

# Intellectual Capital Disclosure and the Effecting Factor on Official Website of Higher Education in Indonesia

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## Abstract

This study aims to describe the level of intellectual capital disclosure and examine the effect of age, size, and internationality on the intellectual capital disclosure (ICD) of higher education in Indonesia. This study also sees the difference in intellectual capital disclosure between public and private higher education. This study uses 88 official websites of higher education in Indonesia. The ICD component used in this study is a framework comprising 60-item—testing tools for multiple linear regression analysis with a significance level of 0.05. The results obtained are: (1) size has a significant effect on intellectual capital disclosure; (2) age and internationality haven't a significant effect on intellectual capital disclosure; and (3) intellectual capital disclosure of public higher education and private higher education has a different pattern. Public higher education is more likely to disclose information about human, structural, and relational capital in a narrative format. Meanwhile, private higher education is more likely to disclose structural and relational capital information in a narrative format but does not reveal information about human capital. This study contributes to the reference related to the pattern of intellectual capital disclosure among higher education (public and private higher education) and its affecting factors.

**Keywords:** Size; Age; Internationalization; Intellectual Capital Disclosure; Higher Education; Official Website

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## Introduction

In the modern knowledge-based economy, intellectual capital is considered a major value-creation factor in private and public organizations (Bezhanı, 2010; Siboni, 2017). Although the concept of intellectual capital was initially developed as a framework for contributing intellectual resources in business organizations, intellectual capital can also be adopted by public and non-profit organizations, given the importance of the information that the community needs for the organization. The college is one of the public organizations. Intellectual capital is essential in higher education because higher education is the right knowledge-based institution (Ramírez & Gordillo, 2014). Human resources are crucial to disclosing intellectual capital in public organizations (including higher education). The existence of human resources is an important factor; this is the reason higher education is

essential to disclose intellectual capital because revealing intellectual capital can also increase development and competition with other higher education with these valuable assets (Pahlevi et al., 2016). Research on intellectual capital disclosure in non-profit organizations is only about 1% (Cuozzo et al., 2017). Recently, there has been a push to expand it from private organizations to public organizations, such as tertiary institutions and research institutes (Ulum, 2012). Most intellectual capital disclosure studies are only conducted based on analyzing annual reports as a data source due to their readily available availability and widespread use by previous researchers (Dumay & Cai, 2015; Dumay, 2014).

Currently, the official website of a business entity and the official website of a university institution have the potential to be the object of research on intellectual capital disclosure. As an electronic communication tool, the Internet also provides the ability in the business field to give all business information to external users in real time (Ulum & Novianty, 2012). The need to focus on developing intellectual capital in realizing an increase in creativity and innovative roles and increasing communication activities (online communication) by expanding to foreign parties can create added value (Ridho & Miskiyah, 2020). According to Pahlevi et al. (2016), the delivery of information through electronic media or websites is used by higher education in the delivery of information and publications. The development of higher education in the era of globalization requires higher education to internationalize, as well as the management of higher education based on management total of innovation, information technology concentration, and global oriented (Fuadi, 2016). The transformation of higher education in the era of globalization is caused by the main driver of change, namely the development of communication and advanced technological services (Knight, 2021). Therefore, with the development of technology and the role of higher education in producing scholars, Indonesian higher education is expected to adapt to changing conditions through intellectual capital disclosure continuously. Through intellectual capital disclosure, Indonesian higher education is increasingly known by the public, both nationally and on an international scale.

In expressing intellectual capital, a university is inseparable from various factors that affect it. Ulum and Novianty (2012) examined the factors that influence the intellectual capital disclosure on the official website of the Indonesian university that won the Qs-Star stated the results of the study that, in general, the intellectual capital disclosure on the official website of the Qs-Star winning college is still low, because of the 46 items no higher education that disclose intellectual capital in full, the age of the college does not significantly affect the disclosure intellectual capital on the official website, while the existence of a profit center and the status of higher education have a significant effect on the intellectual capital disclosure on the official website of higher education. The results of research by Puspitosari et al. (2017), which examined the intellectual capital disclosure on the PTN and PTKN websites, stated that the age of the university affects the intellectual capital disclosure on the website, while the profit center does not affect the intellectual capital disclosure on the university website, and shows that there are differences in the intellectual capital disclosure of PTN and PTKN. These researchers (Aulia et al., 2019) examined how size, complexity, international programs, and accreditation status affected exposure at the Muhammadiyah University in Indonesia. They found relational capital has the most intellectual capital disclosure while human capital has the least. Then, higher education's size, complexity, international programs, and accreditation

status significantly positively affect intellectual capital disclosure. Indonesian higher education ownership status is divided into State Higher Education (PTN) and Private Higher Education (PTS). According to the Law of the Republic of Indonesia Number 12 of 2012, State Higher Education is Higher Education established and organized by the Government, while Private Higher Education is established and managed by the community. The stigma regarding the difference between PTN and PTS is still the subject of debate by the community. Hermawan (2011) shows that the average student in private higher education is more minor when compared to state higher education.

