



REPORT

GRADUATE TRACER STUDY 2020

**UNDERGRADUATE, MASTER'S AND DOCTORAL
PROGRAMMES**

FACULTY OF ECONOMICS AND BUSINESS

UNIVERSITAS BRAWIJAYA

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CHAPTER I

INTRODUCTION

1.1. Background

Tracer study is conducted by universities to gather information about their graduate journey process, starting from when they finish their education at the universities until the survey is carried out, providing details on educational outputs of mastery and acquisition of competencies, the educational process in the form of evaluation of the learning process, and universities' contribution to competency acquisition and educational inputs in the form of further exploration of the graduates' socio-biographies.

In implementing higher education's evaluations, a tracer study is also intended to collect information on improving and ensuring the quality of higher education institutions. In addition, the tracer study also provides valuable information about the relationship between higher education and the professional working world, assessing the relevance of higher education, information for stakeholders, and of course, the completeness of the requirements for the implementation of higher education accreditation.

The tracer study process implementation at Universitas Brawijaya since 2013 has been centered and carried out by UB's Career and Entrepreneurship Development Unit (UPKK UB). UPKK UB is a unit at Universitas Brawijaya aiming to become a center of information and training as well as self-development for students and alumni in entering the working world, to be a liaison between universities and government institutions, the business world, and the industrial world (DUDI), to prepare students and alumni to have entrepreneurial insight, to become a data and information center for tracer study at Universitas Brawijaya.

The UPKK UB emerged from establishing the Job Placement Center (JPC) in 1995. This institution eventually changed its name and function based on the Rector Decree number 199/SK/2013 dated April 24, 2013, to become a Job Placement Center and Tracer Study. This name change was intended to accommodate the implementation of the tracer study function. Furthermore, in 2015, the JPC and

Tracer Study structure underwent another change with the Rector's Decree No. 188 of 2015, dated April 29, 2015, regarding the Organizational Structure of UB's Career Development and Entrepreneurship Unit (UPKK UB).

As a work unit under Universitas Brawijaya, the Faculty of Economics and Business follows the decisions that have been made at the university level. So, FEB UB always coordinates with UPKK UB to adjust data needs related to the necessary tracer studies to enter question points into an integrated tracer study system at the university called the Alumni Information System and Tracer Study (SINATRA).

In accommodating the changing dynamics of the labor market environment and many higher education graduates, FEB UB is always required to review and adjust the curriculum to produce graduate profiles following the job market's needs. The review and preparation of the curriculum must be carried out by involving all stakeholders such as educators (lecturers), active students, graduates (alumni), and graduate users who can directly assess the suitability of the required graduate profile. The implementation of the tracer study is an effort to engage stakeholders in improving and ensuring the quality of the teaching and learning process in all FEB UB Study Programmes.

1.2. Aim

It is necessary to conduct a search study with the following objectives:

- 1) To find out FEB UB graduates' job profile
- 2) To get input to improve FEB UB's learning system and curriculum development to meet graduate competency standards.
- 3) To obtain input for infrastructure development and strengthen soft skills following educational objectives and outputs based on stakeholder expectations and market needs.

1.3. Significant

The results of this search are expected to be used for the following purposes:

- 1) For optimizing the potential of FEB UB graduates.
- 2) For enhancing the education and teaching system in FEB UB.

CHAPTER II

TRACER STUDY METHODS

The tracer study of FEB UB alumni is conducted with all faculties in Universitas Brawijaya. The implementation of tracer studies is coordinated at the university level by UPKK UB.

2.1. Stage of Implementation

In general, the method of implementing tracer studies in UB is carried out as follows:

- 1) Tracer study questionnaire development by INDOTRACE questionnaire, selected based on needs and added questions relevant to UB's needs;
- 2) Questionnaire socialization and discussion were carried out with all faculties to get an agreement on the questions included in the questionnaire;
- 3) Collection and Compilation of graduate data;
- 4) Uploading the UB Tracer Study Questionnaire to the SINATRA UB page;
- 5) Submission of Study Tracer Information to graduates, notifications are made through all contact media in the alumni database (email, SMS, and WhatsApp);
- 6) Issuing reminders to complete the tracer study, reporting repetitions to be able to participate in completing the tracer study;
- 7) Downloading the data of the results of the Tracer Study filling;
- 8) Tracer Study data processing and analysis;
- 9) Preparation of Tracer Study Report.

