THE IMPACT OF CLOUD COMPUTING TECHNOLOGY ON DAFFODIL INTERNATIONAL UNIVERSITY STUDENTS

BY

Yusuf Sheik Ahmed Mohamud

ID: 182-25-682

This Report Presented in Partial Fulfillment of the Requirements for the Degree of Masters of Science in Computer Science and Engineering

Supervised By

Dr. Sheak Rashed Haider Noori

Associate professor & associate head

Department of CSE Daffodil International University



DAFFODIL INTERNATIONAL UNIVERSITY DHAKA, BANGLADESH

2019

APPROVAL

This Thesis titled **"The Impact of Cloud Computing Technology on Daffodil International University Students"**, submitted by Yusuf Sheik Ahmed Mohamud (ID:182-25-682)to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of M.Sc in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 5 May 2019.

BOARD OF EXAMINERS

Dr. Syed Akhter Hossain Professor and Head Department of Computer Science and Engineering Faculty of Science & Information Technology Daffodil International University

alla

Dr. Sheak Rashed Haider Noori Associate professor and Associate Head Department of Computer Science and Engineering Faculty of Science & Information Technology Daffodil International University

7aroth2

Md. Zahid Hasan Assistant Professor & Coordinator of MIS Department of Computer Science and Engineering Faculty of Science & Information Technology Daffodil International University

Dr. Muhammad Shorif Uddin Professor Department of Computer Science and Engineering Jahangirnagar University Chairman

Internal Examiner

Internal Examiner

External Examiner

DECLARATION

I hereby declare that, this thesis has been done by me under the supervision of Dr. Sheak Rashed Haider Noori, Associate Professor and Associate Head, Department of CSE, Daffodil International University. I also declare that neither this thesis nor any part of this thesis has been submitted elsewhere for award of any degree or diploma.



Dr. Sheak Rashed Haider Noori Associate Professor and Associate Head Department of CSE Daffodil International University

SUBMITTED BY:

YUSUF

Yusuf Sheik Ahmed Mohamud ID: 182-25-682 Department of Computer Science and Engineering Daffodil International University

ACKNOWLEDGEMENT

First praise is to Allah, the Almighty, on whom ultimately, I depend for sustenance and guidance.

Second, I would like to express my sincere gratitude to my thesis supervisor **Dr. Sheak Rashed Haider Noori, Assistant Professor& associate head** of CSE Department, for his patient guidance, helpful feedback, endless motivations and valuable suggestions during the development of this thesis.

I would like to express my heartiest thankfulness to Dr. **Syed Akhter Hossain**, Head of Department of Computer Science and Engineering, for giving me an opportunity to carry out the research work, without him I should not reached my goal and also to other faculty member and the staff of CSE department of Daffodil International University.

Let me take this opportunity to thank exam board members **Dr. Sheak Rashed Haider Noori, Md. Zahid Hasan** as internal examiners

Thanks to Daffodil International University for the study opportunity and for the technical assistance during the last phase of finishing this thesis.

I am greatly indebted to my beloved Parents, my father **Sheik Ahmed mohamud** and my mother **Zahra Sheik Ahmed** may Allah protect them; they are always very understanding and supportive on my choices. They love me more than themselves and have sacrificed so much to support me. And finally, also wish to thank my family, friends, roommates for their help and constant support, thank again for your understanding and encouragement in my many, many moments of crisis. Your friendship makes my life a wonderful experience thanks all.

DEDICATION

This study is wholeheartedly dedicated to my lovely parents, who have been my source of inspiration and gave me strength, who continually provide moral, spiritual, emotional, and financial support. To my brothers, sisters, relatives, friends, and classmates who shared their words of advice and encouragement to finish this study. A special feeling of gratitude to my loving parents, to my mother **Zahra Sheik Ahmed** a strong and gently soul who taught me to trust in Allah, believe in hard work and that so much could be done with little. To my father **Sheik Ahmed mohamud** for earning an honest living for us and for supporting and encouraging me to believe in myself. Also, I need to thank my dear brother Abdurrahman Sheik for his encouragement.

ABSTRACT

Innovations are necessary to ride the inevitable tide of change. Most of enterprises are striving to reduce their computing cost through the means of virtualization. This demand of reducing the computing cost has led to the innovation of Cloud Computing. Cloud computing is pictured as the next-generation technology. It is a web-based technology where quality services are provided to users including data and software, on remote servers. Cloud computing is just like as called Data outsourcing as an outsider gives storage services to the client. There is producing good result for the customers without costing a lot of money for equipment and programming for information storage. Cloud computing eliminates the need of having a complete infrastructure of software and hardware to meet clients requirements and applications. It can be thought of or considered as an entire or an incomplete outsourcing of hardware and software resources. To access cloud applications, a fast Internet connection and a standard Internet browser are required. It offers an on-demand and scalable access to a shared pool of resources hosted in a data Centre at providers' site. Cloud computing has been proven to be a successful method of training and education is becoming a way of life for many students in DIU.

Table of Contents

APPROVALii
DECLARATION iii
ACKNOWLEDGEMENTiv
DEDICATIONiv
ABSTRACTix
CHAPTER 1 INTRODUCTION1
1.1 Introduction1
1.2 Motivation2
1.3 Rationale of the Study
1.4 Research Questions
1.5 Expected Output
1.6 Description outline4
CHAPTER 2 BACKGROUND
2.1 Introduction5
2.2 Related Works5
2.3 Study Summary
2.4 Constraint of the Problem
2.5 Challenges7
CHAPTER 3 RESEARCH METHODOLOGY9
3.2 Study Topic and Equipment9
3.3 Data Gathering Method9
3.4 Research population
3.5 Statistical Analysis
3.6 Dependability and rationality
CHAPTER 4 EXPERIMENTAL RESULTS AND DISCUSSION
4.1 Introduction13
4.2 Experimental Outcomes13
4.3 Descriptive analysis13

CHAPTER 5: SUMMARY OF THE STUDY, CONCLUSION AND RECOMMENDATIONS	.35
5.1 Introduction	.35
5.2 Summary of the Study	.35
5.3 Conclusion	37
5.4 Recommendation	
References	39
Appendices	42

LIST OF FIGURES

FIGURES

PAGE NO

FIGURE 4.1 GENDER RESPONDENTS	13
FIGURE4. 2 AGE OF RESPONSE	14
FIGURE4. 3 EDUCATIONAL LEVELOF RESPONDENT	15
FIGURE4. 4 RESPONDENT CGPA	16
FIGURE4. 5 HAVING YOUR OWN COMPUTER (LAPTOP) TABLET RESPONDENT	17
FIGURE 4. 6 I'VE BEEN USING COMPUTER FOR RESPONDENTS	
FIGURE4. 7 USING INTERNET RESPONDENTS	19
FIGURE4. 8 USING TO ACCESS THE CLOUD FOR RESPONDENTS	20
FIGURE4. 9 YOUR INTERNET SPEED APPROXIMATELY RESPONDENTS	21
FIGURE4. 10 KNOWING WHAT "CLOUD COMPUTING" RESPONDENTS	22
FIGURE 4.11 HOW CLOUD COMPUTING WORKS RESPONDENTS	23
FIGURE 4.12 ACCESSING THE CLOUD RESPONDENTS	24
FIGURE4.13 HOW LONG HAVE YOU BEEN USING CLOUD COMPUTING FOR	
RESPONDENTS	25
FIGURE4. 14 ASKING THINK THAT TODAY'S TECHNOLOGY INFORMATION AND CLOUD	
COMPUTING TECHNOLOGIES HAVE A POSITIVE OR NEGATIVE EFFECT	26
FIGURE4. 15 USING CLOUD IN BUSINESS PURPOSE RESPONDENTS	27
FIGURE4. 16 ASKING CLOUD COMPUTING BENEFICIAL FOR DOING A BUSINESS	
NOWADAYS RESPONDENTS	
FIGURE 4.17 TYPE OF APPLICATION DO YOU USE TO STORE YOUR DATA RESPONDENTS	29
FIGURE4.18 TYPE OF DATA DO YOU USUALLY STORE IN CLOUD COMPUTING FOR	

