

هيئة الاتصالات وتقنية المعلومات
Communications and Information Technology Commission



Establishment Report

(Corporate, Government and Education)

ICT Survey Results, 2014

Prepared by

هيئة الاتصالات وتقنية المعلومات
Communications and Information Technology Commission



جامعة الملك فهد للبترول والمعادن
King Fahd University of Petroleum & Minerals

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All data and information presented in the report represent the views of the various consumer segments and opinions of ICT Stakeholders in Saudi Arabia

Table of Contents

1. Executive Summary	1
2. Background Information	2
3. Introduction.....	3
4. Deployment Methodology	3
5. Establishments' Profile	4
5.1. Corporate and Government Establishments	5
5.2. Education Establishments.....	5
6. Rating System	6
7. General ICT Usage and Services	8
8. Fixed and Mobile Voice Services	10
8.1 Fixed Telephony Services.....	10
8.1.1 Use of Fixed Telephony	10
8.1.2 Reasons for not using Fixed Telephony Services	11
8.1.3 Average Monthly Spending on Fixed Telephony	12
8.1.4 Price Rating for Fixed Telephony for Primary Line	13
8.1.5 Satisfaction Rating for Fixed Telephony	14
8.2 Mobile Voice Services	15
8.2.1 Use of Mobile Voice	15
8.2.2 Reasons for not providing Mobile Services to Employee(s).....	16
8.2.3 Different Usage Aspects of Mobile Voice Services.....	17
8.2.4 Average Monthly Spending on Mobile Voice Services.....	20
8.2.5 Price Rating for Mobile Voice Services for Primary Line.....	20
8.2.6 Satisfaction Rating for Mobile Voice Services for Primary Line	21
9. Internet Services.....	22
9.1 Internet Usage	22
9.1.1 Internet Access to Employees	22
9.1.2 Internet Access to Students (Educational Institutes only).....	25
9.1.3 Internet Access to Labs (Educational Institutes only).....	26

9.2	Reasons for not using Internet in the last six (6) months	27
9.3	Type(s) of Internet Access(es)	28
9.4	Internet Activities.....	30
9.5	Average Monthly Spending on Internet Services	31
9.6	Price Rating for Internet Services for Primary Service Provider	32
9.7	Satisfaction Rating for Internet Services for Primary Service Provider	33
10.	Computers and Software	34
10.1	Use of Computers	34
10.1.1	Computer Provided to Employees	35
10.1.2	Computer Provided to Staff and Students	38
10.2	Reasons for not providing Computers to the employee	41
10.3	Open-Source Software Usage	42
11.	Website and Social Networks	43
11.1	Web Presence	43
11.2	Reasons for not having Web Presence	44
11.3	Web Hosting and Domain.....	45
11.4	Use of Social Networks.....	46
11.5	List of Services Provided Through Web Presence.....	47
12.	e-Services	50
12.1	Use of e-Services	50
12.2	Reasons for not using e-Services	50
12.3	Receiving Orders Through Electronic Channels.....	56
12.4	Placing Orders (Buying) Through Electronic Channels	59
12.5	E-Learning (For Educational Institutes only)	61
12.5.1	E-Learning products.....	61
12.5.2	E-learning Services	61
12.5.3	Reasons for not having E-Learning Platforms	62
13.	Establishment Networks	63
14.	Security and Privacy	64

15.	New and Advanced Technologies and Services	66
15.1	IPv6	66
15.2	Cloud Computing	67
15.3	Adoption to new Technologies	68
15.4	ICT Business Services In-Use.....	68
16.	IT Policy of the Establishment.....	71
17.	ICT (IT and Telecom/Mobile) Expenditure.....	72
18.	Complaints Handling	73
18.1	Service Provider.....	73
18.1.1	Respondents who complained to Service Provider	73
18.1.2	Reasons for not complaining to Service Provider	73
18.1.3	Means of Registering Complaints	74
18.1.4	Satisfaction in handling the complaint by Service Provider	75
18.2	CITC	76
18.2.1	Respondents who complained to CITC.....	76
18.2.2	Reasons for not complaining to CITC	76
18.2.3	Satisfaction in handling the complaint by CITC.....	77
19.	R&D and ICT Training	78
19.1	R&D	78
19.2	ICT Training	78
20.	IT Man-Power	81
20.1	IT Staff in the Establishment (Corporate and Government)	81
20.2	IT Staff and Students in the Education	81

List of Tables

Table 1.	Satisfaction Rating Score Point	7
Table 2.	Price Rating Score Point	7

List of Figures

Figure 1:	Types of Establishments (Total: 1500 Establishments)	4
Figure 2:	Types of Corporates and Govt. Establishments (Total: 1163 Establishments)	5
Figure 3:	Size of Corporates Establishments (Total: 1124 Establishments)	5
Figure 4:	Education Sector (Total: 337 Establishments)	6
Figure 5:	Size of Education Establishments {Number of Students} (Total: 337 Establishments)	6
Figure 6:	Establishments ICT Usage (Total: 1500 Establishments)	8
Figure 7:	Corporate and Government Establishments ICT Usage (Total: 1163 Establishments)	9
Figure 8:	Education Establishments ICT Usage (Total: 337 Establishments)	9
Figure 9:	Establishments' Fixed Telephony Usage (Total: 1500 Establishments)	10
Figure 10:	Fixed Telephony Usage by Establishments Type (Total: 1124 Corporates and 337 Education Establishments)	10
Figure 11:	Establishments' reasons for not using fixed telephony service(s) (Total: 214 Corporates and Education Establishments)	11
Figure 12:	Establishments' reasons for not using fixed telephony service(s) (Total: 175 Corporates Establishments)	11
Figure 13:	Establishments' reasons for not using fixed telephony service(s) (Total: 39 Education Establishments)	12
Figure 14:	Establishment planning to use fixed telephony service(s) within the next twelve (12) months (Total: 214 Corporates and Education Establishments)	12
Figure 15:	Establishments' monthly spending, on an average, for all fixed telephony service(s) (Total: 1145 Establishments)	13
Figure 16:	Price Rating for Services of the Primary Fixed Telephony Provider	13
Figure 17:	Price Rating for Services of the Primary Fixed Telephony Provider (Government and Corporate Establishments)	14
Figure 18:	Price Rating for Services of the Primary Fixed Telephony Provider (Education Establishments)	14
Figure 19:	Satisfaction with the primary fixed telephony service provider	15
Figure 20:	Establishments Providing Mobile Service(s) (Total: 1500 Establishments)	15
Figure 21:	Establishments Providing Mobile Service(s) by Establishments Type (Total: 1163 Corporates and Govt. and 337 Education Establishments)	16
Figure 22:	Establishments Providing of Paid Mobile Phone(s)/Allowance (Total: 471 Establishments)	16

Figure 23: Barriers to Mobile Service(s) (Total: 1030 Establishments)	17
Figure 24: Establishment planning to provide Mobile/Allowance in the next 12 months (Total: 1030 Establishments)	17
Figure 25: Percentage of Employees that receive Mobile Phone(s)/Allowances (Total: 470 Establishments)	18
Figure 26: Mobile Services Activities of Corporates and Govt. Establishments (Total: 405 Establishments)	18
Figure 27: Mobile Services Activities of Education Establishments (Total: 66 Establishments)	19
Figure 28: Establishments subscribed to any business/corporate/enterprise package(s) (Total: 191 Establishments)	19
Figure 29: Establishments approached by any Mobile Service Provider for business/corporate/enterprise package(s) (Total: 117 Establishments)	19
Figure 30: Average Monthly Spending on Mobile Voice Services (Total: 356 Establishments)	20
Figure 31: Price Rating for Mobile Voice Services for Primary Service Provider (Total: 191 Establishments)	21
Figure 32: Mobile Services Satisfaction Rating for Mobile (Voice) Services for Primary Line (Total: 191 Establishments)	22
Figure 33: Establishments that use Internet (Total: 1500 Establishments)	22
Figure 34: Percentage of Employees with Internet Access (Total: 1454 Establishments)	23
Figure 35: Percentage of Employees having access to the Internet provided by the Corporates (Types)	24
Figure 36: Percentage of Employees having access to the Internet provided by Establishments (Size)	25
Figure 37: Percentage of Students access to Internet at Educational Institutions (Total: 329 Institutions)	26
Figure 38: Percentage of Classrooms/Labs access to Internet at Institution (Total: 329 Institutions)	27
Figure 39: Reasons for not using Internet in the last six (6) months (Total: 48 Establishments)	27
Figure 40: Planning to use Internet in the next twelve (12) months (Total 48 Establishments)	28
Figure 41: Type(s) of Internet Access at Establishment (Total: 1457 Establishments)	28
Figure 42: Internet Access Bandwidths at Establishments (Total: 776 Establishments)	29
Figure 43: Planning to increase Internet Speed in the next 12 months (Total: 1457 Establishments)	29
Figure 44: Establishments' Activities on Internet (Total: 1125 Corporate and Govt. Establishments) ...	30
Figure 45: Establishments' Activities on Internet (Total: 332 Education Institutions)	31
Figure 46: Average Monthly Spending on Internet (Total: 1319 Establishments)	32
Figure 47: Price Rating for Internet Services (Total: 1272 Establishments)	32
Figure 48: Satisfaction Rating for Internet Services (Total: 1334 Establishments)	33
Figure 49: Establishments Providing Computer Devices to its Employees (Total: 1500 Establishments)	34
Figure 50: Establishments Providing Computers to its Employees (Total: 1163 Corporates and Govt. Establishments)	34

Figure 51: Establishments Providing Computers to its Employees (Total: 337 Education Establishments).....	35
Figure 52: No. of Employees provided with Desktop(s) and Laptop(s) in Establishments (Total: 1163 Corporates and Govt. Establishments).....	35
Figure 53: Percentage of Corporates (Types) providing Computer Devices to Employees	36
Figure 54: No. of Employees provided with Tablet(s) and Audio/Video Device(s) in Establishments (Total: 1163 Corporates and Govt. Establishments).....	37
Figure 55: Number of Desktop(s) and Laptop(s) in Education Establishments (Total: 337 Establishments).....	37
Figure 56: Number of Tablet(s) and Television(s) for Educational Purposes in Education Establishments (Total: 337 Establishments)	38
Figure 57: Percentage of Teaching Staff provided with any Computer Device (Total: 221 Education Establishments).....	39
Figure 58: Percentage of non-Teaching Staff provided with any Computer Device (Total: 221 Education Establishments).....	40
Figure 59: Percentage of Students provided with any Computer Device (Total: 221 Education Establishments).....	40
Figure 60: Reasons for not using Computers {desktop/laptop/tablets} (Total: 77 Establishments).....	41
Figure 61: Plan to provide Computers in next 12 months (Total: 77 Establishments)	41
Figure 62: Usage of Open Source Software/Applications (Total: 1435 Establishments).....	42
Figure 63: Establishments having Web Presence (Total: 1500 Establishments)	43
Figure 64: Corporate Types having Web Presence (Total: 1124 Corporates)	43
Figure 65: Language of Web Presence (Total: 1500 Establishments)	44
Figure 66: Reasons for not having website (Total: 1004 Establishments).....	44
Figure 67: Reasons for not having Online Social Networking presence (Total: 327 Establishments)	45
Figure 68: Establishment's Plan to have web presence in next 12 months (Total: 1331 Establishments)	45
Figure 69: Hosting of Websites (Total: 515 Establishments)	46
Figure 70: Website Domain (Total: 515 Establishments).....	46
Figure 71: Usage of Different Online Social Networks (Total: 296 Establishments)	47
Figure 72: Services provided through Web (Total: 453 Establishments)	48
Figure 73: Services provided through Web (Total: 115 Education Establishments)	49
Figure 74: Usage of e-Services (Total: 1500 Establishments).....	50
Figure 75: Reasons for not using e-Services (Total: 544 Establishments)	50
Figure 76: Usage of different e-Services (Total: 1163 Corporates and Govt. Establishments).....	51
Figure 77: Usage of different e-Services (Total: 337 Education Establishments).....	51
Figure 78: Percentage of Corporate (Types) using e-Service	52
Figure 79: Selling Product(s)/Service(s) through Electronic Channels (Total: 77 Corporates and Govt. Establishments).....	53

Figure 80: Barriers to Selling through electronic channels (Total: 650 Corporates and Govt. Establishments).....	54
Figure 81: Barriers for not purchasing through electronic channels (Total: 604 Corporates and Govt. Establishments).....	54
Figure 82: Barriers for not purchasing through electronic channels (Total: 227 Education Establishments).....	55
Figure 83: Percentage of Corporates (Types) Not Needing to Use e-Services.....	55
Figure 84: Barriers for not using e-Banking (Total: 180 Corporates and Govt. Establishments).....	56
Figure 85: Barriers for not using e-Banking (Total: 175 Education Establishments).....	56
Figure 86: Percentage of Orders Received through Electronic Channels (Total: 101 Corporates and Govt. Establishments).....	57
Figure 87: Modes of Receiving Orders through Electronic Channels (Total: 77 Corporates and Govt. Establishments).....	57
Figure 88: e-Payment Method for Receiving Orders (Total: 101 Corporates and Govt. Establishments).....	58
Figure 89: e-Payment Method provided by Institution (Total: 27 Education Establishments).....	58
Figure 90: Reasons for Not providing e-Payment Facilities (Total: 626 Corporates and Govt. Establishments).....	59
Figure 91: Percentage of Orders placed through Electronic Channels (Total: 123 Corporates and Govt. Establishments).....	59
Figure 92: Percentage of Orders placed through Electronic Channels (Total: 21 Education Establishments).....	60
Figure 93: Product(s)/Services(s) bought through Electronic Channels (Total: 123 Corporates and Govt. Establishments).....	60
Figure 94: Product(s)/Services(s) bought through Electronic Channels (Total: 21 Education Establishments).....	61
Figure 95: Institution buy e-Learning Product(s)/Service(s) (Total: 45 Education Establishments).....	61
Figure 96: Services provided by Institution through e-Learning platform (Total: 45 Education Establishments).....	62
Figure 97: Reasons for not having e-Learning Platforms (Total: 203 Education Establishments).....	62
Figure 98: Network Infrastructures (Total: 1436 Establishments)	63
Figure 99: Types of Network Infrastructures (Total: 1314 Establishments)	63
Figure 100: Technologies to Connect Branches (Total: 945 Establishments).....	64
Figure 101: Internal Information Security Procedures/Tools (Total: 1436 Establishments)	64
Figure 102: Information Security Breach in past (12) months (Total: 1436 Establishments)	65
Figure 103: Usage of IPv6 (Total: 1436 Establishments).....	66
Figure 104: Reasons for not using IPv6 (Total: 1399 Establishments)	66
Figure 105: Usage of Cloud Computing Services (Total: 1436 Establishments)	67
Figure 106: Reasons for not using Cloud Computing Services (Total: 1244 Establishments).....	67
Figure 107: Plan to use Cloud Computing services in next 12 months (Total: 1244 Establishments)....	67

Figure 108:	New Technologies to adopt in next 12 months (Total: 1436 Establishments)	68
Figure 109:	ICT Business Services used (Total: 1099 Corporates and Govt. Establishments)	69
Figure 110:	ICT Business Services used (Total: 337 Education Establishments)	70
Figure 111:	Establishment has Detailed IT Policy (Total: 1500 Establishments)	71
Figure 112:	IT Policies Established (Total: 388 Establishments)	71
Figure 113:	Percentage of Total Budget on ICT in past 12 months (Total: 1500 Establishments)	72
Figure 114:	Faced any problem with Service Providers (Total: 1500 Establishments)	73
Figure 115:	Facing Problem and Lodged Complaint with Service Providers (Total: 409 Establishments)	73
Figure 116:	Reasons for not complaining to Service Provider (Total: 42 Establishments)	74
Figure 117:	Means of Registering Complaints to Service Provider (Total: 367 Establishments)	74
Figure 118:	Service Provider provided Reference Number for Complaint (Total: 365 Establishments)	74
Figure 119:	Complaint Addressed by Service Provider (Total: 367 Establishments)	75
Figure 120:	Satisfaction in handling the complaint by Service Provider	75
Figure 121:	Establishments Complained to CITC (Total: 1500 Establishments)	76
Figure 122:	Establishments' Awareness about 15 days of initial complaint (Total: 1500 Establishments)	76
Figure 123:	Reasons for not complaining to CITC (Total: 1496 Establishments)	77
Figure 124:	Satisfaction Rating in handling the complaint by CITC	77
Figure 125:	Establishments Carrying out R&D Activities (Total: 1438 Establishments)	78
Figure 126:	Percentage of R&D Budget spent on ICT (Total: 111 Establishments)	78
Figure 127:	Establishment carry out ICT Training programs (Total: 1099 Corporates and Govt. Establishments)	78
Figure 128:	Institution carry out ICT Training programs (Total: 337 Education Establishments)	79
Figure 129:	Modes of Employees Training (Total: 109 Corporates and Govt. Establishments)	79
Figure 130:	Modes of Employees Training (Total: 38 Education Establishments)	79
Figure 131:	IT related Trainings for Teaching Staff (Total: 38 Education Establishments)	80
Figure 132:	IT related Trainings for non-Teaching Staff (Total: 38 Education Establishments)	80
Figure 133:	Percentage of Employees involved in IT (Total: 1184 Corporates and Govt. Establishments)	81
Figure 134:	Percentage of Employees (non-Teaching) specialized in IT-related Fields (Total: 337 Education Establishments)	82
Figure 135:	Percentage of Teachers teaching IT-related courses (Total: 337 Education Establishments)	82
Figure 136:	Percentage of Students Enrolled in IT-related Fields (Total: 45 Education Establishments)	83

1. Executive Summary

The main objective of this report is to describe and analyze the survey data collected for the current state of ICT market development in Saudi Arabian. The report provides both quantitative and qualitative analysis that will help identifying development and uptake of ICT services, use of technologies and their penetration, satisfaction with service providers (in terms of service quality and pricing), and identification of satisfaction level with CITC and service providers' complaint procedures.

The report is an outcome of the study that aimed to provide quantitative and qualitative analysis of the overall status of the ICT sector in the Kingdom for the year 2014. The focus is primarily on the ICT market, and investments, consumer behavior and use of technology, level of use of computers and the Internet, level of satisfaction with various ICT services, and barriers present to their usage. The principal outputs of the study include:

- ✓ Accurate and reliable data on the ICT services and market in the Kingdom
- ✓ Key recommendations and their expected impact on the development of ICT markets

The outcome of the study will help to drive the strategic development of the Kingdom's ICT sector in order to strengthen the innovation and knowledge capital about ICT services, usage, features, and the level of satisfaction with the various services across demographic sectors of the Kingdom. The report will also support the development of market-driven regulations, policies and ICT initiatives. It provides insights into the adequacy of telecommunications services throughout the country; achievements of services, both in terms of quality and variety; promoting and enhancing the telecommunications sector and, improving and implementing a regulatory and policy framework.

It is found that 85.73% of all establishments use Fixed Telephony, and the service Satisfaction is above Acceptable (3.37 out of 5.0). The average monthly spending on the Fixed Telephony is estimated at SAR 4,495/-.

It is noted that 31.42% of all Establishments provide paid mobile phones or allowance to employees for Mobile Voice (and messaging) Services, and the service Satisfaction is above Acceptable (3.34 out of 5.0). From among these, 59.45% of the establishments provide only allowance for Mobile Voice (and messaging) Services, while 31% of them provide only paid mobile phones and 9.55% provide both mobile phones and allowance. The average monthly spending on Mobile Voice Service(s) by Establishments is estimated to be SAR. 4,584/-.

Internet penetration reached 96.80% based on the definition¹. It is found that 52.23% of establishments access Internet through 3G/4G technologies while 43.17% of them use DSL, and 7.14% use FTTH. The average monthly spending on the Internet Services is estimated at SAR 2,547/-.

The results identified that 36.98% of the establishments are subscribed to 4Mbps Internet bandwidth followed by 16.11% with 20 Mbps and 14.69% with 8 Mbps. The establishments rated the Internet Services as above Acceptable (3.21 out of 5.0).

Nearly, 85.60% of the establishments use desktop computers, while 51.47% use laptops. It is observed that 33.90% of the establishments have their website while 15.87% have their presence on online social networks. Around 64.19% of the establishments were found to use e-services.

The analysis indicated that around 26.84% of all establishments have faced issues with their Service Providers. Out of these 26.84% respondents, nearly 89.73% have registered complaints to the Service Provider. The overall Satisfaction in handling complaint by Service Provider is above Acceptable (3.20 out of 5.0). Similarly, for CITC, it is found that less than 2% of all establishments have complained to CITC.

2. Background Information

CITC is responsible for regulating the ICT sector in the Kingdom. The Telecom Act, enacted in 2001, and its Bylaws, issued in 2002, provide the basis for the regulatory framework. The Act lists a number of objectives for CITC including: to provide advanced and adequate telecommunications services at affordable prices; to ensure creation of a favorable atmosphere to promote and encourage fair competition; to ensure effective usage of frequencies; to ensure transfer and migration of telecommunications technology to keep pace with its development; to ensure clarity and transparency of procedures; to ensure the principles of equality and non-discrimination; and to safeguard the public interest and the interests of users and investors.

The CITC Ordinance, issued in 2001, was amended in 2003 and defines the mandate, functions, governance, and administrative and financial independence of CITC. The Rules of Procedures detail the steps which operators and CITC must follow for timely resolution of issues that fall within the framework of the relationship among the various parties.

In fulfilling its objectives, the current agenda of CITC includes the enhancement of a fair and equitable competitive environment such that the ICT sector can be further liberalized. This encourages licensed service providers to roll out advanced network infrastructures including broadband, offer new services, provide network redundancy in case of malfunctions and emergencies, and ensure universal availability of ICT services throughout the Kingdom.

¹ Please note that the Internet user is defined as the Establishment who has used Internet at least once in the last six months

In order to monitor the ICT sector in the Kingdom and the performance of the licensees, CITC publishes quarterly reports on performance indicators for the ICT services markets. The indicators are calculated based on data provided by the licensed service providers. The indicators were prepared and published at the end of each quarter.

Expanding the scope of previous market research activities concluded in 2007-2009 and 2009-2010, CITC in 2013 initiated ICT Market Study to gauge the “pulse” of ICT as used by individuals as well as establishments (such as corporates and education sector) in the Kingdom. The aim is to study the current status of KSA ICT supply, adoption and usage of ICT services in addition to the CITC rules and regulations’ impact on the sector in terms of promoting existing and new services, sector investments, and needed or associated regulatory reforms.

3. Introduction

The analysis results and findings of the Establishments survey are presented in this document. The report is divided into various sections. The report briefly discusses the *deployment methodology* that was used for field survey. Following these sections, analysis results are reported for different technologies and services. Different trends are also presented in these sections.

4. Deployment Methodology

A comprehensive deployment plan was prepared to start data collection and to monitor its status on a daily basis until the usable data samples are collected to cover the required margin of error of 2.19 at confidence level of 95%. Based on sampling strategy, respondents from all over the Kingdom were surveyed. Following are the key highlights of the deployment phase:

- Interviews were done with the representative of the Establishment who is aware of ICT usage and expenses.
- 1,500 usable samples were collected all over the Kingdom using stratified sampling.
- Responses were collected using smart devices.
- Electronic survey with built-in advanced branch and skip logic was used to minimize errors during data collection.
- For analysis, only those responses which filled correctly were selected.
- Call-back selected respondents for Quality Check.

The deployment plan comprised of many activities which includes preparation and testing of electronic surveys, recruitment and training of surveyors, preparing a plan of visits, and performing and monitoring of data collection.

The recruitment process of surveyors consists of two stages. First stage includes the collection of their resumes, and short listing them. Secondly, the short listed surveyors were interviewed in-person and selected accordingly. The field surveying team constituted of full-time and part-time male as well as female surveyors. The members of the part-time surveying team are comprised of senior students from major universities all over the Kingdom.

The training of the male and female surveyors was organized through workshops and group-sessions, focusing on the following points: (1) Emphasizing/highlighting the purpose of conducting the surveys, (2) Creating awareness of the social and ethical responsibilities during data collection, and (3) Training the surveyors on the questionnaires so that they do not face difficulty while in the field.

A plan to visit all the 13 regions of the Kingdom was prepared by providing a visit schedule with the assignment of surveyors.

A comprehensive dashboard was implemented for monitoring and to provide the current status of the samples collected at any point of time for all regions. A concentrated effort was exerted to maintain stringent monitoring of the quality of data collected during the survey.

5. Establishments' Profile

The report consists of responses from a total of 1,500 establishments collected all over the Kingdom during the year 2014. Figure 1 shows the distribution of different establishment types.

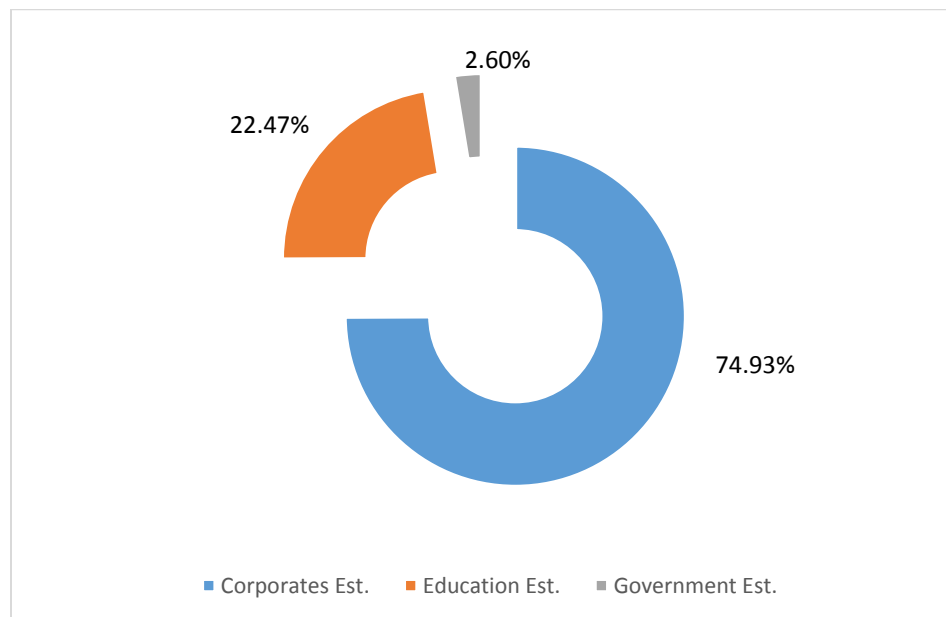


Figure 1: Types of Establishments (Total: 1500 Establishments)

5.1. Corporate and Government Establishments

Below Figure shows the different business types that were surveyed for Corporate/Government survey.

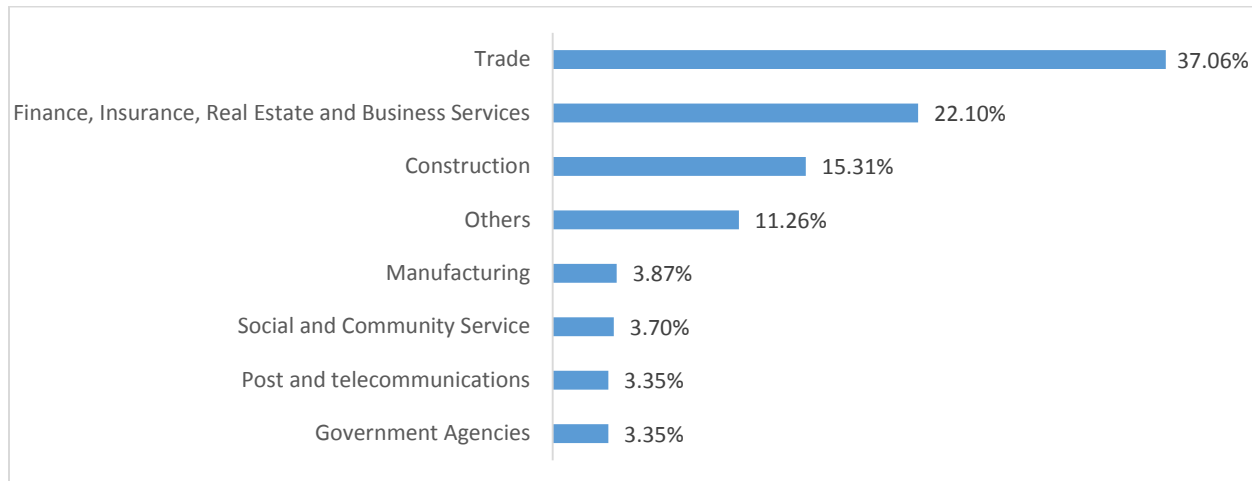


Figure 2: Types of Corporates and Govt. Establishments (Total: 1163 Establishments)

Figure 3 shows the business sizes that were targeted for corporate survey.

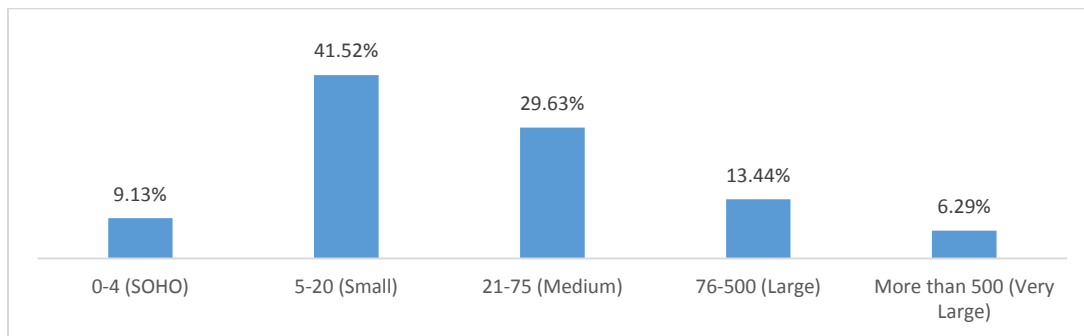


Figure 3: Size of Corporates Establishments (Total: 1124 Establishments)

5.2. Education Establishments

Figure 4 shows different education types that were surveyed for Education survey. Figure 5 shows the sizes of the educational institution that were targeted for survey.

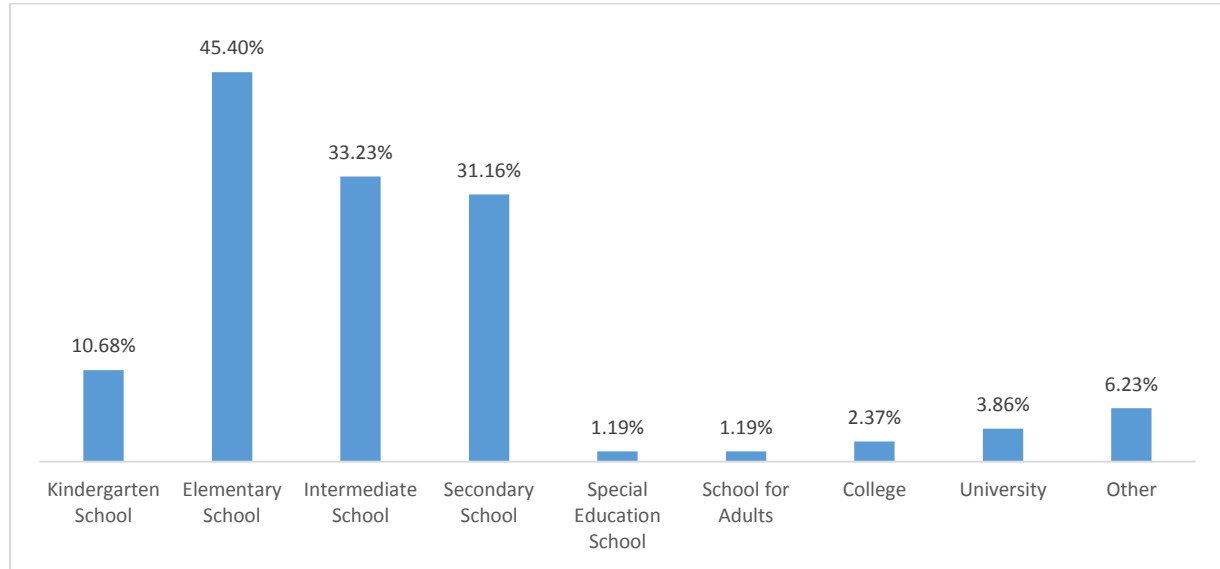


Figure 4: Education Sector (Total: 337 Establishments)

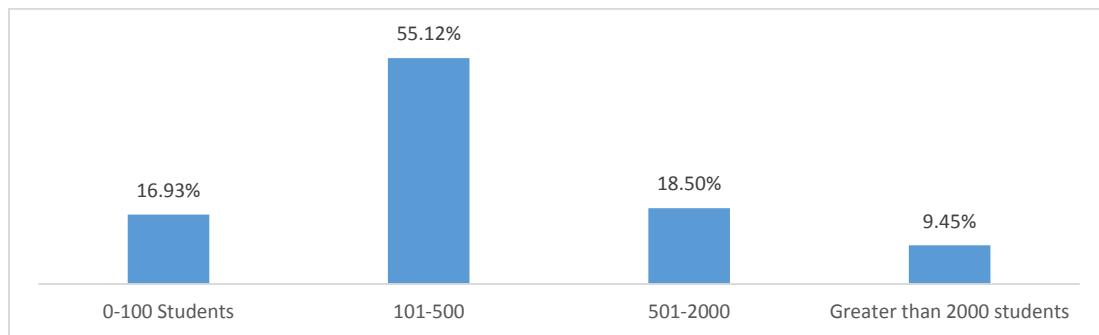


Figure 5: Size of Education Establishments {Number of Students} (Total: 337 Establishments)

6. Rating System

The satisfaction levels with respect to the different aspects of services were scored on a scale of 1 to 5 corresponding to the level of user satisfaction as shown in Table 1 and Table 2.