2.2. Scope of Research

The scope of this graduates tracer study includes:

- 1) Profile of FEB UB graduates, including waiting period to get the first job, salary at first job, position/position at the first job;
- 2) Barriers and amenities faced by graduates in both finding and dealing with labour market employment;
- 3) The soft skills and hard skills of graduates in entering the workforce.

2.3. Type of Research

This research employs exploratory approach conducted to find out more in-depth about phenomena that have not been known in more detail so far. The data collection results are described to obtain and describe the characteristics of FEB UB graduates, including GPA, first job waiting period, where they work and how much salary they earn from their first job, and any challenges they deal with. In addition, the workplace performance of FEB UB graduates is also described.

2.4. Research Time Range

The research data include former FEB UB students graduating during the academic year of 2018/2019. With such a long period range of data gathered, it is expected that an overview of graduates and information regarding what must be done to improve the quality of graduates will be obtained.

In terms of data collection, this research is a cross-sectional study, which considers the data at a specific time and does not compare the data between times. Tracer studies are carried out regularly every year for all study programmes in FEB UB.

2.5. Population and Sample

The population involves entire element studied (Cooper and Schindler, 2006). The population is a generalization area consisting of objects (or subjects) with specific quantities and characteristics determined by the researcher to be studied and then concluded. The population looks at the number and includes all the properties possessed by the subject or object under study. The tracer population refers to all graduates who graduated two years ago (TS-2). The determination of the graduate year in the cohort is a minimum of two years from the year the graduate tracer is carried out so that the information provided by graduates becomes more objective. Based on these criteria, the population of the 2020 tracer study is students who graduated in the 2018/2019 academic year.

While the sample is part of the number and characteristics possessed by the population or a small part of the population members taken based on certain

procedures so that they can represent the population. The sampling of this research used the random probability sampling method, which means that every student who graduates in the 2018/2019 academic year has the same opportunity to be sampled. Data analysis can only be done on samples with complete data.

2.6. Types and Sources of Data

Data source types are determined from which the data is obtained, whether it is direct sources (primary data) or indirect sources (secondary data). The following types and sources of data were utilized in this tracer study.

1. Primary Data

Primary data are data derived directly from data sources and have not been processed by any party for specific research purposes (Cooper and Schindler, 2006). In this tracer study, primary data are used in the form of information obtained directly from FEB UB graduates regarding GPA, waiting period to get the first job, place of work, and salary for the first job, as well as other information related to competencies, achievements, and obstacles faced by graduates. Furthermore, information was obtained from graduate users on the assessment of FEB UB graduates.

2. Secondary Data

Secondary data is data collected to support primary data in a study. Secondary data are generally in literature, books, reports, laws, and written data produced by one section. The secondary data used in this tracer study were obtained from the alumni, personnel administration, and general department of the Faculty of Economics and Business, Universitas Brawijaya, including data on alumni profiles, human resources, and supporting facilities.

2.7. Data Collecting Methods

Data collection method is a technique used to collect data. The method designates a way to show its use through questionnaires, interviews, observations, tests, documentation, etc. At the same time, the data collection instrument is a tool used to collect data. As a tool, the instrument can be in the form of a checklist sheet, questionnaire (open/closed questionnaire), interview guidelines, cameras and others.

Data collection in this tracer study is accomplished by combining data collection techniques. A questionnaire is based on a combination of closed and open-ended questions. This questionnaire was distributed online, sent via email, and by telephone, answered directly by the respondent. These techniques make it easier for field workers to obtain information from graduates/alumni, most of whom have limited time and scattered locations, both at home and abroad.

Two methods are used in the graduates' tracer study effort: a survey and an online system. The survey system is sent to the addresses of alumni or parents who are registered in the SIUDA data center. But over time, this survey system is progressively reduced and completely replaced by an online system. The online system sends messages (notifications) via SMS, email, and WhatsApp registered in the university data center to all graduates included in the tracer study sample.