Stakeholder theory considers stakeholder positions to be considered strong positions. All stakeholders must know and be given access to information on how the organization's activities can affect it. Freeman et al. (2010) say that the research on stakeholder linkages to social reporting leads to the conclusion that social reporting is caused by several factors that are all connected. In addition, multiple types of reporting make the differences between them interconnected. In higher education, according to Wardhani and Suhdi (2020), the primary stakeholder is academia, the secondary stakeholder in the country, the public, potential first-year students, private companies, etc. This relates to the basic concepts of stakeholder theory. Primary and secondary university stakeholders have power over universities in disclosing intellectual capital. The longer the life cycle of universities in maintaining their existence and having good relationships with stakeholders, the more it can create emotional ties between the company and its stakeholders so that it may provide a lot of information about the intellectual capital needed by stakeholders. The larger a university is, the more parties will be part of the stakeholders so that universities will experience an increase in investment and relationships. Universities with international activities will be more responsible for providing intellectual capital information because they are in contact with stakeholders from abroad.

According to Ulum (2017:278), the definition of intellectual Capital is intellectual material that has been formulated and utilized to produce assets of higher value. According to Ramírez and Gordillo (2014), the three related components include intellectual Capital: Human Capital: the knowledge that is real and hidden from the academic communities, such as lecturers, researchers, structural officials, and staff obtained through formal and non-formal education. Structural Capital: hidden knowledge about internal socialization process, management, and communication of scientific and technical expertise in higher education. Structural Capital components, namely, Organisational Capital: various factors of the operational situation originate from the relationship between research, management and organizational style, corporate traditions and values, internal procedures, scope and quality of information systems. Technological Capital: the technological capacity of higher education, such as bibliography and research documents, archives, technological developments, licenses, patents, software, and databases. Relational Capital: the interaction of institutional, economic, and political elements that higher education has formed with their non-academic partners.

In the Indonesian context, the National Accreditation Board for Higher Education (BAN-PT) assessment standards contain appropriate intellectual capital items if applied to higher education in Indonesia. BAN-PT accreditation is carried out in all public, private, religious, and official study programs, including diploma, bachelor, master, and doctoral programs (Ulum, 2012). Ulum (2019) created the intellectual capital disclosure component for this study. According to the Indonesian Big Dictionary, age is when it lives or exists (since

birth or held). The college's age shows how long it can compete and maintain its existence. Older colleges are usually better at collecting, processing, and producing information because they are more experienced when compared to younger colleges. Thus, intellectual capital disclosure will increase with age. According to Puspitosari et al. (2017) and Gobel et al. (2020), the age of higher education significantly influences intellectual capital disclosure; the longer the college is established, the broader or more exposure to intellectual Capital it has.

**H<sub>1</sub>:** Age of higher education has a positive effect on intellectual capital disclosure.

According to the Indonesian Big Dictionary, size indicates the size of a unit of measure of an object. Large colleges can reach a broad audience. Ramirez et al. (2018) tested the effect of college size on intellectual capital disclosure at Spanish universities, and the results showed large universities revealed more intellectual capital information to meet the information needs of stakeholders demanding transparency from universities as large universities reach a broad audience and therefore should maintain their reputation through intensive disclosure on the internet. The larger the college, the greater the responsibility of maintaining its reputation with intensive exposure to attract the audience's attention (Álvarez et al., 2011). Gobel et al. (2020), who conducted a similar study, showed that the larger the size of a college, the greater the intellectual capital disclosure by the college. The quantity and quality of intellectual capital disclosures can also be seen from the size or large number of university students (Aulia et al., 2019).