Table 1. Satisfaction Rating Score Point.²

Level of User Satisfaction	Score Points
Very Good	5
Good	4
Acceptable	3
Poor	2
Very Poor	1

Satisfaction Rating Score Point

Level of User Satisfaction	Score Points
Very Satisfied	5
Satisfied	4
Acceptable	3
Unsatisfied	2
Very Unsatisfied	1

The satisfaction of the price levels with respect to the different aspects of offered services were scored on a scale of 1 to 5 corresponding to the level of user satisfaction as shown in the Table 2.

Table 2. Price Rating Score Point³

Level of User Satisfaction	Score Points
Very Cheap	5
Cheap	4
Acceptable	3
Expensive	2
Very Expensive	1

² In questions. 'I don't know' response was available option. Average is calculated after excluding the 'I don't know' option

³ In questions. 'I don't know' response was available option. Average is counted after excluding the 'I don't know' option

7. General ICT Usage and Services

Figure 6 shows the percentage of all establishments who use various ICT services^{4,5,6}.

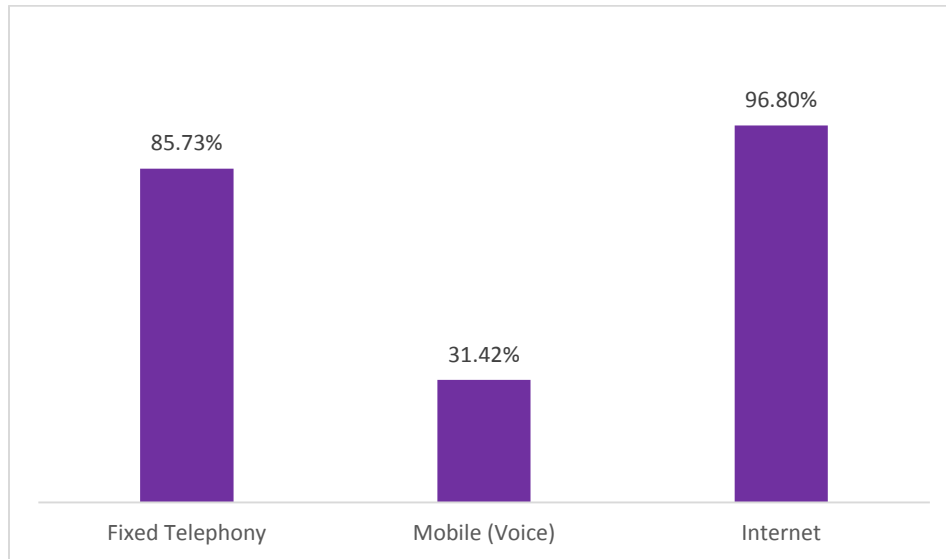


Figure 6: Establishments ICT Usage (Total: 1500 Establishments)

Figure 7 shows the percentage of Corporate and Government Establishments that use various ICT services and technologies.

⁴ During 2014, 1163 Government and Corporate Establishments, and 337 Education Establishments were surveyed all over the Kingdom. The results in this report are based on the data collected till that date.

⁵ Please note that the Internet user is defined as the Establishment who has used Internet at least once in the last six months.

⁶ The Mobile (Voice) usage percentage of Establishments refers to providence of paid mobile phone(s) or allowance for mobile services to its employee(s) for voice and messaging service.

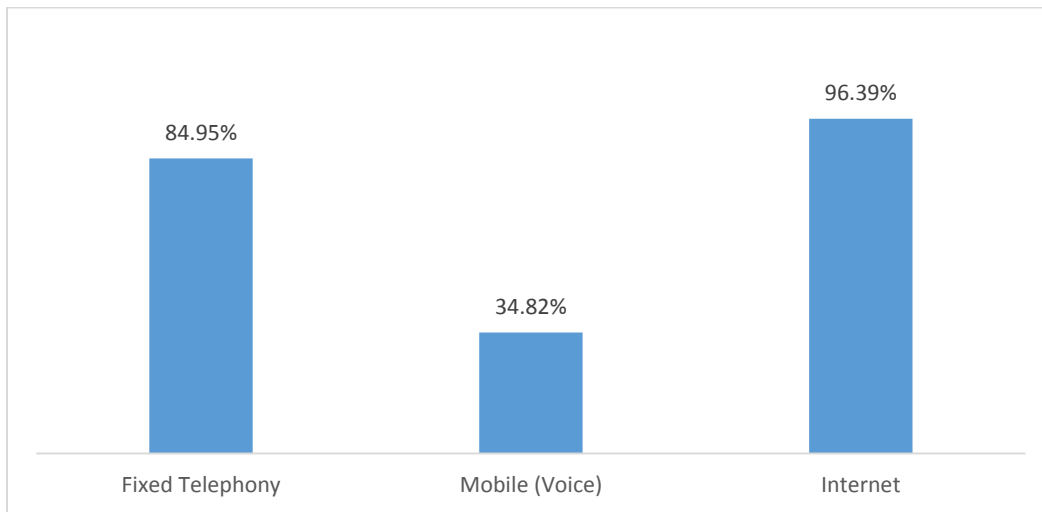


Figure 7: Corporate and Government Establishments ICT Usage (Total: 1163 Establishments)

Figure 8 shows the percentage of Education Establishments that use various ICT services and technologies.

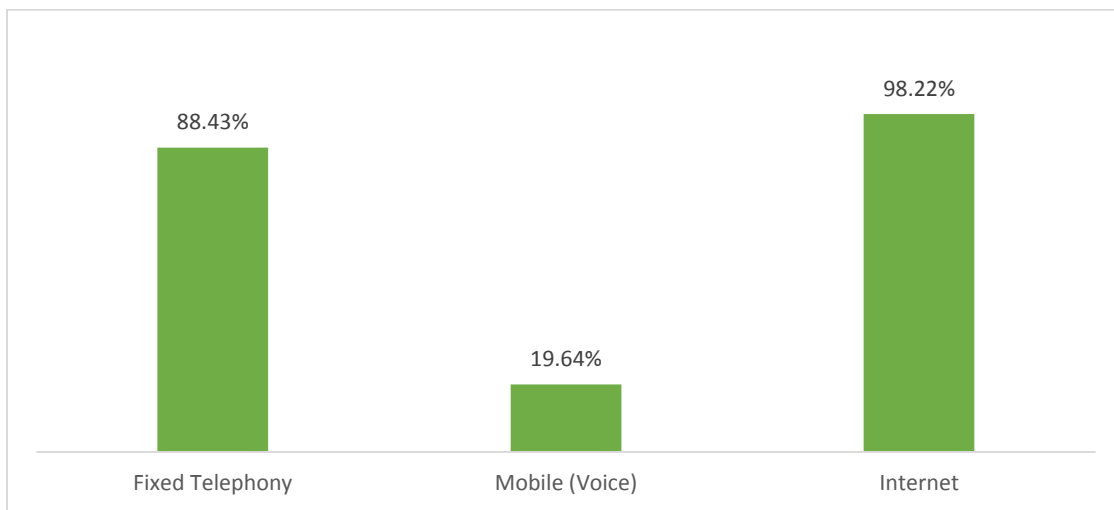


Figure 8: Education Establishments ICT Usage⁷ (Total: 337 Establishments)

⁷ The Mobile (Voice) usage percentage of Establishments refers to providence of paid mobile phone(s) or allowance for mobile services to its employee(s) for voice and messaging service.

8. Fixed and Mobile Voice Services

8.1 Fixed Telephony Services

8.1.1 Use of Fixed Telephony

Does the establishment use fixed telephony service(s) (including fax services)? (Single Choice)

From Figure 9, it is observed that 85.73% of all establishments *use* Fixed Telephony service.

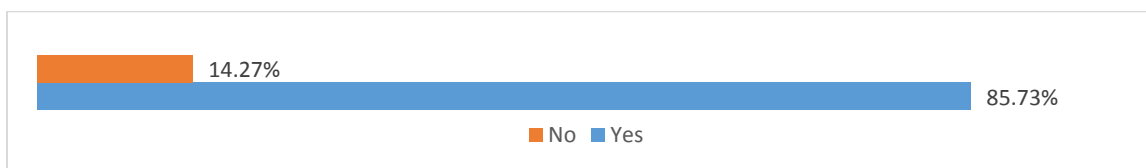


Figure 9: Establishments' Fixed Telephony Usage (Total: 1500 Establishments)

It was observed that all Government Establishments use Fixed Telephony service. Figure 10 shows the usage of Fixed Telephony service by establishments' type.

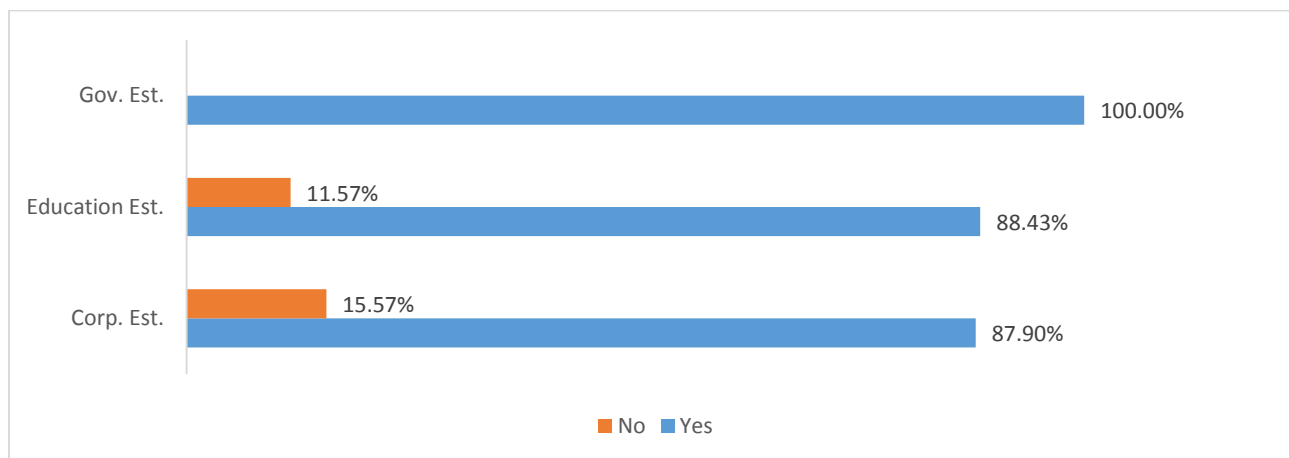


Figure 10: Fixed Telephony Usage by Establishments Type (Total: 1124 Corporates and 337 Education Establishments)

8.1.2 Reasons for not using Fixed Telephony Services

What are your reasons for not using fixed telephony service(s)? (Multiple Choice)

Figure 11 depicted that those establishments (Corporates and Education Institutions) who are not using Fixed Telephony service mentioned that the service is not available in their business location, while 14% of them stated that the service is not affordable. Figure 12 and Figure 13 show the same results but separately for Corporates and Education Institutes respectively.

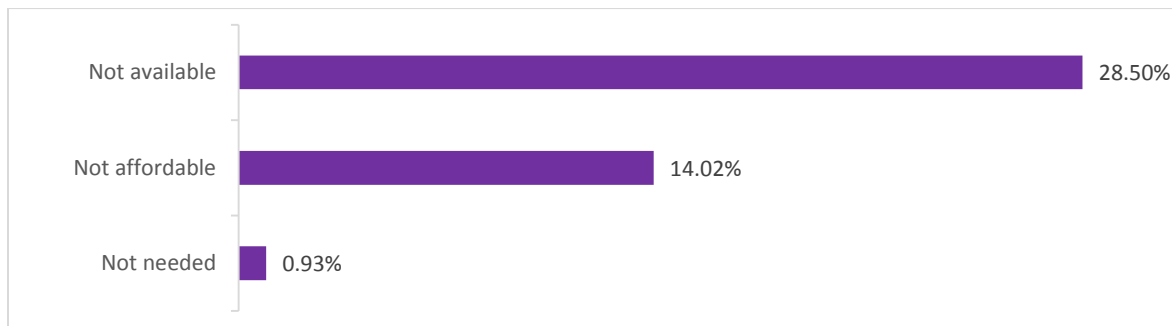


Figure 11: Establishments' reasons for not using fixed telephony service(s) (Total: 214 Corporates and Education Establishments)⁸

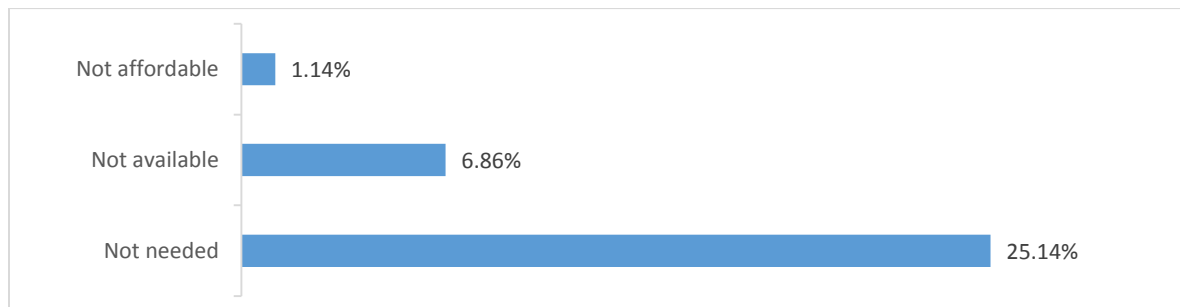


Figure 12: Establishments' reasons for not using fixed telephony service(s) (Total: 175 Corporates Establishments)⁹

⁸ Nearly 60% of the Establishments answered 'Others', not shown.

⁹ Nearly 69% of the Establishments answered 'Others', not shown.

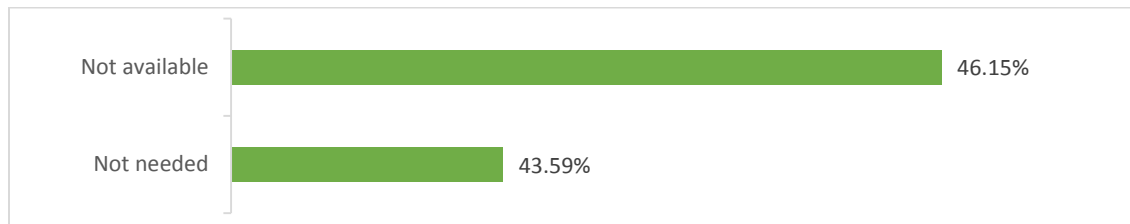


Figure 13: Establishments' reasons for not using fixed telephony service(s) (Total: 39 Education Establishments)¹⁰

Does the establishment plan to use fixed telephony service(s) within the next twelve (12) months? (Single Choice)

Among these non-users, only 22.43% of the establishments are planning to use Internet within the next 12 months.

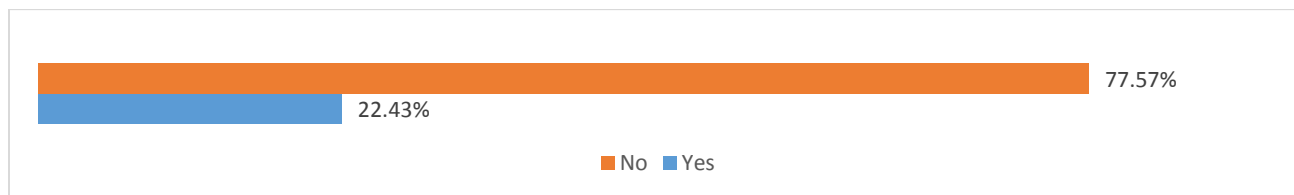


Figure 14: Establishment planning to use fixed telephony service(s) within the next twelve (12) months (Total: 214 Corporates and Education Establishments)

8.1.3 Average Monthly Spending on Fixed Telephony

How much does the establishment spend monthly, on an average, for all fixed telephony service(s)? (Single Choice)

As evident from Figure 15, most of the establishments are spending between SAR 501-2000 per month on Fixed Telephony service. Average monthly spending on Fixed Telephony Service(s) by establishments is estimated to be SAR. 4,495/-.

¹⁰ Nearly 23% of the Establishments answered 'Others', not shown.

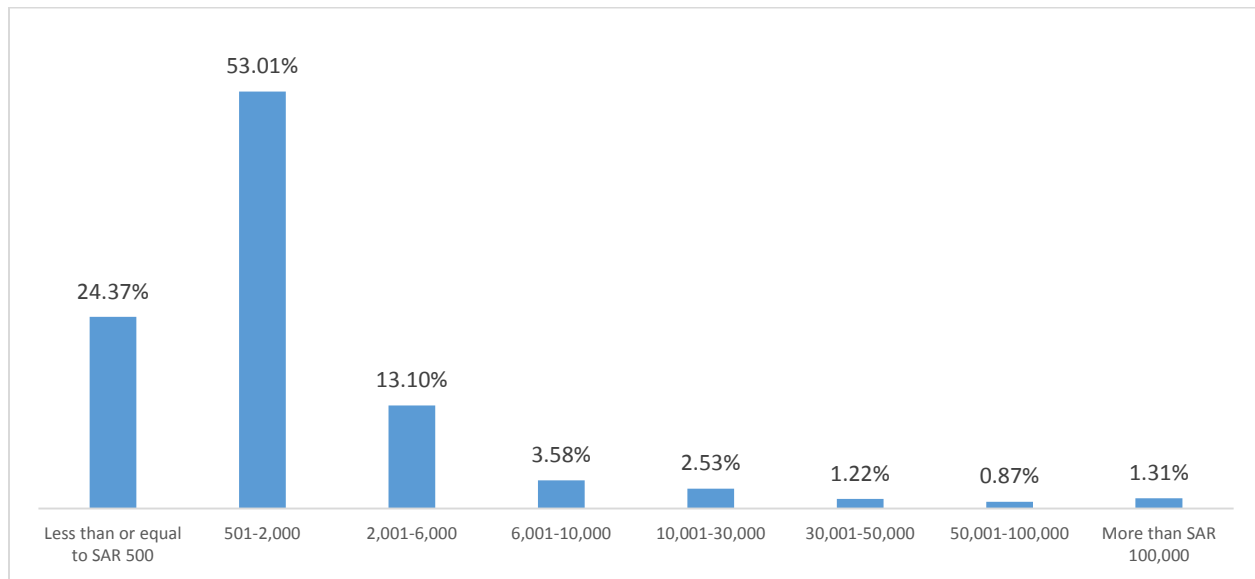


Figure 15: Establishments' monthly spending, on an average, for all fixed telephony service(s) (Total: 1145 Establishments)¹¹

8.1.4 Price Rating for Fixed Telephony for Primary Line

Please rate the price of the following services for the primary fixed telephony service provider of the establishment:

On average, establishments rated the prices of Fixed Telephony service as below Acceptable (2.85). As depicted in Figure 16, fixed calls to international destinations received expensive price ratings but on the other hand, price rating for fixed calls to fixed networks and mobile networks are perceived as Acceptable. Similar results are shown in Figure 17 and Figure 18 for Corporate/Government and Education Institutes respectively.

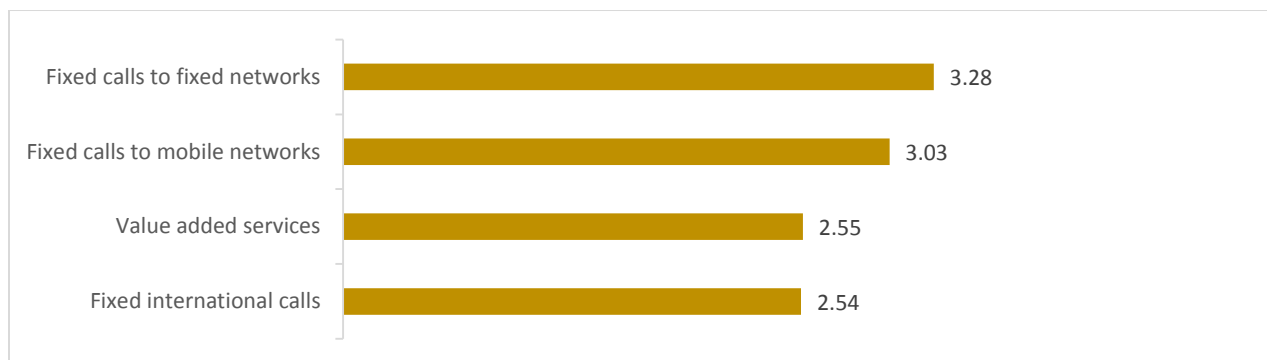


Figure 16: Price Rating for Services of the Primary Fixed Telephony Provider

¹¹ 10.76% respondents answered 'I don't know'. Average is calculated after excluding the 'I don't know' responses.

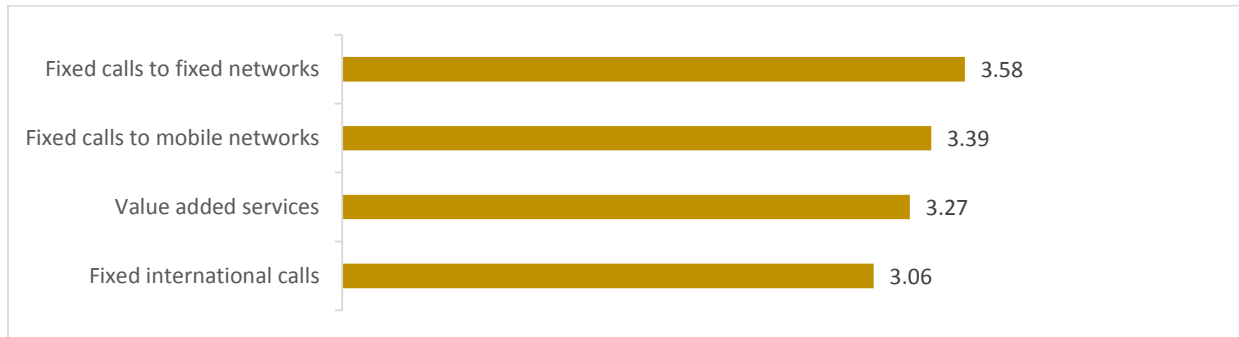


Figure 17: Price Rating for Services of the Primary Fixed Telephony Provider (Government and Corporate Establishments)

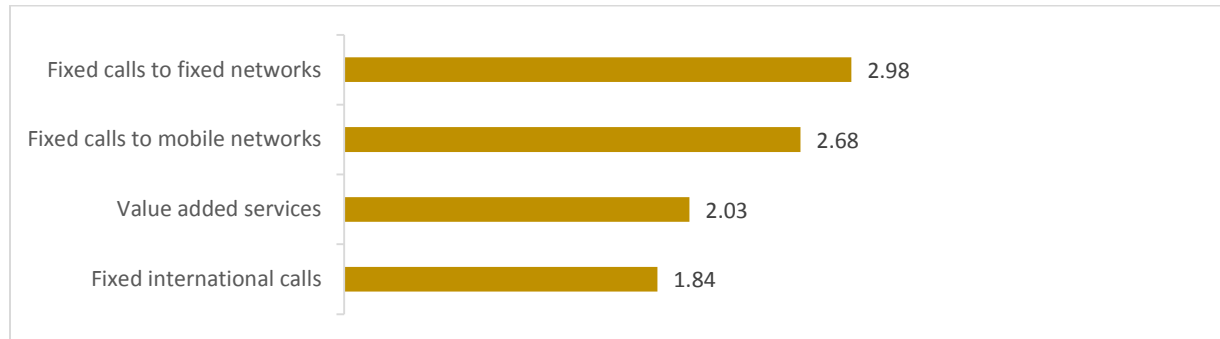


Figure 18: Price Rating for Services of the Primary Fixed Telephony Provider (Education Establishments)

8.1.5 Satisfaction Rating for Fixed Telephony

Please rate the satisfaction of the establishment with the primary fixed telephony service provider:

The overall satisfaction rating for quality of Fixed Telephony services is near to Good (3.37). It is evident that the level satisfaction of users with respect to cancelling of service subscription is below Acceptable (near to Poor). On the other hand, the level of satisfaction with respect to obtaining Fixed Telephony service and voice quality of calls is almost Good.

The average satisfaction levels scores for different quality aspects of Fixed Telephony service are shown in Figure 19.

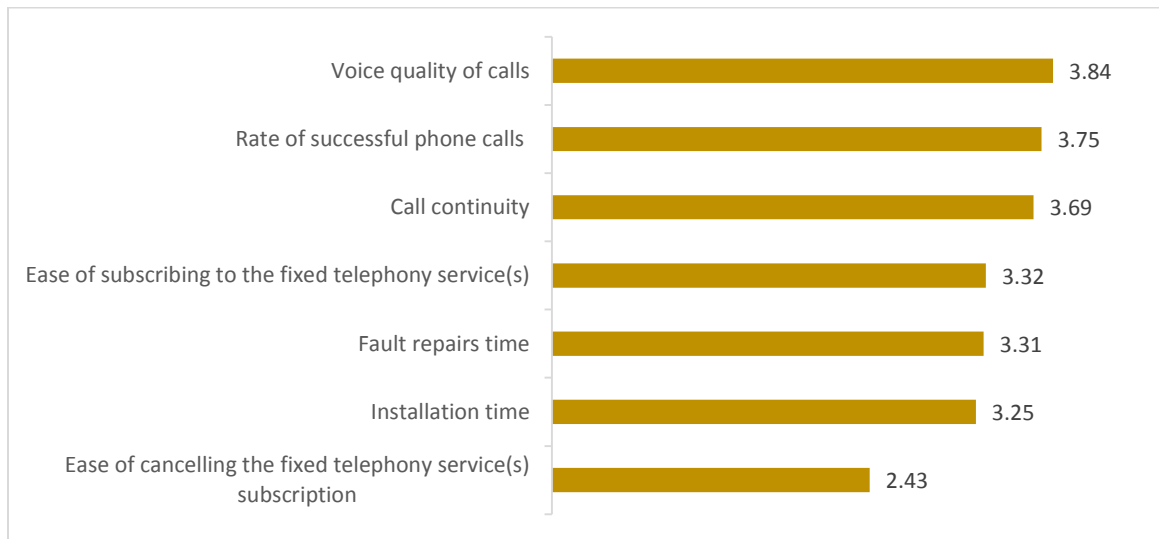


Figure 19: Satisfaction with the primary fixed telephony service provider

8.2 Mobile Voice Services

8.2.1 Use of Mobile Voice

Does the establishment provide paid mobile phone(s) or allowance for mobile services to its employee(s) for voice and messaging? (Single Choice)

Figure 20 depicts that only 31.42% of all Establishments provide paid mobile phones or allowance to employees for Mobile Voice (and messaging) Services. Figure 21 shows similar results for different establishment types.

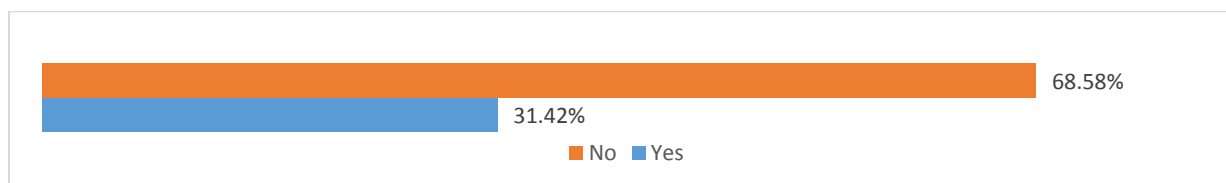


Figure 20: Establishments Providing Mobile Service(s) (Total: 1500 Establishments)

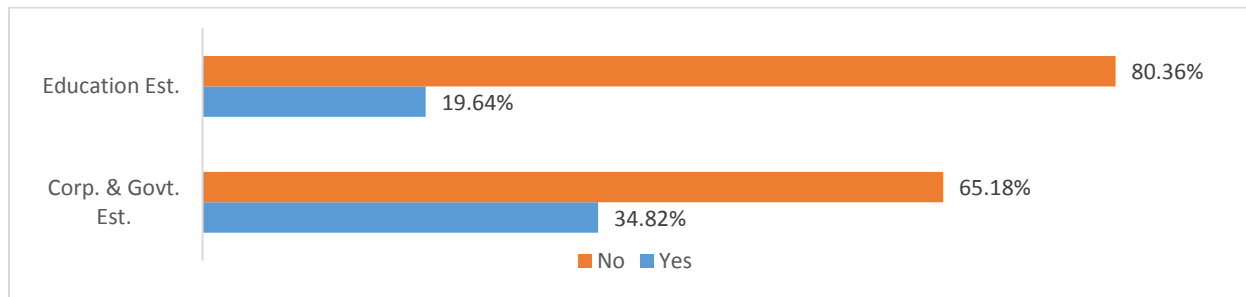


Figure 21: Establishments Providing Mobile Service(s) by Establishments Type (Total: 1163 Corporates and Govt. and 337 Education Establishments)

Figure 22 depicts that 59.45% of all establishments provide only allowance for Mobile Voice (and messaging) Services, while 31% of them provide only paid mobile phones and 9.55% provide both mobile phones and allowance.

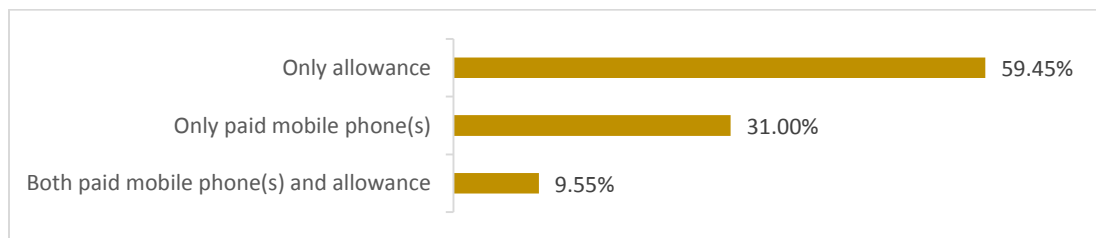


Figure 22: Establishments Providing of Paid Mobile Phone(s)/Allowance (Total: 471 Establishments)

8.2.2 Reasons for not providing Mobile Services to Employee(s)

What are the reasons for not providing paid mobile phone(s) or allowance for mobile services to the employee(s)? (Multiple Choice)

Among the non-users of Mobile Services, 58.35% of the Establishments mentioned that it is not needed, and 14.17% of mentioned it is not allowed under policy or not available to them.

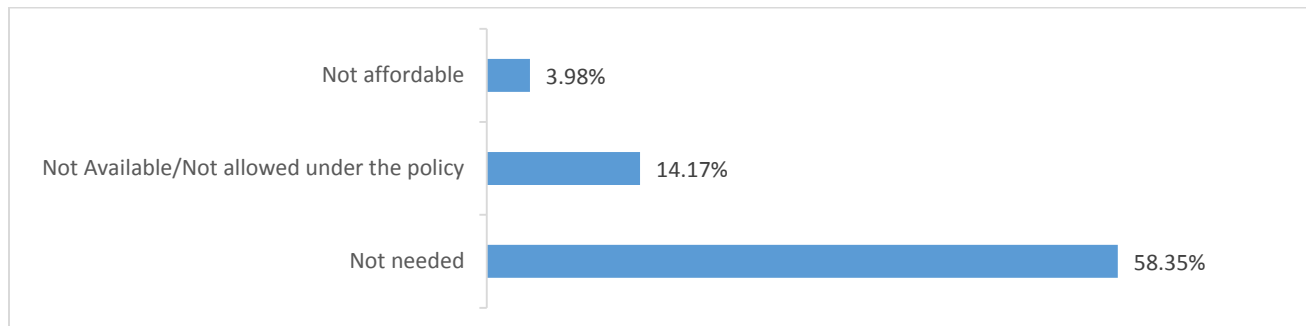


Figure 23: Barriers to Mobile Service(s) (Total: 1030 Establishments)¹²

Does the establishment plan to provide paid mobile phone(s) or allowance for mobile services to the employee(s) within the next twelve (12) months? (Single Choice)

Only 4.27% of establishments show interest in providing paid mobile phone(s) or allowance for mobile services to employees within the next twelve (12) months.

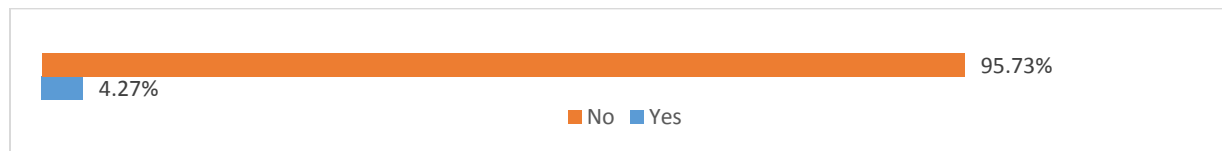


Figure 24: Establishment planning to provide Mobile/Allowance in the next 12 months (Total: 1030 Establishments)

8.2.3 Different Usage Aspects of Mobile Voice Services

What is the percentage of employees that receive paid mobile phone(s) or allowance for mobile services? (Single Choice)

Figure 25 depicts the percentage of employees that receive Mobile Phone(s)/Allowances within the establishments.

¹² Nearly 36% of the Establishments answered 'Others', not shown.