The message contains a request to participate in filling out tracer study through the Alumni Information System and Study Tracer (SINATRA) Universitas Brawijaya, which can be accessed through the <https://sinatra.ub.ac.id/>. Graduates can access SINATRA by activating the settings on the Application menu on the Universitas Brawijaya Student Academic Information System (SIAM) account online via <https://siam.ub.ac.id/>.

2.8 Data Analysis

The data that has been collected is then analyzed using descriptive statistics, which explains the data characteristics, which can be in the form of average values, minimum and maximum values, number of samples, and data deviations. Furthermore, the data can also be displayed as tables and figures relevant to the description.

Some of the data collected are in the form of subjective data based on the personal opinions of graduates. So, questions like this are filled in to test the validity and reliability. The validity and reliability testing are intended to ensure that the instruments and questions asked in the questions are consistent with the study's objectives.

Ghozali (2009) states that the validity test is used to assess the validity of a questionnaire. A valid questionnaire is if the questions on the questionnaire can indicate something that the questionnaire will measure. Meanwhile, high validity test is if the test performs its measuring function or provides precise and accurate measurement results following the purpose of the test. A test that generates data irrelevant to the measurement objective is considered a test with low validity.

In testing the validity of the questionnaire, it is divided into 2, namely factor validity and item validity. Factor validity is measured when the items are compiled using more than one factor (similarities between one factor and another). This factor's validity measurement correlates the factor score (number of items in one factor) with the total factor score (total of all factors).

Item validity is indicated by the availability of a correlation or support for the total item (total score). The calculation is carried out by correlating the item score with the total item score. Using more than one factor means testing the item's validity by correlating the item score with the factor score, then correlating with the total factor score (the sum of several factors).

A correlation coefficient will be obtained from the correlation calculation results, which are used to measure an item's validity level and determine whether an item is suitable for use. In determining whether an item can be used, a correlation coefficient significance test is usually carried out at a significance level of 0.05, meaning that an item is considered valid if it has a significant correlation with the total score. Frequently used testing techniques to test the validity is using the Bivariate Pearson correlation. If r count r table (2-sided test with sig. 0.05), the instrument or question items significantly correlate with the total score (declared valid).

Meanwhile, according to Ghozali (2009), reliability is a tool to measure a questionnaire that indicates a variable or constructs. A questionnaire is reliable if someone's answer is consistent or stable from time to time. Reliabilitas suatu test merujuk pada derajat stabilitas, konsistensi, daya prediksi, dan akurasi. Measurements that have high reliability are measurements that can produce reliable data.

In research, reliability is how a test measurement remains consistent after repeated tests on the subject and under the same conditions. A reliable study provides consistent results for the same measurement. Unreliable when repeated measurements give different results.

High and low reliability are empirically indicated by a number called the reliability coefficient value. High reliability is indicated by the rxx value close to 1. The general agreement is that the reliability is considered quite satisfactory if 0.700. The reliability is calculated by looking at the Cronbach alpha value. The validity and reliability of test results were determined using the STATA software.

CHAPTER III

PROFILE OF GRADUATES

3.1 General Profile of Graduates

FEB UB tracer study in 2020 is carried out for all study programmes at all degrees (undergraduate, master's and doctoral). The undergraduate programme at FEB UB, which is included in the tracer study report, consists of 5 (five) study programmes, namely: (1) Undergraduate Programme in Economics Development, (2) Undergraduate Programme in Islamic Economics, (3) Undergraduate Programme in Economics Finance and Banking, (4) Undergraduate Programme in Management, dan (5) Undergraduate Programme in Accounting. The sample consists of 242 graduates.

Furthermore, in the Master's Programme, there are 3 study programmes, namely (1) Master's Programme in Economics Science, (2) Master's Programme in Management Science, and (3) Master's Programme in Accounting Science. For the master's level, the sample is 51 students. Moreover, at the doctoral level, also consists of 3 study programmes, namely: (1) Doctoral Programme in Economics Science, (2) Doctoral Programme in Management Science and (3) Doctoral Programme in Accounting Science.; the number of samples at the doctoral level is 38 students. From the three degrees, the total sample is 331 students.