RESPONDENTS	30
FIGURE4.19 ASKING IS IT SAFE TO KEEP YOUR DATA IN CLOUD STORAGE FOR	
RESPONDENTS	31
FIGURE 4.20 THE SAFETY TO KEEP YOUR DATA IN CLOUD STORAGE FOR RESPONDENTS	32
FIGURE 4.21 ASKING SEE ANY ISSUES IN CLOUD COMPUTING SO FAR RESPONDENTS	

LIST OF TABLES

TABLES	PAGE NO
TABLE4. 1 GENDER RESPONDENTS	
TABLE4. 2 AGEOF RESPONSES	
TABLE4. 3 EDUCATIONAL LEVELOF RESPONDENT	
TABLE4. 4 CGPA OF THE RESPONDENT	
TABLE4. 5 HAVING YOUR OWN COMPUTER (LAPTOP) TABLETGETS RESPONSE	
TABLE4. 6 I'VE BEEN USING COMPUTER FOR RESPONDENTS	
TABLE4. 7 USINGINTERNET RESPONDENTS	
TABLE4. 8 USING TO ACCESS THE CLOUD FOR RESPONDENTS	
TABLE4. 9 YOUR INTERNET SPEED APPROXIMATELY RESPONDENTS	
TABLE4. 10 KNOWING WHAT "CLOUD COMPUTING" RESPONDENTS	
TABLE4. 11 HOW CLOUD COMPUTING WORKS RESPONDENTS	
TABLE4.12 ACCESSING THE CLOUD RESPONDENTS	
TABLE4.13 HOW LONG YOU BEEN USING CLOUD COMPUTING FOR RESPONDENTS	
TABLE4. 14 ASKING THINK THAT TODAY'S TECHNOLOGY INFORMATION AND CLOUI	C
COMPUTING TECHNOLOGIES HAVE A POSITIVE OR NEGATIVE EFFECT	
TABLE4. 15 USING CLOUD IN BUSINESS PURPOSE RESPONSES	
TABLE4. 16 ASKING CLOUD COMPUTING BENEFICIAL FOR DOING A BUSINESS	
NOWADAYS FOR RESPONDENTS	
TABLE4. 17 TYPE OF APPLICATION DO YOU USE TO STORE YOUR DATA RESPONDENT	s28
TABLE4. 18 TYPE OF DATA DO YOU USUALLY STORE IN CLOUD COMPUTING FOR	
RESPONDENTS	
TABLE4. 19 ASKING IS IT SAFE TO KEEP YOUR DATA IN CLOUD STORAGE FOR	
RESPONDENTS	
TABLE4. 20 THE SAFETY OF YOUR DATA IN CLOUD RESPONDENTS	
TABLE4. 21 ASKING SEE ANY ISSUES IN CLOUD COMPUTING SO FAR RESPONDENTS	

CHAPTER 1

INTRODUCTION

1.1 Introduction

The word Cloud indicates to a Network or Internet. It infers that Cloud is roughly, which is accessible at a distant zone. Cloud able to provide paybacks concluded background or web, i.e., on exposed Systems or on reserved structures .Requests, for instance, email, web conferencing, consumer connection the board (CRM), wholly remain consecutively in the cloud. Distributed computing depend on upon web registering where simulated collective servers give programming foundation stage implements and altered properties and simplifying to clients in viewpoint on pay by way of you usage the administrations. All information that a digitized outline as to suggestion is specified as an administration in the distributed computing prototypical Cloud figuring gives its purchaser different abilities similar receiving to a extensive quantity of employments deprived of the necessity for requiring a grant, procuring, offering or transferring to some extent of these requests. It similarly reduces together consecutively and an establishment payment of PCs and programming by way of there is no want a little framework. Circulated figuring establishments involve organizations accepted on over standard focusses and dependent on waiters. In this day and age, every association wants to surprise viewing available where categorically Cloud Computing (CC) is necessary in their corporate with the objective that they increase a higher indicator by remaining and staying destructive in their corporate area. An uncommon normal for distributed computing is it emolument each operate any by means of the cloud customer is impartial necessary to compensation simply for the used administrations [1]. Pushing the utilization of cloud advancement this year. A consistently expanding number of associations are opening to appreciate the cloud with roughly pushing it to be "The fifth time of computing"[2]. The National Institute of Standards and Technology (NIST) describes appropriated figuring such as a classical for allowing unavoidable, beneficial, on-mandate mastermind admittance to a common pond

of configurable enlisting incomes (e.g., frameworks, attendants, storing, requests, and organizations) that canister remain immediately provisioned and unconfined with unimportant organization determination or authority center affiliation [3]. What NIST must delineated now is that circulated registering is authentically is not another development yet rather another movement model for preparing establishment, organizations and data exhausting a lot of current headways that need remained connected and ready open by the cloud pro association's (CSP's). Cloud master centers usage the Internet establishment to permit correspondence among consumer lateral and waiter side organizations/solicitations [4] and proposal the client/customer a remuneration for each usage classical of the CSP's enlisting assets and system. Disseminated processing canister be depicted as an utilization prototypical in which capitals are transports and, it expects to give capitals, for instance, hardware, programming and requests as flexible and "ondemand" organizations by methods for open framework in a multitenant space [5]. From the delineation and significance of disseminated figuring spread out clearly dispersed registering has various structures, qualities and wordings that require through the movement typical hard to understand for a few. This artifact expects to clear up the main thoughts, phrasings and fundamental developments similarly as deliberating the present tests and upcoming employments of appropriated figuring headways which resolve pass on a abundant increasingly broad getting, thankfulness and gathering of dispersed processing.

1.2 Motivation

Seeing distributed computing innovation drifts in Bangladesh and the effects of those on Bangladeshi understudies' education results, it is of need to facilitate the comprehension on the collaboration among distributed computing innovation and training in the nation. It is basic for instructors and uniform approach producers in the nation to think roughly comprehend, in addition to other things, how understudies' utilization of distributed computing innovation, identifies with instructive achievement. The discoveries of this examination and the proposals it will create will be of advantage to instructive pioneers, academicians, chairmen and strategy producers. Undergrad/graduate understudies, specifically, will be edified about what advantages can collect or what results can loom with utilizing distributed computing innovation alongside their investigation exercises.

1.3 Rationale of the Study

The justification for picking the theme of this examination is to add to the assortment of learning connecting instruction, data and cloud advancements (the Data specifically) just as the interplay between them and social interactions. The need for establishing the potentials of adapting today's course delivery with online learning technologies (in this case, social media website tools) known as hybrid or blended class and the need for identifying instrumental approaches stakeholders in governance and education could take in their decision, plan and policy making processes formed a set of the rationales for the topic of this study. This is applicable because educators and policy makers, in particular, are targeted regarding the recommendations that will emerge from this study. This is so important as far as research findings are usually envisaged for implementation as relevant as possible. The awareness of the findings of this study by its population (undergraduate/graduate university students) is one of the advantages underlying the rationales for the topic. Generally, this study will contribute to existing knowledge about social media and their place of students. It is believed that the potential findings of the research will lay a foundation for further inquiries.