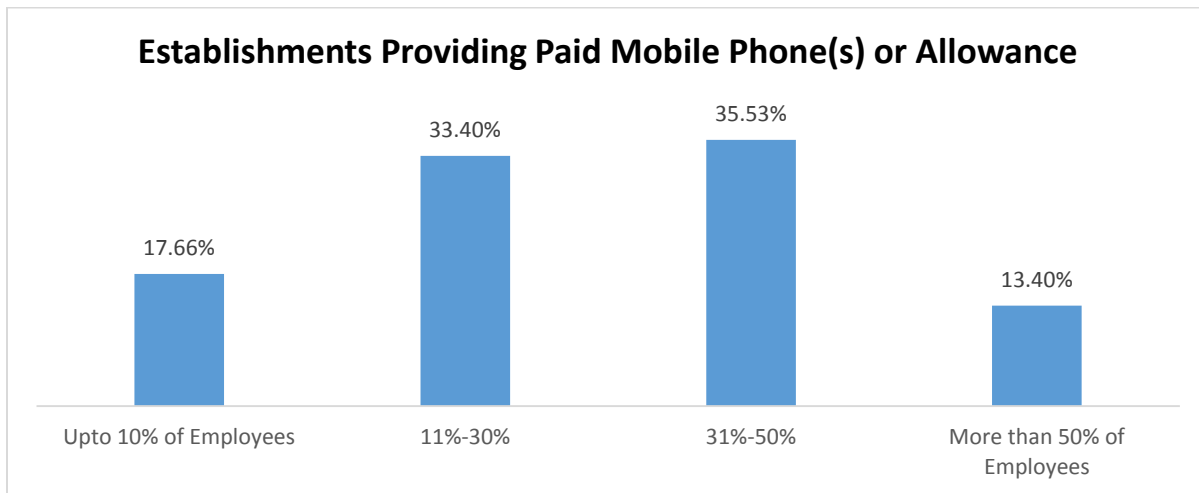


Figure 25: Percentage of Employees that receive Mobile Phone(s)/Allowances (Total: 470 Establishments)

For which of the following activities does the establishment use mobile (voice and messaging) services: (Multiple Choice)

Figure 26 depicts that most of the establishments are using Mobile Services to communicate with their employees and clients.

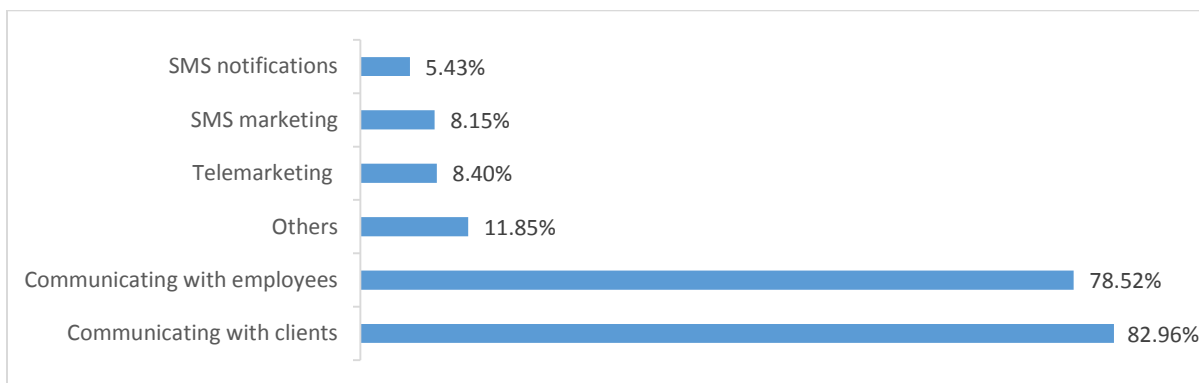


Figure 26: Mobile Services Activities of Corporates and Govt. Establishments (Total: 405 Establishments)

Figure 27 reports that the main use of Mobile Services in the Education sector is to communicate with employees and students and their parents.

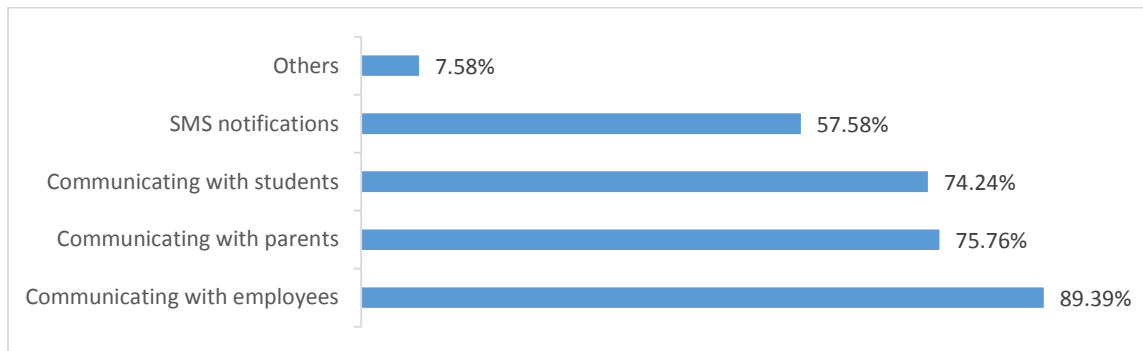


Figure 27: Mobile Services Activities of Education Establishments (Total: 66 Establishments)

Is the establishment subscribed to any business/corporate/enterprise package(s) offered by any of the mobile service provider(s)? (Single Choice)

Figure 28 depicted that 38.74% of the establishments, that provide paid mobile phones to their employees, were subscribed to business packages offered by the mobile service providers.

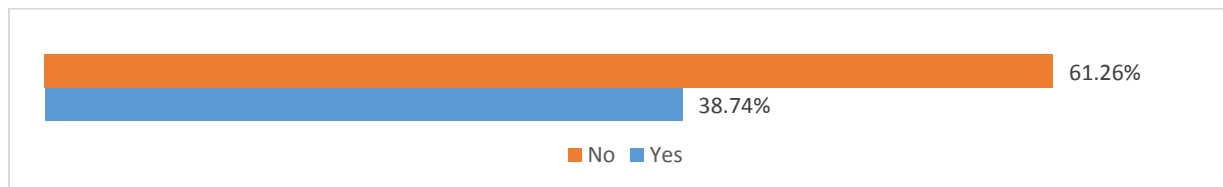


Figure 28: Establishments subscribed to any business/corporate/enterprise package(s) (Total: 191 Establishments)

Has the establishment been approached by any of the mobile service provider(s) for business/corporate/enterprise packages? (Single Choice)

Figure below depicted that only 14.53% of the establishments, that provide paid mobile phones to their employees, were approached by the mobile service providers for business packages.

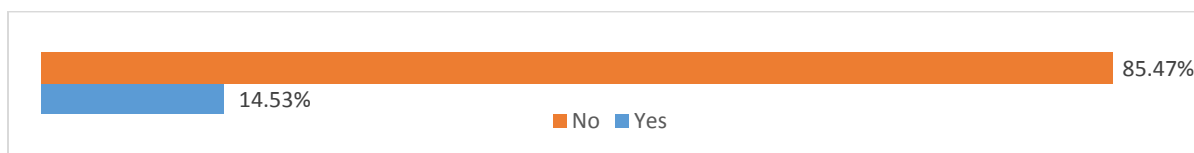


Figure 29: Establishments approached by any Mobile Service Provider for business/corporate/enterprise package(s) (Total: 117 Establishments)

8.2.4 Average Monthly Spending on Mobile Voice Services

How much does the establishment spend monthly, on an average, for all mobile services (Voice and Messaging)? (Single Choice)

As evident from Figure 30, most of the establishments are spending between SAR 501-2000 per month on Mobile Voice Services.

Average monthly spending on Mobile Voice Service(s) by Establishments is estimated to be SAR. 4,584/-

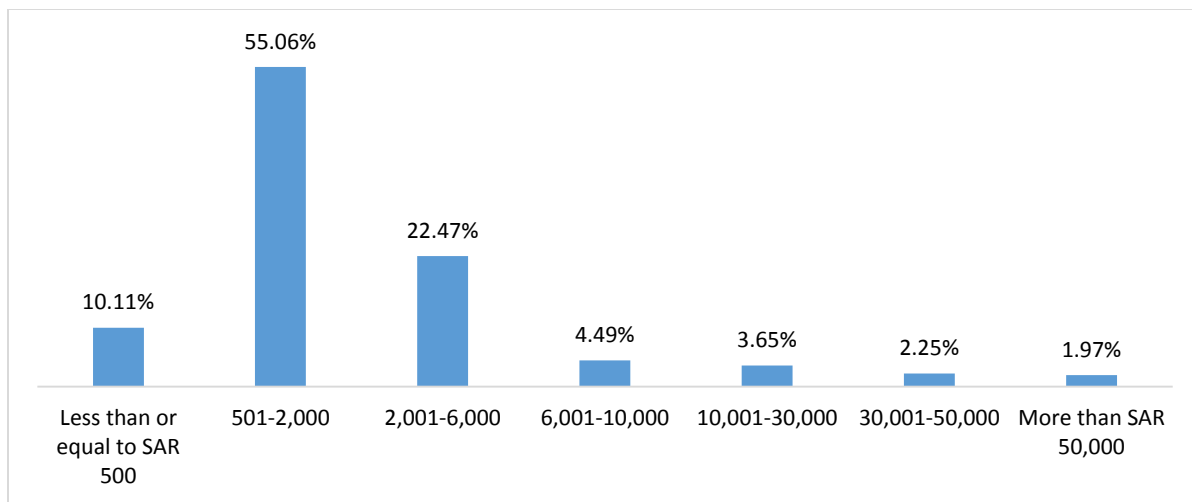


Figure 30: Average Monthly Spending on Mobile Voice Services (Total: 356 Establishments)¹³

8.2.5 Price Rating for Mobile Voice Services for Primary Line

Please rate the price of the following services for the primary mobile service provider of the establishment:

On average, establishments rated the prices of mobile service as below Acceptable (near to Expensive, 2.38). As depicted in Figure 31, on an average, Mobile calls to international destinations and roaming service received expensive price ratings.

¹³ 8.25% respondents answered 'I don't know'. Average is calculated after excluding the 'I don't know' responses.

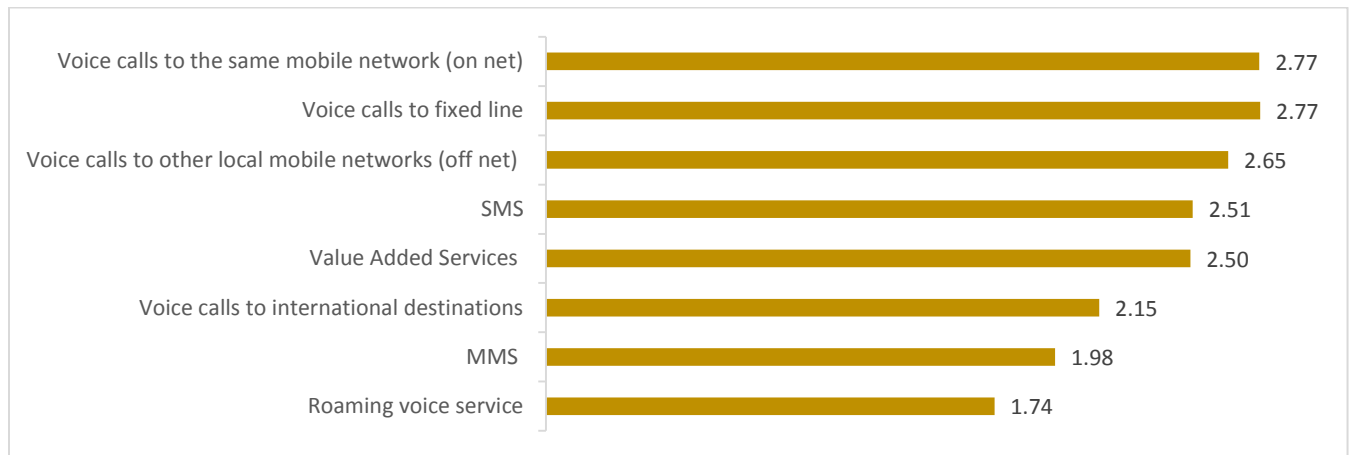


Figure 31: Price Rating for Mobile Voice Services for Primary Service Provider (Total: 191 Establishments)¹⁴

8.2.6 Satisfaction Rating for Mobile Voice Services for Primary Line

Please rate the satisfaction of the establishment with the primary mobile service provider for the following:

The overall satisfaction rating for quality of Mobile (Voice) services is near to Good (3.34). It is evident that the level satisfaction of establishments with respect to use of mobile number portability service is below Acceptable. On the other hand, the level of satisfaction with respect to obtaining mobile services, coverage and signal strength, and quality of voice calls is almost Good.

¹⁴ Respondents who answered "I don't know" are not included in calculation.

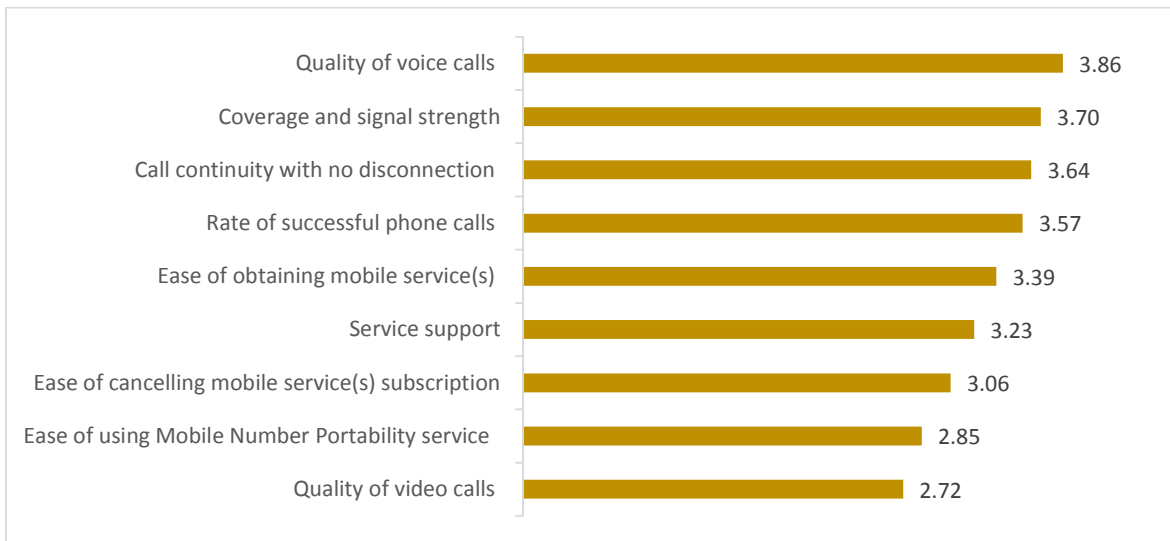


Figure 32: Mobile Services Satisfaction Rating for Mobile (Voice) Services for Primary Line (Total: 191 Establishments)¹⁵

9. Internet Services

9.1 Internet Usage

From Figure 33, it is observed that 96.80% of all establishments *use* Internet service.

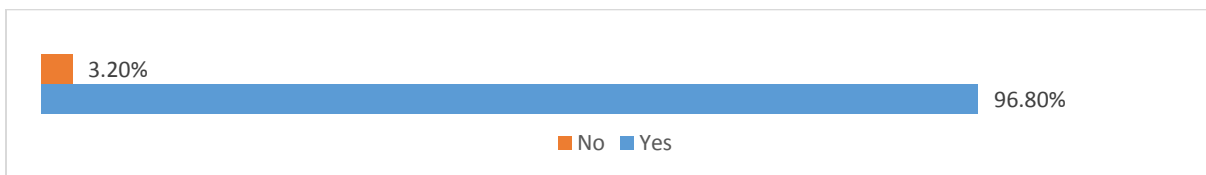


Figure 33: Establishments that use Internet (Total: 1500 Establishments)

9.1.1 Internet Access to Employees

What is the percentage of employees that have access to the Internet provided by the establishment? (Single Choice)

¹⁵ Respondents who answered "I don't know" are not included in calculation.

Nearly 33% of the establishments that use Internet provide the service for almost all of their employees, see Figure 34. It is found that 32.42% of establishments (subscribed to Internet services) provide Internet access to more than 80% of their employees.

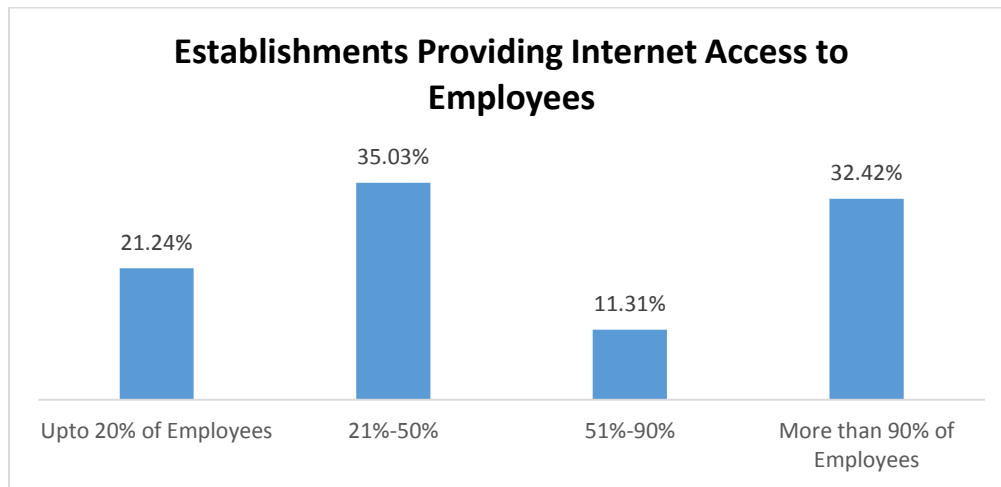


Figure 34: Percentage of Employees with Internet Access (Total: 1454 Establishments)

Figure 35 shows the percentage of employees having access to the Internet provided by the corporates of different business types. It is found that 41% of Trading companies provide Internet access to more than 80% of their employees.

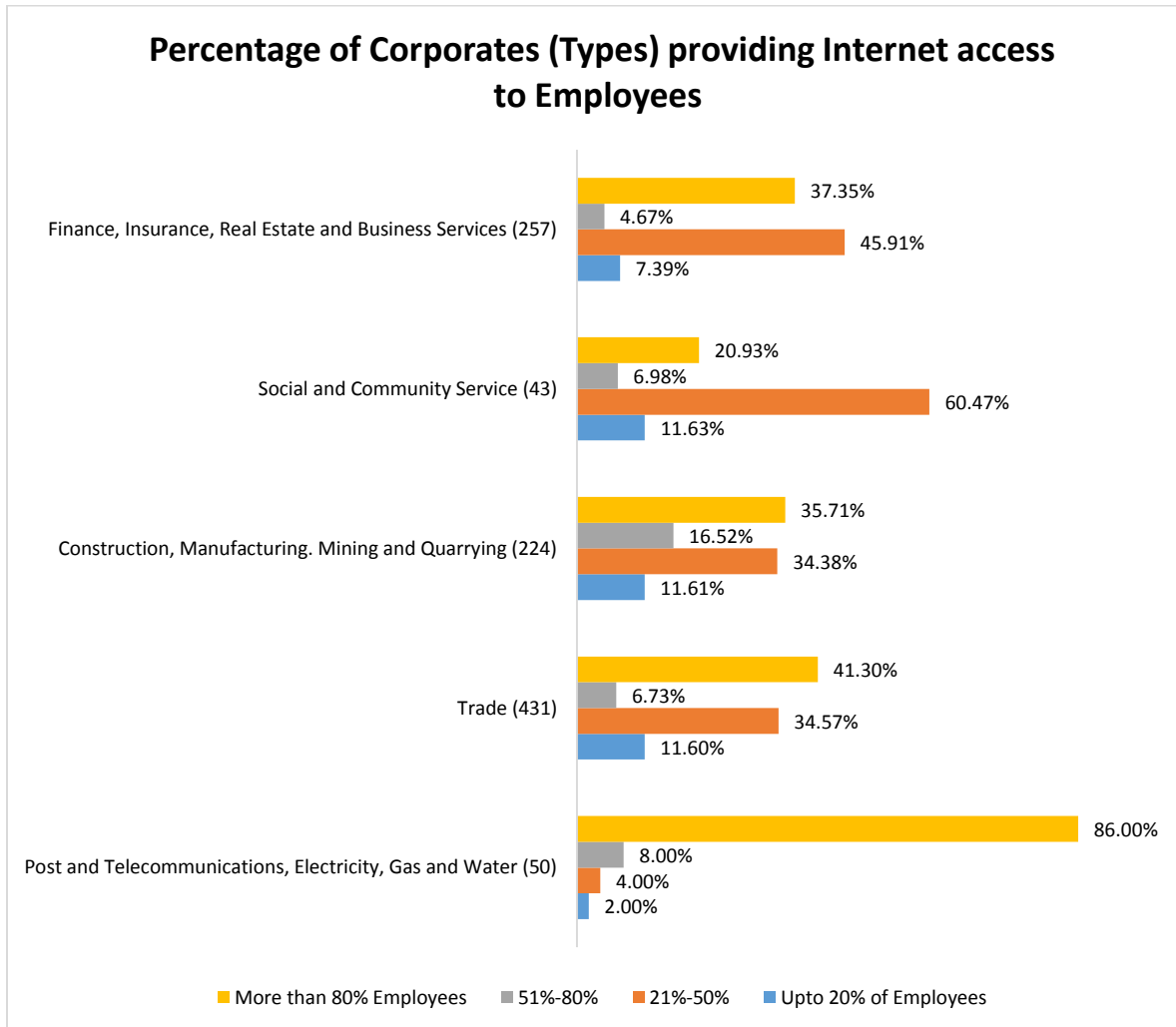


Figure 35: Percentage of Employees having access to the Internet provided by the Corporates (Types)

Figure 36 shows the percentage of employees having access to the Internet provided by the corporates of different sizes.

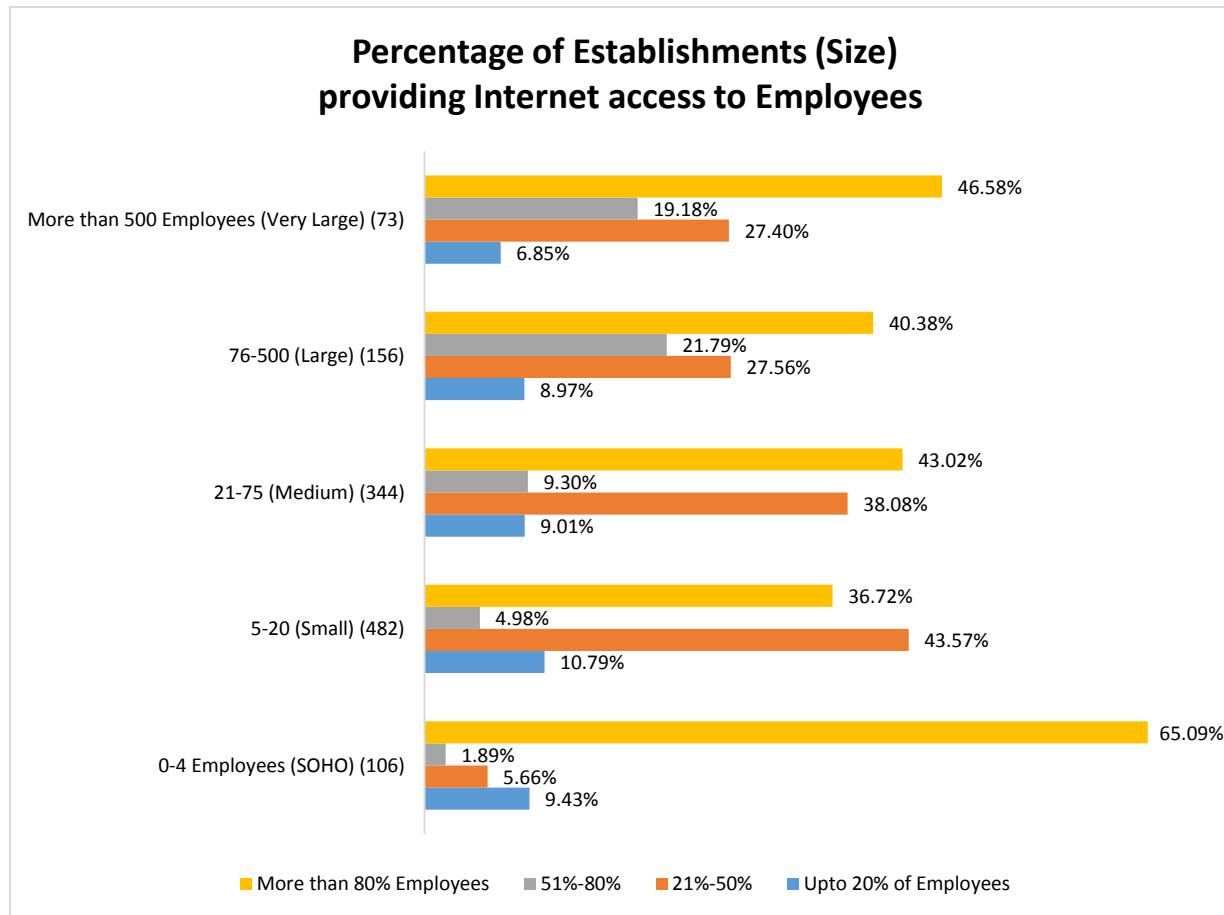


Figure 36: Percentage of Employees having access to the Internet provided by Establishments (Size)

9.1.2 Internet Access to Students (Educational Institutes only)

What percentage of students has access to the Internet at the institution? (Single Choice)

25.23% of the educational institutions that use the Internet, provide the service to more than 80% of students while 19.15% of them do not provide Internet access to students, see Figure 37.

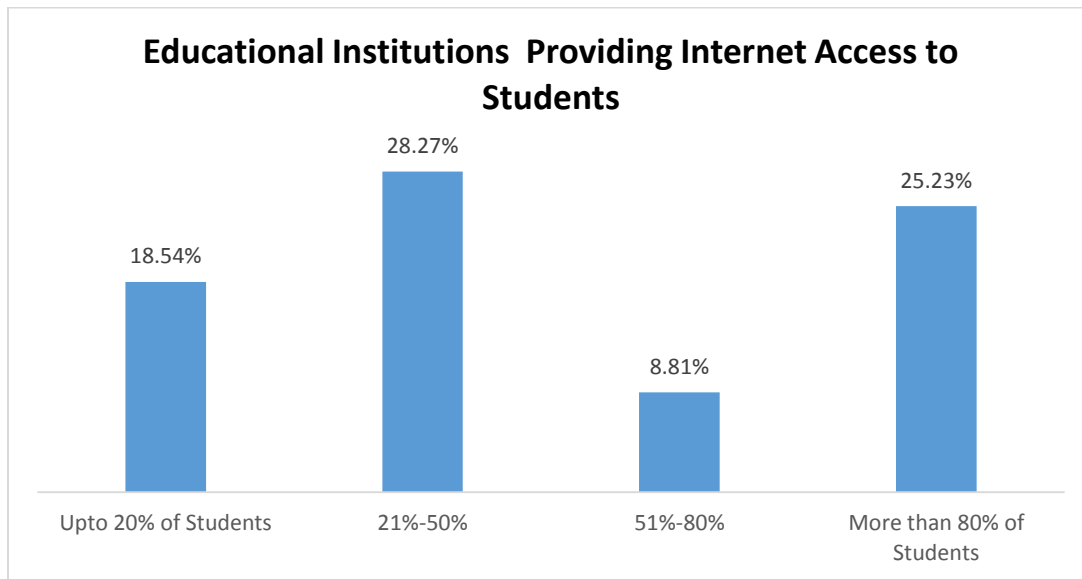


Figure 37: Percentage of Students access to Internet at Educational Institutions (Total: 329 Institutions)

9.1.3 Internet Access to Labs (Educational Institutes only)

What percentage of classrooms/labs has access to the Internet at the institution? (Single Choice)

It is evident from Figure 38 that most of the educational institutions (nearly 90%) are providing Internet access in their classrooms/labs. Only 10.06% of them do not provide Internet access in classrooms/labs.

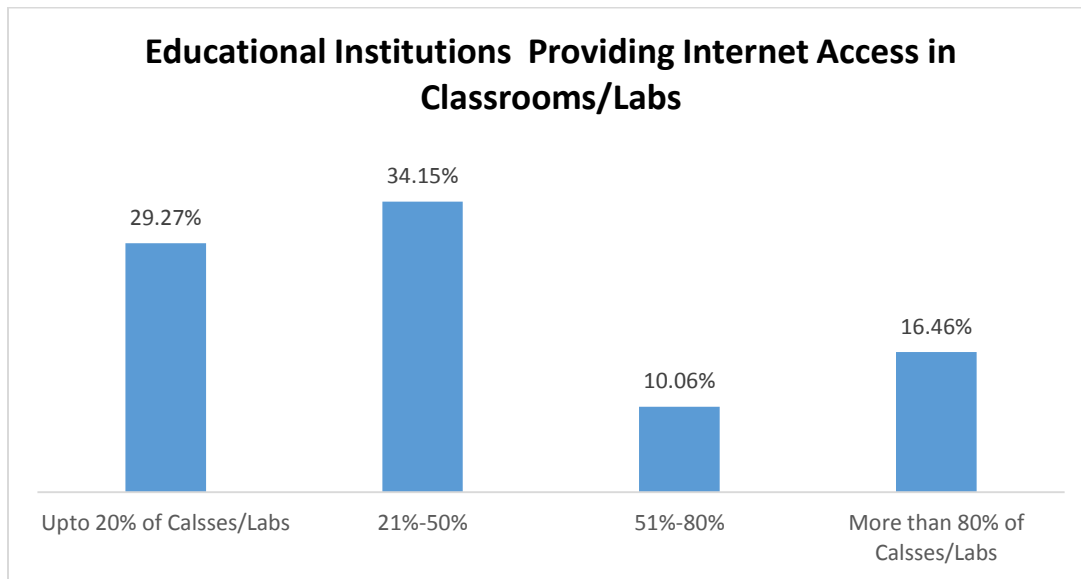


Figure 38: Percentage of Classrooms/Labs access to Internet at Institution (Total: 329 Institutions)

9.2 Reasons for not using Internet in the last six (6) months

*What are the reasons of the establishment for not using Internet services?
(Multiple Choice)*

Nearly 33% of establishments (who do not use Internet) mentioned that their business operations do not depend on Internet.

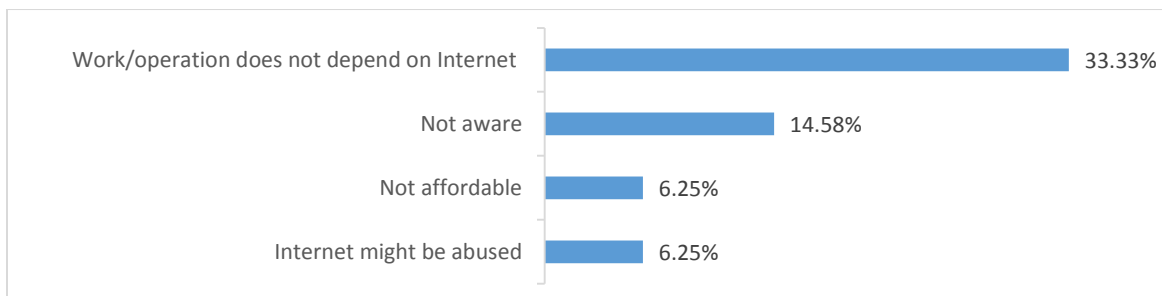


Figure 39: Reasons for not using Internet in the last six (6) months¹⁶ (Total: 48 Establishments)

¹⁶ Nearly 46.30% of the Establishments also answered 'Others', not shown.

Does the establishment plan to use Internet services within the next twelve (12) months? (Single Choice)

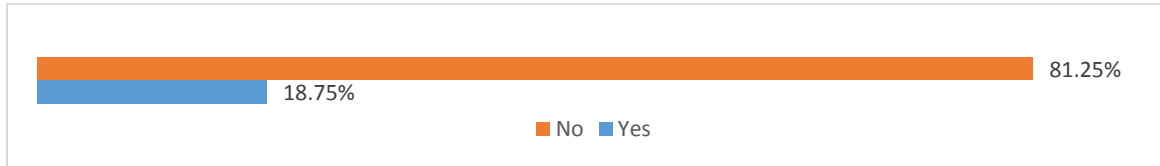


Figure 40: Planning to use Internet in the next twelve (12) months (Total 48 Establishments)

9.3 Type(s) of Internet Access(es)

Please describe

a) Internet access services

52.23% of the establishments that use Internet are subscribed to 3G/4G services and 43.17% of them are subscribed to DSL services. Nearly 7% establishments are using other means of subscriptions like FTTx, WiMax, etc.