As an illustration of student performance achievements, descriptive scores of the Grade Point Average can be presented in each programme of study. The academic achievement of respondents who take part in the tracer study is fairly good, it can be seen from the score of the respondents' Grade Point Average (GPA) when they finish studying at the FEB UB. With an average GPA in the three departments, of course, fulfilling the administrative requirements in the job market is more than sufficient.

In general, in undergraduate programmes, the average GPA score that is the same as / has exceeded the undergraduate grade at the faculty level is only in the Undergraduate Programme in Management, while others are below the average undergraduate GPA at the faculty level. The highest average GPA was achieved in

the Undergraduate Programme in Management of 3.56; on the other hand, the lowest grade was found in the Undergraduate Programme in Economics, Finance and Banking (3.32).

Table 1 Distribution of the Grade Point Average for Graduates of FEB UB's Undergraduate, Master's and Doctoral Programmes

Study Programme	Obs	Mean	Std. Dev	Min	Max
<i>Undergraduate Programme (S1)</i>					
S1 Economics Development	50	3.42	0.224	3.03	3.82
S1 Islamic Economics	32	3.48	0.182	3.06	3.83
S1 Eco, Finance, and Banking	23	3.35	0.199	3.03	3.77
S1 Management	97	3.56	0.250	2.86	3.99
S1 Accounting	56	3.48	0.233	2.83	3.88
<i>Undergraduate Programme (S1) FEB</i>	242	3.56	0.267	2.83	4.00
<i>Master's Programme</i>					
S2 Economics Science	19	3.74	0.108	3.50	3.86
S2 Management Science	12	3.70	0.088	3.54	3.86
S2 Accounting Science	56	3.48	0.149	3.44	3.94
<i>Master's Programme (S2) FEB</i>	51	3.51	0.234	3.07	3.97
<i>Doctoral Programme</i>					
S3 Economics Science	3	3.47	0.104	3.35	3.55
S3 Management Science	19	3.68	0.213	3.41	4.00
S3 Accounting Science	16	3.68	0.298	3.12	4.00
<i>Doctoral Programme (S3) FEB</i>	38	3.51	0.218	3.09	3.97

Source: processed data (2021)

In the master's programme, only the Master's Programme in Accounting has an average GPA below the faculty's average grade, where the PMA GPA is 3.48 lower. The highest GPA was achieved by the Master's Programme in Economics (3.74). Meanwhile, the average GPA score in the doctoral programme is the opposite, the lowest GPA value is in the Doctoral Study Programme in Economics and is below the average GPA for the doctoral programme at the faculty. Two other doctoral programmes, Doctoral Programme in Management Science and Doctoral Programme in Accounting Science, both have the same average grade of 3.68.

Furthermore, in this chapter, the results of testing the validity and reliability of several question indicators in the tracer study questionnaire are presented, asking about opinions about the learning methods carried out in the FEB UB master programme.

3.2 Validity and Reability Test Results

The validity and reliability test aims to ensure that the instruments and questions asked in the questions are consistent with the objectives of the research. Tests are carried out for all incoming data consisting of undergraduate, master's and doctoral programmes. Following are the test results:

3.2.1 Validity Test

The validity test was conducted to determine if a questionnaire was valid or not from each question indicator. The following table indicates the validity test which was performed.

Table 2 Validity Test Results

Question Indicator	r hitung	r tabel	Kesimpulan
Lecturing Method	0.9497	0.108	Valid
Demo Method	0.9522	0.108	Valid
Research Method	0.9456	0.108	Valid
Internship Method	0.9456	0.108	Valid
Practice Method	0.9466	0.108	Valid
Field Studies Method	0.9452	0.108	Valid
Discussion Method	0.9467	0.108	Valid

Sumber: processed data (2021)

The table above provides the results of the questionnaire validity test, consisting of 7 indicators and completed by 331 respondents. One way to find out whether the questionnaire is valid is to compare the value of r table and r count. Before comparing, it is necessary to know the r table first. The formula for r tables is $df=N-2$, so $331-2$ is 329, so r tables are 0.108. According to the validity calculation above, it can be seen that all the indicators in the question indicate $r \text{ count} \geq r \text{ table}$. As a result, it can be concluded that all question indicators used are valid.