1.4 Research Questions

- 1. Do you know what "Cloud Computing" is?
- 2. Do you regularly use cloud storage?
- 3. Do you use cloud in Business purpose?

1.5 Expected Output

➤ To know about what "Cloud Computing" is.

- To discover how students of daffodil international university (DIU) regularly use cloud storage.
- To discover the purpose that students of daffodil international university (DIU) are using cloud computing.
- > To discover how secrecy rules are operative in cloud computing.

1.6 Description outline

The remnants of this hypothesis are arranged into the behind sections:

Chapter 1: offerings and indication the impact of cloud computing technology on Daffodil International University Students, Inspiration and estimated productivity

Chapter 2: background deliberates the paybacks and problems, Enquiry Precipitate and Possibility of the Problematic

Chapter 3: study approach will deliberates Enquiry Question and Arrangement, Data Gathering Process, Statistical Investigation and Execution Requests

Chapter 4: investigational outcomes and conversation Investigational Outcomes and Expressive Study

Chapter 5: offerings a small assumption. And gradient of position

CHAPTER 2 BACKGROUND

2.1 Introduction

In this section discussed linked exertion or the nonfictions linked to the impact of cloud computing technology on Daffodil International University Students. The primary segment is the earlier revisions, the another segment is explanation, remunerations and weaknesses and deduction

2.2 Related Works

The term cloud is old since it was attracted organize graphs as an illustration talking to the Internet [6]. Disseminated computing is for the greatest portion referred to as per generous "Web based figuring administration" [7]; in slightly instance, the particular implication is extra profligate, like a dispersed subtracting enlarges on legitimately current recording advances, for instance, lattice dispensation and virtualization, which are kinds of conveyed registering invention Virtualization comprises casing the somatic qualities of cataloguing properties to shroud the unpredictability when outlines, requests, or close customers collaborate with them. Framework figuring is "a model of distributed computing that uses geographically and administratively distant resources and, thus, users can access computers and data transparently without concern about location, operating system, and account administration" [8]. Dispersed computing has remained assumed different descriptions as its coming. Fundamentally, meanings started with the idea of an solicitation administration prearrangement (ASP) that is an IT obtaining typical for rental commercial submissions terminated the Internet [9]. This description ended awake extra widespread as Internet-founded IT administration charities involved volume, enabling basis, and structure; subsequently, it is assumed the term remaining obtaining, to right its variety administration charities [10]. HP typifies dispersed computing as "Everything as a Service" [11], though Microsoft perceives the value of cloud computing as "Cloud + Client," emphasizing the importance of the close operator [12]. T-Systems define cloud computing as "the renting of infrastructure and software, as well as bandwidths, under defined service conditions. These components should be able to be adjusted daily to the needs of the customer and offered with the utmost availability and security. Included in cloud computing are end-2-end service level agreements (SLAs) and use-dependent service invoices" [13]. T-Systems' description permits on dispersed computing like to an usefulness processing or fifth convenience, subsequently endeavors canister spend registering properties on a recompense as-you-go evidence just similar the four exposed values (liquid, control, vapor, and mobile). The broadly recognized connotation of dispersed computing is by the National Institute of Standards and Technology (NIST). The NIST typifies dispersed computing as "a model for enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction" [14].

2.3 Study Summary

The purpose of this study was to define the Influence of cloud computing technology on Daffodil International University Students. As a result the highest level was to understand cloud computing and storing data without the restrictions. And provides the students the flexibility they need to enhance their academic performance using cloud.

2.4 Constraint of the Problem

This study is boundary to define the effect of cloud computing technology on Daffodil International University Students, the researcher using questionnaires in the Method of collecting data. Thorough clarification will be set in veneration to how effective cloud system yields high performance in an academic student especially Daffodil International University Students. The investigation is centered around the utilization of distributed computing for understudies. The purpose behind choosing understudies as an objective populace of research lies in the way that understudies are progressively subject to online administrations for learning and appraisal.

2.5 Challenges

Security and protection - The principle encounter to disseminated computing is the earnings by which it inclines to the safety and fortification doubts of administrations seeing acceptance it. The method that the significant venture data will animate external the commercial firewall increases unaffected anxieties. Equitation and dissimilar attacks to cloud outline would affect different clienteles irrespective of whether fair a only place is beaten. These hazards canister be weakened by using refuge requests, knotted best agendas, material bad luck software design, and acquiring sanctuary tackle to shadow unordinary demeanor transverse completed attendants.

Execution and data transmission - Businesses can get a good deal on apparatus though they want to devote extra for the transfer speed. This container a trifling exertion for slighter submissions however it can be overall great for the material serious requests. Transmission serious and multifaceted data above the structure needs passable broadcast volume. Lengthways these appearances, many administrations are sedentary close-fitting for a reduced expense before altering to the cloud.

Unwavering quality and accessibility - Cloud suppliers still need nonstop administration; this result in regular blackouts .It is imperative to shade the management existence assumed using inside or stranger tools. It is essential to have plans to control operation, implementation, vigor, and commercial dependence of these managements

Information and versatility - respectively separate needs to habit of repositioning in and out the cloud ensuring data transportability is important .more often than not , customers gripe about protected in the cloud invention from where they can't change deprived of

restrictions. There should to be no lock in dated for switching the cloud.

©Daffodil International University

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This section discourses the method that was the influence of cloud computing technology on Daffodil International University Students. The argument will embrace the plan of the study, Study Issue and Arrangement, Data Gathering Method, Statistical Examination.

3.2 Study Topic and Equipment

- Calls attention to that a study is just in the same class as an inquiry it pose, henceforth the poll is a basic stage in the overview examine process, the survey must be applicable and precise in endeavoring to catch the quintessence of the examination objective. To accomplish these finishes, a scientist will be required to settle on a few choices:
- ✤ How ought to be inquired?
- ✤ How ought to each query be stated?
- ✤ What grouping must the inquiries organized?
- ♦ What survey format will greatest attend the scientist targets?
- ✤ How would the survey stand pre-tried?
- Does the poll should exist changed?

3.3 Data Gathering Method

The information gathering tool is a survey. It comprises queries detailed dependent on the exploration queries (principle and act-queries), writing survey and the hypothetical situating displayed in this investigation. The inquiries were regular in a manner that looks at the association among impacts of cloud computing technology. Composed data were

enumerated, for occurrence, with esteem to data stored on cloud computing custom likened to, on learning and extra theoretical actions each day.

Questionnaire

A from may be a knowledge assortment tool unfailing of a sequence of questions and different reminders for the aim of meeting date from responders Steps mandatory to proposal and administer a survey

- 1. Process the purposes of the topic
- 2. Outline the aim responders and strategies to achieve them
- 3. Survey style
- 4. Model tough
- 5. Result interpretation

3.4 Research population

The sample was consisting of 153 respondent's students selected from Daffodil International University. To know the ideal sample size of population, the researcher will use Slovene's formula which is $n=N/(1+(N*e^2))$, where n = sample size, N= population size -=250 and e = margin of error of 5%. $n=250/(1+(250*0.0025^{\circ})) = 153$ subjects

3.5 Statistical Analysis

The Statistical Package for Social Scientists (SPSS) was charity for records pass and examination. Pearson's relationship device was utilized to inaugurate related dealings amongst the known factors.