**H<sub>2</sub>:** The size of higher education has a positive effect on intellectual capital disclosure.

Higher education must internationalize as globalization progresses, and innovative management must produce alumni and scientific works that the global community can use (Fuadi, 2016). The existence of higher education cooperation through internationalization is a motivation for improving the quality and intellectual capital, such as cooperation in the fields of education, research, and community service. Internationalization is an academic mobility for the academic community to grow and develop the quality of higher education and intellectual capital disclosure, including cooperation in teaching, research, and community service. The results of the study by Ramirez et al. (2018) state that the high quantity of information disclosed by universities can recruit more international students, and the university website will be the primary source of knowledge in exploring the activities and services of the university, as well as financial conditions. Then, according to the results of research by Aulia et al. (2019), international programs affect intellectual capital disclosure. The existence of international activities is the main door to the development of the internationalization of universities. The size of higher education has a positive effect on intellectual capital disclosure.

**H<sub>3</sub>:** Internationalization of higher education positively affects intellectual capital disclosure.

Based on previous phenomena, theoretical approaches, and research, the problem in this study is whether there is an influence of age, size, and internationalization on intellectual capital disclosure. Based on the problem formulation, this study aims to determine the level of intellectual capital disclosure and examine the influence of age, size, and internationalization on intellectual capital disclosure.

## Research Design and Method

The type of research carried out is quantitative research using secondary data. Secondary data is obtained from the official websites of each public university and private university that is the object of research. The population in this study is higher education under the auspices of the Indonesian Ministry of Research, Technology and Higher Education. The study samples were taken using the purposive sampling method. The sample criteria in this study are: 1) public and private non-vocational higher education and have an official website that can be accessed, 2) Based on the research criteria that have been previously determined, a total sample of 88 higher education consisting of 47 public higher education and 41 private higher education. The components of intellectual capital disclosure (dependent variables) in this study were formulated by Ulum (2019) and are arranged into three categories, namely human capital, as many as 30 elements; structural capital, as many as 18 parts; and relational capital, as many as 12 elements.

**Table 1. Intellectual Capital Components**

Element Intellectual Capital	
<b>Human Capital</b>	
HC.1	Number of Lecturers
HC.2	Lecturer Qualifications
HC.3	Lecturer Competence
HC.4	Lecturer Workload
HC.5	Number of Lecturers with Doctoral Education
HC.6	Number of Lecturers with the rank of Professor
HC.7	Number of Lecturers who have the rank of Head Lector
HC.8	Number of Lecturers who have Competency/Educator/Industry Certificates
HC.9	Number of Non-Fixed Lecturers
HC.10	Number of Active Students
HC.11	Number of New Students
HC.12	Number of Transfer Students
HC.13	Number of Overseas Students
HC.14	Number of Education Personnel
HC.15	Education Personnel Qualifications
HC.16	Education Personnel Competency
HC.17	Education Workload
HC.18	Recognition of Lecturer Expertise
HC.19	Lecturer Scientific Publications
HC.20	Cited Lecturer Scientific Work
HC.21	Lecturer Products/Services Adopted by Industry

<b>HC.22</b>	Lecturer-Student Research Umbrella
<b>HC.23</b>	The Lecturer-Student Community Service Umbrella
<b>HC.24</b>	Student Academic Achievement
<b>HC.25</b>	Student Non-Academic Achievements
<b>HC.26</b>	Graduate Competitiveness
<b>HC.27</b>	Graduate Performance
<b>HC.28</b>	Lecturer Scientific Publications with Students
<b>HC.29</b>	Number of Adopted Lecturer and Student Articles
<b>HC.30</b>	Lecturer Products/Services with Students Adopted by Society/Industry

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**Structural Capital**

<b>SC.1</b>	Vision, Mission, Goals (VMT)
<b>SC.2</b>	Achievement Strategy (VMT)
<b>SC.3</b>	Governance System (good governance)
<b>SC.4</b>	Quality Assurance System
<b>SC.5</b>	Student Selection System
<b>SC.6</b>	Student Services
<b>SC.7</b>	HR Development System
<b>SC.8</b>	Lecturer Research Fund (internal source)
<b>SC.9</b>	Lecturer Community Service Fund (internal source)
<b>SC.10</b>	Tridharma Facilities and Infrastructure
<b>SC.11</b>	Academic Information System
<b>SC.12</b>	E-learning
<b>SC.13</b>	Library Information System
<b>SC.14</b>	Research Information System
<b>SC.15</b>	Information Systems
<b>SC.16</b>	Curriculum
<b>SC.17</b>	Learning system
<b>SC.18</b>	Research and Community Service Standards