3.2.2 Reliability Test

The reliability test is intended to measure the consistency or otherwise of the questionnaire used to measure a concept. Following are the results of the reliability tests:

Table 3 Reliability Test Results

Cronbach's Alpha	Keterangan
0.956	Reliabel

Sumber: processed data (2021)

Alpha Cronbach method is utilized to measure the reliability of this survey. If the value of Cronbach's Alpha is greater than, equal to 0.7 then the respondents' answers to the questionnaire as a measuring tool are considered reliable. However, if the value is less than 0.7, it is not reliable. Based on the results shown on the table above, the value of Cronbach's Alpha on the tested questionnaire indicates a value of 0.967 and a value greater than 0.7, implying that the questionnaire is reliable and can be used for further analysis.

CHAPTER IV

ANALYSIS RESULTS

The tracer study of 2021 involves alumni graduating from the undergraduate, master's and doctoral programmes in the 2018/2019 academic year, respectively explained in the section below.

4. 1 UNDERGRADUATE PROGRAMME

The tracer study on undergraduate programmes of FEB UB reveals that 242 graduated during the academic year of 2018/2019 incorporating 56 graduates of undergraduate programme in Accounting, 32 graduates of undergraduate programme in Islamic Economics, 50 graduates of undergraduate programme in Development Economics, 7 graduates undergraduate programme in Economics, Finance, and Banking, and 97 graduates of undergraduate programme in Management.

Table 4 Employment waiting period per Undergraduate Study Programme

Study Programmes	Employment waiting period (month)			Total
	< 6	6-18	> 18	
Undergraduate Programme in Accounting	46	8	2	56
Undergraduate Programme in Islamic Economics	23	8	1	32
Undergraduate Programme in Development Economics	36	12	2	50
Undergraduate Programme in Economics, Finance, and Banking	14	9	0	23
Undergraduate Programme in Management	76	19	2	97
Total	183	52	7	242
Percentage	80,6%	21,5%	2,9%	100%

Source: processed data (2021)

The table above exhibits that the majority of the graduate employment waiting period is less than 6 months occupying 75% of the graduates. Whilst, 21.5% and 2.9% of the students has to wait between 6 and 18 months and longer than 18 months respectively

Table 5 Employment Status per Undergraduate Study Programme

Study Programme	Employment		
	Prior to Graduation	After Graduation	Total
Undergraduate Programme in Accounting	12	44	56
Undergraduate Programme in Islamic Economics	1	31	32
Undergraduate Programme in Development Economics	46	4	50
Undergraduate Programme in Economics, Finance, and Banking	0	22	22
Undergraduate Programme in Management	16	81	97
Total	75	182	257
Percentage	29%	71%	100%

Sumber: processed data (2021)

The table above indicates that 29% graduates of FEB UB are employed prior to graduation, as opposed to 71% of the graduates employed after graduating from the programmes, which is in accordance with the previous table revealing that it takes sooner than 6 months for the graduates to get employed

From the two figures, it can be concluded that graduates of Development Economics programme are among the most employed before graduation with the shortest employment waiting period of less than 6 months. In comparison, graduates of accounting and management programmes are generally employed after graduation with more than 6 months of waiting period.

Table 6 Linkage between Study Programme and Current Job

Study Programmes	Linkage between Study Programme and Current Job			Total
	Low	Moderate	High	
Undergraduate Programme in Accounting	6	11	39	56
Undergraduate Programme in Islamic Economics	10	11	11	32
Undergraduate Programme in Development Economics	17	20	13	50
Undergraduate Programme in Economics, Finance, and Banking	7	5	11	23
Undergraduate Programme in Management	11	22	64	97
Total	51	69	138	258
Percentage	20%	27%	53%	100%

Sumber: processed data (2021)

Table 6 exhibits that slightly more than half (53%) of the FEB UB graduates are currently having careers highly related to the fields of science they studied at FEB UB. Meanwhile, 27% and 20% are working in the field moderately and lowly related to the fields of science they studied at FEB UB respectively.

