CHAPTER IV

DATA ANALYSIS

In this chapter, the writer analyzed the perception of IT students on build-up PC. First, the writer analyzed the respondents' backgrounds by giving them questions about their understanding of build-up PC, starting from the usability and brands used in build-up PC. Second, the writer used SPSS 25 to analyze the data. The result of the statistical analysis is presented in the form of mean, the Maximum Minimum and Standard Deviation scores. They were interpreted to reveal the respondents' perception on build-up PC.

4.1 The Respondents' Perception on Their Build-up PC

In this part, the writer interpreted the respondents' perception towards build-up PC in Semarang.

The Respondents' Decision on PC Components Brand

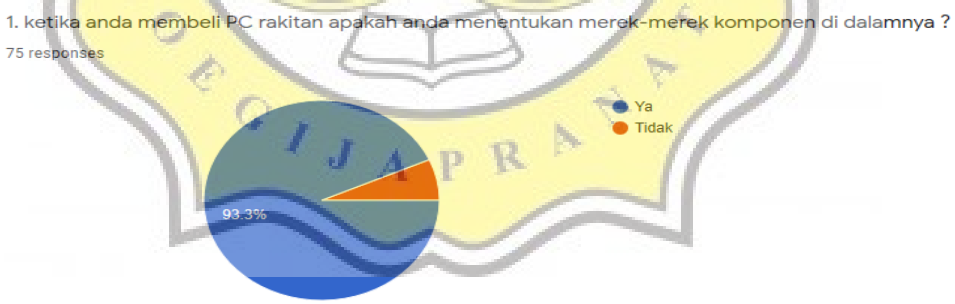

Chart 1

According to chart 1, most of the respondents, 93.3% have their own build-up PCs, while 6.7% of the respondents do not have build-up PCs.

The Use of Build-up PC by The Respondents

Chart 2

Based on chart 2 above, the use of build-up PC, 54.7% of the respondents use their build-up PC for doing assignments while the others, 49.3% respondents use their build-up PC for gaming, and 34.7% for programming

Choices of Brand Regarding to Their Build-up PC

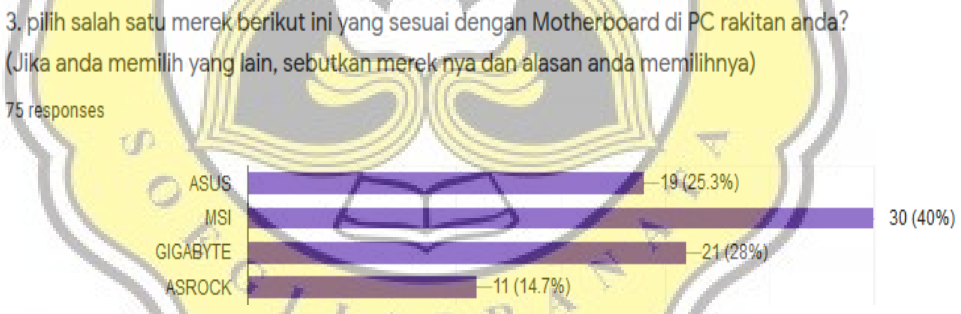

Chart 3

As shown on chart 3, 40% of the respondents use MSI brand for their motherboard, followed by GIGABYTE product 28%, meanwhile other respondents use ASUS 25.3% and ASROCK 14.7%.

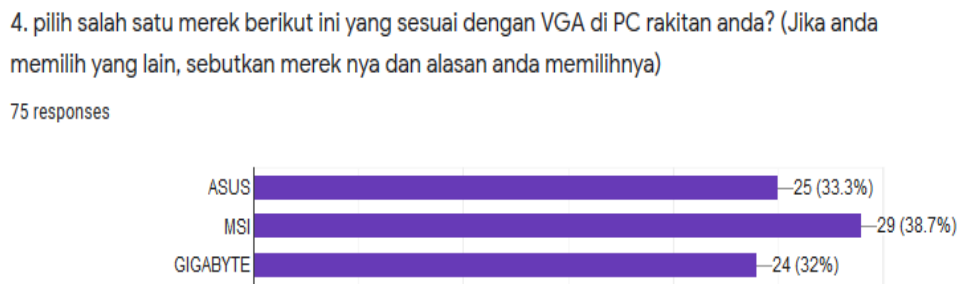

Chart 4

As we can see on the chart above, most respondents use MSI brand as their VGA, meanwhile the other respondents use ASUS and GIGABYTE brand for their VGA.