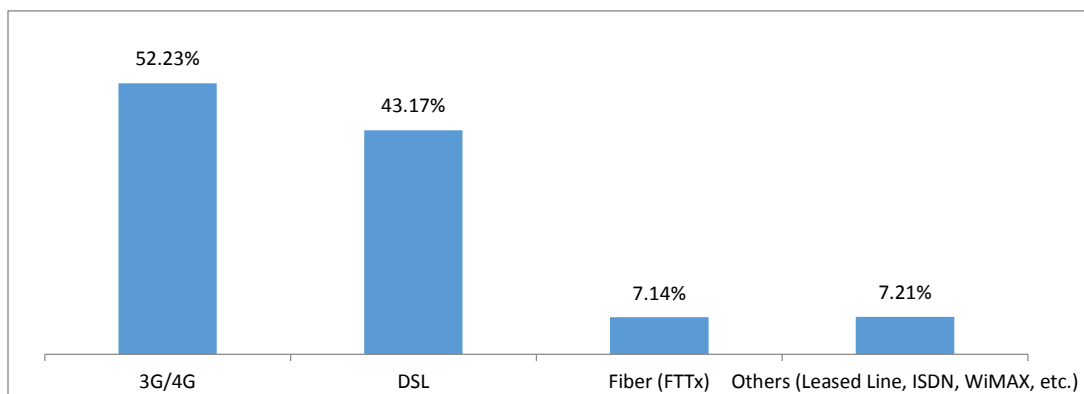


Figure 41: Type(s) of Internet Access at Establishment (Total: 1457 Establishments)

b) subscribed bandwidth , at the establishment (Connection Bandwidth not Download Limit)

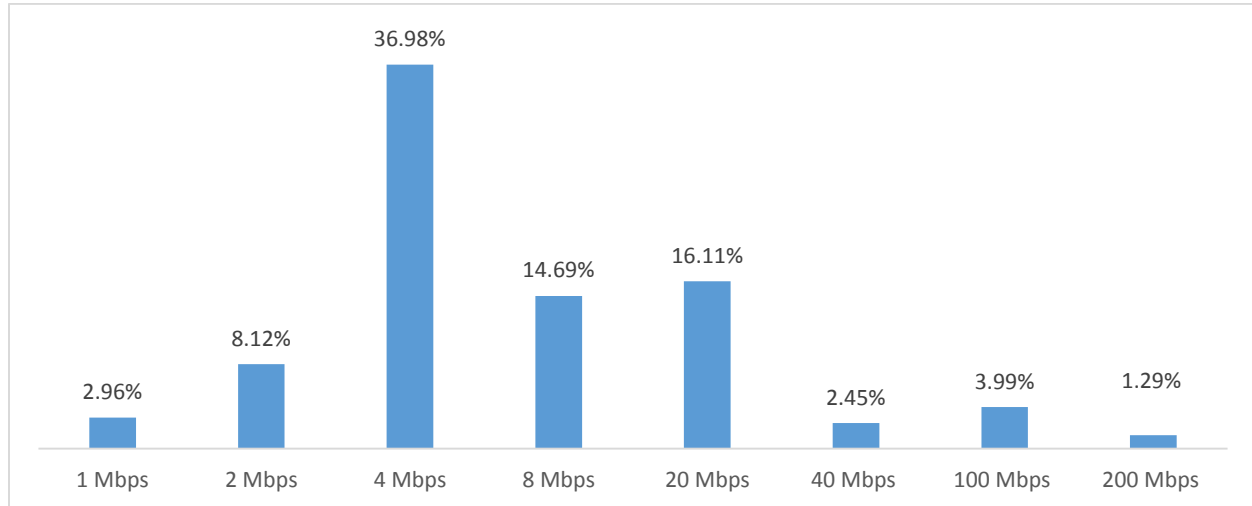


Figure 42: Internet Access Bandwidths at Establishments (Total: 776 Establishments)

Does the establishment plan to upgrade the Internet bandwidth at the establishment to any of the following in the next twelve (12) months? (Single Choice)

47.63% of the establishments are planning to upgrade their subscriptions, see Figure 43.

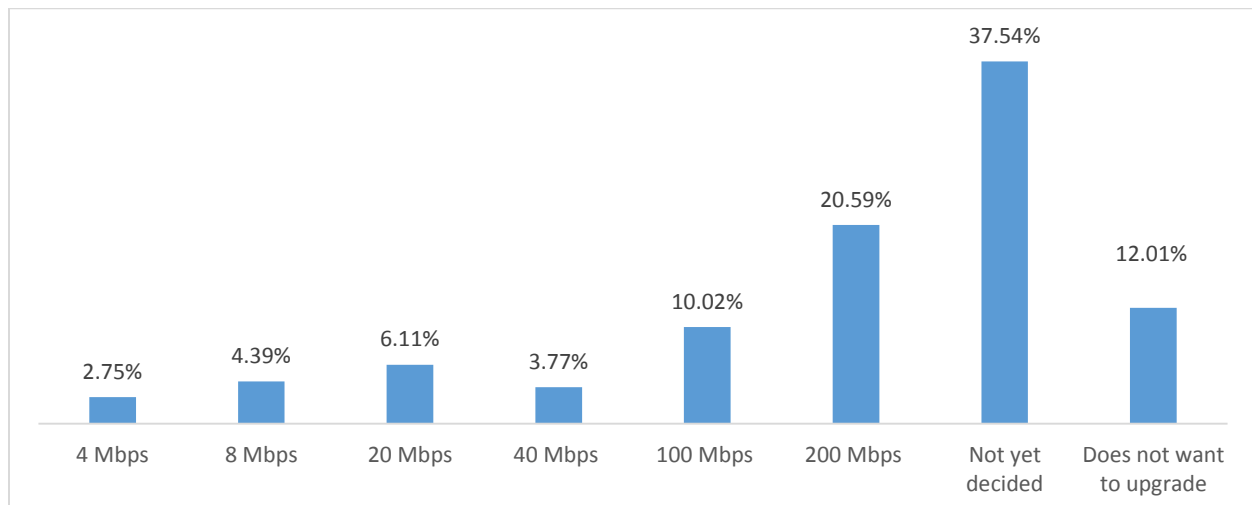


Figure 43: Planning to increase Internet Speed in the next 12 months (Total: 1457 Establishments)

9.4 Internet Activities

Please identify the Internet activities used by the establishment. (Multiple Choice)

Figure 44 depicted that the main uses of the Internet services in the corporate and government establishments are sending/receiving emails and searching for information.

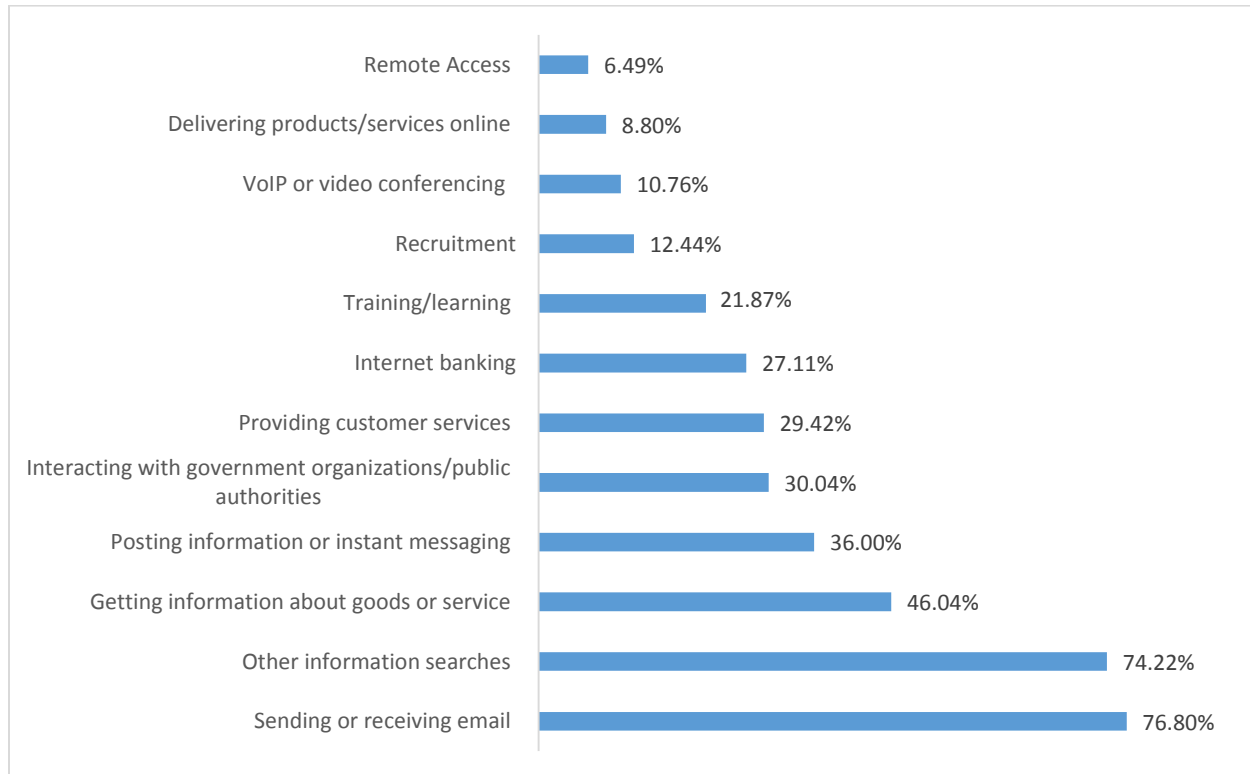


Figure 44: Establishments' Activities on Internet (Total: 1125 Corporate and Govt. Establishments)

From Figure 45, the main uses of the Internet services in the educational institutions are sending/receiving emails and interacting with government organizations followed by training and e-learning.

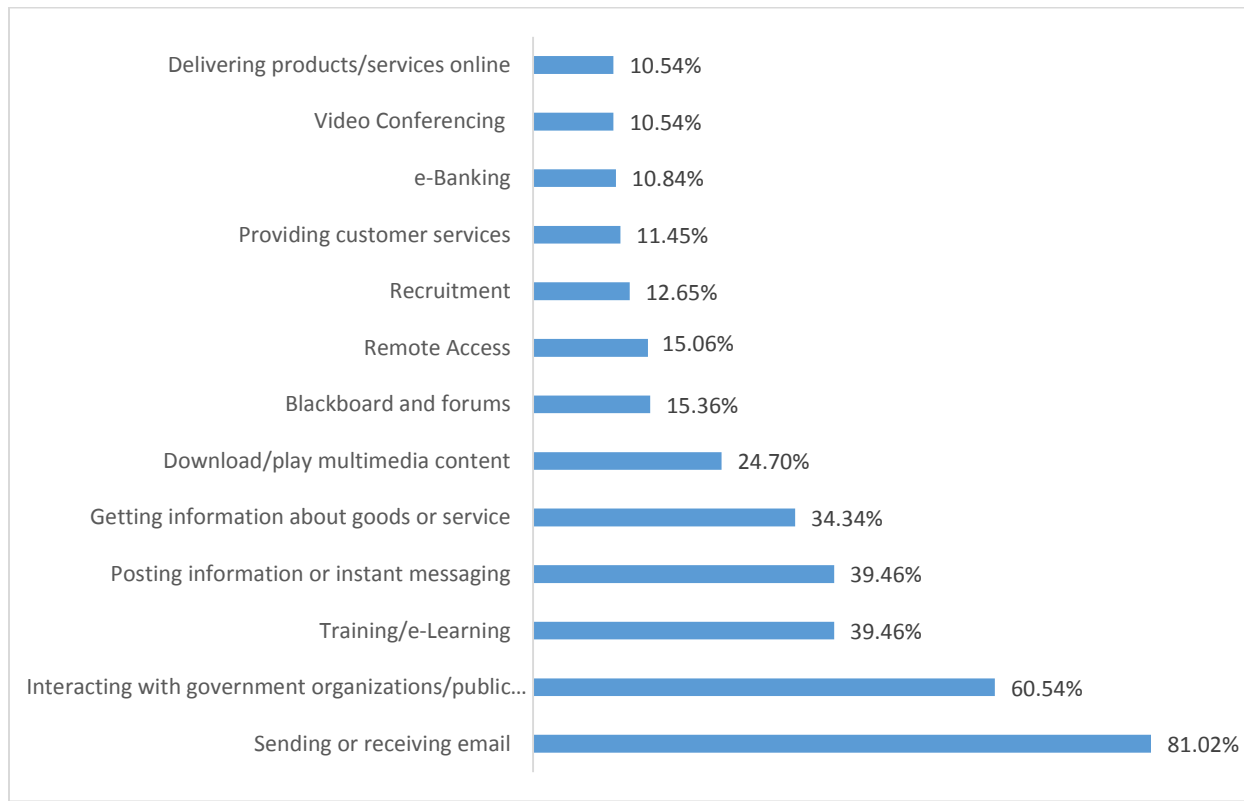


Figure 45: Establishments' Activities on Internet (Total: 332 Education Institutions)

9.5 Average Monthly Spending on Internet Services

How much does the establishment spend monthly, on an average, for Internet services? (Single Choice)

As evident from Figure 46, most of the establishments are spending between SAR 501-2000 per month on Internet Services. Average monthly spending on Internet Service(s) by Establishments is estimated to be SAR 2,547/-.

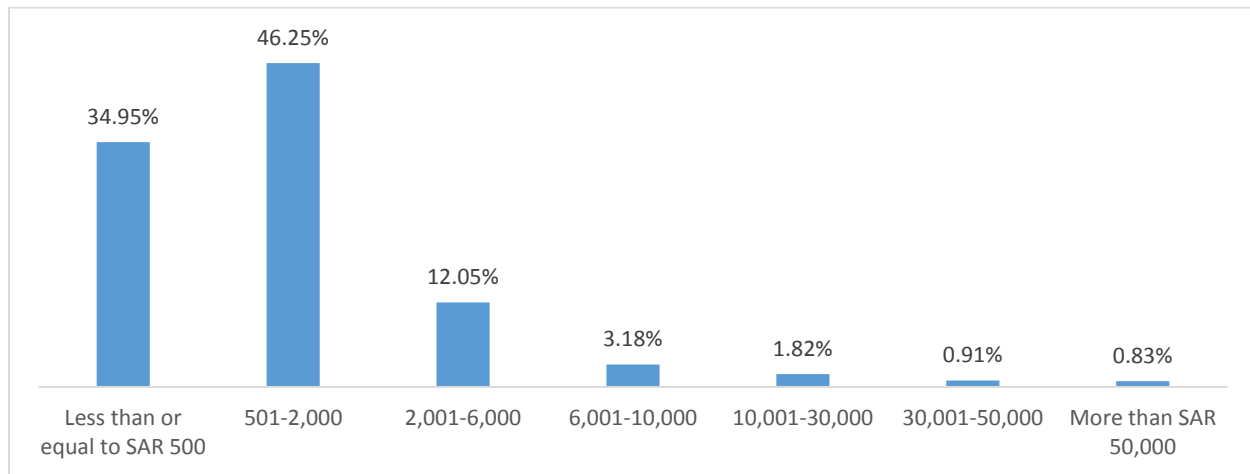


Figure 46: Average Monthly Spending on Internet (Total: 1319 Establishments)¹⁷

9.6 Price Rating for Internet Services for Primary Service Provider

Please rate the price of the services of the establishment's primary Internet service provider. (Single Choice)

On average, respondents rated the prices of mobile Internet services as moderate (3.17). Below figure shows the price rating for different mobile Internet services.

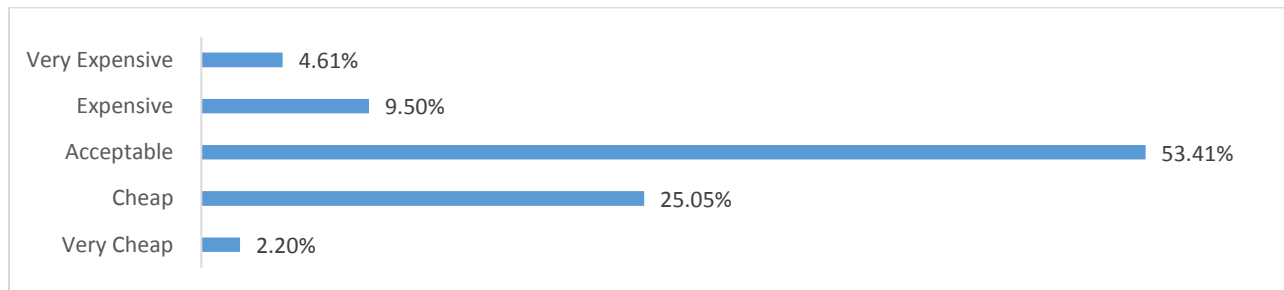


Figure 47: Price Rating for Internet Services (Total: 1272 Establishments)¹⁸

¹⁷ 7.86% respondents who answered "I don't know" are not included in calculation.

¹⁸ 5.23% of respondents who answered "I don't know" are not shown.

9.7 Satisfaction Rating for Internet Services for Primary Service Provider

Please rate the satisfaction of the establishment with the primary Internet service provider for the following:

The overall satisfaction for Internet Services is above acceptable (3.21).

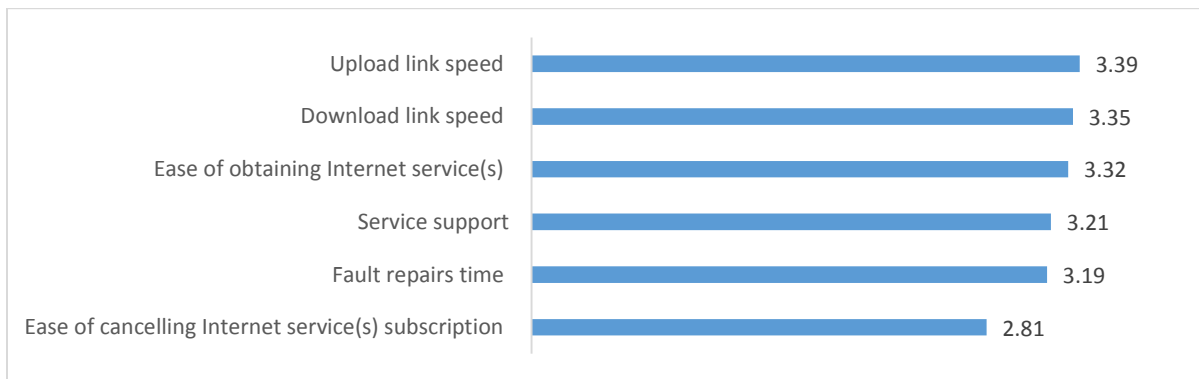


Figure 48: Satisfaction Rating for Internet Services (Total: 1334 Establishments)

10. Computers and Software

10.1 Use of Computers

Does the establishment provide any of the listed computer devices? (Multiple Choice)

Figure 49 depicted that Desktop PCs are the most used devices in establishments followed by Laptops. The same trend is observed for corporate and government, and education institutions as shown in Figure 50 and Figure 51 respectively.

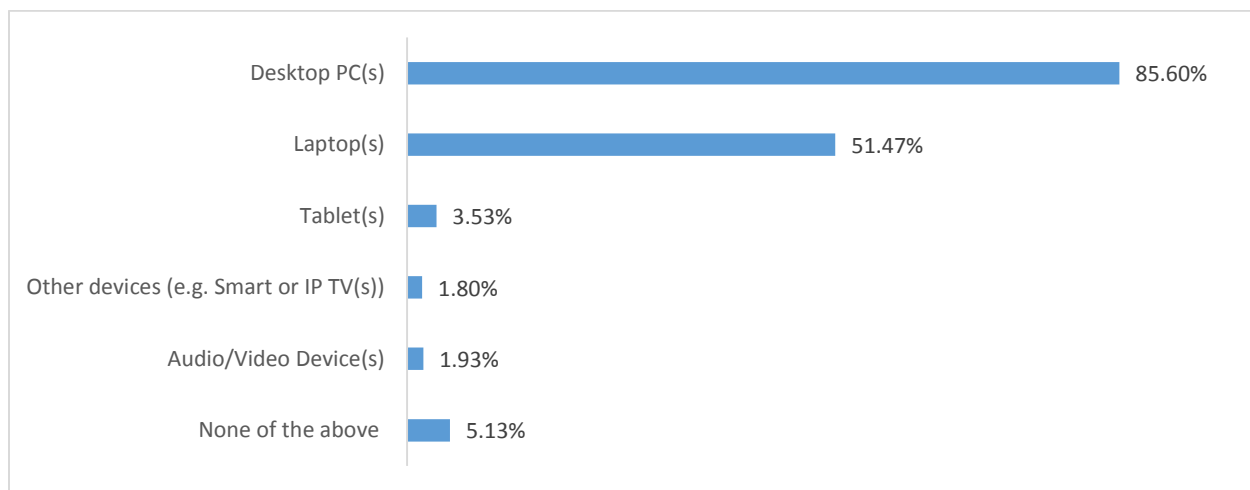


Figure 49: Establishments Providing Computer Devices to its Employees (Total: 1500 Establishments)

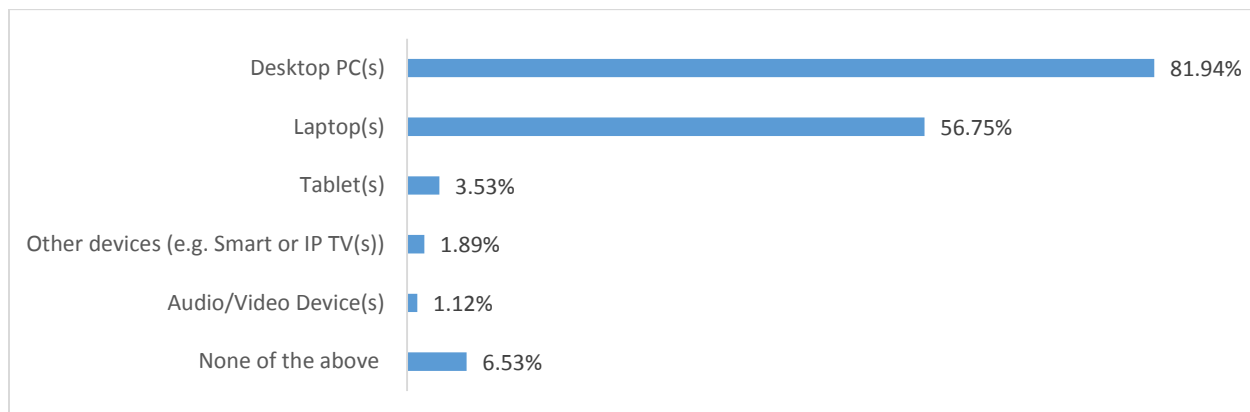


Figure 50: Establishments Providing Computers to its Employees (Total: 1163 Corporates and Govt. Establishments)

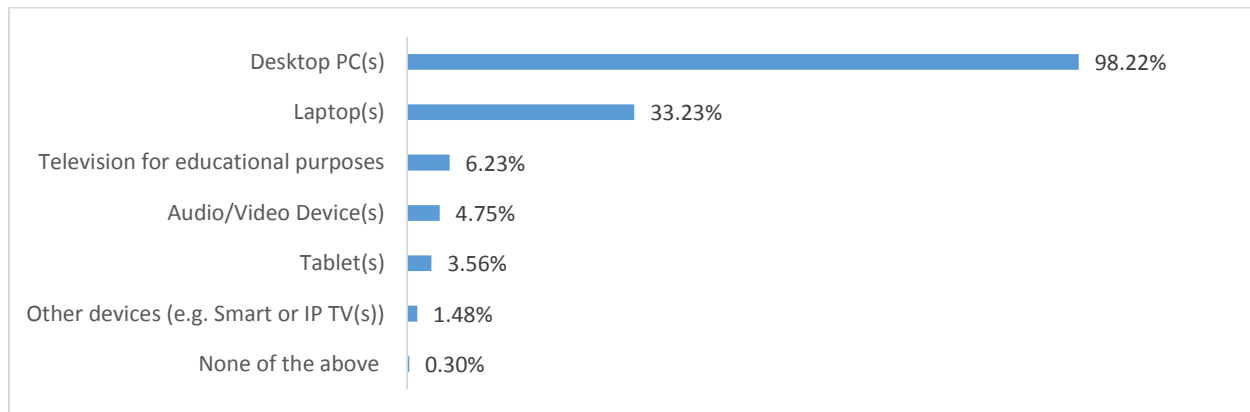


Figure 51: Establishments Providing Computers to its Employees (Total: 337 Education Establishments)

10.1.1 Computer Provided to Employees

Computer Devices in Establishments (Corporate/Government)

What number of employees has been provided with a computer device? (Single Choice)

It is evident from Figure 52 that 12.5% of establishments (Corporate and Government) provide Desktop PCs to more than 50 of their employees while 11.7% provide Laptops.

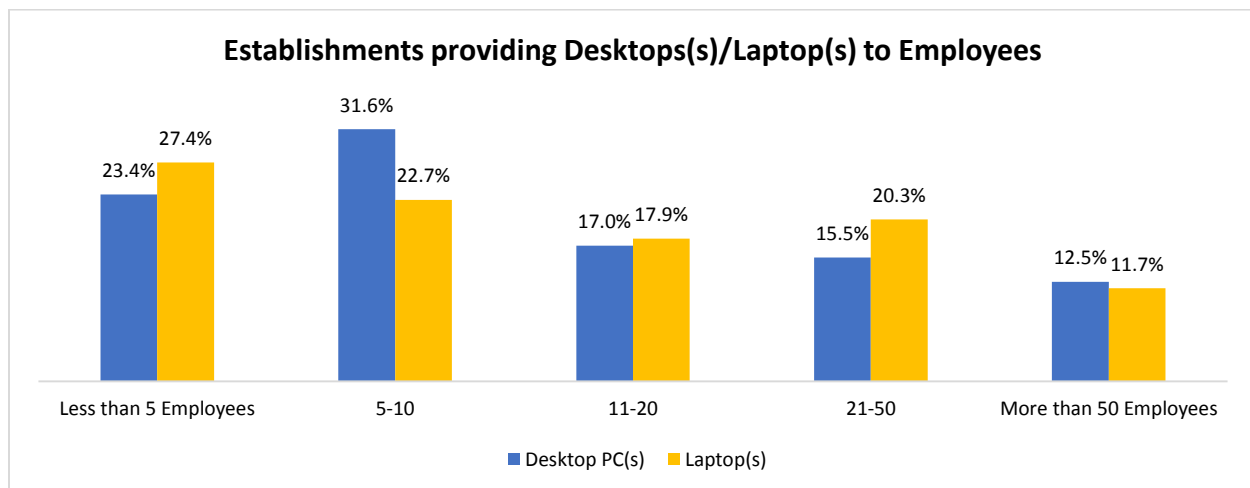


Figure 52: No. of Employees provided with Desktop(s) and Laptop(s) in Establishments (Total: 1163 Corporates and Govt. Establishments)

Figure 53 shows percentages of different types of corporates providing Computer Devices to employees.

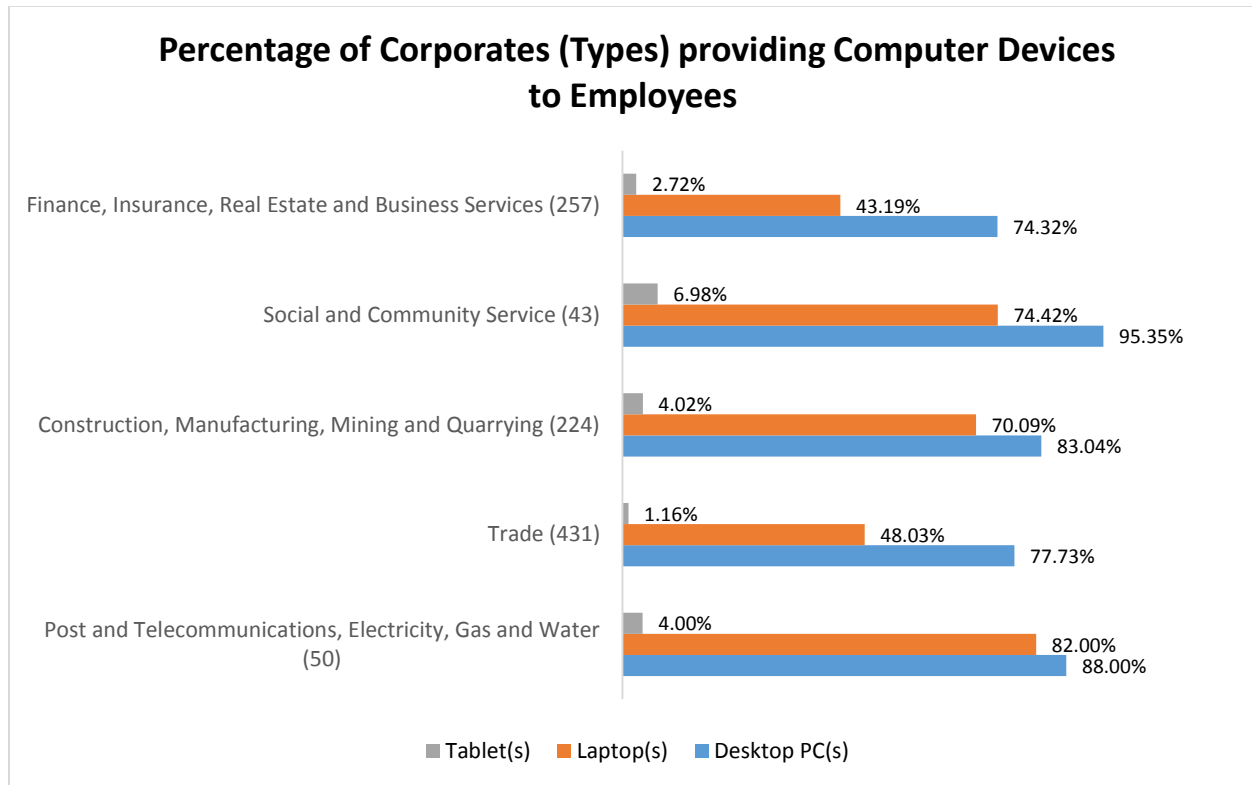


Figure 53: Percentage of Corporates (Types) providing Computer Devices to Employees

Figure 54 depicted that only 9.8% of establishments provide Tablets to more than 50 of their employees while 30.8% provide Audio/Video devices.

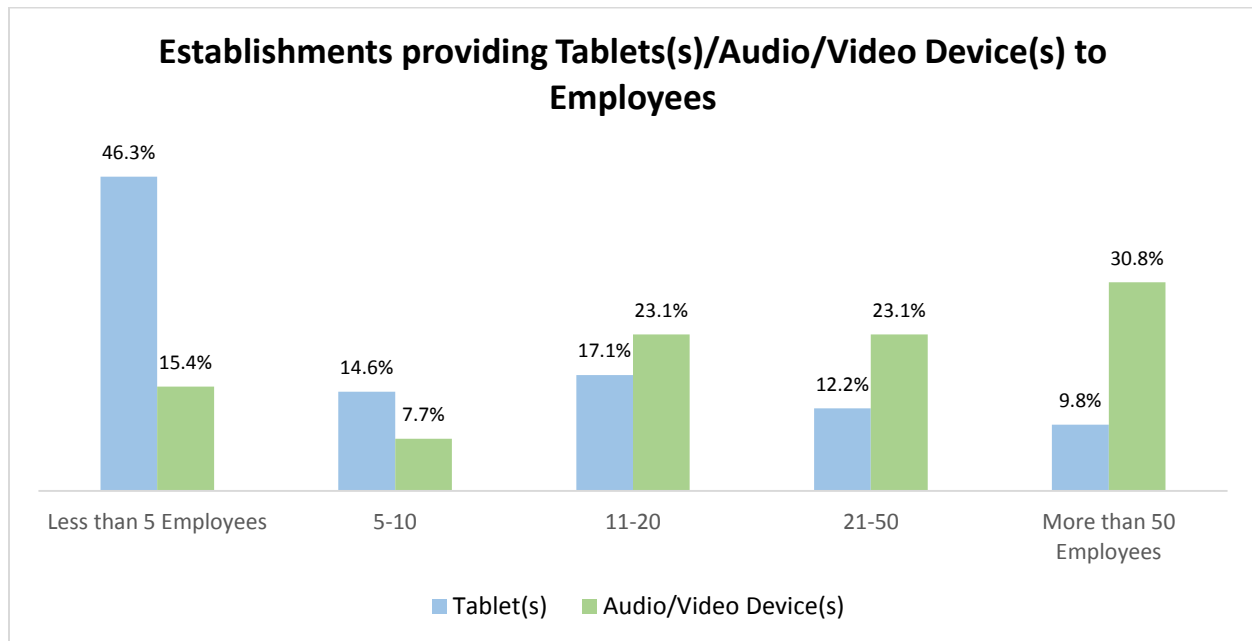


Figure 54: No. of Employees provided with Tablet(s) and Audio/Video Device(s) in Establishments (Total: 1163 Corporates and Govt. Establishments)

Computer Devices in Education Establishments

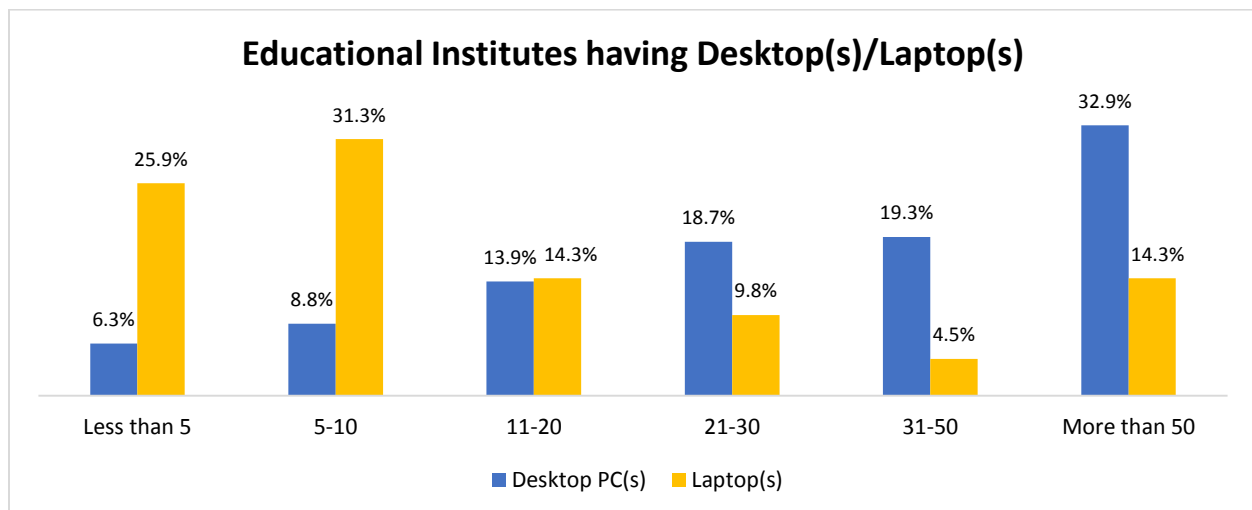


Figure 55: Number of Desktop(s) and Laptop(s) in Education Establishments (Total: 337 Establishments)

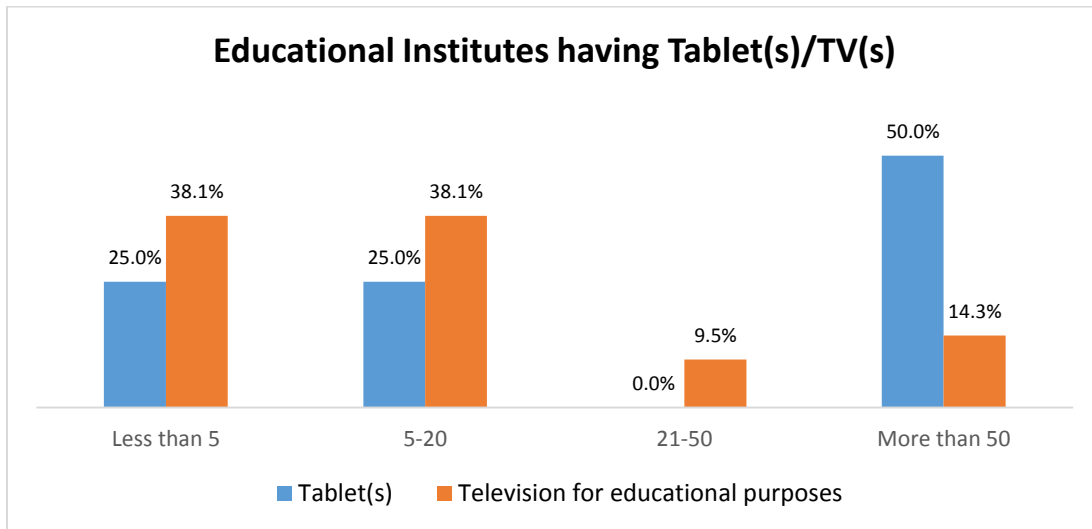


Figure 56: Number of Tablet(s) and Television(s) for Educational Purposes in Education Establishments (Total: 337 Establishments)

10.1.2 Computer Provided to Staff and Students

What is the percentage of staff/students at the institution who have been provided with a computer device? (Single Choice)

It is shown in Figure 57 that 18.10% of the education establishments provide a computer device to more than 80% of their teaching staff. Nearly 18.10% of them do not provide any computer device to the teaching staff.