Table 7 Length of Study Period (years) per Undergraduate Study Programme

Study Programmes	Obs	Mean	Std. Dev.	Min	Max
Undergraduate Programme in Accounting	56	4.41	0.98	2.92	7
Undergraduate Programme in Islamic Economics	32	4.15	0.8	3.58	7
Undergraduate Programme in Development Economics	50	4.43	0.99	3.33	7
Undergraduate Programme in Economics, Finance, and Banking	23	5.04	0.92	4.17	7
Undergraduate Programme in Management	97	4.3	1.1	2.42	7

Sumber: processed data (2021)

Table 7 shows that the average length of study period of the graduates is between 4 and 4.5 years. As for Economics, Finance and banking Department they spent a little more than 5 years, which requires evaluation on how to accelerate their length of study period.

Table 8 Graduates as Entrepreneurs

Study Programmes	Entrepreneurial Status		Total
	No	Yes	
Undergraduate Programme in Accounting	47	9	56
Undergraduate Programme in Islamic Economics	27	5	32
Undergraduate Programme in Development Economics	36	14	50
Undergraduate Programme in Economics, Finance, and Banking	10	12	22
Undergraduate Programme in Management	56	41	97
Total	176	81	257

Source: processed data (2021)

All of the graduates sampled in this tracer study currently have permanent jobs, some are entrepreneurs. The table above shows that 81 graduates run their businesses, mostly are the management department graduates. As many as 176 graduates are employees of companies most probably highly related to their field of study at FEB UB as presented on table 6.

Table 9 Average income of graduates as employees (in rupiah)

Study Programmes	Obs	Mean	Std. Dev.
Undergraduate Programme in Accounting	47	7,918,302	9,445,470
Undergraduate Programme in Islamic Economics	27	5,027,452	2,479,485
Undergraduate Programme in Development Economics	36	4,711,389	3,526,825
Undergraduate Programme in Economics, Finance, and Banking	12	3,259,091	1,448,039
Undergraduate Programme in Management	56	5,884,821	4,763,239

Source: processed data (2021)

Table 9 presents that the average income of accounting department graduates is between 7 and 8 million rupiahs. The Islamic economics and management department graduates earn between 5 and 6 million rupiahs monthly. As for the development economics and economics, finance, and banking departments, the graduates have the average income of 3 to 4 millions rupiah. This figure represents the finding presented on the previous table showing that most of the FEB UB graduates are employees of companies or agencies instead of being entrepreneurs. Given the average income of fresh graduates of the economics department, about 4 to 8 million rupiahs, it is likely dependent on the determination of the regional minimum wage in the area where they work.

Table 10 Average income of graduates as entrepreneurs (in rupiah)

Study Programmes	Obs	Mean	Std. Dev.
Undergraduate Programme in Accounting	47	6,672,222	4,387,989
Undergraduate Programme in Islamic Economics	27	700,000	974,679
Undergraduate Programme in Development Economics	36	5,652,857	4,084,393
Undergraduate Programme in Economics, Finance, and Banking	11	3,118,182	1,491,107
Undergraduate Programme in Management	56	21,182,927	78,505,627

Source: processed data (2021)

The table above shows the average income of graduates of FEB UB as entrepreneurs. It can be seen that the graduates of the Management earn approximately 21 million rupiahs. As for the Development Economics and accounting graduates it ranges from 5 to 7 million rupiahs. In addition, the economics, finance and banking graduates reveal the average income of around 3 million rupiahs. The lowest average income are those graduated from Islamic Economics department, ranging from 500 thousand to 1 million rupiahs.

4.2 MASTER'S PROGRAMME

FEB UB master's programmes include three study programmes: Master's in Economics, Master's in Accounting and Master's in Management. The tracer study

reveals that in the 2018/2019 academic year 51 students graduated from the Masters Programme consisting of 20 graduates of Master's in Accounting, 19 graduates of Master's in Economics, and 12 graduates of Master's in Management.

Table 11 Employment waiting period per Master's Study Programme

Study Programme	Employment waiting periode (month)			
	< 6	6-18	> 18	Total
Master's Programme in Accounting	17	3	0	20
Master's Programme in Economics	16	1	2	19
Master's Programme in Management	12	0	0	12
Total	45	4	2	51
Percentage	88,2%	7,8%	3,9%	100%

Source: processed data (2021)

It can be seen from the table that, overall, 88.2% of the FEB graduate employment waiting period is sooner than 6 months, leaving merely small percentage of those who have to wait for employment for 6 to 18 months (7.8%) and longer than 18 months (3.9%).