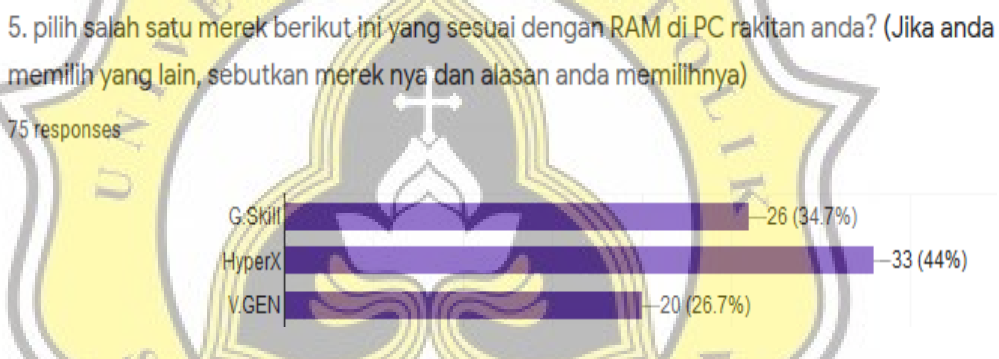

Chart 5

The result above shows that respondents prefer to choose the high performance RAM HyperX (44%), followed by G.Skill RAM (34.7%) and V.GEN RAM (26.7%).

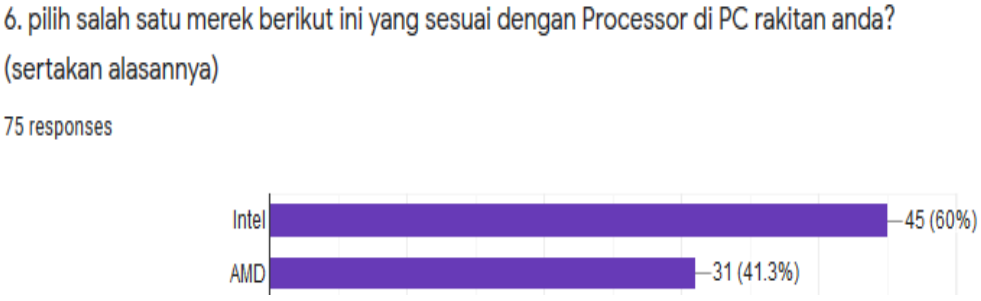

Chart 6

Based on the data above, the result shows that most of the respondents use the Intel Processor (60%) rather than AMD (41.3%).

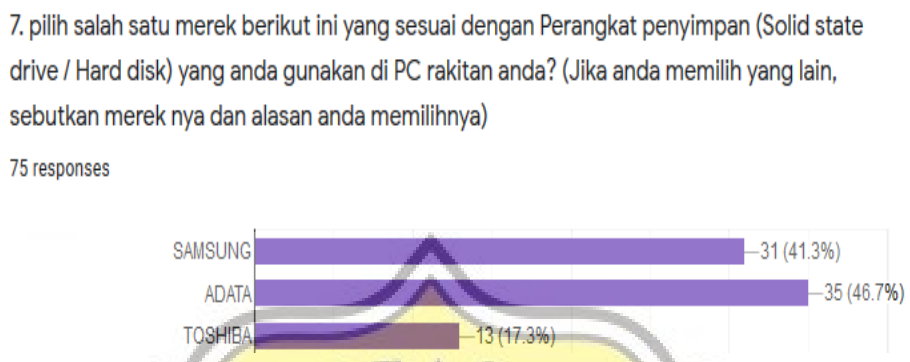

Chart 7

According to chart 7, even though Samsung is more famous than any other brands, most of the respondents use the ADATA (46.7%) rather than Samsung (41.3%) and then followed by Toshiba (17.3%).

