 4.500 4.474 0.564 0.608 Relations with quality institutions (RC38) Public Private

152 4.572 4.579 0.535 0.546 The [regional, national, and international reputation of the university](#) (RC39) Public Private 152 4.671 4.638 0.499 0.534 Social and cultural commitment (RC40) Public Private 152 4.408 4.322 0.602 0.582 Environmental responsibility (RC41) Public Private 152 4. 572 4.546 0.615 0.550 3.980 0.589 0.093 0.000 1.881 2.499 0.181 0.000 -1.182 -1.480 -0.387 0.391 -0.106 0.555 1.259 0.393 .000* .557 .926 1.000 .061 .013** .857 1.000 .238 .140 .699 .696 .916 .579 .209 .695 Note: **p < .01; *p < 0.05. Sources: Data processed with IBM SPSS Statistics for Windows, Version 21.0. Secundo et al, (2017); Wang, Wang, and Liang, (2014), who said that academics' perceptions of [intellectual capital in public and private universities](#) are important for maintaining the academic quality. This proved [that intellectual capital is the most important and strategic resource for universities](#), Ramirez [and](#) Gordillo, (2014). Also, Naidu and Derani (2016) found that there is not much difference between [public and private universities in terms of education and](#) student satisfaction. They concluded [that the universities must be more transparent in the performance evaluation system, financial allocation and](#) providing [facilities](#) (Lu, 2012; Sánchez, Elena, & Castrillo, 2009; Secundo et al., 2017). The results of hypotheses 1a (human capital) and 1b (structural capital) showed the same perception of public and private lecturers. The average respondent stated that the elements of human capital and structural capital are important for both public and private universities. However, only 4 items out of 12 human capital items and 3 out of 13 structural capital items indicated different perceptions from the lecturers of [public and private universities. This finding is consistent with](#) Ramirez et al. (2014), who mentioned [that the university's main goal was to produce and disseminate knowledge through academic research and human resources as its biggest](#) investment. Meanwhile hypothesis 1c proved that there is a significant difference of 2 (two) of out 16 (sixteen) items of the relational capital question element. The results of this study are consistent with (Hejazai [et al., 2016](#); Pedro [et al.](#), 2020; Tjahjadi [et al, 2019](#)). Conclusion and Recommendation In general, the findings of the study extended previous research contributions on [intellectual capital in universities](#) , especially [the perception of lecturers of public and private universities on the importance of university's intellectual capital](#). This study has also filled the gap in research literature by examining the previously mentioned matter. Apart from that, this study implied strengthening the theory of stakeholders, saying that both internal and external parties have the right to access information about university activities for satisfying the community. Specifically, the results of this study showed that the public university lecturers showed [an important perception of intellectual capital for universities](#) compared to [the private university lecturers](#). The findings stressed that academics' perceptions on [intellectual capital in public and private universities](#) are important for maintaining quality academics. This also proved [that intellectual capital is the most important and strategic resource for public and private universities in West Sumatra province](#). It is also suggested that the private universities should be more aggressive in establishing relationships with various external institutions at both national and international levels. Besides, it is also crucial to build a cooperation with the community in an effort to further enhance the credibility of the institution. The private universities must also increase investment in managing intellectual capital. All the-above suggestions can be realized by private universities through applying tight regulations on staff in order to improve their potential and better focus on responsibilities as lecturers. Other than that, private universities also need to build strong financial support not only for developing the education facilities but also for cultivating their human resources so that they will be a really intangible asset and be able to bring continual survival for the university. In the end, this will increase the

university performance, which later on will appeal to students and the public to make a priority in pursuing study at private [universities](#). [Despite the contributions of](#) the study, [this study](#) has limited focus [on three](#) elements [of intellectual capital](#) only i.e. [human capital, structural capital and relational capital](#) of [intellectual capital](#). Besides, this study took account of the samples from the universities in West Sumatra province only through a case study. Therefore, it is recommended that wider samples from a wide range of regions are considered for further study. Conflict of Interest [There is no conflict of interest](#). Acknowledgement [The authors](#) would like to thank respondents from public and private universities in West Sumatra province of Indonesia, for their excellent cooperation in this research. References

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