3.6 Dependability and rationality

The most significant issue in the exploration is to consider the legitimacy and unwavering quality of the instrument used to gather the information. Dependability alludes to degree to which your information gathering systems or examination methodology will yield steady. The dependability of the investigation implies that the exploration will be solid if the examination examiner appropriated to certain respondents out of the exploration zone, and consented to the aftereffects of the respondents at any rate 75% so the exploration will be solid. Legitimacy of the exploration is tested where the inquiries in the examination are submitted to a specialist, and after that arranged how it relates the examination objective.

Two fundamental objectives in poll plan.

- 1. To acquire data significant to the motivations behind the review.
- 2. To gather this data with maximal unwavering quality and legitimacy.

By what means can a specialist make sure that the information gathering instrument being utilized will quantify what it should gauge and will do this in a predictable way? This is an inquiry that must be replied by looking at the definitions for and techniques for setting up the legitimacy and 9 Reliability of an exploration instrument.

Reliability

Research needs dependable approximation. Guesstimates are hard to the gradation that they are repeatable and that some irregular impact which will in general type appraisals not the similar by way of incident to occasion or situation to condition is a fountain of estimate blunder. Firm superiority is how much a examination dependably events whatsoever it devices. Bloopers of estimate that effect unwavering quality are asymmetrical blunders and slip-ups of assessment that stimulus rightfulness is orderly or consistent bloopers. Trial-retest, equal constructions and riven-half steadfast superiority are overall obvious over affiliation. **Test-retest Reliability:**

Test-retest unwavering quality is how much scores are predictable after some time. It indications slash diversity that occurs from difficult sitting to trying term because of mistakes

of approximation. Questions: Reminiscence, Development, Knowledge Validity:

All around basically, legitimacy is the notch to which a examination estimates what it must device. The issue of legality took up with respects to the three through over, the kind of the examination, the motivation behind the examination and the population for whom it is planned. In this manner, we can't pose the overall review "Is this a legitimate test?" The inquiry to pose is "the means by which substantial is this test for the choice that I have to make?" or "how legitimate is the understanding I propose for the test?" We able partition the kinds of legitimacy into intelligent and exact.

Contented Validity:

When we need to discovery out if the total satisfied of the conduct/concept/part is signified in the examination we liken the exam chore with the satisfied of the comportment. This is a reasonable methodology, not associate experiential one. Instance, if we would like to check information on Yankee geographic it's not truthful to possess greatest queries restricted to the geographic of recent England. Guaranteeing these two parts of an examination are significant. While unwavering quality demonstrates the need that an investigation produces results that will be confirmed reliably by ensuing comparable examinations, legitimacy or dependability of an investigation necessitates that the instrument connected effectively acquires the kind of information that it is intended to be accumulated. The analyst was resolved to effort unbiasedly and constantly to guarantee the reality of these two parts of study by subsequent material logical technique. At first, the device stayed prevexed with up to ten arbitrarily chosen understudies in the University of DIU Bangladesh. Doing this was seen as a method for plateful the specialist to find out the legitimacy of the device

CHAPTER 4 EXPERIMENTAL RESULTS AND DISCUSSION

4.1 Introduction

This section will refuge the introduction of information investigation and elucidation of study outcomes. The information examination and understanding depended on the exploration goals. Introduction and examination of the gathered information was processed utilizing recurrence and rate.

4.2 Experimental Outcomes

So as to demonstrate the conveyance of the defendants on the different inquiry things Benches and charts were utilized in the introduction of information. The defendants must similar poll agreed them the example scope of the investigation populace was 153 defendants, although the objective populace is 250.

4.3 Descriptive analysis

Engaging insights are brief elucidating coefficients that outline a given informational collection, which can be either a portrayal of the entire populace or an example of it. Unmistakable insights are separated into proportions of focal propensity/want and proportions of (nature of changing after some time or at better places), or spread. 4.3.1Gender reply

Table4. 1 Sex respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MALE	103	68.7	68.7	68.7
	FEMALE	47	31.3	31.3	100.0
	Total	150	100.0	100.0	

The beyond table 4.1 expressions that the sex supply were 103(68.7%) male and 47(31.1%) female this indicate that mainstream of defendants are male. the following figure 4.1 displays the graph of table 4.1

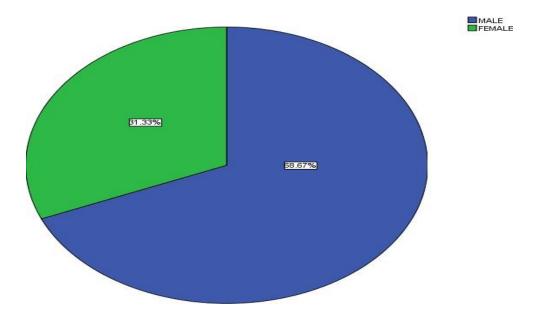


Figure 4.1 Gender respondents

4.3.2Age of respondents

Table4. 2 Age of responses

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Between 17 and 24	85	56.7	56.7	56.7
	between 25 and 35	56	37.3	37.3	94.0
	between 36 and 45	9	6.0	6.0	100.0
	Total	150	100.0	100.0	

The above table 4.2 displays 85(56.7 %) of the respondents are age between 17-24 years, the next respondents are the 56(37.3%) of the respondents are between 25-35 years, and the last respondents are 9(6 %) are the age between 36-45 years. the behind figure 4.2 displays the graph of table 4.2.

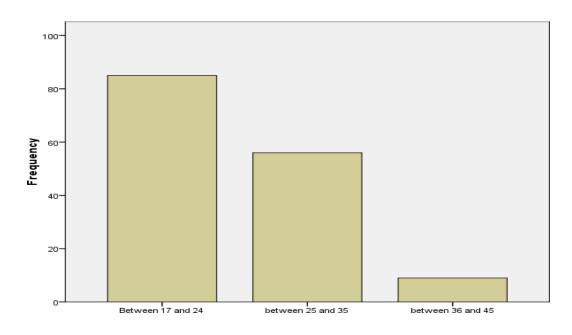


Figure 4. 2 Age of response

4.3.3Education level of respondent

Table4. 3 Educational Level of respondent

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	Bachelor	84	56.0	56.0	56.0
	Master	59	39.3	39.3	95.3
	Other	7	4.7	4.7	100.0
	Total	150	100.0	100.0	

The above table 4.3 displays 84(56 %) respondents have bachelor degree and 59(39.3%) respondents are master degree. and the last respondents 7(4.7 %) respondents are other. The majority of bachelor degree the behind figure 4.3 indicators the graph of table 4.3.

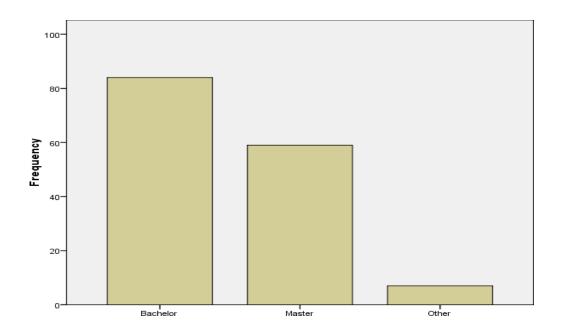


Figure 4.3 Educational Level of respondent. 4.3.4CGPA of the respondent

Table4. 4 CGPA of the respondent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2.00-2.50	24	16.0	16.0	16.0
	2.50-3.00	44	29.3	29.3	45.3
	3.00-3.50	49	32.7	32.7	78.0
	3.50-4.00	33	22.0	22.0	100.0
	Total	150	100.0	100.0	

The above table 4.4 displays 24 (16 %) respondents have 2.00-2.50 CGPA, the ensuing defendants are the 44(29.3%) reaction have 2.50-3.00 CGPA, the ensuing defendants are the 49(32.7%) answer have 3.00- 3.50 CGPA, the final defendants are the 33 (22.0 %) answer have 3.50-4.00 CGPA, the behind figure 4.4 indicators the graph of table 4.4.