Table 12 Employment Status per Master's Study Programme

Study Programme	Employment status		
	Prior to graduation	After graduation	Total
Master's Programme in Accounting	3	17	20
Master's Programme in Economics	7	12	19
Master's Programme in Management	2	10	12
Total	12	39	51
Percentage	23,5%	76,5%	100%

Source: processed data (2021)

Based on the table above, it can be seen that 23.5% of FEB UB Master's Programme graduates were already employed before graduation, while the

majority (76.5%) got a job after completing their studies. This, therefore is supported by the findings in the previous table showing that 88.2% of FEB UB Master's graduates got a job approximately 6 months from the time they finish their studies. To compare the two tables above, the majority of FEB UB Master's graduates were employed after graduation with a waiting time of less than 6 months.

Table 13 Linkage between Study Programme and Current Job

Study Programme	Hubungan Study Programme dan Pekerjaan			Total
	Rendah	Sedang	Tinggi	
Master's Programme in Accounting	0	1	19	20
Master's Programme in Economics	1	3	15	19
Master's Programme in Management	0	3	9	12
Total	1	7	43	51
Percentage	2%	13,7%	84,3%	100%

Sumber: processed data (2021)

Table 6 above shows that the FEB UB graduates are largely having careers highly related to the fields of science they studied at FEB UB reaching 84.3%, leaving 13.7% and 2% working in the field moderately and lowly related to the fields of science they studied at FEB UB respectively.

Table 14 Length of Study Period (years) per Master's Study Programme

Study Programme	Obs	Mean	Std. Dev.	Min	Max
Master's Programme in Accounting	20	2.82	0.86	1.92	5.00
Master's Programme in Economics	19	1.89	0.72	1.33	3.50
Master's Programme in Management	12	2.81	0.73	1.83	3.75

Sumber: processed data (2021)

The Master's graduate average length of study, as shown in table 14, is between 1.5 and 2.8 years.

Table 15 Alumni Status Who Owns a Business

Study Programme	Entrepreneurship Status		Total
	NO	YES	
Master's Programme in Accounting	15	5	20
Master's Programme in Economics	15	4	19
Master's Programme in Management	7	5	12
Total	37	14	51

Sumber: processed data (2021)

Table 15 shows that 14 out of all graduates involved in the tracer study run their businesses. However, most graduates, 37 respondents, do not, instead they highly likely are employers of companies. As such, it corresponds to table 13 in which almost all of the Master's programme graduates of FEB UB work in field of science they studied.

Table 16 Average income of working alumni (rupiah)

Study Programme	Obs	Mean	Std. Dev.
Master's Programme in Accounting	15	5,020,000	2,462,925
Master's Programme in Economics	15	5,245,000	3,095,795
Master's Programme in Management	7	7,500,000	8,684,277

Sumber: processed data (2021)

Table 16 presents that the average income the graduates of Master's Programme in Accounting is 5 to 5.5 million rupiahs relatively similar to those of Master's Programme in Economics. As for the Master's in Management, the graduates' average income reaches 7.5 million rupiahs.

Table 17 Average income of working and entrepreneurial alumni (rupiah)

Study Programme	Obs	Mean	Std. Dev.
Master's Programme in Accounting	15	4,940,000	3,121,378
Master's Programme in Economics	15	10,175,000	14,022,215

Master's Programme in Management	7	4,900,000	2,302,173
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Sumber: processed data (2021)

Table 17 indicates that the entrepreneur graduates of Master's in Economics and in Accounting earn between 4.5 and 5 million rupiahs, only half when compared to 10 millions for those of Master's in Management

4.3 Doctoral Programme

The Doctoral Programme of FEB UB consists of 3 study programmes: Doctoral Programme in Economics, Doctoral Programme in Management Science and Doctoral Programme in Accounting. From the result of the tracer study, it reveals that 38 students graduated in the 2018/2019 academic year, incorporating 16 Doctoral Graduates in Accounting, 3 in economics, and 19 in management.

