

CHAPTER IV

FINDINGS AND DISCUSSION

This chapter present and discuss the finding of this research based on the data gathered from questionnaire via google form. In this chapter, the researcher presents findings and discussion of the study to answer the research question about what factor that influence the success of e-learning in university level during covid-19 pandemic.

A. Findings

All of the data obtained from 100 english education students' of several university in Banjarmasin there are from Lambung Mangkurat University, Antasari State Islamic University, University of Muhammadiyah Banjarmasin, and STKIP PGRI Banjarmasin. The researcher set the data into SPSS with using Exploratory Factor Analysis with the following steps :

- a. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity are used to ensure the data collected suitable and adequate for exploratory factor analysis. Kaiser-Meyer-Olkin (KMO) measure of sampling appropriateness and adequacy of the data for measures the factorability of individu variables or group variables which are basic assumptions of factor analysis. Kaiser Hendry F (1970, p.405) In practice, for just any old correlation matrix from the real world, the over-all MSA

apparently will always be positive, and almost invariably be above .40 or .50. KMO result of this study presented in table 4.1 is .918, it's mean the data from this research are sufficient to measure the value of the adequacy of the sample, then this also shows that the variables in the data are normally correlated. This result also fulfills the acceptable basic assumptions, which is above .50.

Table 4.1

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.918
Bartlett's Test of Sphericity	Approx. Chi-Square	2.784E3
	Df	465
	Sig.	.000

Next, to know the data can be use further, could see the numbers in the anti-image matrix table of the anti-image correlation table. The MSA value that can be accepted is > 0.5 from the results of the image correlation table. The results of the image correlation table can be seen in table 4.1, (KMO and Bartlett's Test table) there shows one MSA value that < 0.5 , namely in the variable is I only read messages in the discussion group (SC.9), this variable cannot analysis further . So the researcher decided to exclude I only read messages in the discussion group (SC.9) from the factors. Meanwhile, all MSA values except the SC9 variable can be accepted because their value more than > 0.5 , so the data can be analysis further.

Table 4.2.
Anti image

No	Indicator	MSA Result	Result
1	The e-learning encourages me search for more learning materials then the traditional method (offline class) (SC.1)	.907	Valid
2	The e-learning encourages me to participate more actively in the discussion (SC.2)	.867	Valid
3	I enjoy using personal computer (SC.3)	.920	Valid
4	I was comfortable with using the PC and software applications before now (SC.4)	.909	Valid
5	I most initiated in the discussion (SC.5)	.823	Valid
6	My previous experience helped me in e-learning based courses (SC.6)	.950	Valid
7	I learn best by absorption (sit still and absorb) (SC.7)	.919	Valid
8	I learn best by construction (by participation and contribution) (SC.8)	.927	Valid
9	I only read messages in the discussion group (SC.9)	.457	Invalid
10	I do read as well as participate in the discussion group (SC.10)	.908	Valid
11	Instructor's enthusiasm while teaching using e-learning tools (IC.1)	.915	Valid
12	Instructor's ability to motivate the students to use the e-learning system (IC.2)	.891	Valid
13	Instructor's ability to use the eLearning system effectively (IC.3)	.884	Valid
14	The clarity of instructor's explanation of the eLearning components is clearly (IC.4)	.897	Valid
15	Instructor's have many style in teaching using e-learning technologies (IC.5)	.935	Valid
16	Browsing is easy (TC.1)	.922	Valid
17	Easy access to internet (TC.2)	.942	Valid
18	Availability of online communication tools (TC.3)	.883	Valid
19	Overall, the website was easy to use (TC.4)	.918	Valid
20	Information was well structured/presented (TC.5)	.949	Valid
21	I could interact with classmates through the web (TC.6)	.898	Valid