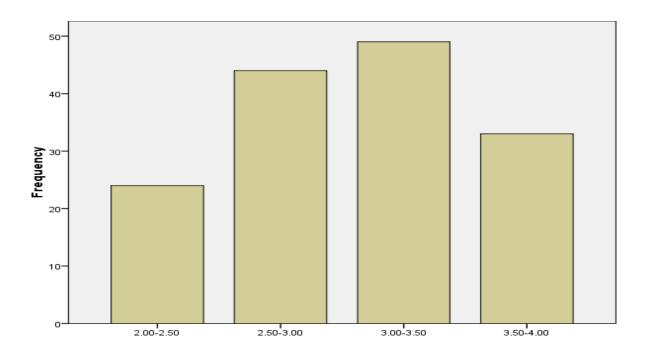


Figure 4. 4 respondent CGPA 4.3.5 Having your own computer (laptop) Tablet.

Table4. 5 having your own computer (laptop) Tablet get response.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	141	94.0	94.0	94.0
	No	9	6.0	6.0	100.0
	Total	150	100.0	100.0	

The beyond Table 4.5 displays 141(94.0 %) defendants use Yes and next respondents 9 (6.0 %) respondents no. The behind figure 4.5 indicators the graph of table 4.5

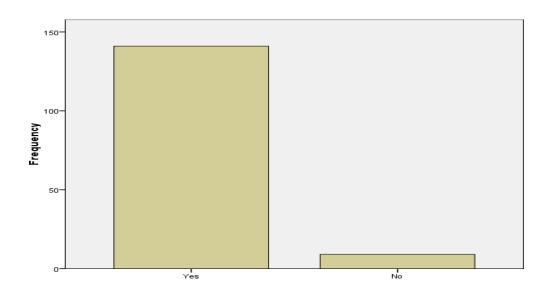


Figure 4. 5 having your own computer (laptop) Tablet respondent. 4.3.6 I've been using computer for respondent

Table4. 6 I've been using computer for respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 year	32	21.3	21.3	21.3
	2 year	18	12.0	12.0	33.3
	3 years	16	10.7	10.7	44.0
	4 years	30	20.0	20.0	64.0
	more than 5 years	54	36.0	36.0	100.0
	Total	150	100.0	100.0	

The above Table 4.6 presentations 32(21.3 %) respondents utilize 1 year, and next

respondents 18(12.0 %) respondents utilize 2 years, the following respondents 16(10.7 %) respondents utilize 3 years, the following respondents 30(20.0 %) respondents utilize 4 years. what's more, last respondents 54(36.0 %) respondents utilize over 5 years. the accompanying figure 4.6 demonstrates the chart of table 4.8.

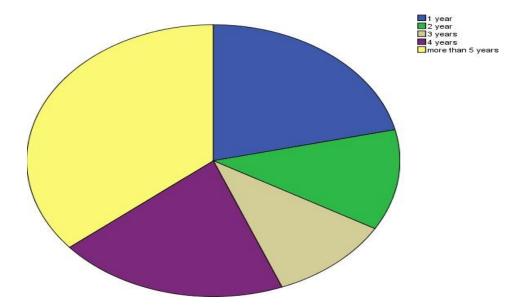


Figure 4. 6 I've been using computer for respondents. 4.3.7 Using internet respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	136	90.7	90.7	90.7
	No	14	9.3	9.3	100.0
	Total	150	100.0	100.0	

The beyond Table 4.7 presentations 136(90.7 %) defendants use Yes and next respondents 14 (9.3 %) respondents no. The accompanying figure 4.7 demonstrates the chart of table 4.7

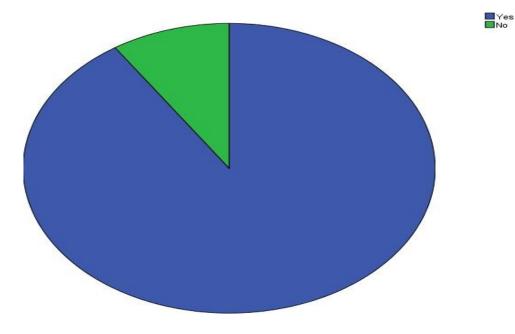


Figure 4.7 using internet respondents 4.3.8 Using to access the cloud respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laptop/Desktop	72	48.0	48.0	48.0
	Mobile (phone)	74	49.3	49.3	97.3
	I don't have Mobile, Computer	4	2.7	2.7	100.0
	Total	150	100.0	100.0	

The above Table 4.8 presentations 72(48.0 %) respondents use Laptop/Desktop, and next respondents 74(49.3 %) respondents utilize Mobile (telephone), and last respondents 4(2.7 %) respondents use I don't have Mobile, Computer. the accompanying figure 4.8 demonstrates the chart of table 4.8.

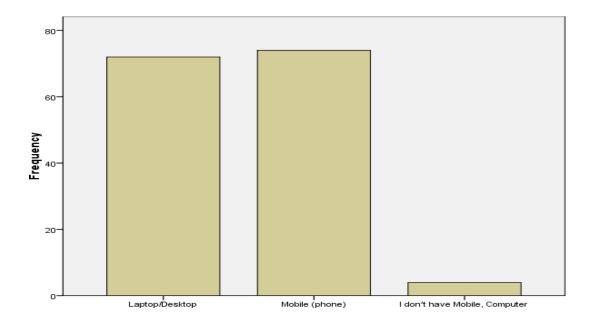


Figure 4.8 using to access the cloud for respondents 4.3.9 Your internet speed approximately respondents

Table4. 9	your internet	speed ap	proximately	respondents
	J			

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Normal	83	55.3	55.3	55.3
	High speed	52	34.7	34.7	90.0
	Poor	15	10.0	10.0	100.0
	Total	150	100.0	100.0	

The overhead Table 4.9 displays 83(55.3 %) defendants use Normal, and next defendants 52(34.7%) respondents use High speed, and last respondents 15(10.0 %) respondents use Poor. The behind figure 4.9 indicators the graph of table 4.9.

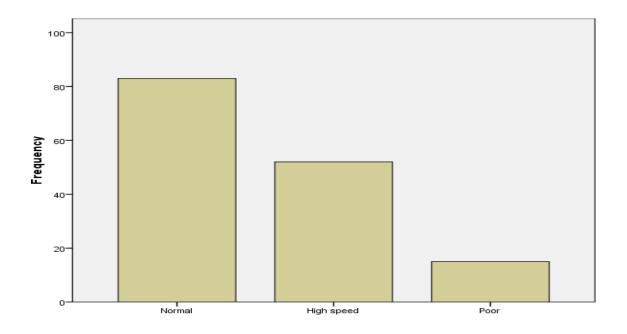


Figure 4.9 your internet speed approximately respondents 4.3.10 knowing what "Cloud Computing" responses

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	128	85.3	85.3	85.3
	No	22	14.7	14.7	100.0
	Total	150	100.0	100.0	

The overhead Table 4.10 expressions 128(85.3 %) defendants use Yes and next defendants 22 (14.7 %) respondents no. The behind figure 4.10 indicators the graph of table 4.10

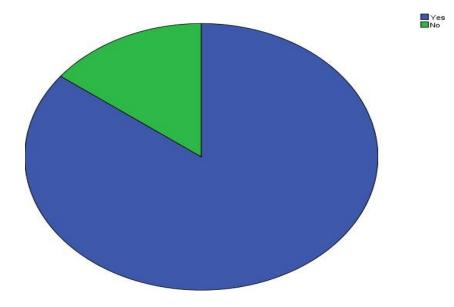


Figure 4. 10 knowing what "Cloud Computing" respondents 4.3.11 how cloud computing works respondents.