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**Relational Capital**

<b>RC.1</b>	International Cooperation in Education
<b>RC.2</b>	International Cooperation in Research
<b>RC.3</b>	International Cooperation in Community Service
<b>RC.4</b>	National Cooperation in Education
<b>RC.5</b>	National Research Cooperation
<b>RC.6</b>	National Cooperation in Community Service
<b>RC.7</b>	Regional Cooperation in the Field of Education
<b>RC.8</b>	Regional Cooperation in Research
<b>RC.9</b>	Regional Cooperation in Community Service
<b>RC.10</b>	Amount of Education Collaboration Fund
<b>RC.11</b>	Amount of Research Cooperation Fund
<b>RC.12</b>	Amount of PKM Cooperation Fund

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In analyzing the intellectual capital disclosure on the official website of higher education, this study used content analysis with the formula six ways numerical coding system based on the criteria: 0 = if the item is not disclosed; 1 = if there is just a title, but no



contents of it; 2 = if the item is represented in narrative format; 3 = if the item is represented in a number format; 4 = if the item is described in monetary unit format; 5 = if the item is represented in chart/chart/image format.

The variable age of the college is measured by calculating the period from the date of establishment until December 2021. The size of the college is measured by calculating the number of registered students presented on the PDDikti website according to the latest data. Internationalization of higher education is done by calculating the number of interstate cooperation partners provided on each university's website.

The research results were analyzed with the help of SPSS software. Data analysis techniques include normality tests, multicollinearity, heteroskedasticity, multiple linear regression analysis, and differentiation tests. Multiple linear regression analysis was conducted to test whether age, size, and internationalization affect the intellectual capital disclosure on the official websites of public and private higher education in Indonesia. Then, the Mann-Whitney Difference Test was used to compare intellectual capital disclosures on the official websites of Public Higher Education and Private Higher Education.

## Results and Discussion

### Statistical Result

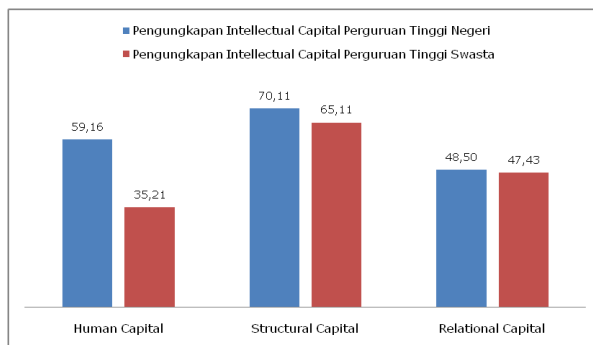
The data obtained from this study was taken by analyzing each official website of universities under the auspices of the Indonesian Ministry of Research, Technology and Higher Education. Before discussing further the study results, we will first discuss the demographics of the research sample.

**Table 2. Demographic Characteristics**

Characteristic	Category	Sum	%
Age	1 - 20 year	11	12,50
	21 - 40 year	10	11,36
	41 - 60 year	39	44,32
	61 - 80 year	28	31,82
	<b>Total</b>		88
Status	Public Higher Education	47	53,41
	Private Higher Education	41	46,59
	<b>Total</b>	88	100
Location	Java	65	73,86
	Non-Java	23	26,14
	<b>Total</b>	88	100

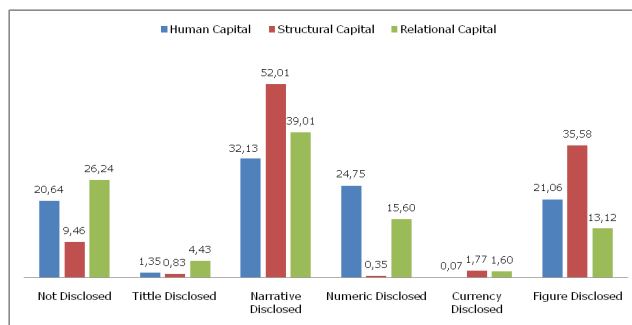
Based on Table 2 above, it can be seen that there are 11 institutions or 12.5%, are institutions aged 1-20 years; 10 institutions, or 11.36%, are institutions aged 21-40 years; 39 institutions, or 44.32%, are institutions aged 41-60 years, while the remaining 28 institutions or 31.82% institutions are aged 61-80 years. When viewed from the location of universities, as many as 65 institutions, or 73.86%, are located on Java Island, while 23 institutions, or the remaining 26.14%, are located outside Java. The percentage of Intellectual Capital disclosures by PTN and PTS shown in Table 1 states that public higher education excels in all categories of intellectual capital. The difference between the disclosures of the Relational Capital category needs to be more significant. However, the difference in the human capital category

showed a relatively significant result of 23.95%. Implementing higher education intellectual capital disclosure in Indonesia still needs attention. This is evidenced by 27 out of 47 A-accredited state higher education institutions that disclose intellectual capital exceeding the average disclosure (49.61%). Meanwhile, of the 41 A-accredited private higher education institutions sampled in the study, 20 revealed intellectual capital information exceeding the average disclosure (41.82%).