22	i could easily contact the instructor (TC.7)	.899	Valid
23	Availability of online test/quizzes (ESC.1)	.953	Valid
24	Availability of communications with the instructor in the e-learning system (ESC.2)	.967	Valid
25	Course interactivity (ESC.3)	.919	Valid
26	Measurement of learning progress (ESC.4)	.941	Valid
27	Whether the learning material is up-to-date (ESC.5)	.862	Valid
28	I found the instructions on using the e-learning component to be clear enough (ESC.6)	.945	Valid
29	I found the course content to be sufficient and related to the subject (ESC.7)	.936	Valid
30	It was easy to understand the structure of the e-learning components(ESC.8)	.902	Valid
31	It was easy to navigate through the course web (ESC.9)	.950	Valid
32	I perceive the design of the e-learning components to be good (ESC.10)	.920	Valid

After the variable I only read messages in the discussion group (SC.9) was removed, the remaining 31 variables were re-analyzed. So , the new KMO and Barlett Test and MSA values are generated. the results value can be seen in table 4.3. From the results of the new analysis, there is an increase in the value of KMO and Barlett Test from .918 to .921 with a significance (0.000). The results represent in table 4.3.

Table 4.3**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		
		.921
Bartlett's Test of Sphericity	Approx. Chi-Square	2.642
		E3
	Df	465
	Sig.	.000

After the I only read messages in the discussion group (SC.9) variable removed, the results of the 31 variables in the anti-image correlation test had an anti-image correlation value > 0.5 , it means that all measurement sub-variables can be use as factor components and can be analyzed further more. The results represent in table 4.4

**Tabel 4.4
Anti-image**

No	Indicator	MSA Result	Result
1	The e-learning encourages me search for more learning materials then the traditional method (offline class) (SC.1)	.907	Valid
2	The e-learning encourages me to participate more actively in the discussion (SC.2)	.871	Valid
3	I enjoy using personal computer (SC.3)	.920	Valid
4	I was comfortable with using the PC and software applications before now (SC.4)	.908	Valid
5	I most initiated in the discussion (SC.5)	.818	Valid
6	My previous experience helped me in e-learning based courses (SC.6)	.949	Valid
7	I learn best by absorption (sit still and absorb) (SC.7)	.935	Valid
8	I learn best by construction (by participation and contribution) (SC.8)	.941	Valid

9	I do read as well as participate in the discussion group (SC.10)	.914	Valid
10	Instructor's enthusiasm while teaching using e-learning tools (IC.1)	.914	Valid
11	Instructor's ability to motivate the students to use the e-learning system (IC.2)	.889	Valid
12	Instructor's ability to use the eLearning system effectively (IC.3)	.883	Valid
13	The clarity of instructor's explanation of the eLearning components is clearly (IC.4)	.898	Valid
14	Instructor's have many style in teaching using e-learning technologies (IC.5)	.936	Valid
15	Browsing is easy (TC.1)	.921	Valid
16	Easy access to internet (TC.2)	.945	Valid
17	Availability of online communication tools (TC.3)	.882	Valid
18	Overall, the website was easy to use (TC.4)	.923	Valid
19	Information was well structured/presented (TC.5)	.950	Valid
20	I could interact with classmates through the web (TC.6)	.902	Valid
21	i could easily contact the instructor (TC.7)	.898	Valid
22	Availability of online test/quizzes (ESC.1)	.954	Valid
23	Availability of communications with the instructor in the e-learning system (ESC.2)	.968	Valid
24	Course interactivity (ESC.3)	.918	Valid
25	Measurement of learning progress (ESC.4)	.942	Valid
26	Whether the learning material is up-to-date (ESC.5)	.861	Valid
27	I found the instructions on using the e-learning component to be clear enough (ESC.6)	.943	Valid
28	I found the course content to be sufficient and related to the subject (ESC.7)	.943	Valid
29	It was easy to understand the structure of the e-learning components(ESC.8)	.903	Valid
30	It was easy to navigate through the course web (ESC.9)	.949	Valid
31	I perceive the design of the e-learning components to be good (ESC.10)	.919	Valid

b. Communalities

Communalities is the proportion of the variation of an original modifier variable that can be explained by the main factor. The Communalities value explains how bigger the variation can be explained by the formed factors. So, it shows the contribution of each variable concurrently. Communalities value represent in table 4.5.