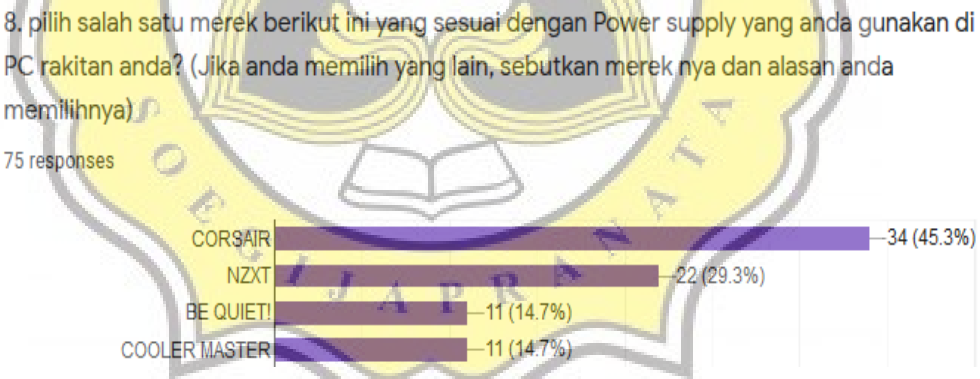

Chart 8

As we can see on chart 8, the respondents are using the corsair (45.3%) for their power supply, followed by NZXT (29.3%), meanwhile “Be quiet!” And cooler master on the same position (14.7%).

Perception of IT Students on Build-up PC

The following are the results of the questionnaire with regard to the perception of IT students on build-up PC. There are 15 statements in this questionnaire asking the respondents' responses about things related to build-up PC. Furthermore, to find out whether the statement receives positive or negative responses, the writer used SPSS 25 as the application tool to find the Mean, Standard Deviation, Maximum, and Minimum scores of each statement. The higher the mean score (above 3) indicates that respondents have positive responses towards it. On the contrary, when the mean score is low (below 3), it indicates that most of the respondents are disagree with the statement and this leads to negative responses.

- >3 = positive
- <3 = negative

The writer found out that the means varied, starting from 2.88 as the lowest and 3.32 as the highest. However, based on the average calculation results, the score 3.03. Therefore, it is obvious when the score in each statement is above 3.03, it is considered positive and if the score in the statement is below 3 it means negative. The following are the result of the SPSS analysis and their interpretation.

The Evaluation of Build-Up PCs as Compared with Branded PCs

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation

S1	The Evaluation of Build-Up PCs as Compared with Branded PCs	75	1	4	3.62	.552

Table 1

This statement (S1) has a mean score of 3.62 and a standard deviation of .552. As seen from the table above, the respondents' answers are varied, 1 person chose strongly disagree, 17 people chose disagree, 14 people chose agree and 43 people chose strongly agree. This shows that most of the respondents perceived that PC build-up is better than a branded PC. Besides, the mean score is above 3, which means this statement is positive because it surpassed the parameter.

The Price of Build-Up PCs as Compared with a Branded PC

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S2	The Price of Build-Up PCs as Compared with a Branded P	75	1	4	3.57	.665

Table 2

The mean score of this statement (S2) is 3.57 and the standard deviation is .665. Based on the table, the total people who agree that build-up PC is more expensive than a branded PC is 55 people and 20 people disagree. This data result shows that most of the respondents considered that a branded PC less expensive than a build-up PC.

The Practicality of Build-Up Pcs as Compared with a Branded PC

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S3	The Practicality of Build-Up Pcs as Compared with a Branded PC	75	1	4	3.01	.839

Table 3

For statement (S3), the mean score is 3.01 and .839 for the standard deviation. Based on the parameter, this statement is considered positive because it surpassed the parameter. There are 3 people who chose strongly disagree, 18 people chose disagree, 33 people chose agree and 21 people chose strongly agree showing that build-up PC is considered more expensive than branded PC, but considered more practical by the respondents.

The Performance of Build Build-Up Pcs as Compared with a Branded PC

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S4	The Performance of Build Build-Up Pcs as Compared with a Branded P	75	1	4	3.05	.821

Table 4

The mean score for this statement (S4) is 3.05 and the standard deviation is.821. As can be seen on the table above, the mean score is surpassed the mean parameter which indicates that the respondents show a positive response towards build-up PC which has a better performance than a branded PC one. Besides, by looking at the results of this statement, the writer perceives that there needs to be an improvement especially in the performance of branded PC.