**Figure 1. Intellectual capital disclosure of Public Higher Education and Private Higher Education**

Figure 2 shows the percentage of intellectual capital disclosure in Public Higher Education by category: Human Capital, Structural Capital, and Relational Capital. Information on Human Capital, Structural Capital, and Relational Capital is mainly expressed in narrative format with percentage gains of 32.13% for Human Capital, 52.01% for Structural Capital, and 39.01% for Relational Capital.



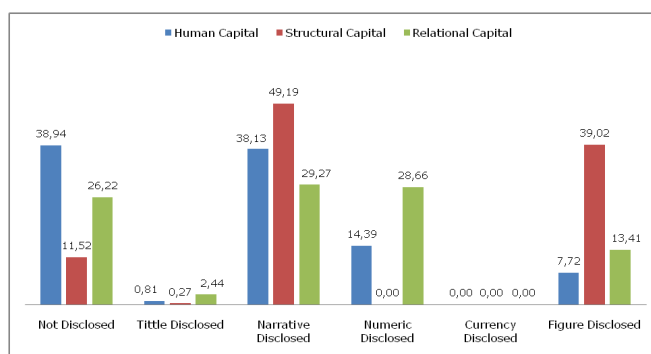
**Figure 2. Content Analysis Results of Intellectual Capital Disclosures on Public Higher Education**

Jenderal Soedirman University's highest expressed Intellectual Capital disclosure at A-accredited Public Higher Education in Indonesia with a total assessment score of 197 or 65.67%. This is because the official website of Jenderal Soedirman University presents complete information on the Intellectual Capital item, so it is relatively easy for researchers to provide an assessment. The presentation of Intellectual Capital items on the official website of Jenderal Soedirman University is mainly presented in graphic/image format. This makes it easier for website visitors or information seekers to get complete information in a fast time.



Sunan Gunung Djati State Islamic University revealed the lowest Intellectual Capital disclosure with a total assessment score of 85 or 28.33%; this is because, in the intellectual capital disclosure on the official website of Sunan Gunung Djati State Islamic University, more than 50% of items were not disclosed. Therefore, the information presented on the official website becomes less informative.

Figure 3 shows the percentage of Intellectual Capital disclosure in Private Higher Education accredited A by category: Human Capital, Structural Capital, and Relational Capital. Structural Capital information is more widely disclosed in narrative format (49.19%). Relational Capital information is also more commonly disclosed in narrative structure (29.27%); however, in contrast to Human Capital information, which is more dominant not to disclose (38.94%).



**Figure 3. Content Analysis Results of Intellectual Capital Disclosures on Private Higher Education**

Sanata Dharma University revealed the intellectual capital disclosure at the highest A-accredited Private Higher Education with a total assessment score of 169 or 56.33%. This is because the official website of Sanata Dharma University has complete information on the Intellectual Capital item. The presentation of Intellectual Capital items on the official website of Sanata Dharma University tends to be presented in graphic/image format, making it easier for website visitors or information seekers to obtain the information needed. Meanwhile, the lowest disclosure of Intellectual Capital was disclosed by the Driyarkara College of Philosophy with a total assessment score of 72 or 24%, this is because on the official website of the institution, more information on the intellectual capital disclosure is not disclosed, so the information presented on the official website becomes less informative.

Based on each indicator item in the human capital component from 30 items, the majority of which are disclosed by universities, are universities that disclose information related to the lecturer-student research umbrella and umbrella of community service from lecturers-students as many as 88 (100%) institutions. Meanwhile, the lowest disclosed is information about the number of transfer students and the workload of educational personnel in as many as 1 (1.14%) institution. Based on the indicator items on the structural capital component from 18 items, the majority of which are disclosed by universities are vision and mission objectives, achievement strategies, good governance, quality assurance system, student selection system, student services, tri dharma facilities and infrastructure, academic information systems, e-learning, library information systems, and research information systems as many as 88 (100%) institutions. Meanwhile, the lowest disclosed information about research funds and community service funds is as many as 10 (11.36%) institutions. Based on the indicator items on the relational capital component from 12 items, the majority of which are disclosed by universities are national collaboration in education fields and national collaboration in community service fields in as many as 86 (97,73%) institutions.