Table 18 Employment waiting period per Doctoral Study Programme

Study Programme	Waiting Period (month)			
	< 6	6-18	> 18	Total
Doctoral Programme in Accounting	16	0	0	16
Doctoral Programme in Economics	3	0	0	3
Doctoral Programme in Management Science	17	1	1	19

Sumber: processed data (2021)

From the table above, it can be concluded that most of the FEB UB doctoral graduates have to wait less than 6 months until their employment, and only few have to wait for a much longer period of time.

Tabel 19 Employment Status per Doctoral Study Programme

Study Programme	Employment Status		
	Prior to graduation	After graduation	Total
Doctoral Programme in Accounting	6	10	16
Doctoral Programme in Economics	1	2	3

Doctoral Programme in Management Science	9	10	19
Total	16	22	38
Percentage	42,1%	57,9%	100%

Sumber: processed data (2021)

Table 19 shows that 57.9% of FEB UB doctoral graduates are employed after completing their study, and 42.1% before graduation. It confirms the previous table information that the majority of FEB UB doctoral graduates start to work after graduation with a waiting time of less than 6 months, whereas some are employed even prior to graduation.

Table 20 Linkage between Study Programme and Current Job

Study Programme	Linkage between Study Programme and Current Job			Total
	Low	Medium	High	
Doctoral Programme in Accounting	0	1	15	16
Doctoral Programme in Economics	0	0	3	3
Doctoral Programme in Management Science	2	1	16	19
Total	2	2	34	38

Sumber: processed data (2021)

Table 20 above shows that the FEB UB graduates are mainly having careers highly related to the major of their study at FEB UB, and merely few of them working in the field moderately and lowly related their major of study at FEB UB respectively.

Table 21 Length of Study Period (years) per Doctoral Study Programme

Study Programme	Obs	Mean	Std. Dev.	Min	Max
Doctoral Programme in Accounting	16	5.39	1.37	3.83	8.00
Doctoral Programme in Economics	3	6.61	0.34	6.42	7.00
Doctoral Programme in Management Science	19	4.70	1.03	3.42	6.92

Sumber: processed data (2021)

The figure above reveals that the graduates of accounting major take the longest time to complete their study recording 6 years in average, followed by accounting and management graduates spending 5 and 4 years respectively.

Table 22 Alumni Status Who Owns a Business

Study Programme	Entrepreneurship Status		Total
	NO	YES	
Doctoral Programme in Accounting	15	1	16
Doctoral Programme in Economics	3	0	3
Doctoral Programme in Management Science	18	1	19
Total	36	2	38

Sumber: processed data (2021)

The table above exhibits that virtually every doctoral graduate is not an entrepreneur, instead an employee of a company as stated in table 20 in which the majority of the graduates work in the field highly related to their major of study.

Table 23 Average income of working alumni (rupiah)

Study Programme	Obs	Mean	Std. Dev.
Doctoral Programme in Accounting	15	10,953,333	10,080,949
Doctoral Programme in Economics	3	16,416,667	10,625,245
Doctoral Programme in Management Science	18	11,672,222	14,142,762

Sumber: processed data (2021)

Table 23 shows that the doctoral graduates in accounting and in management earns between 10 and 12 million rupiahs in average while the highest average income is achieved by those in economics making 16 million rupiahs.

Table 24 Average income of working and entrepreneurial alumni (rupiah)

Study Programme	Obs	Mean	Std. Dev.
Doctoral Programme in Accounting	1	55,000,000	-

Doctoral Programme in Economics	-	-	-
Doctoral Programme in Management Science	1	-	-

Sumber: processed data (2021)

Table 24 exposes the average income of doctoral graduates in accounting from having a business is 55 million rupiahs.

CHAPTER V

CONCLUSION

The tracer study report of 2020 is based on data collection of FEB UB graduates in Master's programme graduating in the 2018/2019 academic year. This report only presents information from FEB UB graduates. The results obtained in the Tracer Study report consist of undergraduate, master's and doctoral programmes, expected to contribute and provide input to each study programme to improve and provide the best service for its stakeholders.