The Varieties of Build-Up PCs as Compared with a Branded PC

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S5	The Varieties of Build-Up PCs as Compared with a Branded PC	75	1	4	3.12	.742

Table 5

This statement (S5) has a mean score of 3.12 and .742 for the standard deviation. According to the data results, 2 people chose strongly disagree, 15 people chose to disagree, 30 people chose to agree and 28 people strongly agreed. This shows that most of the respondents agree that brands used to build up a PC are more varied than a branded PC. The respondents have many choices of brands to build-up a PC. Furthermore, this statement's mean score surpassed the mean parameter, which means this statement is considered positive.

The Functions of Build-Up PCs as Compared with a Branded PC

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S6	The Functions of Build-Up PCs as Compared with a Branded PC	75	1	4	3.03	.831

Table 6

As seen in the table, this statement (S6) has a mean of 3.03 and a standard deviation of .831. Based on the data results, only 1 person chooses strongly disagree, 17 people choose disagree, 36 people choose agree and 21 people choose strongly agree, this means that most of the respondents agree that build-up PC has more functions than a branded PC. The respondents have

many things to do with their build-up PCs. Moreover, this statement's mean score surpassed the mean parameter, which means this statement is positive.

The Influence of Branding in Building Personal Computer (PCs)

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S7	The Influence of Branding in Building Personal Computer (PCs)	75	2	4	3.53	.659

Table 7

This statement (S7) has a mean of 3.53 and the standard deviation of .659. There are only 17 people out of 75 people who disagree with the brand which is very influential for respondents in building their personal computer. This means that the respondents have positive responses towards the product brand in building their personal computers. Before building a build-up PC, the respondents have to decide which brand is suitable for him or her.

The Type of Build-Up PCs for Gamers

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S8	The Type of Build-Up Pcs for Gamer	75	1	4	3.13	.811

Table 8

The mean score of this statement (S8) is 3.13 and the standard deviation is .811. Based on the table, the total people who agree that gamers have a high end PC build-up is 57 people and 18 people disagree. This means most of the respondents agree with gamers who need a high end PC build-up settings.

However, the writer needs to do further research to discover more about anything which is related to build-up PC settings needed by gamers.

The Type of Build-Up PCs for Programmer

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S9	The Type of Build-Up Pcs for Programmer	75	1	4	2.93	.844

Table 9

This statement (S9) has a mean of 2.93 which does not exceed the mean parameter and shows the negative response from people about the statement, and a standard deviation of .844 in which the respondents choose to disagree and strongly disagree (30%) towards the statement. Moreover, by looking at the result of the data above, it can be concluded that programmer does not need the high end PC build-up settings.

The Familiarity of theRespondents Build-Up PC Brands

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S10	The Type of Build-Up Pcs for Programmer	75	2	4	3.45	.730

Table 10

The mean score of this statement (S10) is 3.45 and the standard deviation is .730. Based on the table, the total people who agree that build-up PC is more expensive than a branded PC is 54 people, meanwhile the other 20 respondents choose to disagree. The result of this statement shows that most of the respondents are familiar with build-up PC brands such as ASUS, MSI, and GIGABYTE

The Familiarity of The Respondent with The Processor Component Brands

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S11	The Familiarity of The Respondent with The Processor Component Brands	75	2	4	3.46	.717

Table 11

This statement (S11) has a mean score of 3.46 and a standard deviation of .717. It is clear that 35 people choose to agree and 26 choose to strongly agree, which also means that most of the respondents are familiar with both processor component brands such as Intel and AMD.

The Ability of Build-Up PCs in Semarang

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S12	The Ability of Build-Up Pcs in Semarang	75	1	4	3.07	.777

Table 12

As seen on the table above, this statement (S12) has a mean of 3.07 and a standard deviation of .777. The respondents' answers are varied, 1 person chose strongly disagree, 17 people chose disagree, 33 people chose agree and 24 people chose strongly agree. This shows that most of the respondents perceived that PC brands in Semarang especially build-up PC are good (in terms of quality). Besides, the mean score is above 3, which means this statement is positive because it surpassed the parameter.