Meanwhile, the lowest disclosed in the relational capital component is the number of cooperation funds, especially in the education field. It can be stated that from the three components of intellectual capital, the structural capital component becomes the most dominant component expressed compared to other components. This means that universities are aware of the importance of maintaining quality and as much as possible can provide accurate and easily accessible information for information seekers so that they can always maintain a harmonious relationship with external parties of the university.

**Table 3. Content analysis of each intellectual capital disclosure item**

IC Component	IC Indicator	Frequency	% of universities
Human Capital	Number of Lecturers	87	98,86
	Lecturer Qualifications	86	97,73
	Lecturer Competence	83	94,32
	Lecturer Workload	3	3,41
	Number of Lecturers with Doctoral Education	81	92,05
	Number of Lecturers with the rank of Professor	79	89,77
	Number of Lecturers who have the rank of Head Lector	75	85,23
	Number of Lecturers who have Competency/Educator/Industry Certificates	64	72,73
	Number of Non-Fixed Lecturers	17	19,32
	Number of Active Students	49	55,68
	Number of New Students	44	50,00
	Number of Transfer Students	1	1,14
	Number of Overseas Students	21	23,86
	Number of Education Personnel	62	70,45
	Education Personnel Qualifications	54	61,36
	Education Personnel Competency	51	57,95
	Education Workload	1	1,14
	Recognition of Lecturer Expertise	85	96,59
	Lecturer Scientific Publications	76	86,36
	Cited Lecturer Scientific Work	66	75,00
	Lecturer Products/Services Adopted by Industry	70	79,55
	Lecturer-Student Research Umbrella	88	100,00
	The Lecturer-Student Community Service Umbrella	88	100,00
	Student Academic Achievement	84	95,45
	Student Non-Academic Achievements	84	95,45
	Graduate Competitiveness	83	94,32
	Graduate Performance	83	94,32
	Lecturer Scientific Publications with Students	73	82,95
	Number of Adopted Lecturer and Student Articles	64	72,73
	Lecturer Products/Services with Students Adopted by Society/Industry	67	76,14
	Vision, Mission, Goals (VMT)	88	100,00
	Achievement Strategy (VMT)	88	100,00
Governance System (good governance)	88	100,00	
Quality Assurance System	88	100,00	
Student Selection System	88	100,00	
Student Services	88	100,00	
HR Development System	84	95,45	
Lecturer Research Fund (internal source)	10	11,36	
Lecturer Community Service Fund (internal source)	10	11,36	
Tridharma Facilities and Infrastructure	88	100,00	
Academic Information System	88	100,00	
Structural Capital			

	E-learning	88	100,00
	Library Information System	88	100,00
	Research Information System	88	100,00
	Information Systems	86	97,73
	Curriculum	87	98,86
	Learning system	87	98,86
	Research and Community Service Standards	87	98,86
	International Cooperation in Education	85	96,59
	International Cooperation in Research	83	94,32
	International Cooperation in Community Service	83	94,32
	National Cooperation in Education	86	97,73
	National Research Cooperation	85	96,59
Relational Capital	National Cooperation in Community Service	86	97,73
	Regional Cooperation in the Field of Education	84	95,45
	Regional Cooperation in Research	83	94,32
	Regional Cooperation in Community Service	84	95,45
	Amount of Education Collaboration Fund	5	5,68
	Amount of Research Cooperation Fund	8	9,09
	Amount of PKM Cooperation Fund	7	7,95

### Statistical Result

Intellectual Capital information disclosed by A-accredited higher education has a minimum score of 24.00 and a maximum value of 65.67. The mean value of the Intellectual Capital Disclosure variable is 46.33%, meaning higher education tends to disclose their intellectual capital. Intellectual Capital Disclosure has a standard deviation of 9.15. The result of a standard deviation value smaller than the average value shows an increase and/or decrease in intellectual capital disclosures at each university of the same amount.