Table 4.5
Communalities

	Initial	Extraction
SC1	1.000	.613
SC2	1.000	.622
SC3	1.000	.489
SC4	1.000	.567
SC5	1.000	.457
SC6	1.000	.645
SC7	1.000	.397
SC8	1.000	.612
SC10	1.000	.606
IC1	1.000	.764
IC2	1.000	.777
IC3	1.000	.637
IC4	1.000	.743
IC5	1.000	.656
TC1	1.000	.820
TC2	1.000	.711
TC3	1.000	.802
TC4	1.000	.749
TC5	1.000	.651
TC6	1.000	.608
TC7	1.000	.688
ESC1	1.000	.793
ESC2	1.000	.704
ESC3	1.000	.679
ESC4	1.000	.693
ESC5	1.000	.585

ESC6	1.000	.685
ESC7	1.000	.730
ESC8	1.000	.639
ESC9	1.000	.697
ESC10	1.000	.720

From table 4.6 above present that variable 1 has 0.613 value, it means around 61.3% variance from variable 1 could explained by the factor formed. Variable 2 has 0.622 value, it means around 62.2% variance from variable 2 could explained by the factor formed. Variable 3 has 0.489 value, it means around 48.9% variance from variable 3 could explained by the factor formed.

For variable 4 has 0.567 value, it means around 56.7% variance from variable 3 could explained by the factor formed. Variable 5 has 0.457 value, it means around 45.7% variance from variable 5 could explained by the factor formed. Variable 6 has 0.645 value, it means around 64,5% variance from variable 6 could explained by the factor formed.

For variable 7 has 0.397 value, it means around 39,7% variance from variable 7 could explained by the factor formed. Variable 8 has 0.612 value, it means around 61,2% variance from variable 8 could explained by the factor formed. Variable 8 has 0.612 value, it means around 61,2% variance from variable 8 could explained by the factor formed.

For variable 9 has 0.606 value, it means around 60,6% variance from variable 9 could explained by the factor formed. Variable 10 has 0.764 value, it means around 76.4% variance from variable 10 could explained by the factor formed. Variable 11 has 0.777 value, it means around 77,7% variance from variable 11 could explained by the factor formed.

For variable 21 has 0.637 value, it means around 63,7% variance from variable 12 could explained by the factor formed. Variable 13 has 0.743 value, it means around 74,3% variance from variable 13 could explained by the factor formed. Variable 14 has 0.656 value, it means around 65,6% variance from variable 14 could explained by the factor formed.

For variable 15 has 0.820 value, it means around 82,0% variance from variable 15 could explained by the factor formed. Variable 16 has 0.711 value, it means around 71,1% variance from variable 16 could explained by the factor formed. Variable 17 has 0.802 value, it means around 80,2% variance from variable 17 could explained by the factor formed.

For variable 18 has 0.749 value, it means around 74,9% variance from variable 18 could explained by the factor formed. Variable 19 has 0.651 value, it means around 65,1% variance from variable 19 could explained by the factor formed. Variable 20 has 0.608 value, it means around 60,8% variance from variable 20 could explained by the factor formed.

For variable 21 has 0.688 value, it means around 68,8% variance from variable 21 could explained by the factor formed. Variable 22 has 0.688 value,

it means around 68,8% variance from variable 22 could explained by the factor formed. Variable 23 has 0.793 value, it means around 79,3% variance from variable 23 could explained by the factor formed.

For variable 24 has 0.704 value, it means around 70,4% variance from variable 24 could explained by the factor formed. Variable 25 has 0.679 value, it means around 67,9% variance from variable 25 could explained by the factor formed. Variable 26 has 0.693 value, it means around 69,3% variance from variable 26 could explained by the factor formed.