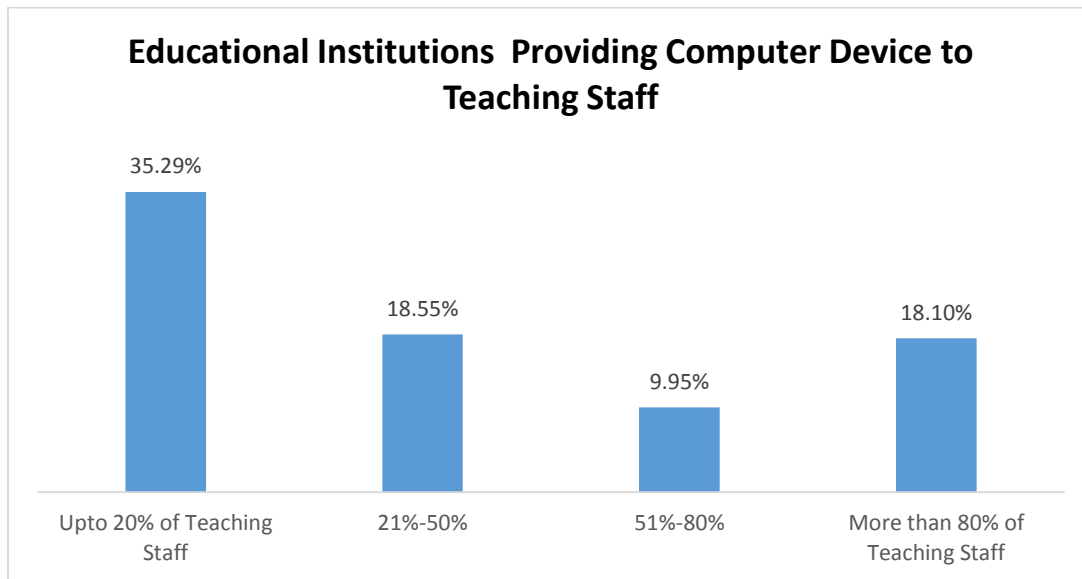


Figure 57: Percentage of Teaching Staff provided with any Computer Device (Total: 221 Education Establishments)

From Figure 58, it is noted that 13.40% of the education establishments provide a computer device to more than 80% of their non-teaching staff, while it is observed that 11% of them do not provide any computer device to the non-teaching staff.

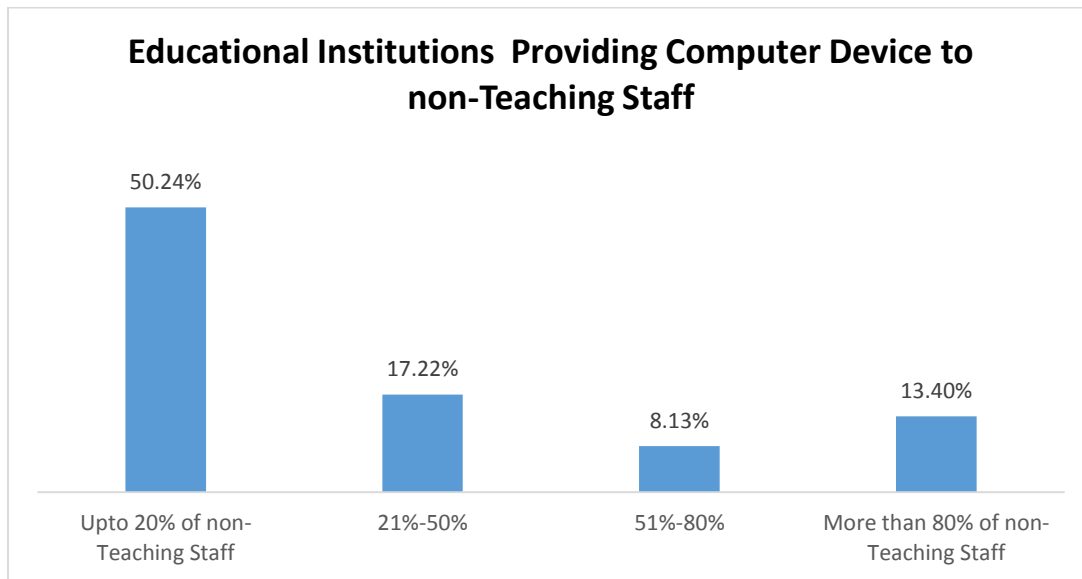


Figure 58: Percentage of non-Teaching Staff provided with any Computer Device (Total: 221 Education Establishments)

It is evident from Figure 59, that 21.33% of the education establishments provide computer device to more than 80% of their students while it is observed that 44.55% of educational institutes do not provide any computer device to students.

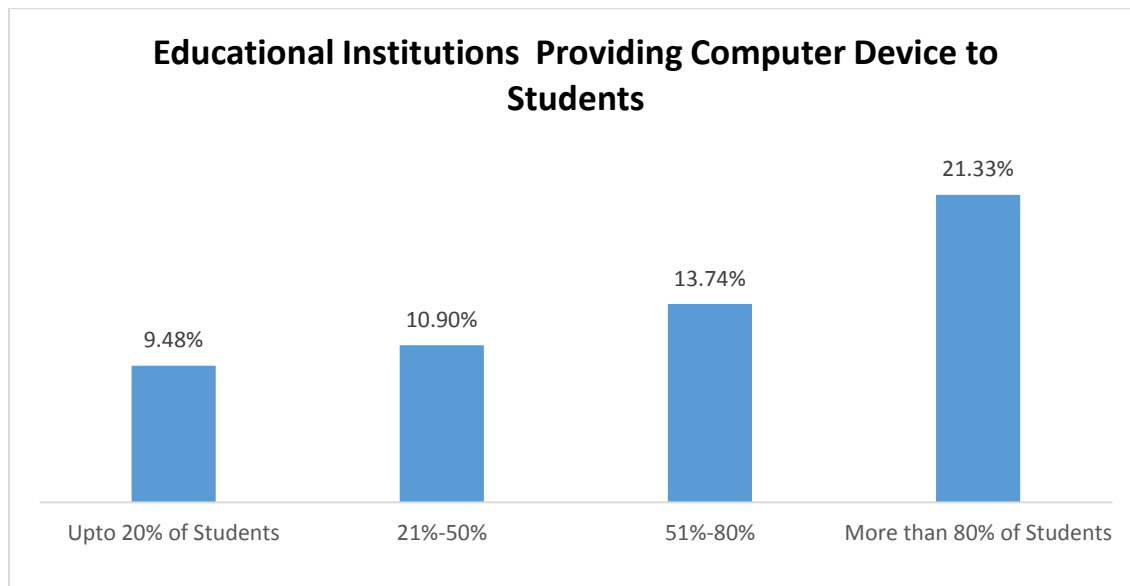


Figure 59: Percentage of Students provided with any Computer Device (Total: 221 Education Establishments)

In general, it is observed that computer devices are mainly provided to the staff (both teaching and non-teaching).

10.2 Reasons for not providing Computers to the employee

What are the reasons for not providing computer device(s)

{desktop/laptop/tablets} to the employee(s)? (Multiple Choice)

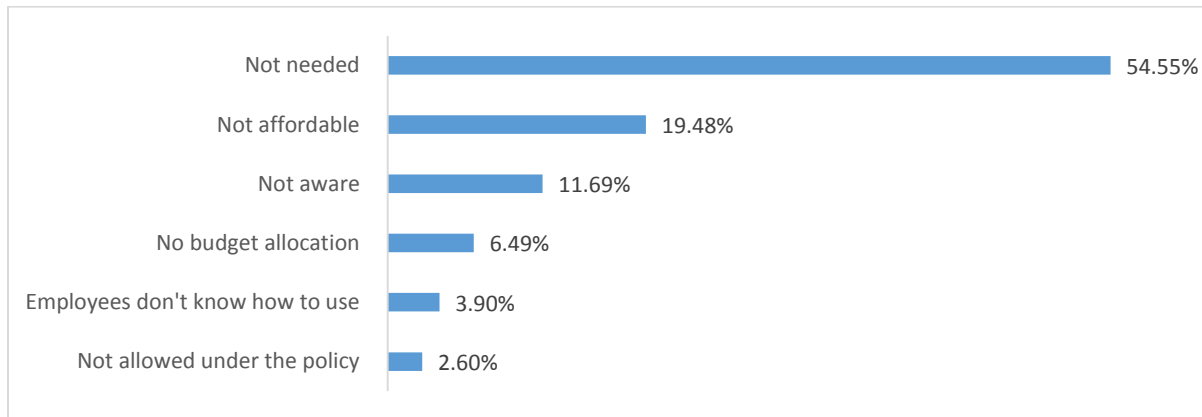


Figure 60: Reasons for not using Computers {desktop/laptop/tablets} (Total: 77 Establishments)¹⁹

Does the establishment plan to provide any computer device to the employee(s) within the next twelve (12) months? (Single Choice)

Out of the establishments that are not providing computer devices to their employees, only 11.69% are planning to provide computer devices within the next twelve months. This is shown in Figure 61.

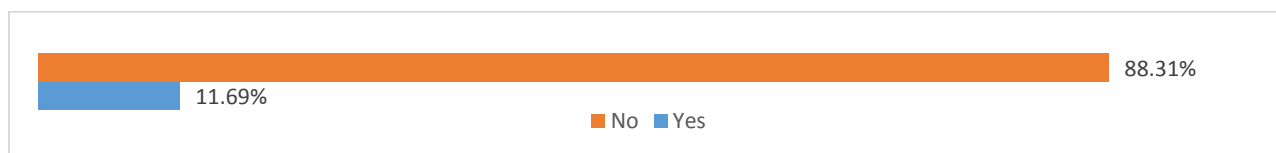


Figure 61: Plan to provide Computers in next 12 months (Total: 77 Establishments)

¹⁹ 24.68% of respondents who answered "Others" are not shown.

10.3 Open-Source Software Usage

Does the establishment use any open source software/applications? (Single Choice)

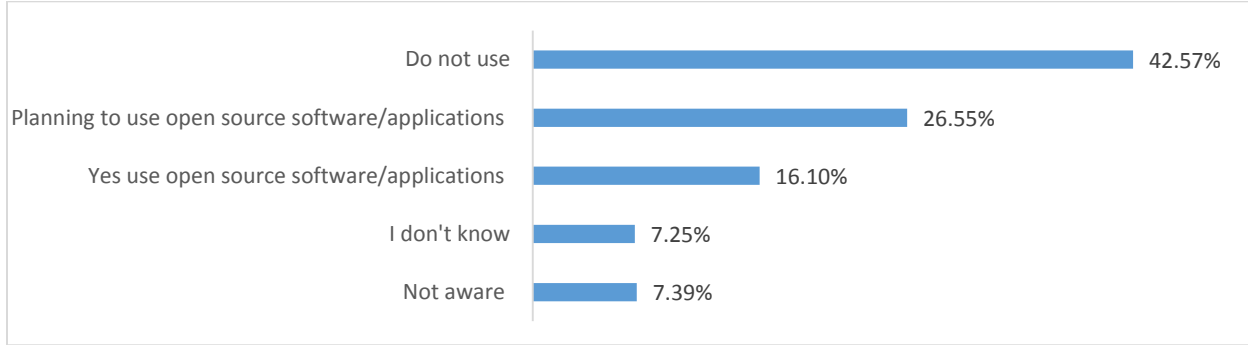


Figure 62: Usage of Open Source Software/Applications (Total: 1435 Establishments)

11. Website and Social Networks

11.1 Web Presence

Does the establishment have a web presence? (Multiple Choice)

Figure 63 shows that 33.90% of all establishments have a website and 15.87% have a presence on online social networks.

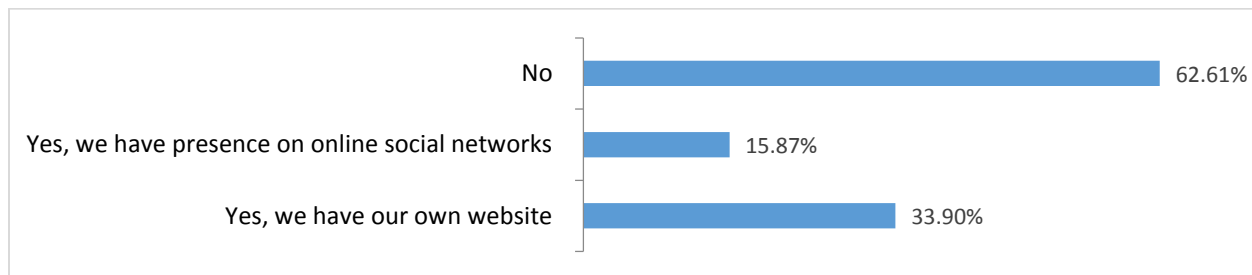


Figure 63: Establishments having Web Presence (Total: 1500 Establishments)

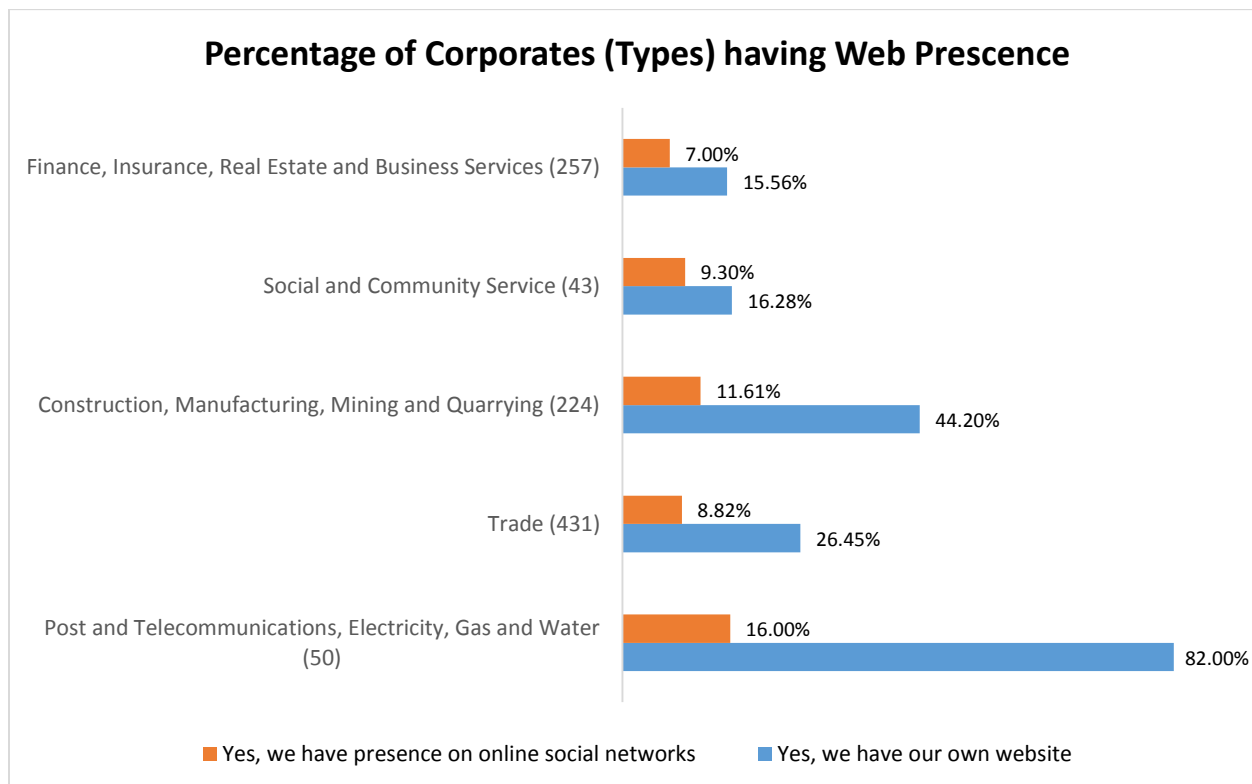


Figure 64: Corporate Types having Web Presence (Total: 1124 Corporates)

Please identify the languages of your establishment's website(s) and/or social network(s) presence.

While English is mostly used for websites, while both Arabic and English are equally used on online social networks, see Figure 65.

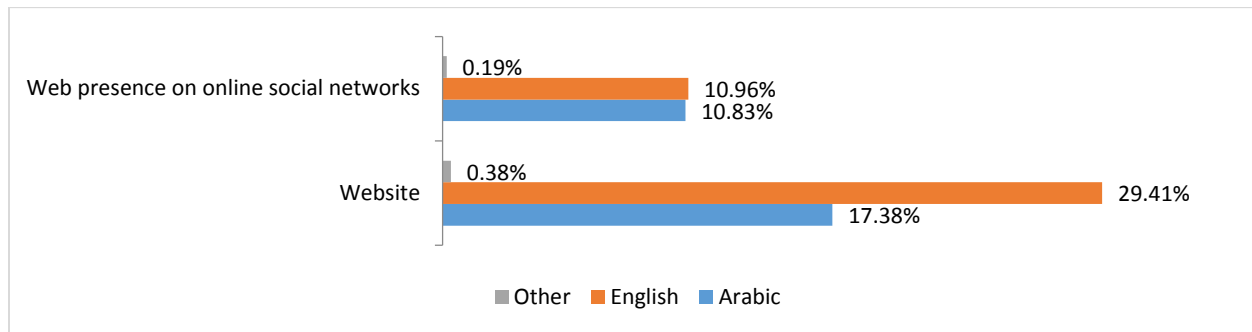


Figure 65: Language of Web Presence (Total: 1500 Establishments)

11.2 Reasons for not having Web Presence

What are the reasons for not having your own website? (Multiple Choice)

Figure below depicted that 49.10% of non-users do not need website for their business work.

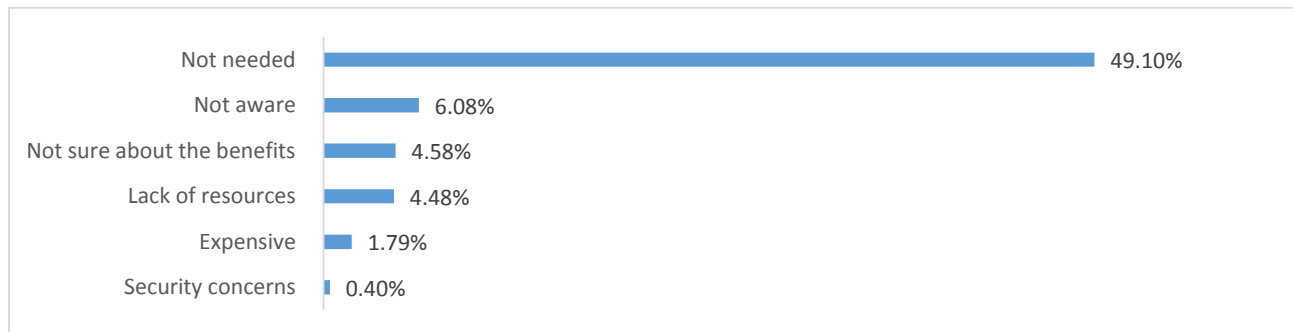


Figure 66: Reasons for not having website (Total: 1004 Establishments)²⁰

What are the reasons for not having a web presence in social Networks? (Multiple Choice)

²⁰ 37.55% of respondents who answered "Others" are not shown.

Figure below depicted that 81.96% of non-users do not need online social network for their business work.

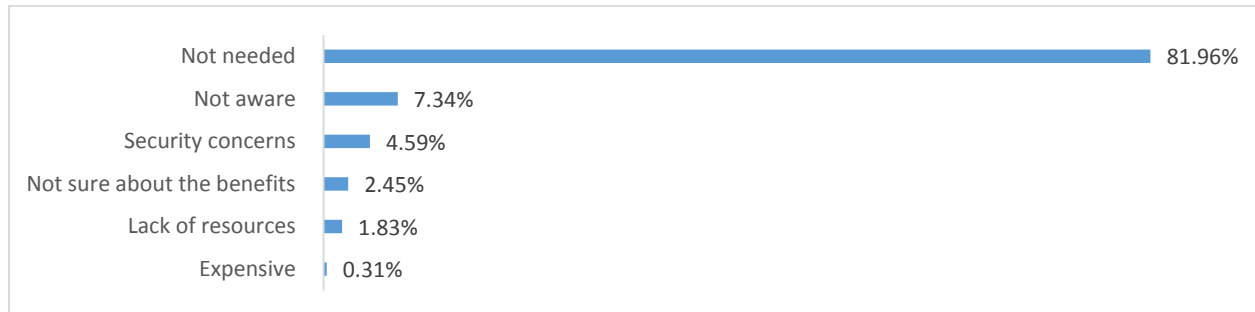


Figure 67: Reasons for not having Online Social Networking presence (Total: 327 Establishments)²¹

Does the establishment plan to have a website(s) and/or social network(s) presence within the next twelve (12) months? (Single Choice)

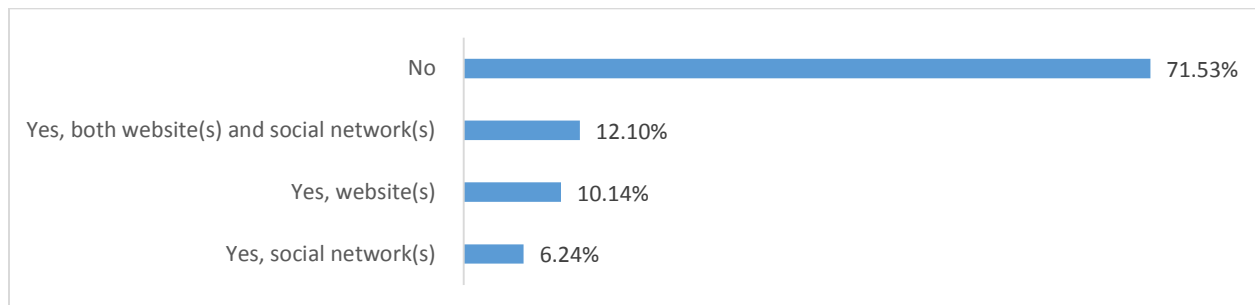


Figure 68: Establishment's Plan to have web presence in next 12 months (Total: 1331 Establishments)

11.3 Web Hosting and Domain

Where does the establishment host its website(s)? (Multiple Choice)

It is shown from Figure 69 that 53.20% of the websites are hosted at international providers and 47.96% of them are hosted locally i.e., within the Kingdom. Only 16.50% of the websites are hosted by the establishments themselves.

²¹ 10.70% of respondents who answered "Others" are not shown.

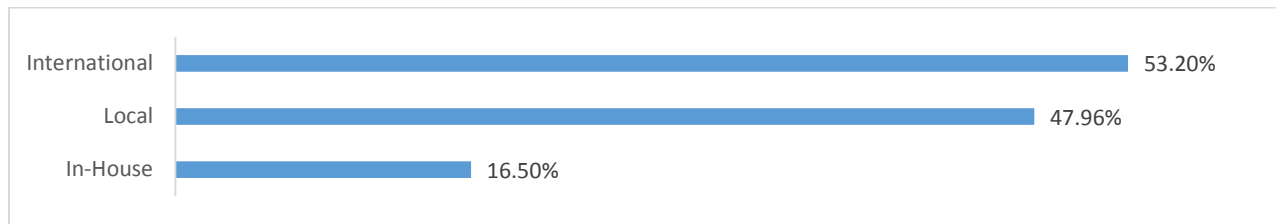


Figure 69: Hosting of Websites (Total: 515 Establishments)

What type of website domain(s) does the establishment have? (Multiple Choice)

Figure 70 shows that 35.15% of websites have “.sa” domain and 2.14% have “السعودية.” domain. Most of the websites 81.55% have one or more of the gTLD domains.

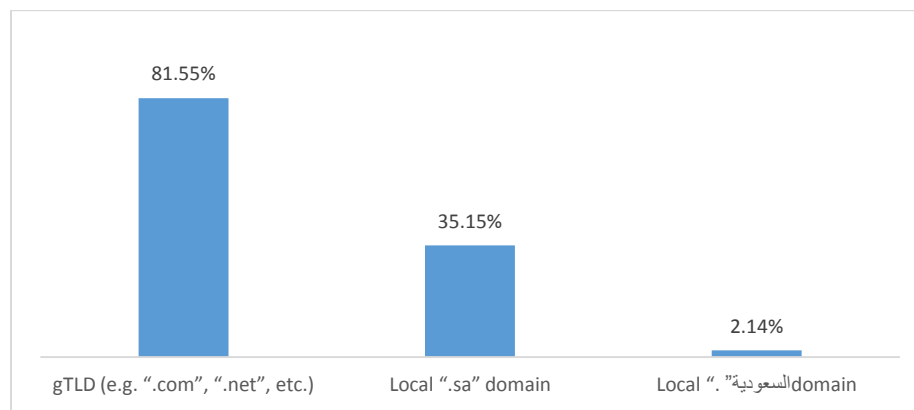


Figure 70: Website Domain (Total: 515 Establishments)

11.4 Use of Social Networks

Has the establishment used any of the following social network(s) in the last six (6) months? (Multiple Choice)

As discussed earlier, 15.87% of establishments have *presence* on online social networks. It is observed that 19.73% of establishments *use* one or more online social networks. As depicted from Figure 71 among the users, Facebook is the most used social network with 81.08% of the establishments that are using the social networks. More than half of them are using twitter and 32.77% are using YouTube.

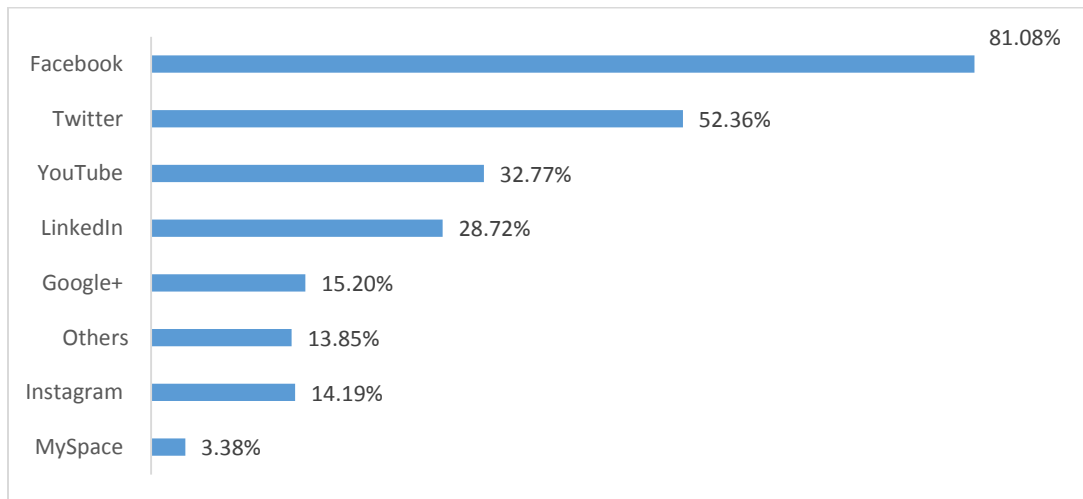


Figure 71: Usage of Different Online Social Networks (Total: 296 Establishments)

11.5 List of Services Provided Through Web Presence

Please identify the services provided by the establishment through its website(s) and/or social network(s). (Multiple Choice)

Figure 72 and Figure 73 show different types of services that are provided by corporate and government, and educational institutions through Web respectively.