**Table 4. Descriptive Statistics Results**

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	
Age	88	7	78	51.28	17.113	
Size	88	390	69799	25489	14225.939	
Internationalization	88	0	403	61.08	77.876	
ICD	88	24.00	65.67	46.3333	9.15623	
Valid N (listwise)	88					

**Source:** Output SPSS, 2022

The age variable ( $X_1$ ), shows that the oldest university age is 78 years (Universitas Islam Indonesia). Meanwhile, the youngest college age is 7 (Walisongo State Islamic University). The size variable ( $X_2$ ) is measured using the number of students registered on the PDDikti website. The size variable has a minimum value of 390 and a maximum of 69,799. The mean value of the size variable is 25,489 and the standard deviation is 14,225.93. The number of international partners of each college measures the internationalization variable ( $X_3$ ). The internationalization variable has a minimum value of 0 and a maximum of 403. The mean value of the internationalization variable is 61.08 and the standard deviation is 77.87.

The research model has met the classical assumption test which includes: the normality test; multicollinearity; and heteroskedasticity so that further testing can be carried out on the research model.

**Table 5. Multiple Linear Regression Analysis Results**

Variable	Regression Coefficient	t	Sig. T	Decision
Constant	35,486	12,556	0,000	
AGE	0,068	1,261	0,211	H <sub>1</sub> rejected
SIZE	0,000	3,684	0,000	H <sub>2</sub> accepted
Internationalization	0,013	1,059	0,293	H <sub>3</sub> rejected
Dependent Variable		Intellectual Capital Disclosure		
Adjusted R Square	= 0,275			
F	= 10,640			
Sig. F	= 0,000			

Source: Output SPSS, 2022

If the significance value of  $F < 0.05$  means that  $H_0$  is rejected and  $H_a$  is accepted, it can be stated that all independent variables significantly affect the dependent variable (Ghozali, 2018). The results of the statistical test F in Table 5 obtained a calculated F value of 10.640, significantly smaller than 0.05 ( $0.000 < 0.05$ ). It can be stated that the variables of age, size, and internationalization together affect intellectual capital disclosure. The adjusted R square result of the research model was 0.275, which means that 27.5% of intellectual capital disclosure variables were influenced by age, size, and internationalization variables. The remaining 72.5 % were influenced by other variables not studied in this study.

**Table 6. Mann-Whitney U Difference Test Results**

Information	Results
Mann-Whitney U	455.00
Wilcoxon W	1316.00
Z	-4.255
Asymp. Sig. (2-tailed)	0.000

Source: Output SPSS, 2022

If the Asymp Sig. (2-tailed)  $< 0.05$  means that  $H_0$  is rejected and  $H_a$  is accepted; it can be stated that there were differences in the two groups tested (Edi, 2021). Based on Table 6, it can be seen that the Z value is -4.255 with Asymp Sig. (2-tailed) is  $0.000 < 0.05$ , meaning there are differences in the pattern of intellectual capital disclosure on the official websites of A-accredited Public and Private Higher Education Indonesia. This is supported by a descriptive discussion of intellectual capital disclosures in Public and Private Higher Education, which shows that the pattern of intellectual capital disclosure in Public Higher Education tends to reveal information about human capital, structural capital, and relational capital in a narrative format. Meanwhile, private higher education is more likely to disclose information about structural and relational capital in a narrative format but tends to keep information about human capital private. This indicates that the intellectual capital disclosure in Public Higher Education pays more attention to the Human Capital dimension because the qualifications of the existing academic community are considered to provide a more general picture that can be a competitive advantage of Public Higher Education.

Meanwhile, private higher education reveals more about structural and relational capital dimensions. This indicates that the intellectual capital disclosure in Private Higher Education pays more attention to Structural and Relational Capital dimensions because agencies' organizational culture and relationship with their partners will create public trust in it. However, despite the differences in the pattern of intellectual capital disclosure between Public and Private Higher Education, this does not reduce the core of the educational objectives organized by the two types of higher education just because of the difference in status.

## ***Discussion***

### **The Effect Age of Higher Education on Intellectual Capital Disclosure**

According to the results of partial SPSS testing, the age of higher education does not affect the intellectual capital disclosure on the official website of higher education in Indonesia. The intellectual capital disclosure in higher education that was first established is higher than that not long ago. This is because the existence of higher education that was established first has gained recognition and trust from the community. The increasing age of universities shows the presence of institutions. Thus, the longer the life of the college, the more intellectual capital information will be disclosed. However, this study proves that there is no influence of the age of universities on the intellectual capital disclosure on the official website, meaning that universities with a young age can also disclose intellectual capital equivalent to older universities. Young universities can use technology to equalize their position with older universities. The more the age of the college, the broader the scope of accountability to the public. In managing and organizing education, facing problems, they prioritize education management and focus on something other than disclosing intellectual capital. Thus, the age of higher education can be one of the factors influencing the disclosure of intellectual capital. This research supports the research of Álvarez et al. (2011) and Ulum and Novianty (2012), which stated that college age does not influence intellectual capital disclosure on the official website. However, this study does not support the research of Puspitosari et al. (2017), Ramírez and Tejada (2019), as well as Gobel et al. (2020), which states that the age of universities has a significant effect on intellectual capital disclosure.