Table4.	11	how	cloud	computing	works	respondents.
---------	----	-----	-------	-----------	-------	--------------

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	92	61.3	61.3	61.3
	No	58	38.7	38.7	100.0
	Total	150	100.0	100.0	

The overhead Table 4.11 expressions 92(61.3 %) defendants use Yes and ensuing defendants 58 (38.7 %) respondents no. The accompanying figure 4.11 demonstrates the chart of table 4.11

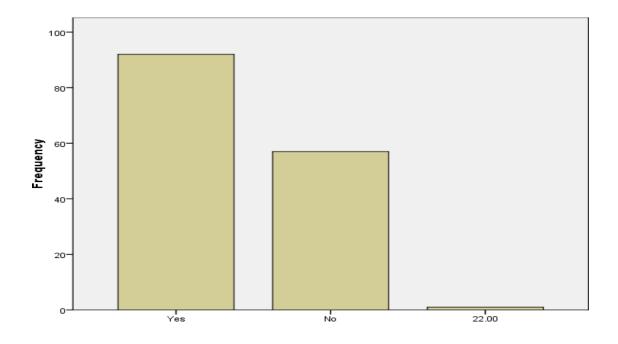


Figure 4.11 how cloud computing works respondents. 4.3.12Accessing the cloud respondents.

Table4.12 Accessing the cloud respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Laptop/Desktop	84	56.0	56.0	56.0
	Mobile (phone)	62	41.3	41.3	97.3
	I don't have Mobile, Computer	4	2.7	2.7	100.0
	Total	150	100.0	100.0	

The overhead Table 4.12 expressions 84(56.0 %) defendants use Laptop/Desktop, and ensuing defendants 62(41.3%) respondents Mobile (telephone) and last respondents 4 (2.7%) respondents use I don't have Mobile, Computer. The accompanying figure demonstrates the diagram of table 4.12. Demonstrates the chart of table 4.12

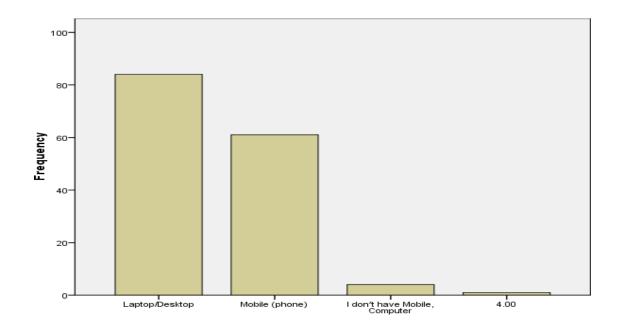


Figure 4.12 Accessing the cloud respondents. 4.3.13 how long have you been using cloud computing for respondents

	1 1 1	
12hle/l + 3how long vol	i haan iising cloud	l computing for respondents.
I autority now long you	i occhi using ciouu	i computing for respondents.
0,	\mathcal{U}	

					Cumulative
		Frequency	Percent	Valid Percent	Percent
Valid	1 Year	45	30.0	30.0	30.0
	2 Years	37	24.7	24.7	54.7
	4 Years	17	11.3	11.3	66.0
	More than 5 yeas	51	34.0	34.0	100.0
	Total	150	100.0	100.0	

The overhead Table 4.13 expressions 45(30.0 %) defendants use 1 year, and ensuing defendants 37(24.7 %) respondents use 2 years, the next respondents 17(11.3 %) respondents use 4 years, and last respondents 51(34.0 %) respondents use More than 5 years. the behind figure 4.13 indicators the graph of table 4.13.

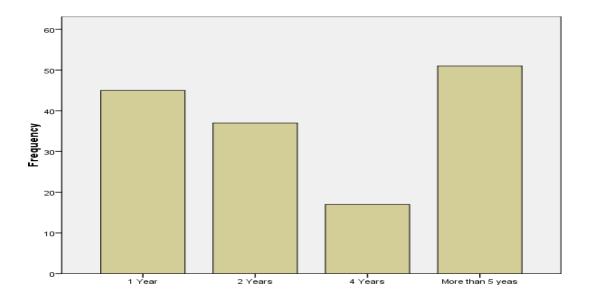


Figure 4.13 how long have you been using cloud computing for respondents. 4.3.14 Asking today's technology information and cloud computing technologies have a positive or negative effect

Table4. 14 Asking think that today's technology information and cloud computing technologies have a positive or negative effect.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	87	58.0	58.0	58.0
	No	63	42.0	42.0	100.0
	Total	150	100.0	100.0	

The overhead Table 4.14 expressions 87(58.0 %) defendants use Yes and ensuing defendants 63 (42.0 %) respondents no. The behind figure 4.14 indicators the graph of table 4.14

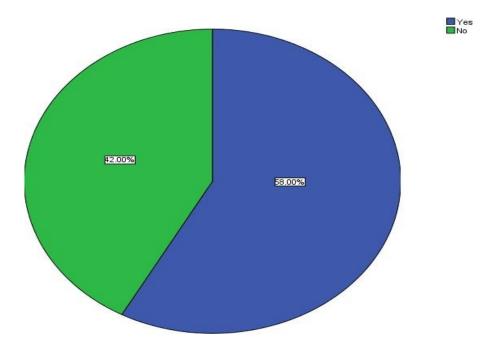


Figure 4. 14 asking think that today's technology information and cloud computing technologies have a positive or negative effect. 4.3.15 using cloud in Business purpose responses

Table4. 15 using cloud in Business purpose responses.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	47	31.3	31.3	31.3
	No	103	68.7	68.7	100.0
	Total	150	100.0	100.0	

The overhead Table 4.8 expressions 47(31.3 %) defendants use Yes and ensuing defendants 103 (68.7 %) respondents no. The behind figure 4.15 indicators the graph of table 4.15

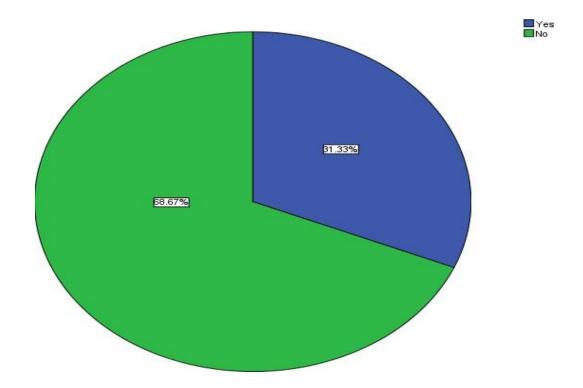


Figure 4. 15 using cloud in Business purpose respondents

4.3.16 Asking cloud computing beneficial for doing a business nowadays respondents

Table4. 16 Asking cloud computing beneficial for doing a business nowadays for respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	113	75.3	75.3	75.3
	No	37	24.7	24.7	100.0
	Total	150	100.0	100.0	

The above Table 4.16 shows 113(75.3 %) respondents use Yes and next respondents 37 (24.7 %) respondents no. The behind figure 4.16 indicators the graph of table 4.16