For variable 27 has 0.585 value, it means around 58,5% variance from variable 27 could explained by the factor formed. Variable 28 has 0.685 value, it means around 68,5% variance from variable 28 could explained by the factor formed. Variable 28 has 0.730 value, it means around 73,0% variance from variable 28 could explained by the factor formed.

For variable 29 has 0.639 value, it means around 63,9% variance from variable 29 could explained by the factor formed. Variable 30 has 0.697 value, it means around 69,7% variance from variable 30 could explained by the factor formed. Variable 31 has 0.720 value, it means around 72,0% variance from variable 31 could explained by the factor formed.

c. Total Variance Explained

The result of formed factors are 4 factors of 31 component factors which initial eigenvalue > 1 is a factor that represents the formed variable. Table 8 represented that from 31 variables, there are 4 factors formed or the eigenvalues are >1 . Then, the factoring can be process is only up to 4 factors. More details can be seen in table 4.6.

Table 4.6
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	16.149	52.092	52.092	16.149	52.092	52.092	6.823	22.011	22.011
2	1.786	5.761	57.853	1.786	5.761	57.853	5.318	17.156	39.167
3	1.487	4.798	62.650	1.487	4.798	62.650	4.518	14.574	53.741
4	1.117	3.602	66.252	1.117	3.602	66.252	3.879	12.511	66.252
5	1.071	3.456	69.708						
6	.948	3.057	72.765						
7	.858	2.767	75.532						
8	.806	2.600	78.132						
9	.699	2.255	80.387						
10	.648	2.091	82.478						
11	.590	1.902	84.380						
12	.510	1.644	86.024						
13	.488	1.575	87.599						
14	.448	1.445	89.043						
15	.402	1.297	90.340						
16	.359	1.157	91.497						
17	.320	1.033	92.530						
18	.292	.941	93.471						
19	.278	.897	94.368						
20	.254	.820	95.189						
21	.227	.731	95.919						
22	.210	.677	96.596						
23	.187	.602	97.199						
24	.171	.551	97.750						
25	.148	.477	98.227						
26	.124	.399	98.625						
27	.115	.372	98.997						
28	.102	.330	99.327						
29	.093	.300	99.627						
30	.077	.248	99.875						

Table 4.6
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	16.149	52.092	52.092	16.149	52.092	52.092	6.823	22.011	22.011
2	1.786	5.761	57.853	1.786	5.761	57.853	5.318	17.156	39.167
3	1.487	4.798	62.650	1.487	4.798	62.650	4.518	14.574	53.741
4	1.117	3.602	66.252	1.117	3.602	66.252	3.879	12.511	66.252
5	1.071	3.456	69.708						
6	.948	3.057	72.765						
7	.858	2.767	75.532						
8	.806	2.600	78.132						
9	.699	2.255	80.387						
10	.648	2.091	82.478						
11	.590	1.902	84.380						
12	.510	1.644	86.024						
13	.488	1.575	87.599						
14	.448	1.445	89.043						
15	.402	1.297	90.340						
16	.359	1.157	91.497						
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18	.292	.941	93.471						
19	.278	.897	94.368						
20	.254	.820	95.189						
21	.227	.731	95.919						
22	.210	.677	96.596						
23	.187	.602	97.199						
24	.171	.551	97.750						
25	.148	.477	98.227						
26	.124	.399	98.625						
27	.115	.372	98.997						
28	.102	.330	99.327						
29	.093	.300	99.627						
30	.077	.248	99.875						
31	.039	.125	100.000						

Table 4.6
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	16.149	52.092	52.092	16.149	52.092	52.092	6.823	22.011	22.011
2	1.786	5.761	57.853	1.786	5.761	57.853	5.318	17.156	39.167
3	1.487	4.798	62.650	1.487	4.798	62.650	4.518	14.574	53.741
4	1.117	3.602	66.252	1.117	3.602	66.252	3.879	12.511	66.252
5	1.071	3.456	69.708						
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10	.648	2.091	82.478						
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24	.171	.551	97.750						
25	.148	.477	98.227						
26	.124	.399	98.625						
27	.115	.372	98.997						
28	.102	.330	99.327						
29	.093	.300	99.627						
30	.077	.248	99.875						

Extraction Method: Principal Component Analysis.