### **The Effect Size of Higher Education on Intellectual Capital Disclosure**

According to the results of partial SPSS testing, the size of universities affects the intellectual capital disclosure on the official websites of universities in Indonesia. The size of universities in this study was proxied by the number of students registered according to PDDikti data. The greater the number of students, the larger the size of the college. Universities with large sizes will feel they have a great responsibility to the community, so they reveal more intellectual capital with disclosure characteristics that are also easier for the public to understand. The development of technology today allows universities with small sizes to be more innovative in conveying various information they have, including intellectual capital disclosures, to pursue progress to compete with universities with large sizes. Thus, the intellectual capital disclosure through the official website can be influenced by the size of higher education or how large the students the college has. This research supports the research of Aulia et al. (2019), Brusca et al. (2020), Fathony and Ulum (2018), which states that the size of universities has a significant effect on intellectual capital disclosure. Large universities can reach a wide audience and have an increasing responsibility to society, so they must maintain their reputation (Álvarez et al., 2011). The larger the size of tertiary institutions, the greater the intellectual capital disclosure because stakeholders urgently need these disclosures (Gobel et al., 2020).

### **The Effect of Internationalization of Higher Education on Intellectual Capital Disclosure**

According to the results of partial SPSS testing, universities' internationalization does not affect the intellectual capital disclosure on the official websites of universities in Indonesia. To improve the quality of higher education, internationalization can be done by building cooperation with international-scale partners through various forms of cooperation such as double degree programs, research collaboration, summer courses, student exchanges, and others. To be known as a world-class university, higher education institutions need to participate in including themselves in the World University Rankings through, among others, the existence of internationally accredited study programs, sending lecturers as speakers in international seminars, writing articles in international journals, and

conducting Leadership Visit programs (Fuadi, 2016). Internationalization focuses on a university strategy towards superior campuses that can encourage quality and reputation to be better nationally and internationally. Supporting the internationalization process is a form of intellectual capital characteristic of higher education institutions. However, research proves that internationalization does not influence intellectual capital disclosure on the official website, meaning that universities that have yet to internationalize (cooperation with foreign parties) will disclose intellectual capital information just like universities that internationalize. This condition is possible because universities that carry out internationalization with few foreign parties always try to disclose information commensurate with universities that cooperate with many foreign parties. The results of this study do not support the research of Aulia et al. (2019), Ramirez et al. (2018), and Rossi et al. (2018), which state that the internationalization of universities influences intellectual capital disclosure. The results of this study support Handoko (2013), who says that organizations that cooperate abroad focus on the capital they have to run operations to avoid affecting the disclosure of broad information..

## Conclusions

Based on the results and analysis of the research, it was concluded that the intellectual capital disclosure on the official website of the State University was highest at the University of Jenderal Soedirman and the lowest at the Indonesian Art Institute Denpasar. Meanwhile, the intellectual capital disclosure on the official website of the highest Private College at Sanata Dharma University and the weakest at the Driyarkara College of Philosophy. The factor that influences the intellectual capital disclosure on the official websites of universities in Indonesia is the universities' size. Meanwhile, age and internationalization don't affect intellectual capital disclosure. Based on the status of higher education institutions, the intellectual capital disclosure in State Universities prioritizes the Human Capital dimension. In contrast, Private Higher Education prioritizes Structural and Relational Capital dimensions. Although there are differences in the pattern of intellectual capital disclosure, the substance of the purpose of providing education at Public and Private Higher Education to create scholars who are virtuous and able to become problem solvers in social life remains the same. Suggestions to higher education in Indonesia should further increase the intellectual capital disclosure and provide updates on existing information on institutions so that it is expected to increase competitive advantage. The researcher also suggested to all parties who read and studied this research to make this research a reference material for further investigation. Furthermore, researchers are recommended to expand the research sample and add independent variables and control variables that are factors that can influence intellectual capital disclosure.

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