The Prices of Build-Up PCs in Semarang

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S13	The Prices of Build-Up Pcs in Semarang	75	1	4	2.88	.838

Table 13

This statement (S13) has a mean score of 2.88 and .838 for the standard deviation. However, the mean score of this statement does not exceed the mean parameter which shows that respondents have a negative responses towards it.

The Variety of PC Components in Semarang

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S14	The Variety of PC Components in Semarang	75	1	4	1.86	.471

Table 14

As seen on the table above, this statement (S14) has a low mean score of 1.86 and a standard deviation .471. Respondents gave a variety of answers. 29 people strongly disagree, and 34 people chose to disagree showing that respondents do not think that components of build-up PC in Semarang are varied.

The Variety of PC Components Brand in Semarang

No.	Statements	N	Minimum	Maximum	Mean	Std. Deviation
S15	The Variety of PC Components Brand in Semarang	75	1	4	1.80	.422

Table 15

Following the result above (S15), this statement has the lowest mean score of 1.80 and a standard deviation of .422. This happened because most of the respondents chose to disagree and strongly disagree. However, by looking at this statement, it can be concluded that components brands for building-up PC in Semarang are not varied and there need to be additional brands, so that the respondents can have a wider choices.

4.2 General discussion

The writer would like to present the findings by re-highlighting the respondents' PC backgrounds as follows:

1. 93.3% of the respondents' have build-up PCs. On chart 1
2. Most of the respondents' use their build-up PCs for doing the coursework followed up by gaming and programming, but mostly they use build-up PC for coursework. On chart 2

3. 40% of the respondents' are use brand MSI Motherboard on their build-up PCs. On chart 3
4. 38.7% of the respondents' are use brand MSI Video Graphic Array on their build-up PCs. On chart 4
5. 44% of the respondents' are use brand HyperX Random Access Memory on their build-up PCs. On chart 5
6. 60% of the respondents' are use brand Intel Processor on their build-up PCs. On chart 6
7. 46.7% of the respondents' are use brand ADATA memory storage on their build-up PCs. On chart 7
8. 45.3% of the respondents' are use brand Corsair power supply on their build-up PCs. On chart 8

This study was conducted quantitatively with a total respondents of 75 people which consisted of students from faculty of computer, batches 2017 and 2018. Based on the results of data analysis, most of the respondents have their own build up PCs, and mostly they use for doing assignments, followed by gaming and programming. Moreover, for their build-up PC hardware such as motherboard and video graphic array (VGA) they use using MSI brand as their equipment and for random access memory (RAM) they use HyperX brand. In addition, the results of the data analysis also show that respondents tend to choose Intel brand as their processor, while ADATA brand becomes their first preference for memory storage. Furthermore, Corsair brand becomes the most preferable choice answer in terms of power supply.

Moreover, according to the result of the data analysis as compared with build-up PCs are better than branded PC, the respondents show positive responses towards them. This can be seen through S3,S4,S5,S6 that build-up PCs are considered more practical, has better performance, has more varied brands and has a better functions compared with branded PC. However, even though most of the respondents have good perception on build-up PCs, it turns out that build-up PCs are still considered expensive than branded PCs as shown by statement 2. Furthermore, according to statement 7, the respondents agreed that a brand becomes very influential in building their personal PCs. Statement 8 is related to statement 7 because respondents also agree that gamers need a high-end build-up PC, meanwhile programmer doesn't need the high-spec of build-up PC, this can be seen through the data that writer analyzed. In addition the respondents have known the build-up PC brands, such as ASUS, MSI and GIGABYTE. They also have known the processor brands like Intel and AMD, the data can be seen on statements 10 and 11. From the analysis of statements 12, it can be seen that the respondents acknowledge good quality of the components of PC build-up in Semarang.

At last, respondents show the negative responses on the statements 13, 14, 15. According to the data analysis, the respondents agree about the high price of components which used for building-up PC which make them not affordable. The respondents considered that the components are expensive, in addition, brand and components which are used for building up PC in Semarang are not quite varied.