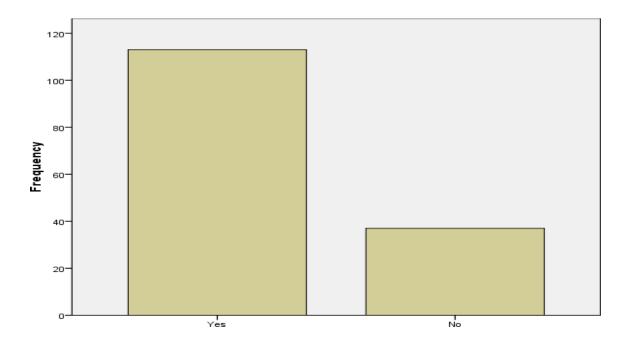


Figure 4. 16 asking cloud computing beneficial for doing a business nowadays respondents 4.3.17 type of application do you use to store your data respondents

Table4. 17 type of application do you use to store your data respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Google drive	106	70.7	70.7	70.7
	drop box	29	19.3	19.3	90.0
	I cloud	12	8.0	8.0	98.0
	Window azure	3	2.0	2.0	100.0
	Total	150	100.0	100.0	

The above Table 4.17 indicators 106(70.7%) respondents use Google drive, and next respondents 29(19.3%) respondents Drop box, the following respondents 12(8.0%) respondents use I cloud, and last respondents 3(2.0%) respondents use Window sky blue. the accompanying figure demonstrates the chart of table 4.17.

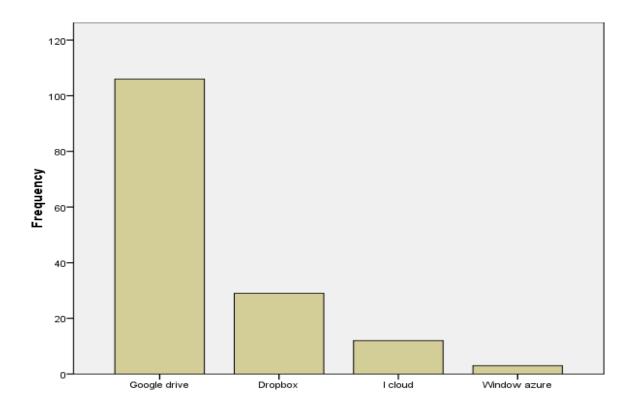


Figure 4.17 type of application do you use to store your data respondents 4.3.18 type of data do you usually store in cloud computing for respondents.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Images	45	30.0	30.0	30.0
	Videos	64	42.7	42.7	72.7
	Documents	41	27.3	27.3	100.0
	Total	150	100.0	100.0	

Table4. 18 type of data do you usually store in cloud computing for respondents.

The overhead table 4.18 displays 45(30 %) defendants have Images and 64 (42.7 %) respondents are Videos. What's more, the remainder of respondents 41 (27.3 %) use reports the accompanying figure 4.18 demonstrates the chart of table 4.18f table 4.18

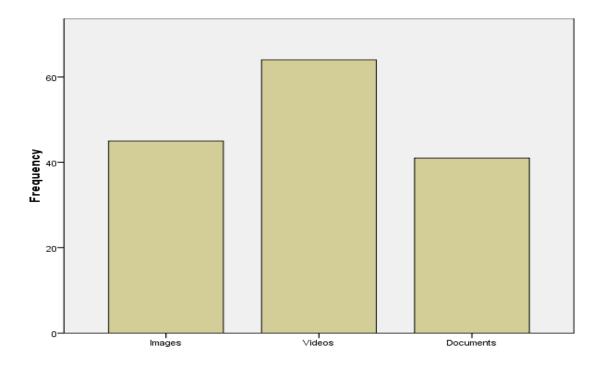


Figure 4.18 type of data do you usually store in cloud computing for respondents. 4.3.19 asking is it safe to keep your data in cloud storage for respondents

Table4. 19 asking is it safe to	keep your data in cloud	l storage for respondents
---------------------------------	-------------------------	---------------------------

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	98	65.3	65.3	65.3
	No	52	34.7	34.7	100.0
	Total	150	100.0	100.0	

The overhead Table 4.19 displays 98(65.3 %) defendants use Yes and ensuing defendants 52 (34.7 %) respondents no. The behind figure 4.19 indicators the graph of table 4.19

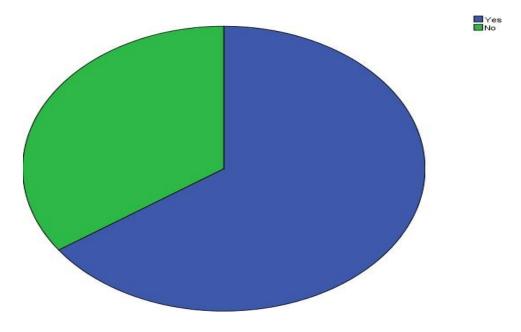


Figure 4.19 asking is it safe to keep your data in cloud storage for respondents 4.3.20 the safety of your data in cloud respondents

Table4. 20 the safety	of your data	in cloud respondents
-----------------------	--------------	----------------------

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Weak	22	14.7	14.7	14.7
	Normal	100	66.7	66.7	81.3
	Strong	28	18.7	18.7	100.0
	Total	150	100.0	100.0	

The above table 4.20 expressions 22 (14.7 %) respondents have Weak and 100 (66.7 %) respondents are Normal. And the last of respondents 28 (18.7 %) use Strong the following figure 4.20 shows the graph of table 4.20

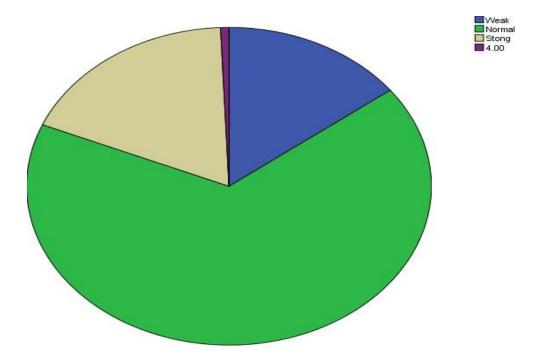


Figure 4.20 the safety to keep your data in cloud storage for respondents 4.3.21 Asking see any issues in cloud computing so far respondents

Table4. 21 Asking see any issues in cloud computing so far respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	46	30.7	30.7	30.7
	No	104	69.3	69.3	100.0
	Total	150	100.0	100.0	

The overhead Table 4.21 expressions 46 (30.7 %) defendants use Yes, and next respondents 104 (69.3 %) respondents No. The behind figure 4.21 indicators the graph of table 4.21

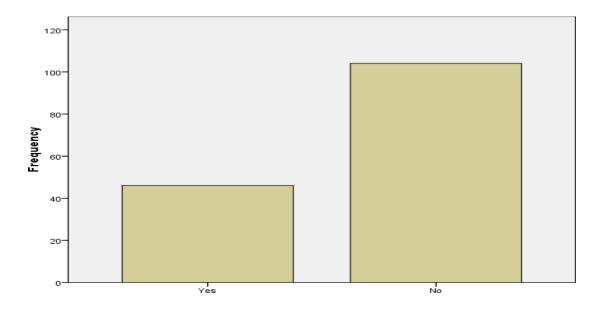


Figure 4.21 asking see any issues in cloud computing so far respondents

4.4 Summary

This section I talked about consequences of the review of the led supreme and the aftereffects of the overview incorporate investigation of exploratory outcomes, and furthermore elucidating examination, this exploration Queries I get great reactions that brands study to end up accommodating the yield of this spellbinding and recurrence investigation.

CHAPTER 5: SUMMARY OF THE STUDY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this part will examine the discoveries of the outcomes, end and proposal of this investigation, first it will be talked about the significant discoveries of every examination like affirmed in the exploration goals, second the end from the discoveries of the investigation, in conclusion the scientists will proposes suggestion of this investigation and territories future study.