Table 4.6
Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	16.149	52.092	52.092	16.149	52.092	52.092	6.823	22.011	22.011
2	1.786	5.761	57.853	1.786	5.761	57.853	5.318	17.156	39.167
3	1.487	4.798	62.650	1.487	4.798	62.650	4.518	14.574	53.741
4	1.117	3.602	66.252	1.117	3.602	66.252	3.879	12.511	66.252
5	1.071	3.456	69.708						
6	.948	3.057	72.765						
7	.858	2.767	75.532						
8	.806	2.600	78.132						
9	.699	2.255	80.387						
10	.648	2.091	82.478						
11	.590	1.902	84.380						
12	.510	1.644	86.024						
13	.488	1.575	87.599						
14	.448	1.445	89.043						
15	.402	1.297	90.340						
16	.359	1.157	91.497						
17	.320	1.033	92.530						
18	.292	.941	93.471						
19	.278	.897	94.368						
20	.254	.820	95.189						
21	.227	.731	95.919						
22	.210	.677	96.596						
23	.187	.602	97.199						
24	.171	.551	97.750						
25	.148	.477	98.227						
26	.124	.399	98.625						
27	.115	.372	98.997						
28	.102	.330	99.327						
29	.093	.300	99.627						
30	.077	.248	99.875						

d. Component Matrix

The component matrix is a table that shows the distribution of 31 variables on the 4 formed factors. The figures in table 4.7 are loading factors which show the correlation between formed factors. The results of the component matrix cannot be interpreted because it only contains several factors from the existing variables, not all of them. So it is necessary to do a factor rotation.

Table 4.7
Component Matrix^a

	Component			
	1	2	3	4
ESC1	.872			
ESC7	.838			
TC1	.836			
TC3	.826			
ESC2	.804			
ESC6	.797			
ESC9	.797			
ESC8	.785			
ESC4	.785			
TC5	.780			
ESC10	.776			
TC4	.772			
SC6	.755			
SC10	.742			
SC8	.741			
ESC3	.736			
TC7	.733			
TC2	.729			
IC5	.728			
IC2	.700			
IC1	.680	.416		

IC3	.654		
SC1	.654		
TC6	.650		
IC4	.629		-.469
SC7	.612		
SC4	.595		.427
SC3	.588		
ESC5	.586		-.447
SC2	.548	.419	
SC5	.442		
Extraction Method: Principal Component Analysis.			
a. 4 components extracted.			

e. Rotated Component Matrix

The clearly result view of the data, it can seen from the loading value of each variable to the factors. The interpretation of the loading value can seen from the largest loading value of each variable. So, after conduct the large correlation toward the row, the variable will enter the factor to the largest loading value. The rotated component matrix table presented the results of factor rotation.

Table 4.8
Rotated Component Matrix^a

	Component			
	1	2	3	4
TC4	.774			
TC3	.769			
TC2	.758			
TC1	.747			
TC7	.733			
TC6	.682			
SC6	.585			
SC3	.563			

TC5	.547	
SC4	.520	
ESC5		.722
ESC10		.684
ESC2		.623
ESC6		.600
ESC9		.591
ESC1		.583
ESC4		.577
ESC7		.552
ESC3		.551
ESC8		.453
SC7		
IC4		.803
IC2		.787
IC3		.702
IC1		.693
IC5		.584
SC2		.713
SC5		.641
SC1		.621
SC8		.500
SC10		.495
Extraction Method: Principal Component Analysis.		
Rotation Method: Varimax with Kaiser Normalization.		
a. Rotation converged in 7 iterations.		