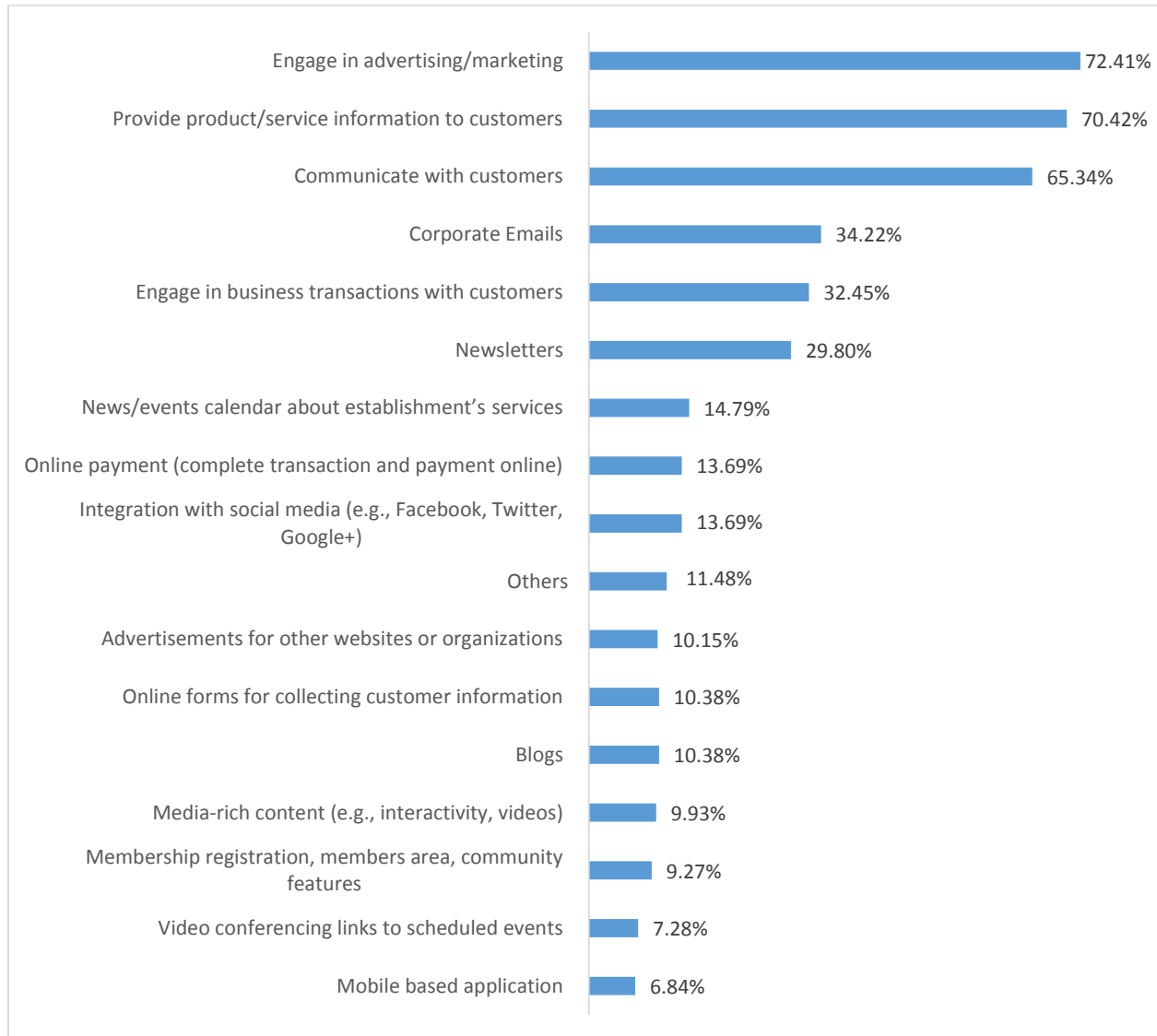


Figure 72: Services provided through Web (Total: 453 Establishments)

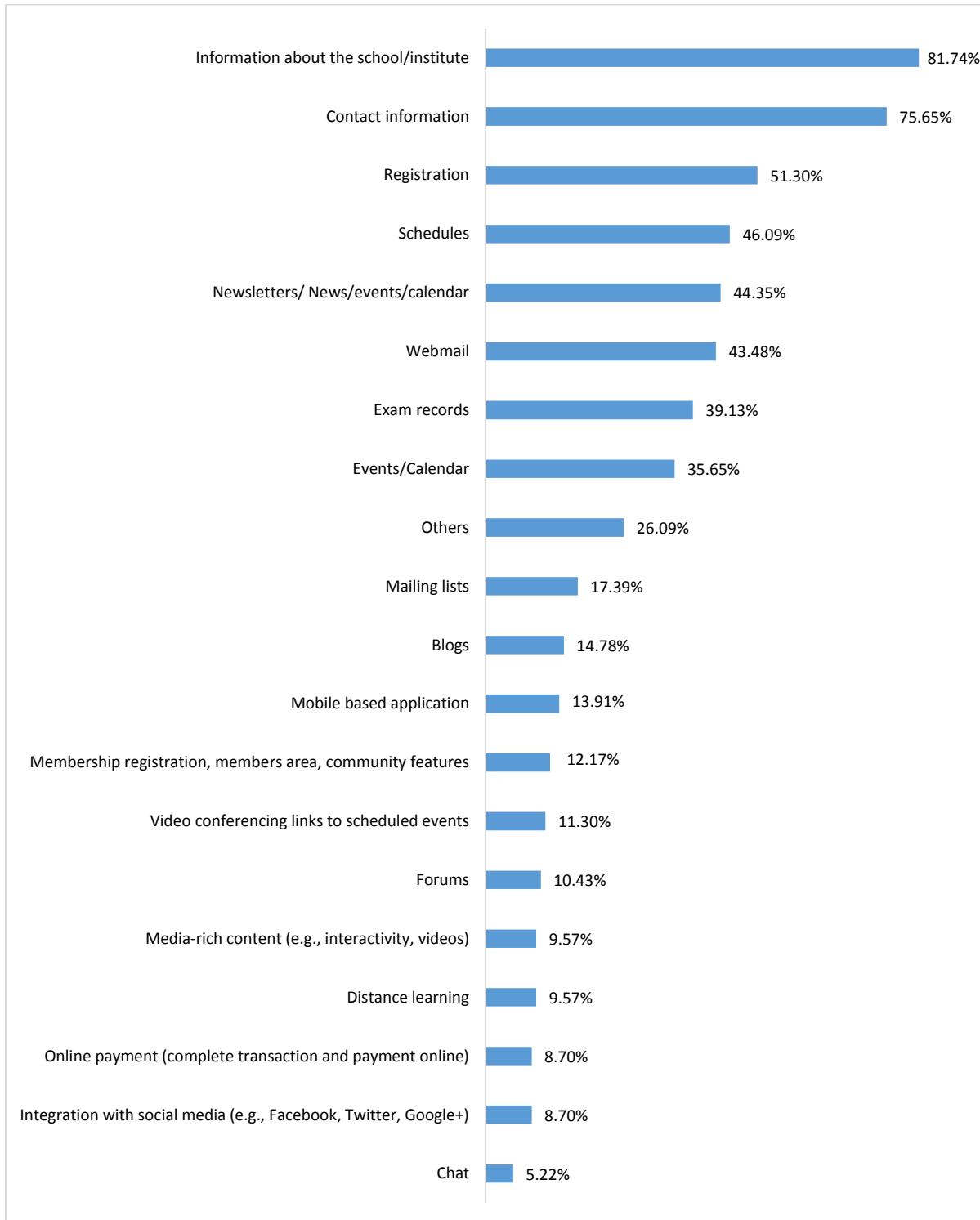


Figure 73: Services provided through Web (Total: 115 Education Establishments)

12. e-Services

12.1 Use of e-Services

Figure 74 reports that 64.19% of the establishments use one or more of the following e-services: e-Government, e-Banking, e-Learning, e-Payment (receivables), Online Shopping and Online Customer Support.

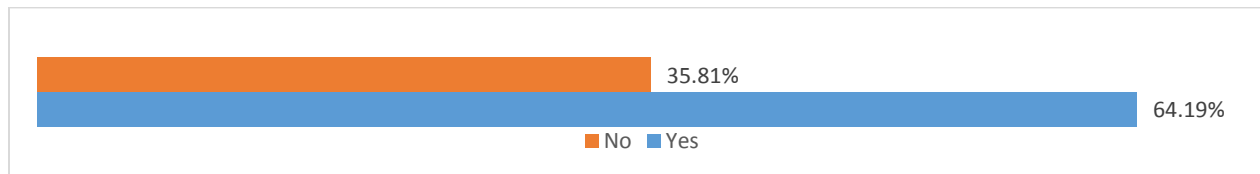


Figure 74: Usage of e-Services (Total: 1500 Establishments)

12.2 Reasons for not using e-Services

What are the establishment's reasons for not using e-Services? (Multiple Choice)

Figure 75 reports the reasons for not using e-services among the non-users. 22.24% of the establishments stated that it is not needed while 12.13% are not aware of the e-services. Only 2.02% have concerns about security and the rest don't know how to use e-services.

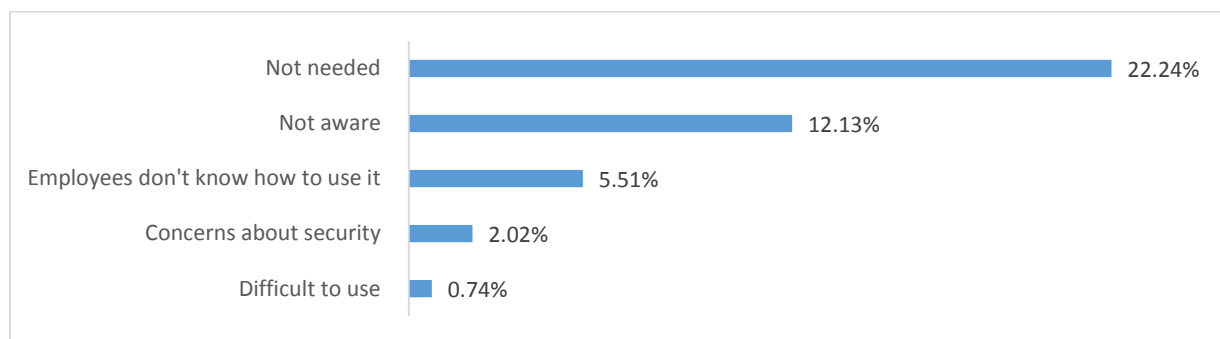


Figure 75: Reasons for not using e-Services (Total: 544 Establishments)²²

²² 68.75% of respondents who answered "Others" are not shown.

Please identify the e-Services used by the establishment. (Multiple Choice)

Figure 76 and Figure 77 show the distribution of usage of different e-Services for corporate and government, and educational institutions respectively. It is found that the most widely used e-Services are Government Services followed by e-Banking.

Figure 78 shows use of e-Services by different corporate types.

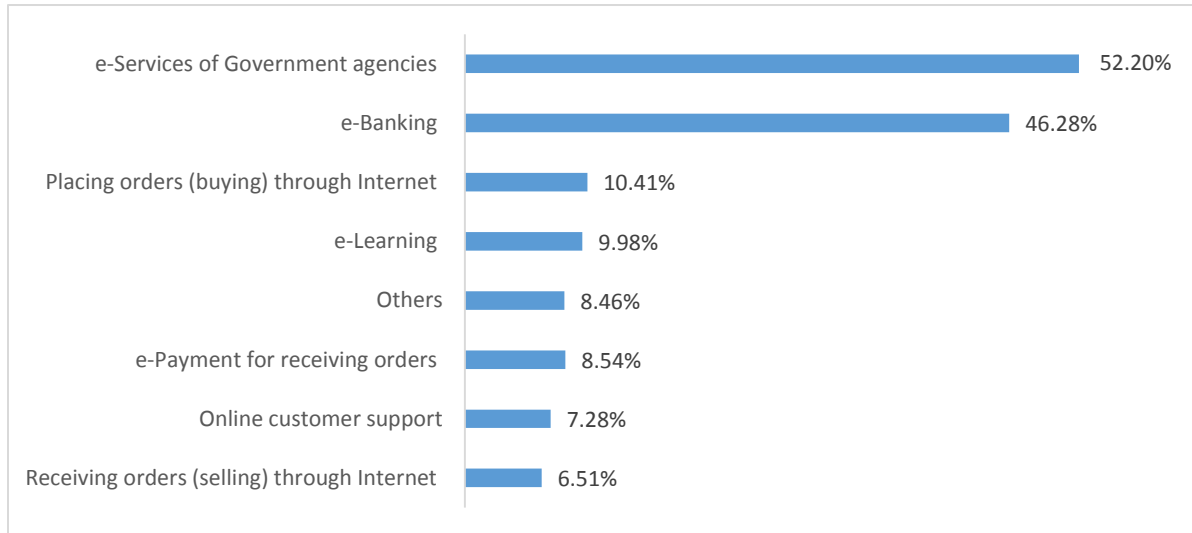


Figure 76: Usage of different e-Services (Total: 1163 Corporates and Govt. Establishments)

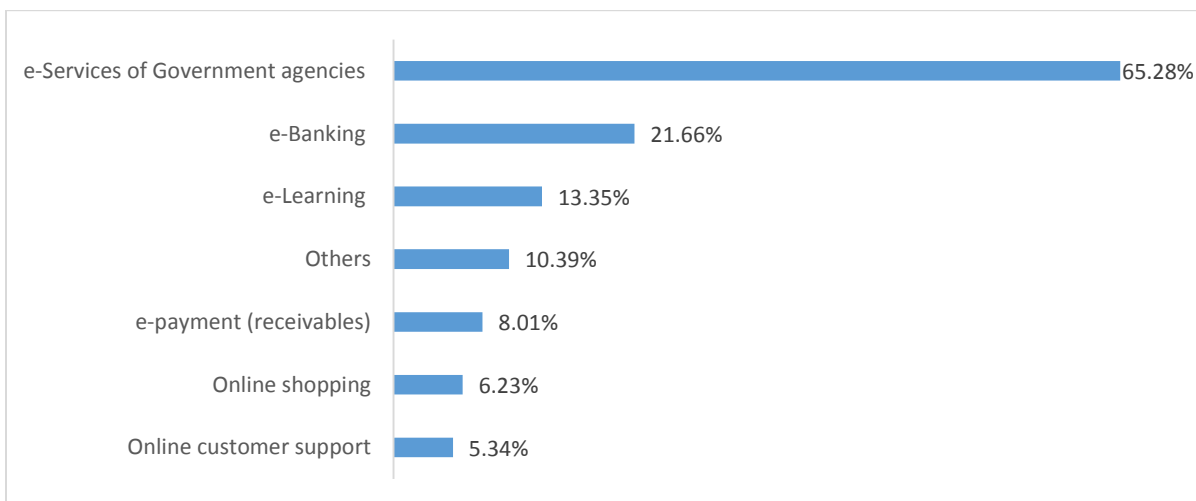


Figure 77: Usage of different e-Services (Total: 337 Education Establishments)

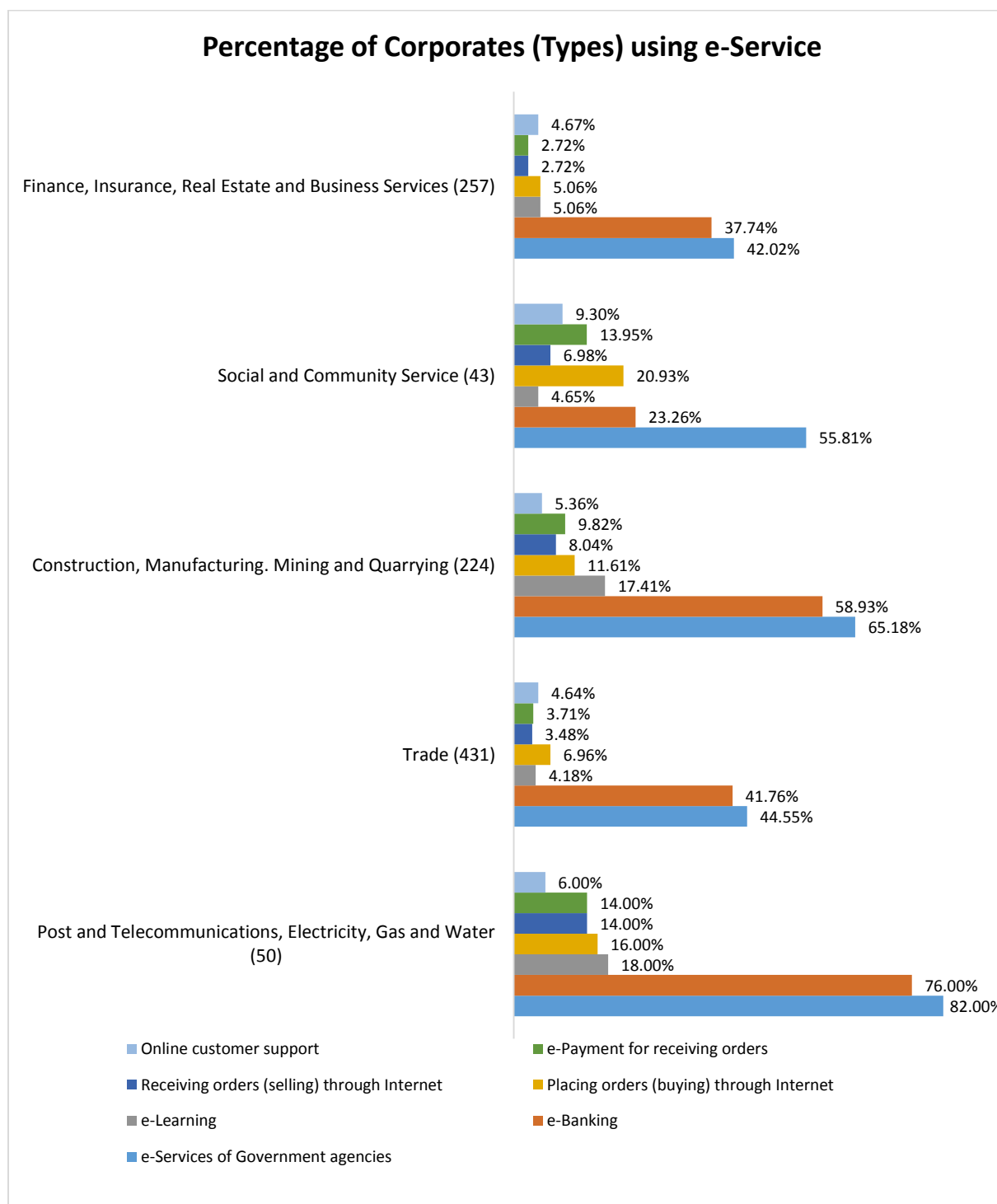


Figure 78: Percentage of Corporate (Types) using e-Service

Which product(s) and/or service(s) does the establishment sell through electronic channels? (Multiple Choice)

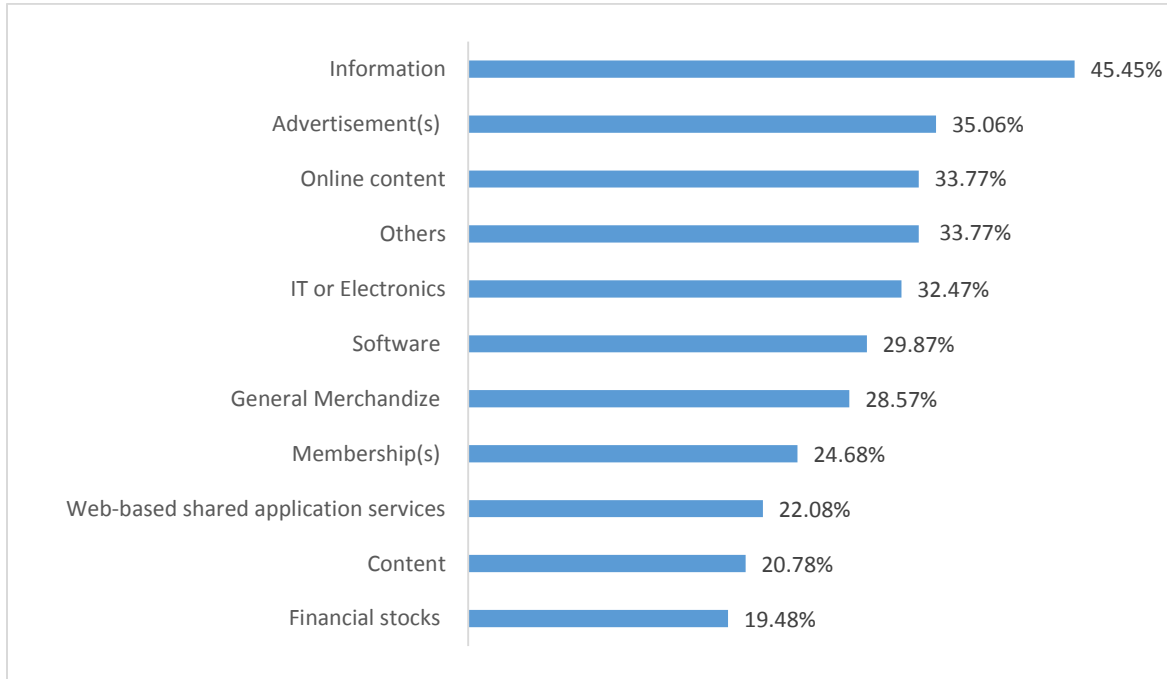


Figure 79: Selling Product(s)/Service(s) through Electronic Channels (Total: 77 Corporates and Govt. Establishments)

What are the reasons for not selling product(s) and/or service(s) through electronic channels? (Multiple Choice)

Most of the establishments that are not selling products through electronic channels stated that the service is not needed (84.46%), see Figure 80. The same reason is observed for not placing orders and not using e-banking for all establishments, See Figure 81 through Figure 83.

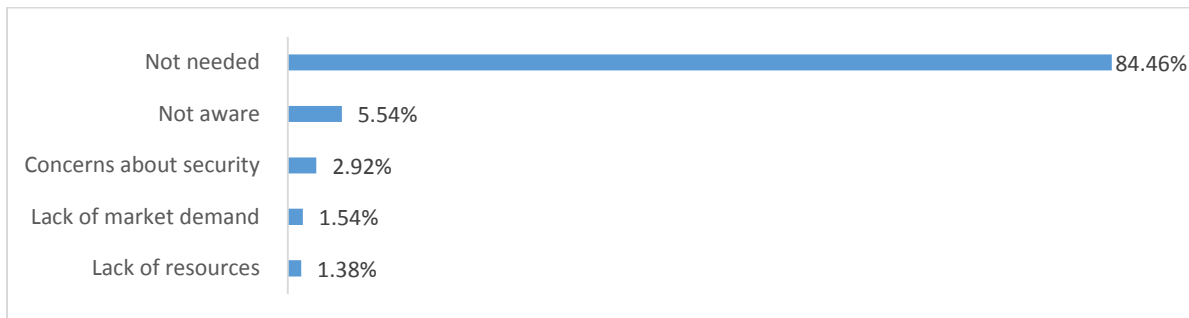


Figure 80: Barriers to Selling through electronic channels (Total: 650 Corporates and Govt. Establishments)²³

What are the establishment's reasons for not placing orders (buying) for product(s) and/or service(s) through electronic channels? (Multiple Choice)

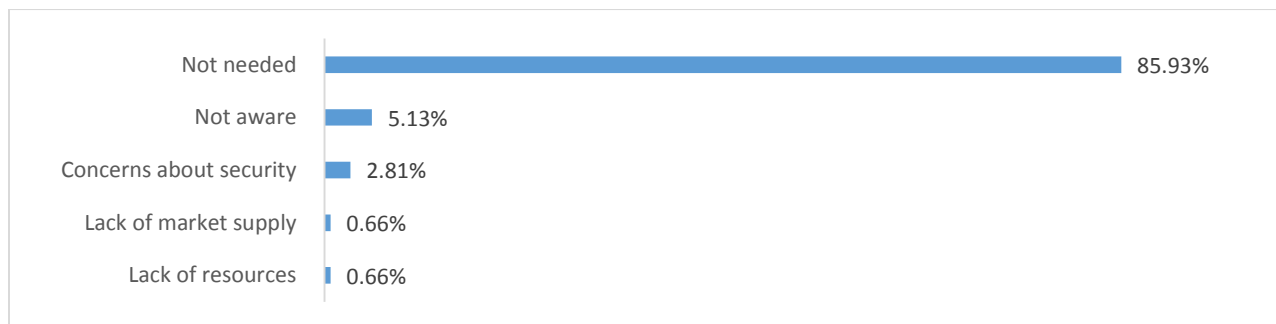


Figure 81: Barriers for not purchasing through electronic channels (Total: 604 Corporates and Govt. Establishments)²⁴

²³ 10.62% of respondents who answered "Others" are not shown.

²⁴ 9.27% of respondents who answered "Others" are not shown.

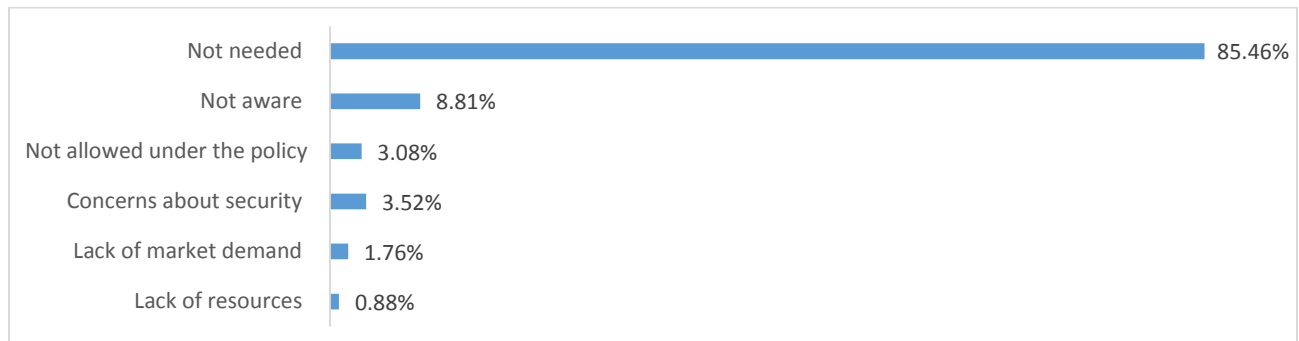


Figure 82: Barriers for not purchasing through electronic channels (Total: 227 Education Establishments)²⁵

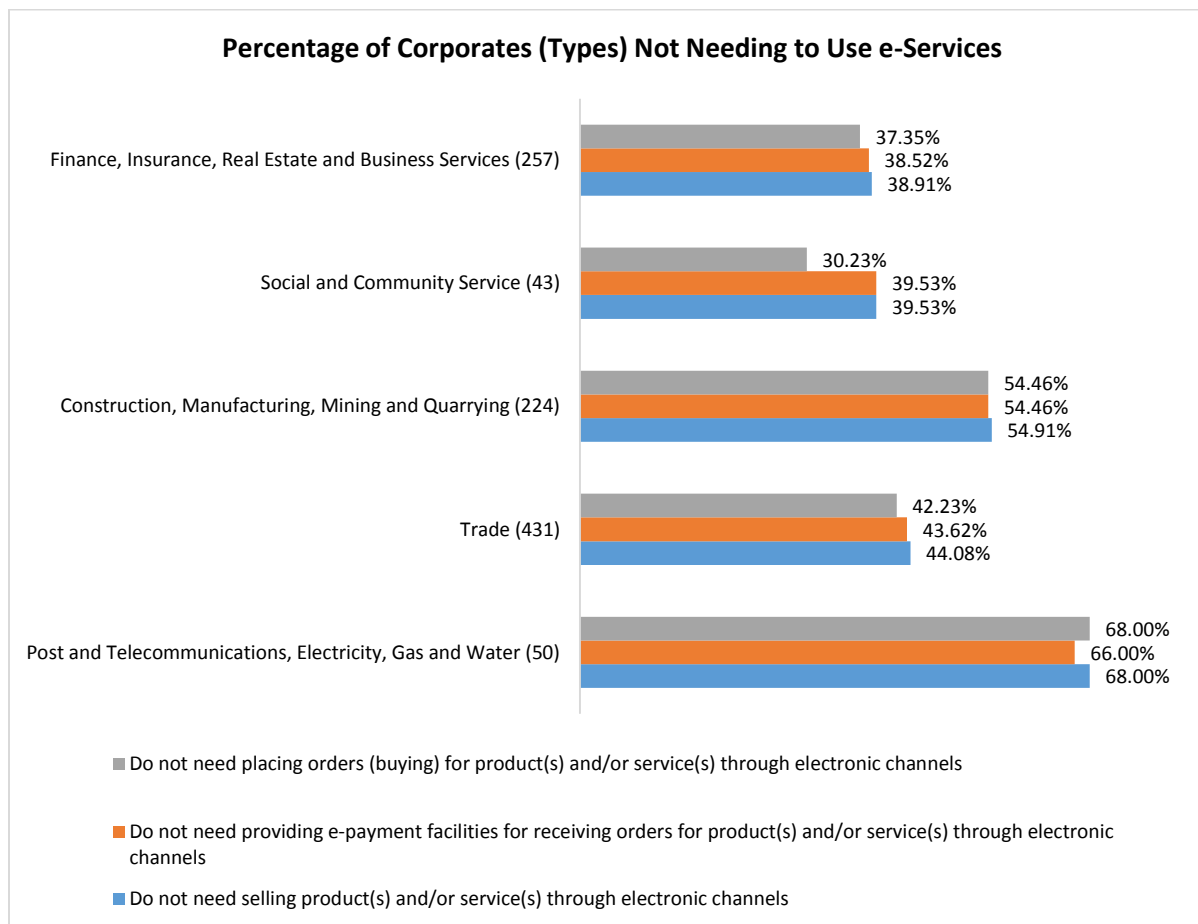


Figure 83: Percentage of Corporates (Types) Not Needing to Use e-Services

²⁵ 5.73% of respondents who answered "Others" are not shown.

What are the establishment's reasons for not using e-banking? (Multiple Choice)

Most of the establishments that are not using e-banking stated that it is not needed, see below Figures.

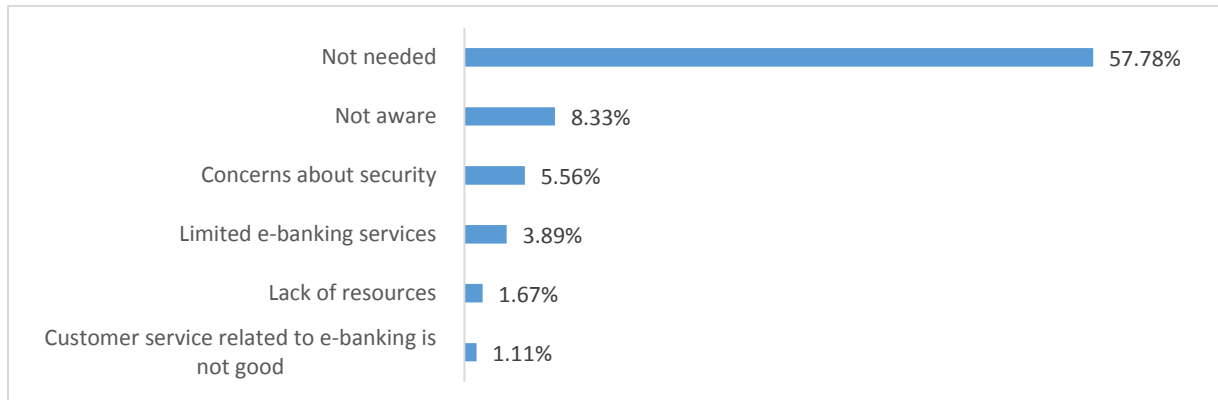


Figure 84: Barriers for not using e-Banking (Total: 180 Corporates and Govt. Establishments)²⁶

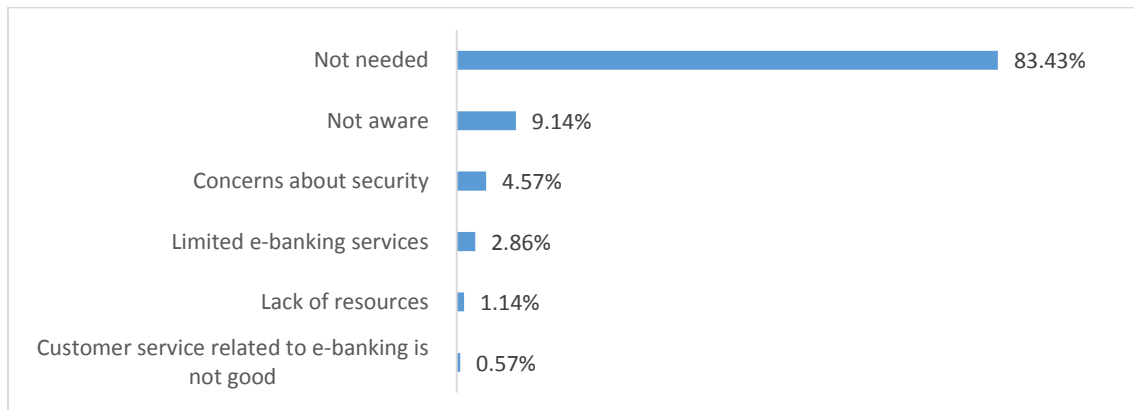


Figure 85: Barriers for not using e-Banking (Total: 175 Education Establishments)²⁷

12.3 Receiving Orders Through Electronic Channels

What percentage of orders is received through electronic channels? (Single Choice)

It is found that 15.84% of establishments receive more than 50% of their orders through electronic channels.

²⁶ 46.34% of respondents who answered "Others" are not shown.

²⁷ 8.57% of respondents who answered "Others" are not shown.

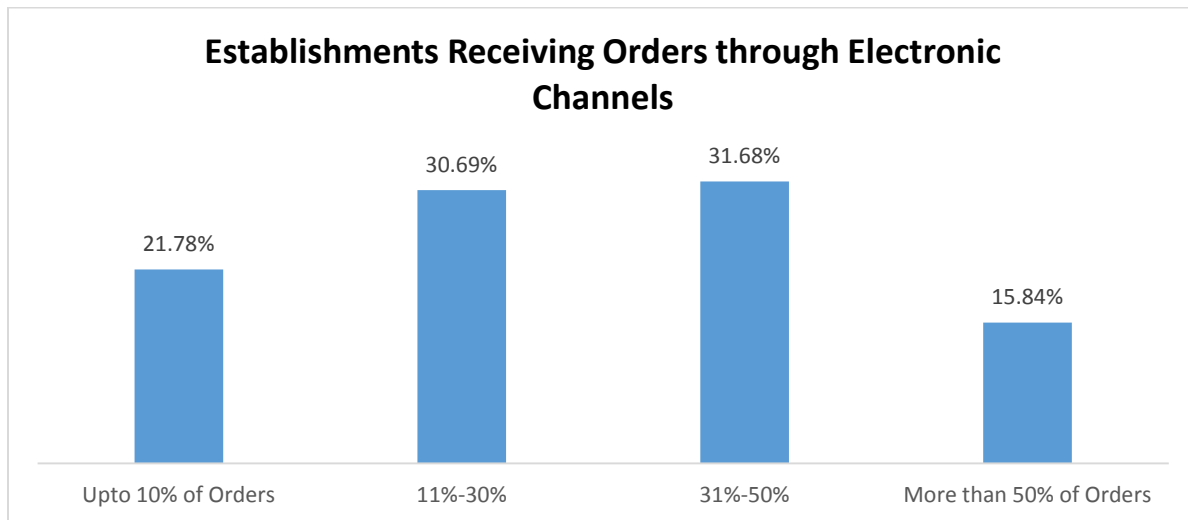


Figure 86: Percentage of Orders Received through Electronic Channels (Total: 101 Corporates and Govt. Establishments)

What are the modes of the establishment receiving orders for product(s) and/or service(s) through electronic channels? (Multiple Choice)

From Figure 87, websites with linked email facility and online order forms are the most used modes for receiving orders through electronic channels. Mobile apps are still the least used.

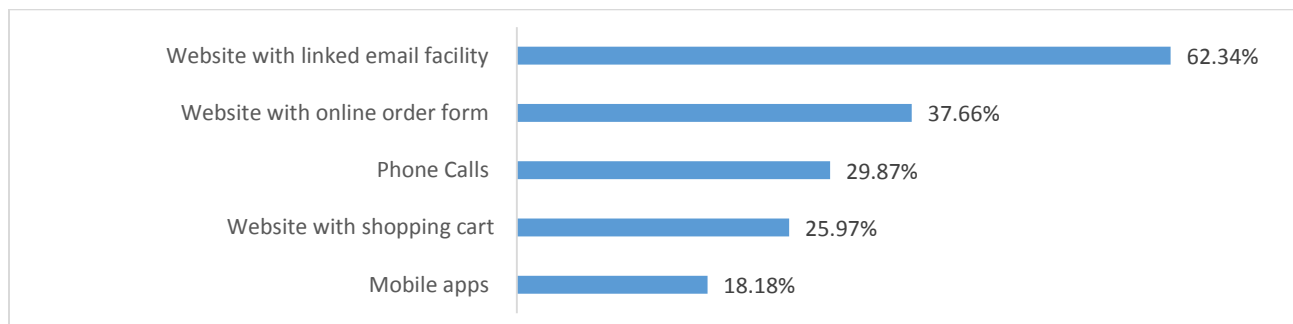


Figure 87: Modes of Receiving Orders through Electronic Channels (Total: 77 Corporates and Govt. Establishments)

Which e-payment method does the establishment provide for receiving orders through electronic channels? (Multiple Choice)

Figure 88 shows that SADAD is the most used e-payment method followed by e-banking and credit cards. SMS banking is the least used e-payment method. The same trend is observed for education establishments, See Figure 89.