5.2 Summary of the Study

After discoveries the investigator absorbed on to deliberate the queries inquired the defendants.

5.1.1 Do you think that today's technology information and cloud computing technologies have a positive or negative effect?

The above Table 4.14 shows 87(58.0 %) respondents use Yes and next respondents 63 (42.0 %) respondents no.

5.1.2 Do you use cloud in Business purpose?

The above Table 4.8 shows 47(31.3 %) respondents use Yes and next respondents 103 (68.7 %) respondents no.

5.1.3 What type of data do you usually store in cloud computing?

The above table 4.18 shows 45(30 %) respondents have Images and 64 (42.7 %) respondents are Videos. And the last of respondents 41(27.3 %) use Documents.

5.1.4 it safe to keep your data in cloud storage?

The above Table 4.19 shows 98(65.3 %) respondents use Yes and next respondents 52 (34.7

%) respondents no.

5.1.5 The safety of your data in cloud is?

The above table 4.20 shows 22(14.7 %) respondents have Weak and 100 (66.7 %) respondents are Normal. And the last of respondents 28(18.7 %) use Strong

5.3 Conclusion

The discoveries of this investigation uncovered that clear from the exhibited examinations, we may demonstrate that the cloud can be an exceptionally helpful arrangement in training. Its utilization in this measurement, can influence the way that the greater part of the Daffodil understudies knows and uses the cloud, they additionally have some thought regarding the advantages it can convey them to the cloud as individual clients, yet in addition the college all in all. A wide scope of advantages and positive effect on the dimension and nature of instruction ought to be a reason for the usage of this arrangement by college. Then again, remember the persistent innovative improvement and advancement, which is being made in its territory. Based on the past, it very well may be finished up, that the acquaintance of the cloud with instruction is just a short time, as an issue of time was the presentation of PCs and the Internet for training units. Remembering this, has the equivalent monetary issues, it very well may be accepted that throughout the years colleges, of their own volition, will actualize the arrangement, in light of the fact that the cloud may significantly diminish the expenses acquired for the buy of PC gear, upkeep and overhauling of IT foundation and the need to utilize individuals in IT offices

5.4 Recommendation

In view of the discoveries of this investigation, subsequent to examining the inquiries that I posed to the populace we found that the vast majority of the general population they utilizes cloud and furthermore store their recordings and reports on cloud for the most part, so as you probably are aware the overhead concern is a good for automatically and you distant upcoming, so I might want to propose you little guidance to deal with your information and your stockpiling to the accompanying tips:-

- \checkmark Pupils must be educated on the impact of cloud computing on their theoretical enactment.
- ✓ Pupils must better manage their cloud computing security to get their date safe.
- ✓ Students should keep applications that they use to access to the cloud to be closed after finishing using because of the security from other people to access their information on the cloud. Most of the students in daffodil international university (DIU) they use cloud and I would like to suggest to keep using and improve themselves.

References

[1]. Hussam Aladdin S. Ahmed, Mohammed Hasan Ali, Laith M. Kadhum, Mohamad Fadli Bin Zolkipli, Yazan A. Alsariera "A Review of Challenges and Security Risks of Cloud Computing", Vol. 9,No. 1-2,Journal of Telecommunication, Electronic and Computer Engineering

[2] Rajan, S. & Jairath, A. (2011) "Cloud Computing: The Fifth generation of Computing,

2011 International Conference on Communication Systems and Network Technologies

(2011) Volume: 15, Issue: 4, Publisher: Ieee, Pages: 665-667

[3] Mell, P. & Grance, T. (2011) "The NIST Definition of Cloud Computing (Draft)",

Publisher: U.S. Department of Commerce

[4] Weiss, A. (2007) "Computing in the Clouds", Networker Volume: 11, Issue: 4, ACM, Pages: 16-25

[5] Xu, D. (2010) "Cloud Computing: an Emerging Technology", 2010 International

Conference On Computer Design And Appliations (ICCDA 2010), IEEE, Pages 100-104

[6] Sultan, N.A.: Reaching for the "Cloud": How SMEs Can Manage. Int. J. Inf. Manage.31, 272–278 (2011)

[7] Yang, H., Tate, M.: A Descriptive Literature Review and Classification of Cloud Computing Research. Commun. Assoc. Inf. Syst. 31 (2012)

[8] Cummings, M.P., Huskamp, J.C.: Grid Computing. Educ. Rev. 40, 116–117 (2005)

[9] Susarla, A., Barua, A., Whinston, A.: Understanding the Service Component of Applica-

tion Service Provision: An Empirical Analysis of Satisfaction with ASP Services. MIS Q. 27, 91–123 (2003)

[10] Kern, T., Willcocks, L.P., Lacity, M.C.: Application Service Provision Risk Assessment

and Mitigation. MIS Q. Exec. 1, 113–126 (2002)

[11] Robison, S.: Everything-as-a-Service: A Blue Sky View of the Cloud (2009),

http://www.hp.com/hpinfo/initiatives/eaas/SR_EaaS_viewpoint.pdf

[12] Xin, L., Song, C.: Cloud-Based Innovation of Internet Long Tail. In: The 6th International

Conference on Product Innovation Management (ICPIM 2011), pp. 603–607 (2011)

[13] Kunesch, U., Reti, M., Pauly, M.: Cloud Computing I. Alternative sourcing Strategy for

Business ICT (2010), http://www.t-systems.com/news-media/white-

papers/760948_2/blobBinary/White-Paper_Cloud-Computing-I.pdf

[14] Mell, P., Grance, T.: The NIST Definition of Cloud Computing: Recommendations

of the National Institute of Standards and Technology (2011),

http://csrc.nist.gov/publications/nistpubs/800-145/SP800-145.pdf

Appendices

<i>Q1.</i> Are you male or female?
Male female
<i>Q2.</i> How old are you?
Between 17 and 24 between 25 and 35
Between 36and 45 between 46 and above
Q3. What is your degree?
Bachelor Master Other
Q4. What is your CGPA?
2.00-2.50 2.50-3.00 3.00-3.50 3.50-4.00
Q5. Do you have your own computer (laptop) Tablet?
Yes No
<i>Q6.</i> I've been using computer for approximately
1 year 2 year 3 years 4 years ore than 5 years
Internet Use
<i>Q7.</i> Do you use internet?
Yes No
Q8. What do you use to access the Internet most with?
Laptop/Desktop Mobile (phone) I don't have Mobile, Computer.
Q9. Your internet speed approximately is?
Normal high speed Poor

About Using Cloud and how

Q10. Do you know what "Cloud Computing" is?
Yes No
Q11. Do you know how it works?
Yes No
Q12. What do you use to access the cloud?
Laptop/Desktop Mobile (phone) I don't have Mobile, Computer
Q13. How long have you been using cloud computing?
1 Year 2 Years 4 Years More than 5 yeas
Q14. Do you think that today's technology information and cloud computing technologies
have a positive or negative effect?
Yes No comment
Q15. Do you use cloud in Business purpose?
Yes No
Q16. Is cloud computing beneficial for doing a business nowadays?
Yes No
Q17. Which application do you use to store your data?
Google drive Drop box I cloud Windows Azure
Q18. What type of data do you keep on cloud storage?
Images Documents Videos Other

Privacy

Yes	p your data in the cloud storage? No our data in the cloud is?	
Weak	Normal strong	
<i>Q21.</i> Do you see any issues in Cloud computing so far?		
Yes	No comment	

Q22. Thinking about this topic, do you have any comments you would like to share?