More clearly result shown in the rotated component matrix presented on table 4.8. The rotated component matrix table (table 4.8) demonstrated the result of the rotation in several variables that dominated each factor, as follows:

- a. First factor, consist of Overall, the website was easy to use (TC4) with factor loading value.774. Availability of online communication tools (TC3) with factor loading value.764. Easy access to internet (TC2) with

factor loading value .758. Browsing is easy (TC1) with factor loading value.747. i could easily contact the instructor (TC7) with factor loading value.733. I could interact with classmates through the web (TC6) with factor loading value .682. Then, there are variables that the researcher expected will enter to the student characteristic factor but the variabel entered to technology characteristic. Nevertheless, these student characteristic variable are still closely related to the technology characteristic. My previous experience helped me in e-learning based courses (SC6) with factor loading value .585. I enjoy using personal computer (SC3) with factor loading value .563. Information was well structured/presented (TC5) with factor loading value .547. I was comfortable with using the PC and software applications before now (SC4) with factor loading value .520.

- b. Second factor, Whether the learning material is up-to-date with factor loading value.722. I perceive the design of the e-learning components to be good with factor loading value.684. Availability of communications with the instructor in the eLearning system (ESC2) with factor loading value .623. I found the instructions on using the e-learning component to be clear enough (ESC6) with factor loading value .600. It was easy to understand the structure of the e-learning components (ESC9) with factor loading value .591. Availability of online test/quizzes with factor loading value .583. . Measurement of learning progress with factor loading value .577. I found the course content to be sufficient and related to the subject with

factor loading value .552 . Course interactivity (ESC3) with factor loading value .551. It was easy to understand the structure of the e-learning components with factor loading value .453.

- c. Third factor, The clarity of instructor's explanation of the eLearning components is clearly (IC4) with factor loading value .803. Instructor's ability to motivate the students to use the eLearning system (IC2) with factor loading value .787. Instructor's ability to use the eLearning system effectively (IC3) with factor loading value .702. Instructor's enthusiasm while teaching using eLearning Tools with factor loading value .693. Instructor's have many style in teaching using eLearning technologies with factor loading value .584.
- d. Fourth factor, The e-learning encourages me to participate more actively in the discussion (SC2) with factor loading value .713. I most initiated in the discussion with factor loading value .641. The e-learning encourages me search for more learning materials then the traditional method (offline class) (SC1) with factor loading value .621. I learn best by construction (by participation and contribution) (SC8) .500. I do read as well as participate in the discussion group with factor loading value .495.

Completely table describes in table 4.10. The variables are sorted from the largest to the smallest factor loading value.

Table 4.9
The formed indicator

Indicator	Formed Indicator	Eigen Value	Loading Factor	% Variance	% Cumulative
TC4	Technology Characteristic's	16.149	.774	52.092	52.092
TC3			.769		
TC2			.758		
TC1			.747		
TC7			.733		
TC6			.682		
SC6			.585		
SC3			.563		
TC5			.547		
SC4			.520		
ESC5			E-learning system and content		
ESC10	.684				
ESC2	.623				
ESC6	.600				
ESC9	.591				
ESC1	.583				
ESC4	.577				
ESC7	.552				
ESC3	.551				
ESC8	.453				
IC4	Instructor Characteristic's	1.487	.803	4.798	62.650
IC2			.787		
IC3			.702		
IC1			.693		
IC5			.584		
SC2	Students Characteristic's	1.117	.713	3.602	66.252
SC5			.641		
SC1			.621		
SC8			.500		
SC10			.495		

B. Discussion

In this discussion part, the researcher discussed the findings of EFL student's perception on critical success factor in e-learning during covid-19 in university level. After all the data achieved and had collected and analyzed in the process above, finally the researcher came at this discussion part. According the research question, the researcher described some point as a part of the research findings to answer the research question.