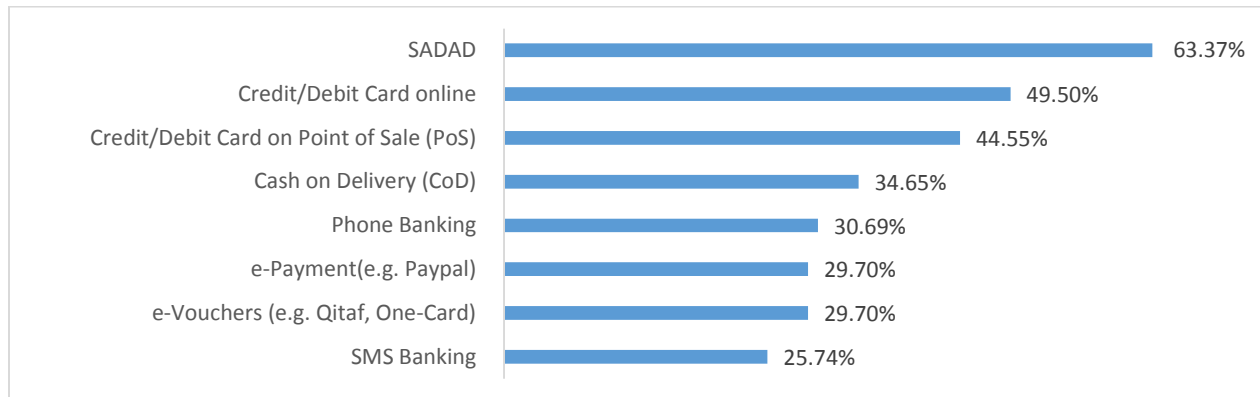


Figure 88: e-Payment Method for Receiving Orders (Total: 101 Corporates and Govt. Establishments)

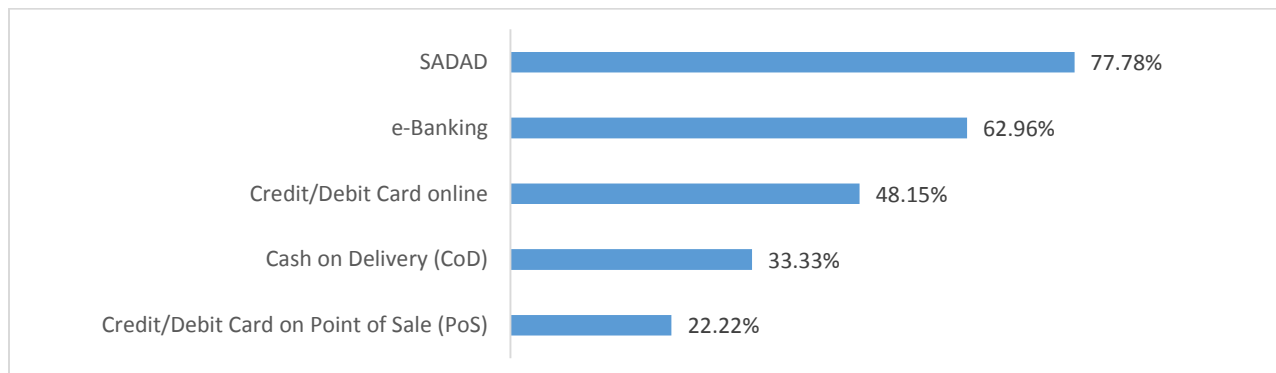


Figure 89: e-Payment Method provided by Institution (Total: 27 Education Establishments)

What are the establishment's reasons for not providing e-payment facilities for receiving orders for product(s) and/or service(s) through electronic channels? (Multiple Choice)

Most of the establishments that are not providing e-payment facilities for receiving orders through electronic channels stated that is not needed (83.23%) see Figure 90.

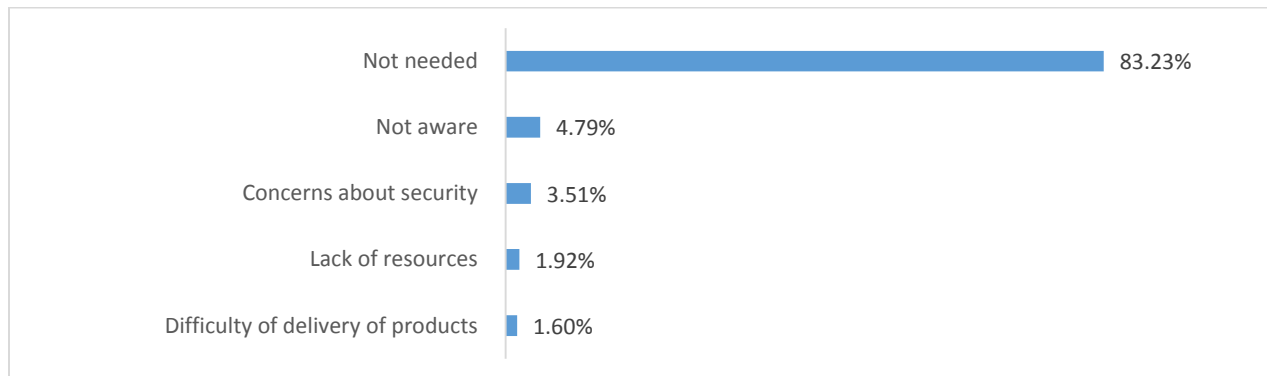


Figure 90: Reasons for Not providing e-Payment Facilities (Total: 626 Corporates and Govt. Establishments)²⁸

12.4 Placing Orders (Buying) Through Electronic Channels

What percentage of the establishment's orders is placed through electronic channels? (Single Choice)

It is found that 13.82% of establishments (corporate and government), and 19% of educational institutes place more than 50% of their orders through electronic channels, See Figures Below.

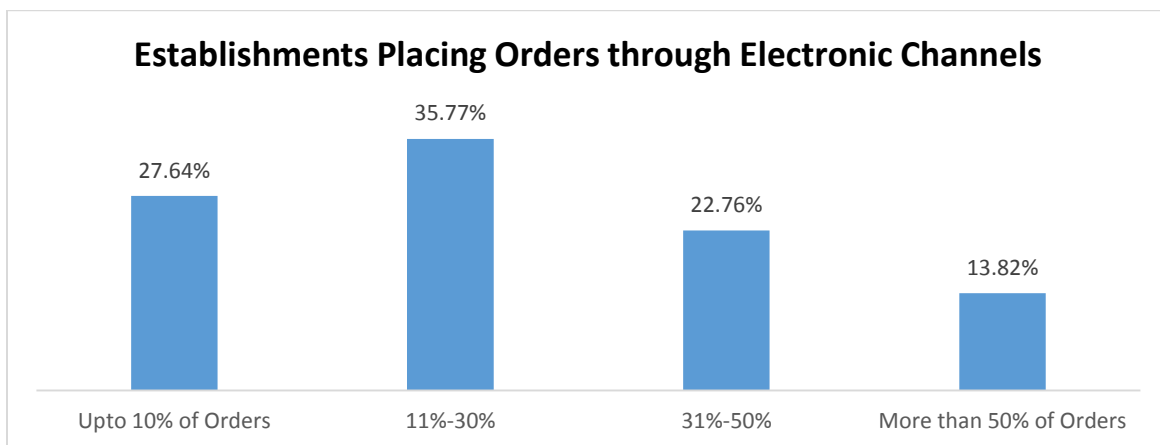


Figure 91: Percentage of Orders placed through Electronic Channels (Total: 123 Corporates and Govt. Establishments)

²⁸ 9.27% of respondents who answered "Others" are not shown.

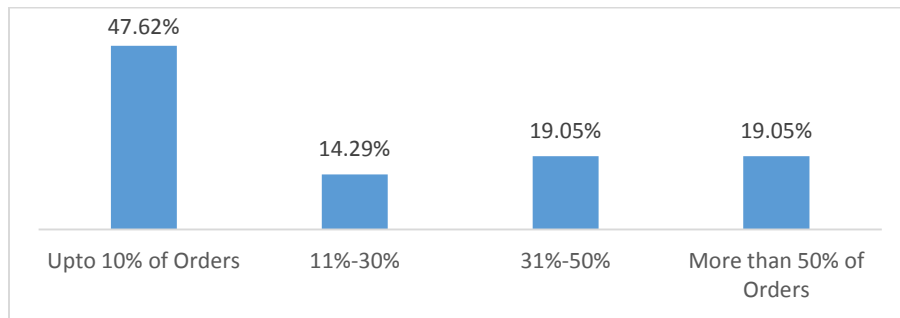


Figure 92: Percentage of Orders placed through Electronic Channels (Total: 21 Education Establishments)

Please identify the product(s) and/or service(s) bought by the establishment through electronic channels? (Multiple Choice)

Figure 93 shows that, among corporate and government establishments, IT and electronics are the most purchased items through electronic channels. The least purchased items according to our list are financial stocks.

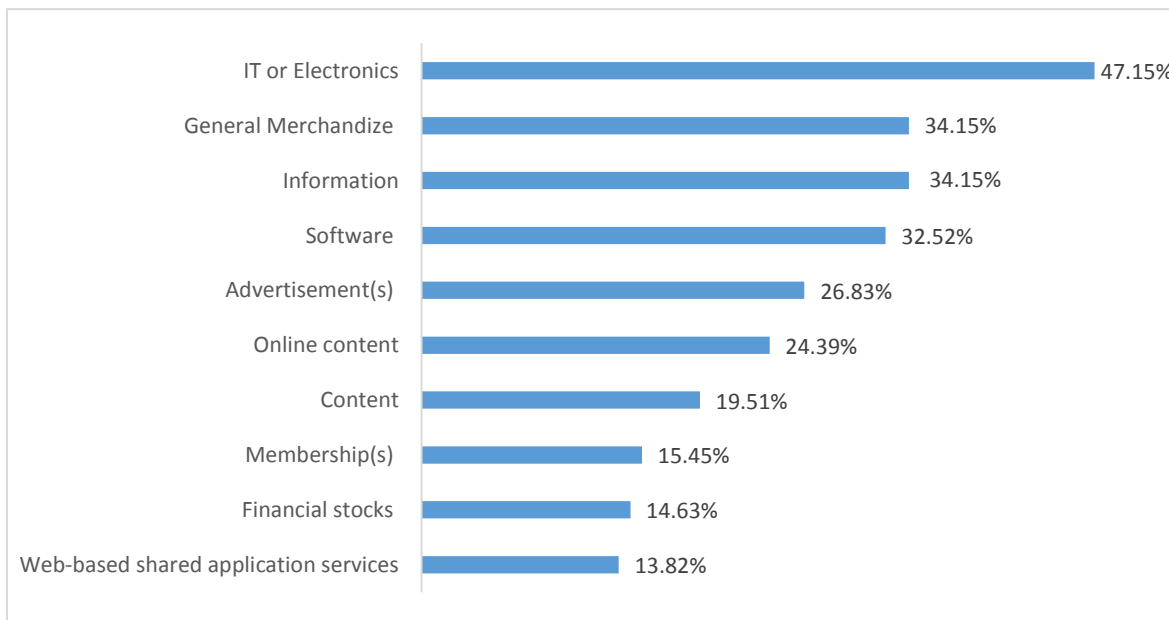


Figure 93: Product(s)/Services(s) bought through Electronic Channels (Total: 123 Corporates and Govt. Establishments)

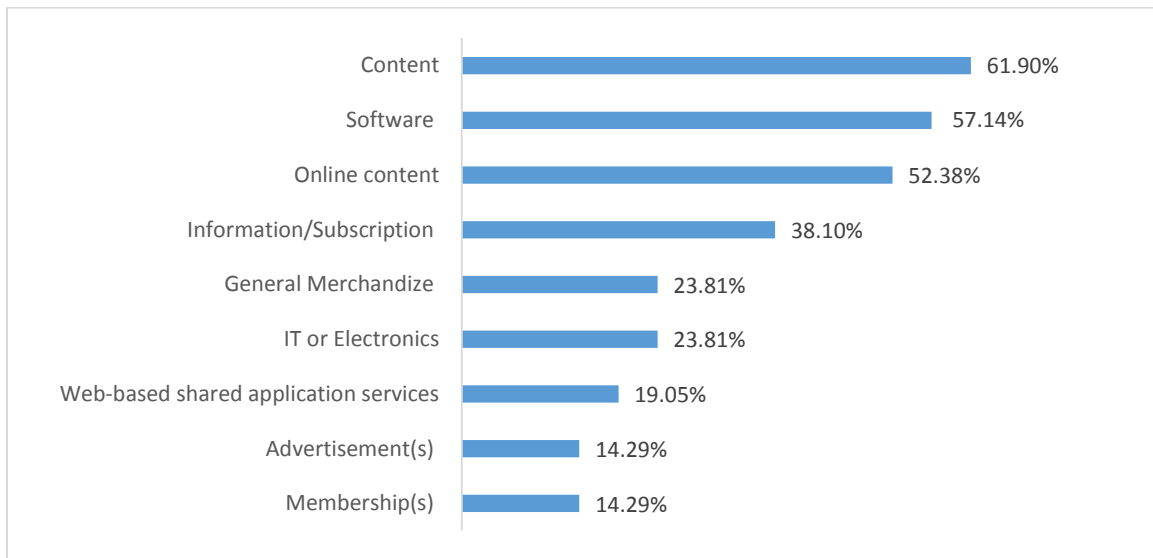


Figure 94: Product(s)/Service(s) bought through Electronic Channels (Total: 21 Education Establishments)

12.5 E-Learning (For Educational Institutes only)

12.5.1 E-Learning products

Did the institution ever buy any e-Learning product(s) and/or service(s) (e.g., WebCT, Blackboard, LMS, etc.)? (Single Choice)

37.78% of the educational establishments purchased e-learning platforms. Main purposes of these platforms are for registration, instructional material, schedules and exam records, See Figure 95 and Figure 96.

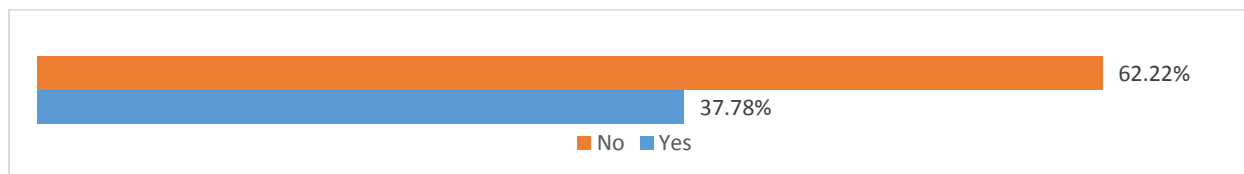


Figure 95: Institution buy e-Learning Product(s)/Service(s) (Total: 45 Education Establishments)

12.5.2 E-learning Services

Please identify the services provided by the institution through its e-Learning platform. (Multiple Choice)

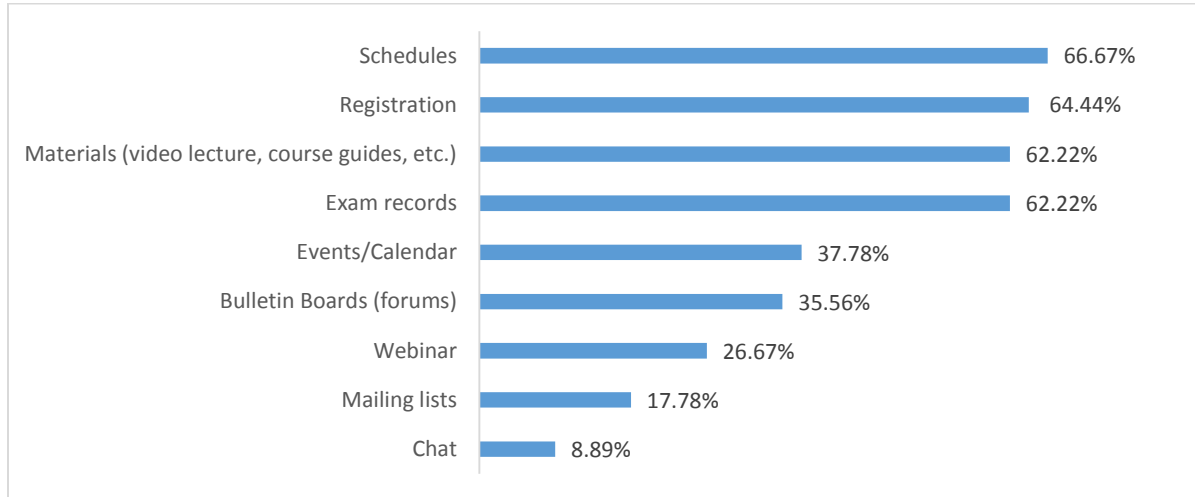


Figure 96: Services provided by Institution through e-Learning platform (Total: 45 Education Establishments)

12.5.3 Reasons for not having E-Learning Platforms

What are the reasons for not having e-Learning platform? (Multiple Choice)

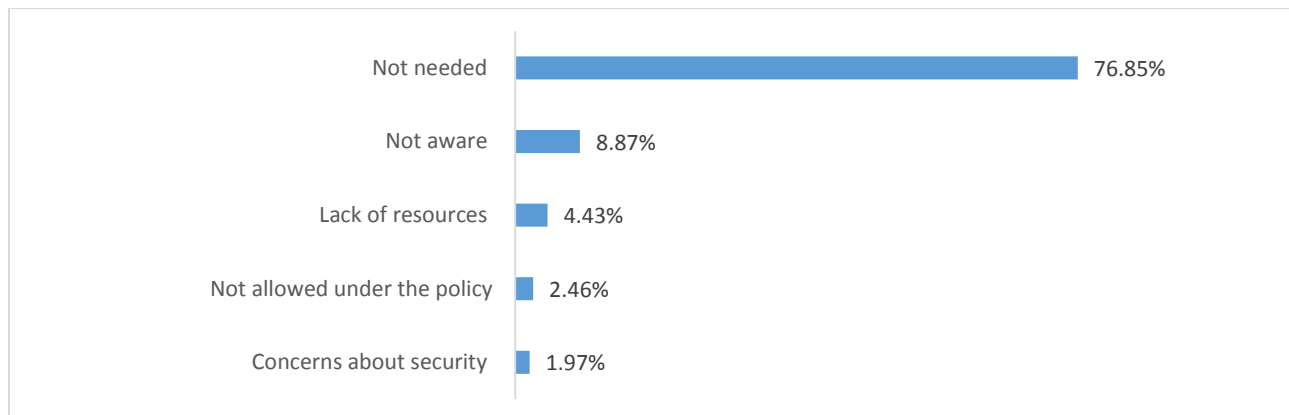


Figure 97: Reasons for not having e-Learning Platforms (Total: 203 Education Establishments)²⁹

²⁹ 13.30% of respondents who answered "Others" are not shown.

13. Establishment Networks

What type of Network infrastructures does the establishment have? (Multiple Choice)

It is evident from Figure 98 that 94.50% of all establishments use some network infrastructure. Figure 99 shows the breakdown of these networks. Wireless LAN is the most used network infrastructure with 82.87% of the establishments using it.

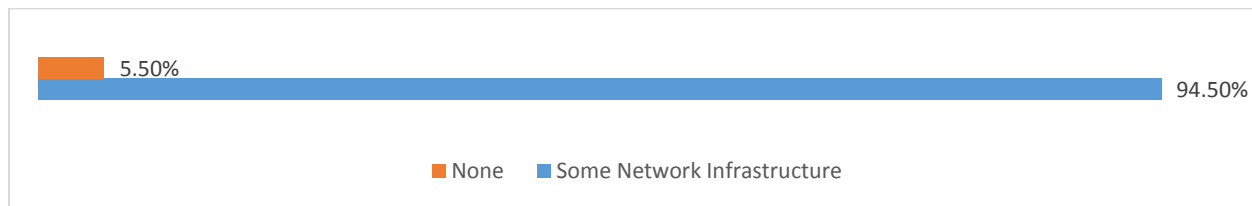


Figure 98: Network Infrastructures (Total: 1436 Establishments)

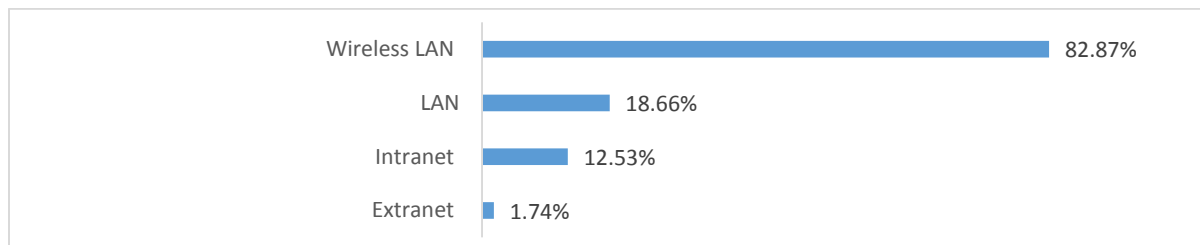


Figure 99: Types of Network Infrastructures (Total: 1314 Establishments)

What are the technologies used to connect the branches? (Multiple Choice)

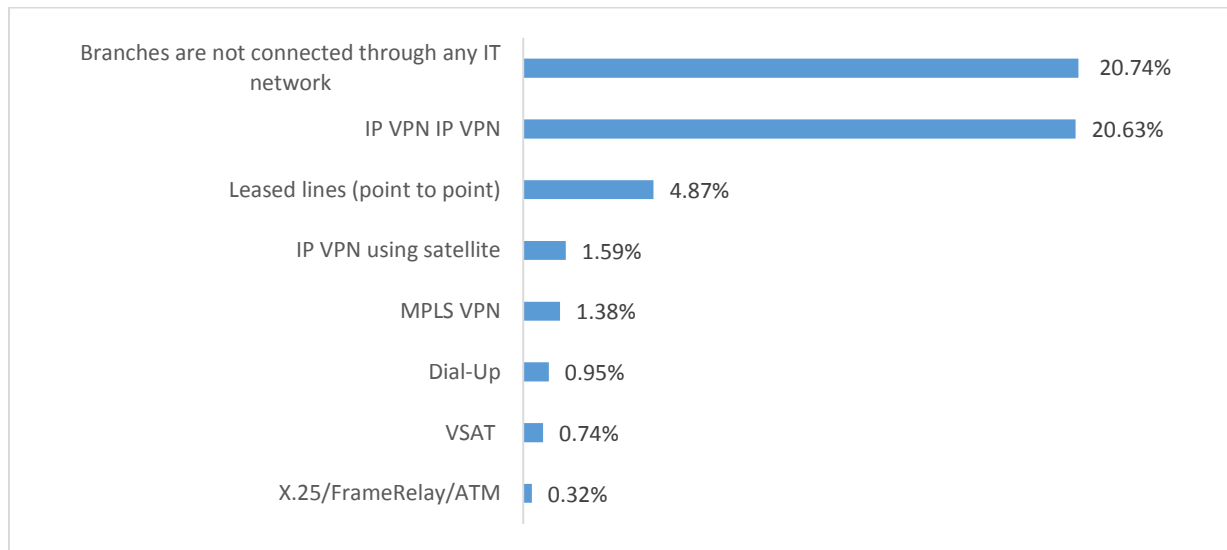


Figure 100: Technologies to Connect Branches (Total: 945 Establishments)

14. Security and Privacy

Which of the following internal information security procedures/tools are used by the establishment? (Multiple Choice)

It is shown in Figure 101 that 86.63% the establishments use virus checking/protection software and 56.20% of them have Firewalls/IDS/IPS.

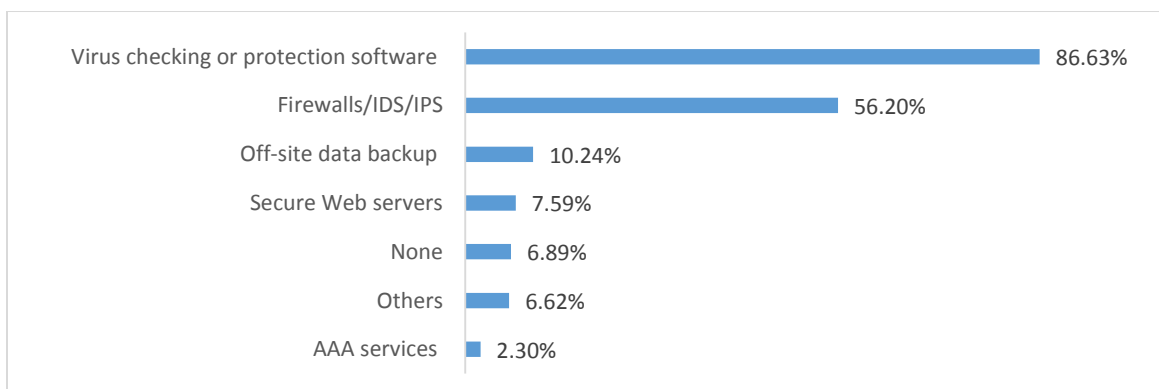


Figure 101: Internal Information Security Procedures/Tools (Total: 1436 Establishments)

Has the establishment faced any information security breach in the past twelve (12) months? (Single Choice)

Only 1.67% of all establishments faced information security breach in the past 12 months as shown in Figure 102.

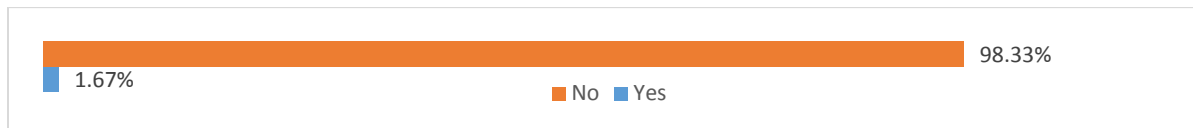


Figure 102: Information Security Breach in past (12) months (Total: 1436 Establishments)

15. New and Advanced Technologies and Services

15.1 IPv6

Does the establishment use IPv6? (Single Choice)

Only 2.58% of all establishments use IPv6 as shown in Figure 103. The rest either don't need it or are not aware of it, or they have enough IPv4 addresses. Other reasons are presented in Figure 104.

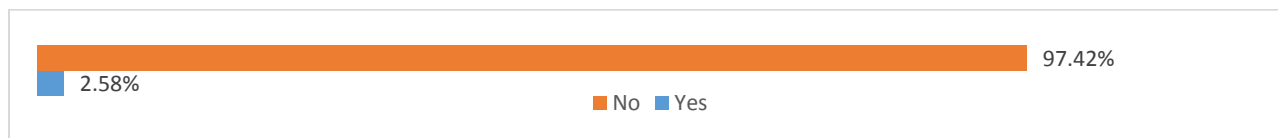


Figure 103: Usage of IPv6 (Total: 1436 Establishments)

What are the reasons for not using IPv6? (Multiple Choice)

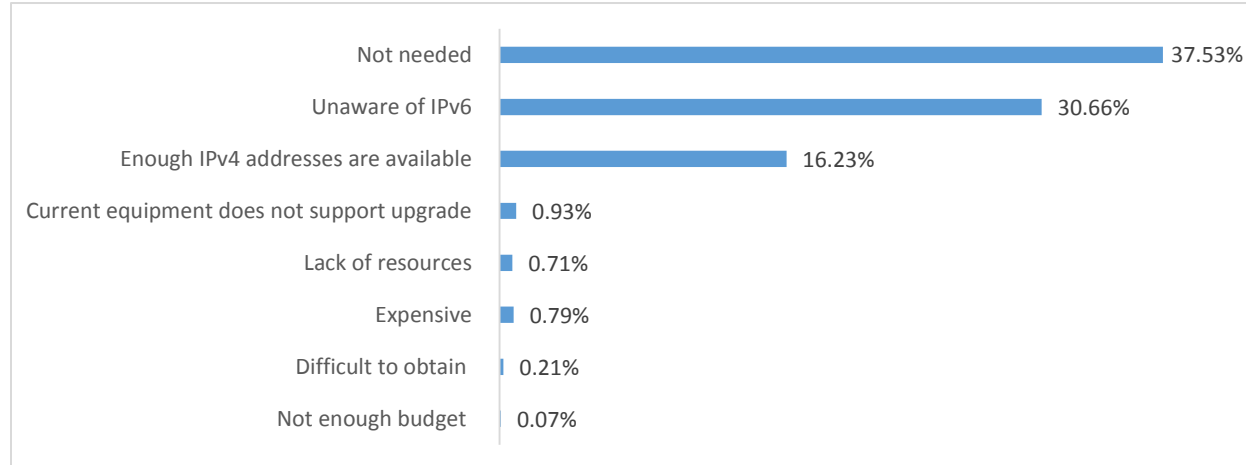


Figure 104: Reasons for not using IPv6 (Total: 1399 Establishments)³⁰

³⁰ 25.02% of respondents who answered "Others" are not shown.

15.2 Cloud Computing

Does the establishment use Cloud Computing services? (Single Choice)

Nearly 13% of all establishments use cloud computing services as shown in Figure 105. The rest are either don't need it, or not aware of it. Other reasons are presented in Figure 106. Figure 107 shows that only 3.78% are planning to use cloud computing services with the next 12 months.

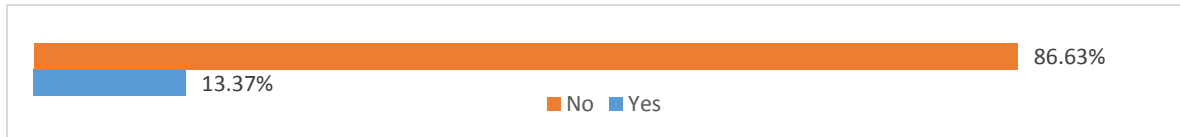


Figure 105: Usage of Cloud Computing Services (Total: 1436 Establishments)

What are the reasons for not using Cloud Computing services? (Multiple Choice)

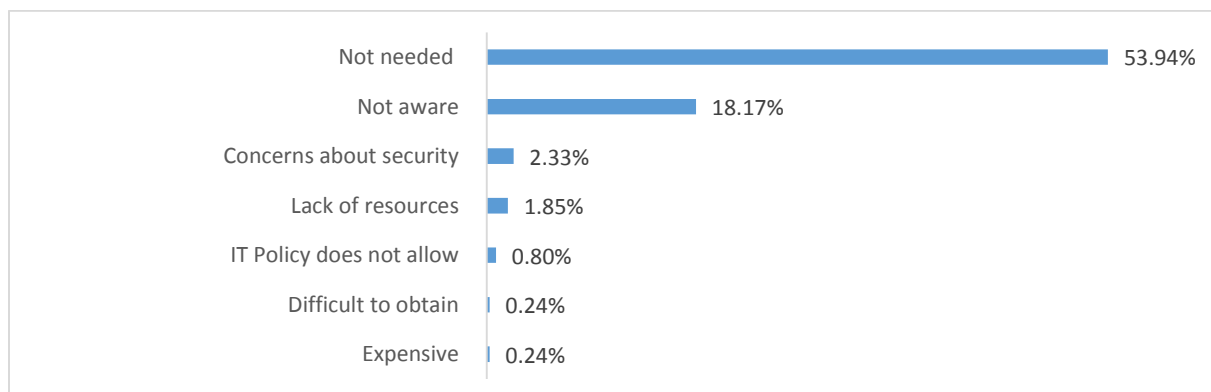


Figure 106: Reasons for not using Cloud Computing Services (Total: 1244 Establishments)³¹

Does the establishment plan to use Cloud Computing services within the next twelve (12) months? (Single Choice)

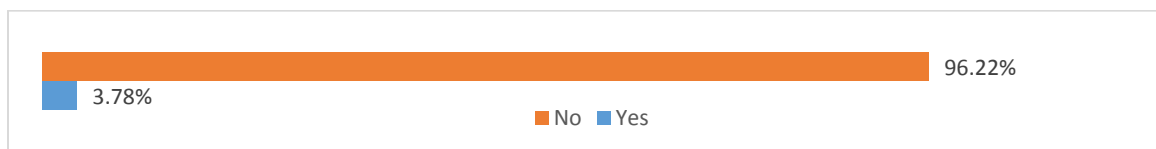


Figure 107: Plan to use Cloud Computing services in next 12 months (Total: 1244 Establishments)

³¹ 32.48% of respondents who answered "Others" are not shown.