The research question is what are EFL student's perception on critical success factor in e-learning during covid-19 in university level. The finding showed that are 4 critical succes factor according student's perception in university level, the most factor of critical success factor is Technology Characteristic's with highest eigen value 16.149 , there are 10 indicator in this factor consist of Overall, the website was easy to use (TC4) with factor loading value.774. Availability of online communication tools (TC3) with factor loading value.764. Easy access to internet (TC2) with factor loading value .758. Browsing is easy (TC1) with factor loading value.747. i could easily contact the instructor (TC7) with factor loading value.733. I could interact with classmates through the web (TC6) with factor loading value .682. My previous experience helped me in e-learning based courses (SC6) with factor loading value .585. I enjoy using personal computer (SC3) with factor loading value .563. Information was well structured/presented (TC5) with factor loading value .547. I was comfortable with using the PC and software applications before now (SC4) with factor loading value .520.

Thus, the highest value of critical success factor indicator of this main factor is over all the website was easy to use with highest loading factor .774 or 77,4%. It means, the most critical success factor is the easy e-learning website used in e-learning, this is the the most determinant of critical success factor.

According of the theory from H.M Selim (2007) stated that the technology factor empirical analysis revealed recommendations in higher education institutions should provide students with easy on-campus access to the web. Whereas in this research, the first indicator of technology characteristic factor is overall, website was easy to use. It means the using of website that used while e-learning is very easy to used. Which means the most indicator of critical success factor in this research is overall, website was easy to use have similarities with the theory from Selim H.M (2007).

The second factor in this research is E-learning system and content with the second high eigen value 1.786. The highest value of critical succes factor indicator of this factor is Whether the learning material is up-to-date with the factor loading value.722. Similarly with theory of Almaiyah and Alyoseff (2019,p.18) the course content underlying the e-learning system supports different types of multimedia features to explain complex concepts in the course content, such as videos, animations and audio recordings, this improves the learning process; thus, to increase the students' performance expectancy, the usefulness of the e-learning system should be increased, which would motivate the students to use and accept the e-learning system. Because with up-to-date material such as entered content video, animation and another new feature would improve the

learning process and increase students's performance, so that would make students motivated and enthusiast in e-learning with up to-date material.

Third factor in this research is instructor characteristic with the third high eign value 1.487. The highest value of critical succes factor indicator of this factor is The clarity of instructor's explanation of the e-learning components is clearly with loading factor .803 or 80,3%. It shows that the most critical success factor in this third is The clarity of instructor's explanation of the e-learning components is clearly similiary with the theory of H.M Selim (2007,p.16) that the instructor plays a central role in the effectiveness and success of e-learning-enabled courses and then instructors should adopt interactive teaching style, encourage student-student interaction because it is so important that instructors have good control over IT and are capable of performing basic troubleshooting tasks.

The main indicator of instructor characteristic related with teaching style instructor that give details clarity explanation to the students. So that make students easy in absorb lesson in e-learning class. And then with the clarity explanation from instructor, it means the instructor has good control in the class and could mention that instructor plays a central role in the class. Therefore this indicator become the first indicator in this third critical success factor.

The last factor is students' characteristic with the lowest of 4 factor of critical success factor in this research. The eign value of the forth factor is 1.117. The highest value of critical succes factor indicator of this factor is the e-learning encourages me to participate more actively in the discussion with loading factor

.713 or 0,71%. It shows that the most critical success factor in this factor have similarly with theory of H.M Selim (2007,p.16) the student characteristics as a factor contributing to the success of e-learning initiatives at the university was split into three factors capturing the students' perceptions about computing literacy, interactive collaboration and e-learning-based course content. So, the e-learning that encourages to participate more actively in the discussion have similarly meaning with theory of H.M salim (2007) because e-learning would make the students more actively in the discussion included in interactive collaboration, it means students has self-initiated for becomes more active in e-learning.

Then, Cheriyan (2018) stated that the reason for the difference in research result is because there are differences in terms of objectives, nature, approach, environment in which they are carried out, and so on. So, the result difference of this research acceptable because there are differences place ,object and other. So, the results of the research are vary.

Based on the result of the research which has been discussed in the previous part demonstrated that the most of critical success factor in this study is technology characteristic, the second is E-learning system and content, the third factor is instructor characteristic and the last factor is students' characteristic.