15.3 Adoption to new Technologies

Which of the following new technologies does the establishment plan to adopt within the next twelve (12) months? (Multiple Choice)

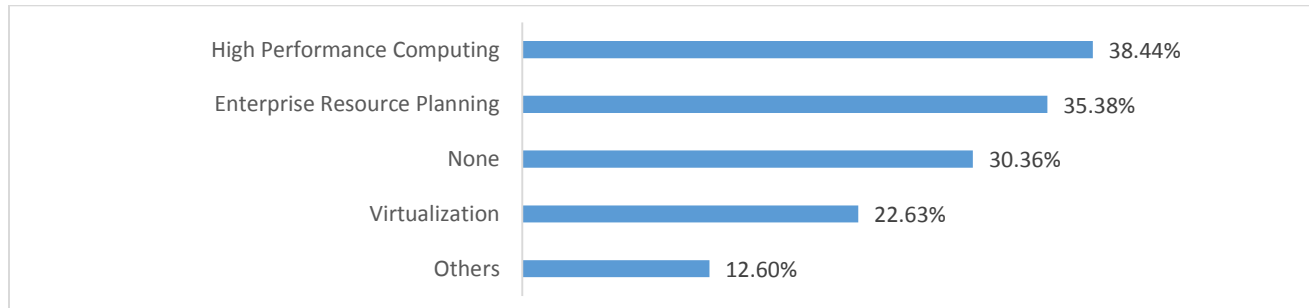


Figure 108: New Technologies to adopt in next 12 months (Total: 1436 Establishments)

15.4 ICT Business Services In-Use

Please identify any of the following ICT business services used by the establishment. (Multiple Choice)

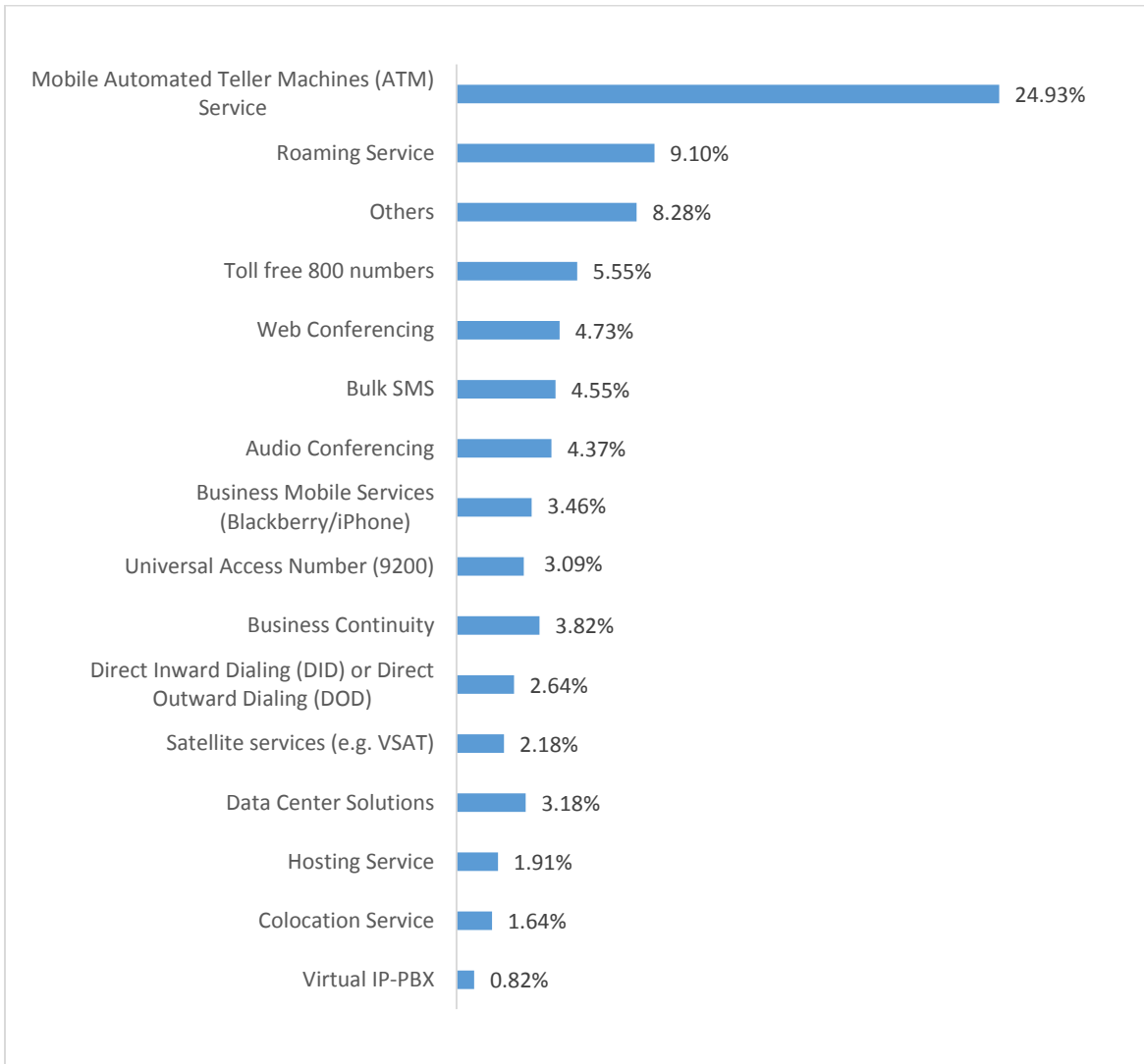


Figure 109: ICT Business Services used (Total: 1099 Corporates and Govt. Establishments)

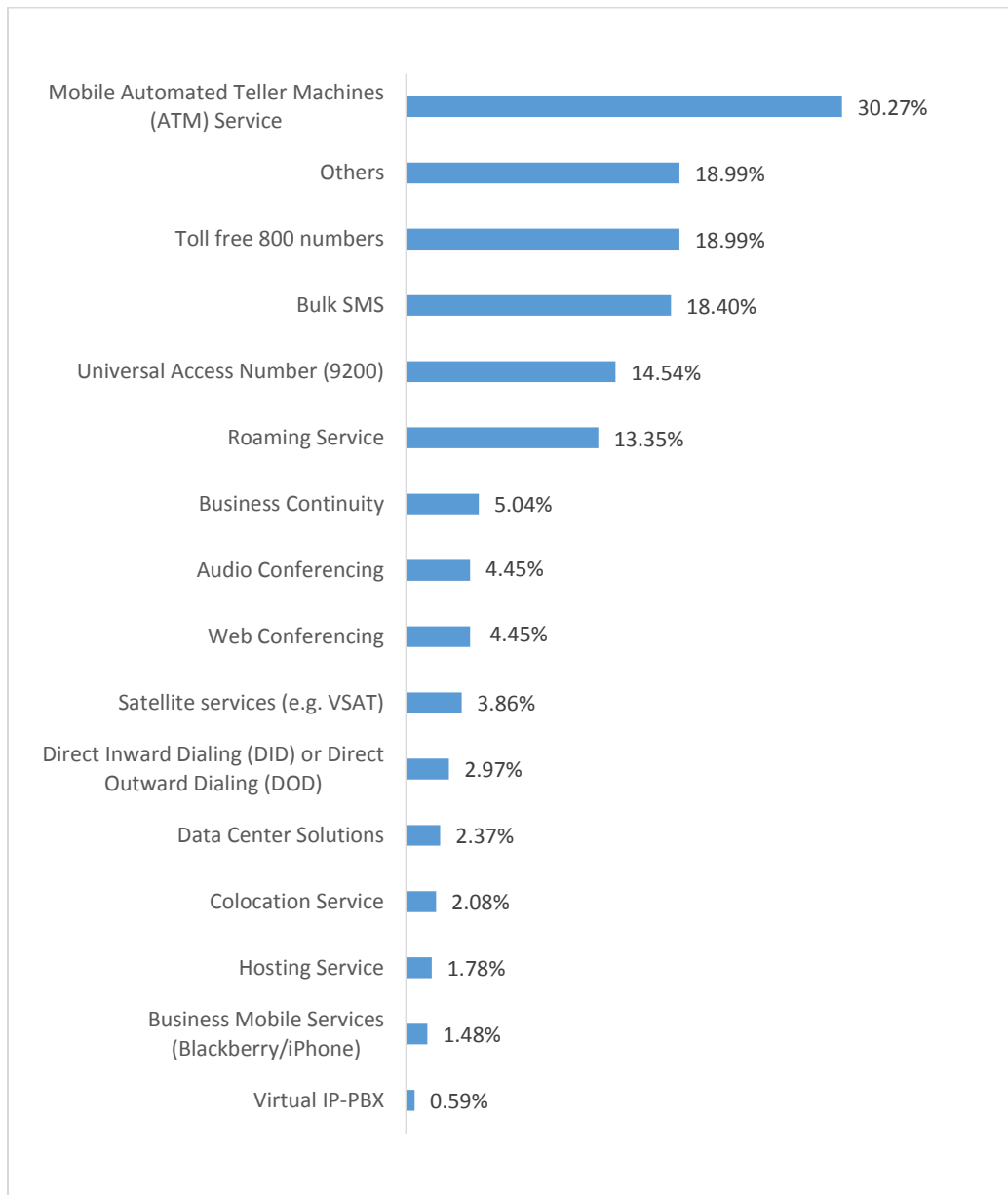


Figure 110: ICT Business Services used (Total: 337 Education Establishments)

16. IT Policy of the Establishment

Does the establishment have a detailed and documented IT policy? (Single Choice)

According to Figure 111, 25.49% of all establishments have IT policy and 13.44% of them are in the process of developing it while nearly 40% of the establishments either don't have or don't need it. The most used policy is the backup policy followed by information security and business continuity plan, details are provided in Figure 112.

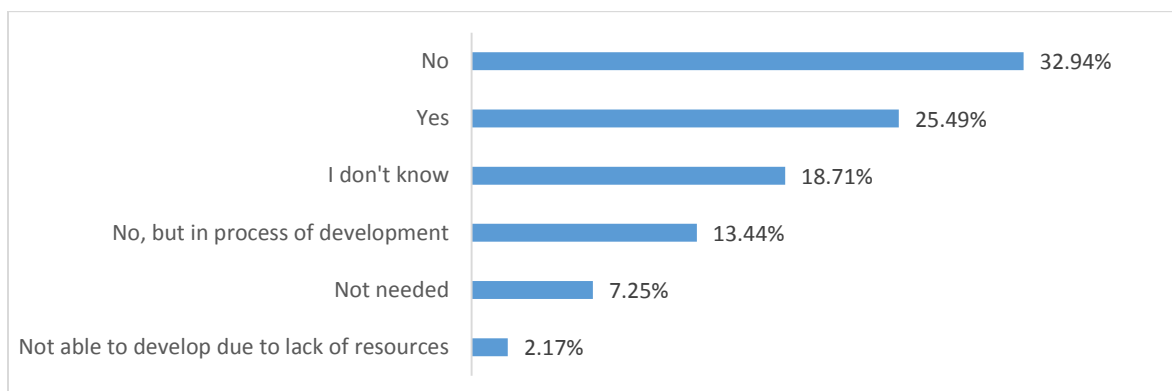


Figure 111: Establishment has Detailed IT Policy (Total: 1500 Establishments)

Which of the following IT policies are currently established and available? (Multiple Choice)

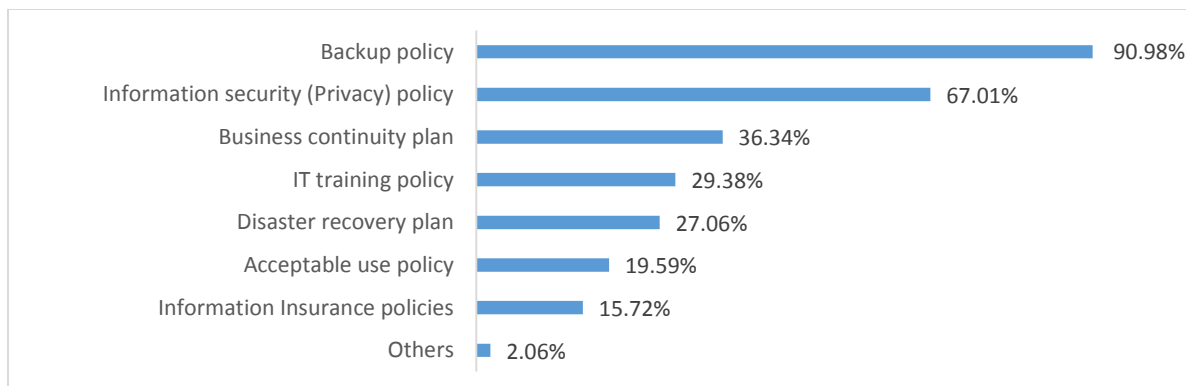


Figure 112: IT Policies Established (Total: 388 Establishments)

17. ICT (IT and Telecom/Mobile) Expenditure

What percentage of the establishment's total budget was spent on ICT goods/services during the past twelve (12) months? (Single Choice)

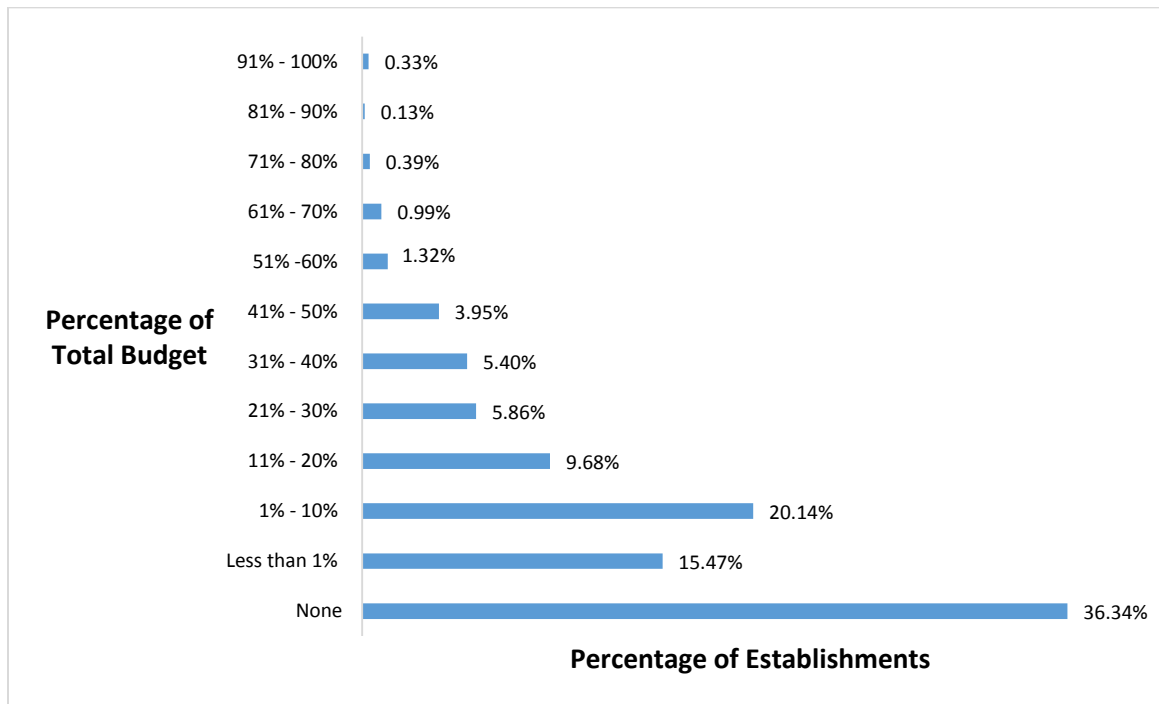


Figure 113: Percentage of Total Budget on ICT in past 12 months (Total: 1500 Establishments)

18. Complaints Handling

18.1 Service Provider

18.1.1 Respondents who complained to Service Provider

Has the establishment ever faced any problem (for fixed-line, data, mobile, Internet services etc.) with the service provider(s)? (Single Choice)

Figure 114 indicates that around 26.84% of all establishments faced some problem(s) with their Service Provider(s) for ICT services.

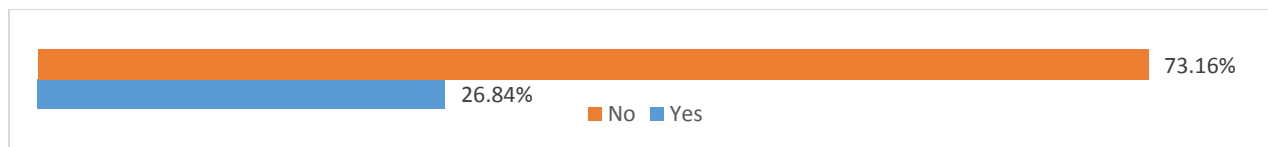


Figure 114: Faced any problem with Service Providers (Total: 1500 Establishments)

Has the establishment lodged a complaint with the service provider(s), regarding the service problem? (Single Choice)

Figure 115 indicates that 89.73% of establishments (409) who faced issues have also complained to their Service Providers.

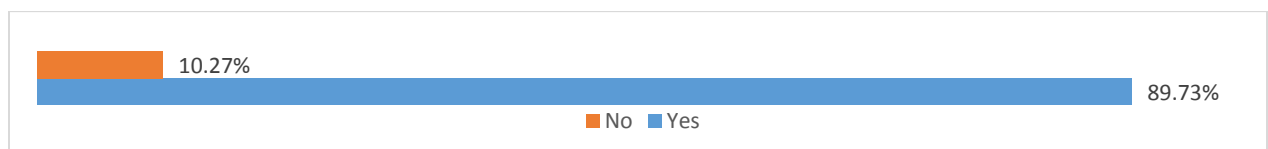


Figure 115: Facing Problem and Lodged Complaint with Service Providers (Total: 409 Establishments)

18.1.2 Reasons for not complaining to Service Provider

What are the reasons for not complaining to the service provider(s)? (Multiple Choice)

Figure 116 shows the reasons due to which establishments are not complaining to the Service Provider.

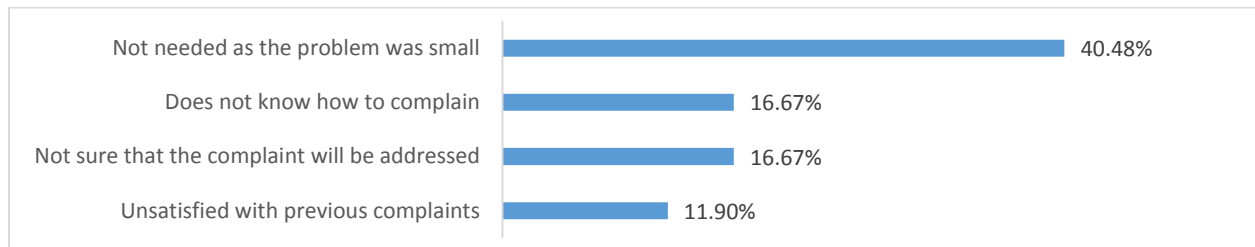


Figure 116: Reasons for not complaining to Service Provider³² (Total: 42 Establishments)

18.1.3 Means of Registering Complaints

How did the establishment register the complaint(s) to the service provider? (Multiple Choice)

Figure 117 indicates that the most used complaint method is to call the customer care center.

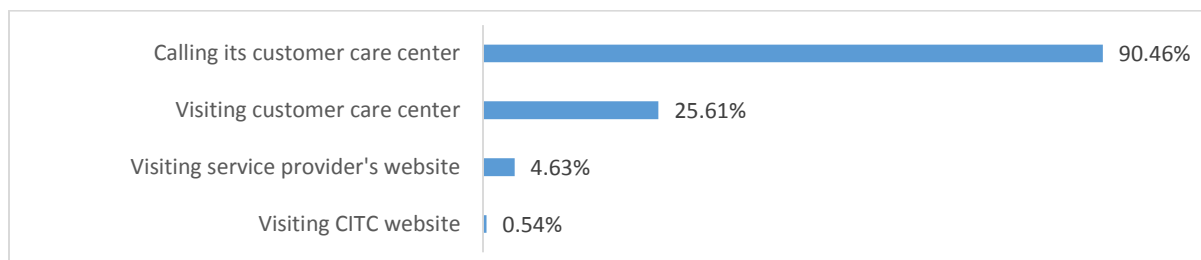


Figure 117: Means of Registering Complaints to Service Provider (Total: 367 Establishments)

When the establishment registered the complaint(s) with the service provider, did they provide the establishment with a reference number? (Single Choice)

Figure 118 shows that 87.40% of the complaints are provided with a reference number.

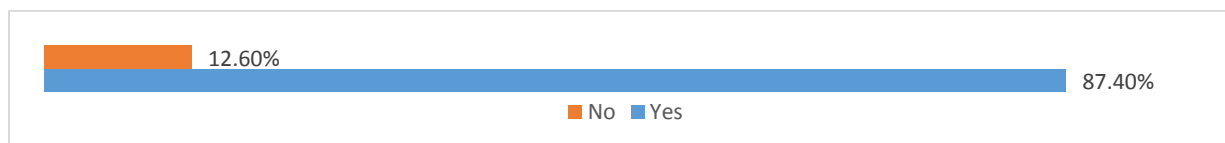


Figure 118: Service Provider provided Reference Number for Complaint (Total: 365 Establishments)

Was the complaint addressed by the service provider? (Single Choice)

Figure 119 shows that 63% of the complaints are fully addressed within 15 days from the complaint time.

³² 21.43% respondents who answered "Others" is not shown.

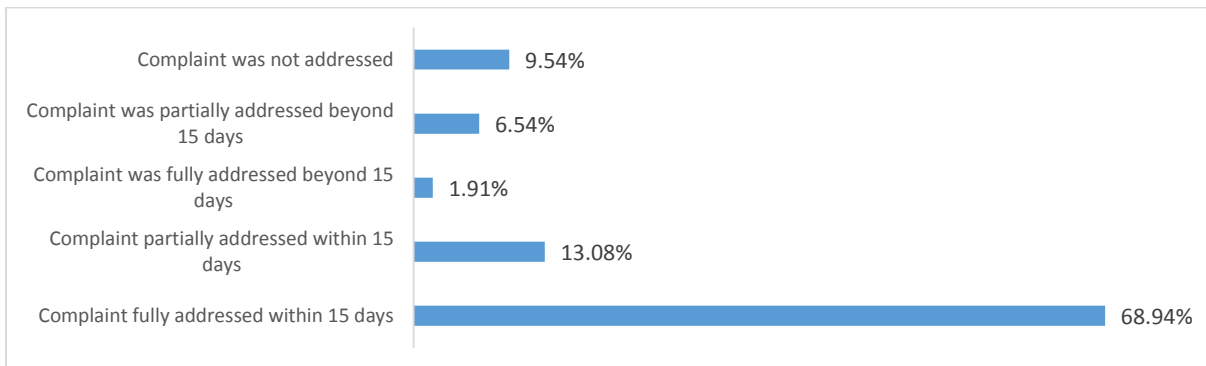


Figure 119: Complaint Addressed by Service Provider (Total: 367 Establishments)

18.1.4 Satisfaction in handling the complaint by Service Provider

Please rate the satisfaction of the establishment with the service provider in handling the complaint(s):

The overall Satisfaction in handling complaint by Service Provider is above Acceptable (3.20).

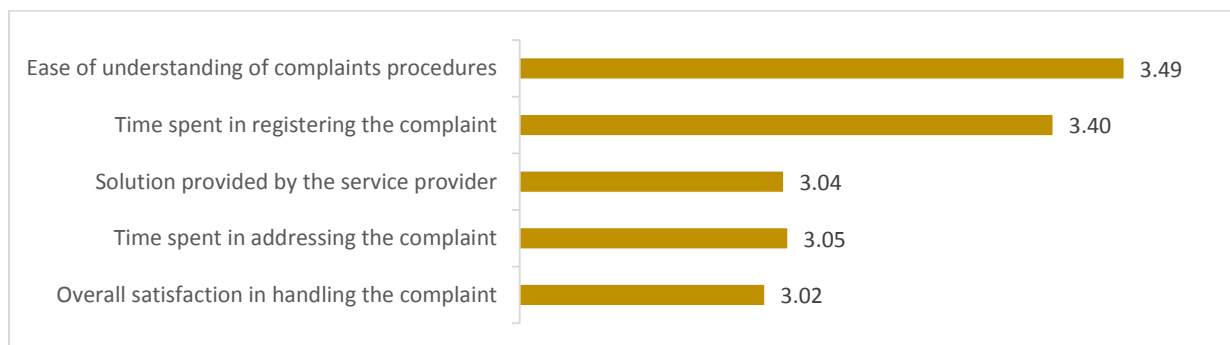


Figure 120: Satisfaction in handling the complaint by Service Provider

18.2 CITC

18.2.1 Respondents who complained to CITC

Has the establishment lodged a complaint to CITC, regarding the problem with the service provider, or for any other reason? (Single Choice)

Figure 121 shows that only 1.77% of the establishments lodged a complaint to CITC.

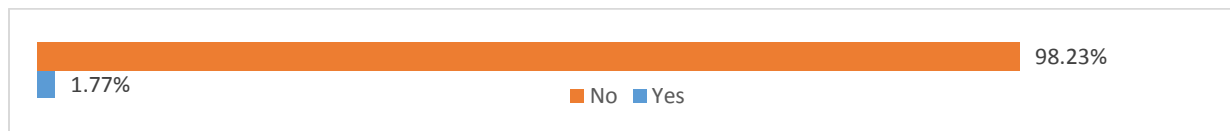


Figure 121: Establishments Complained to CITC (Total: 1500 Establishments)

Is the establishment aware that it can register a complaint regarding the service provider with CITC if the problem was not resolved by the service provider within 15 days of the initial complaint? (Single Choice)

Figure 122 indicates that 19.83% of the establishments are aware that they can register a complaint regarding the service provider with CITC if the problem was not resolved within 15 days.

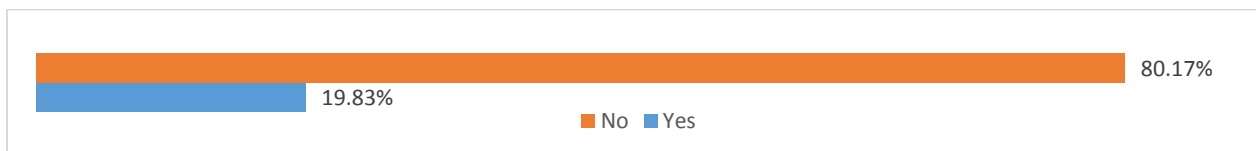


Figure 122: Establishments' Awareness about 15 days of initial complaint (Total: 1500 Establishments)

18.2.2 Reasons for not complaining to CITC

What are the reasons for not complaining to CITC? (Multiple Choice)

Out of those who didn't complain to CITC, 39.64% never faced a problem before while 13.97% don't know how to complain to CITC.

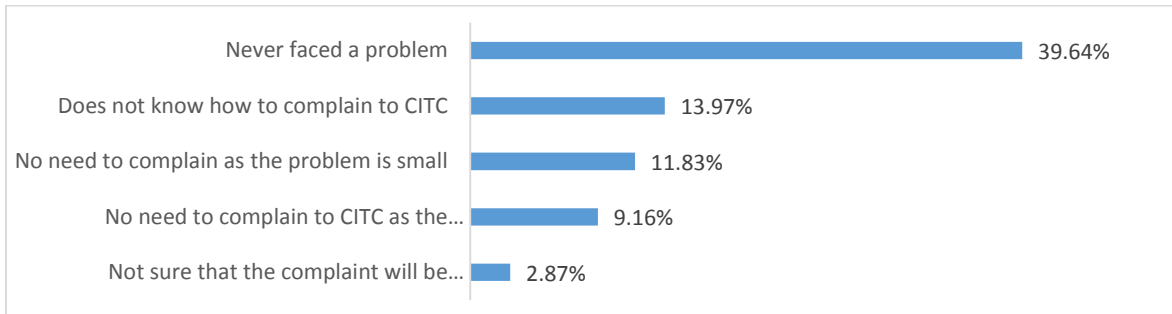


Figure 123: Reasons for not complaining to CITC (Total: 1496 Establishments)³³

18.2.3 Satisfaction in handling the complaint by CITC

Please rate the satisfaction of the establishment with CITC in handling the complaint:

The overall satisfaction score with respect to handling of complaints by CITC is found to be above Acceptable (3.14). Following figure shows the satisfaction of establishments, who registered complaints to CITC, with CITC in handling the complaints.

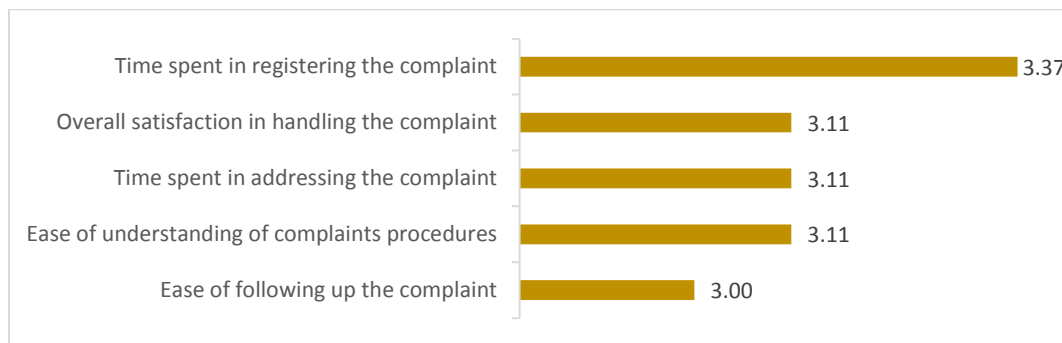


Figure 124: Satisfaction Rating in handling the complaint by CITC

³³ 27.87% of respondents who answered "Others" are not shown.

19. R&D and ICT Training

19.1 R&D

Does the establishment carry out any R&D activities? (Single Choice)

Around 8% of the establishments are involved in some sort of R&D activity.

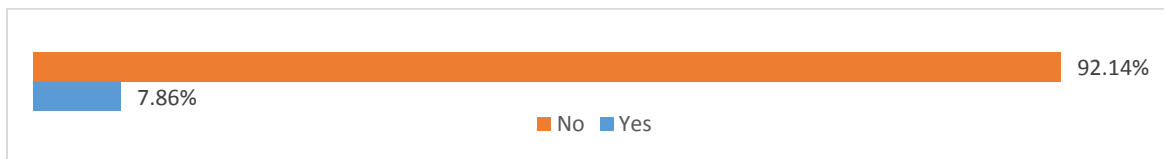


Figure 125: Establishments Carrying out R&D Activities (Total: 1438 Establishments)

What percentage of the R&D budget was spent on R&D related to ICT during the past twelve (12) months? (Single Choice)

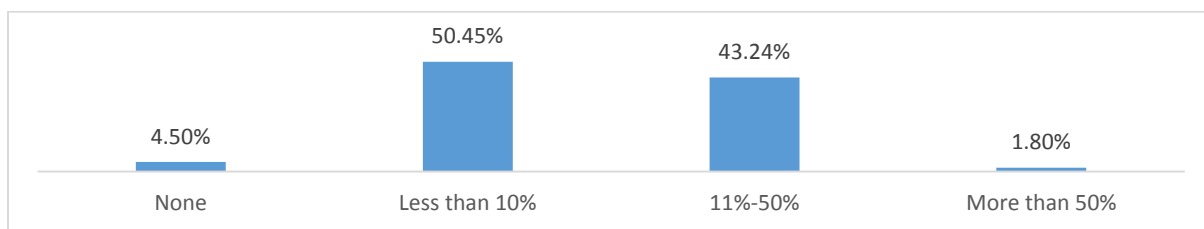


Figure 126: Percentage of R&D Budget spent on ICT (Total: 111 Establishments)

19.2 ICT Training

Does the establishment carry out ICT training programs? (Single Choice)

Around 10% of private corporates and government establishments, and 11.21% of the education establishments carry out ICT training program.

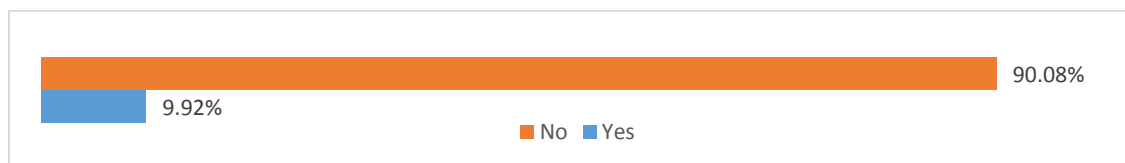


Figure 127: Establishment carry out ICT Training programs (Total:1099 Corporates and Govt. Establishments)

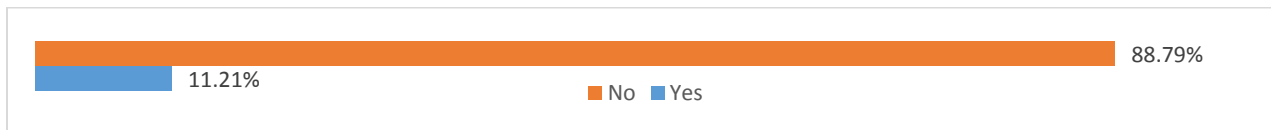


Figure 128: Institution carry out ICT Training programs (Total: 337 Education Establishments)

How do the employees get ICT training(s)? (Multiple Choice)

For private and government the most used mode of training is in-house training. However, education establishments rely more on online self-training and outsourced training.

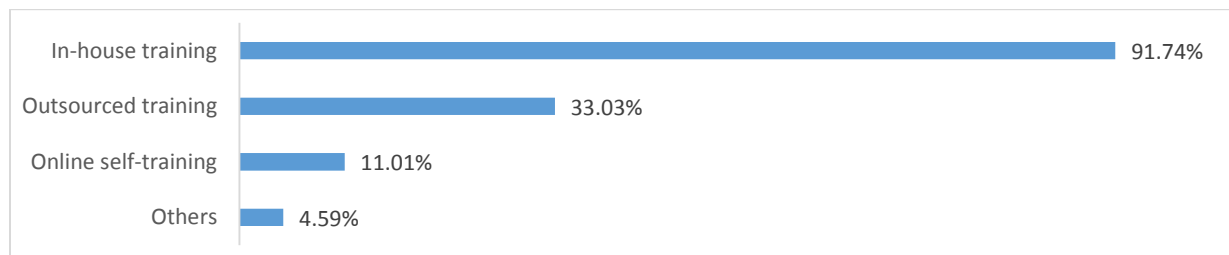


Figure 129: Modes of Employees Training (Total: 109 Corporates and Govt. Establishments)



Figure 130: Modes of Employees Training (Total: 38 Education Establishments)

Figure 131 and Figure 132 show the breakdown of IT related training for both teaching and non-teaching staff respectively.

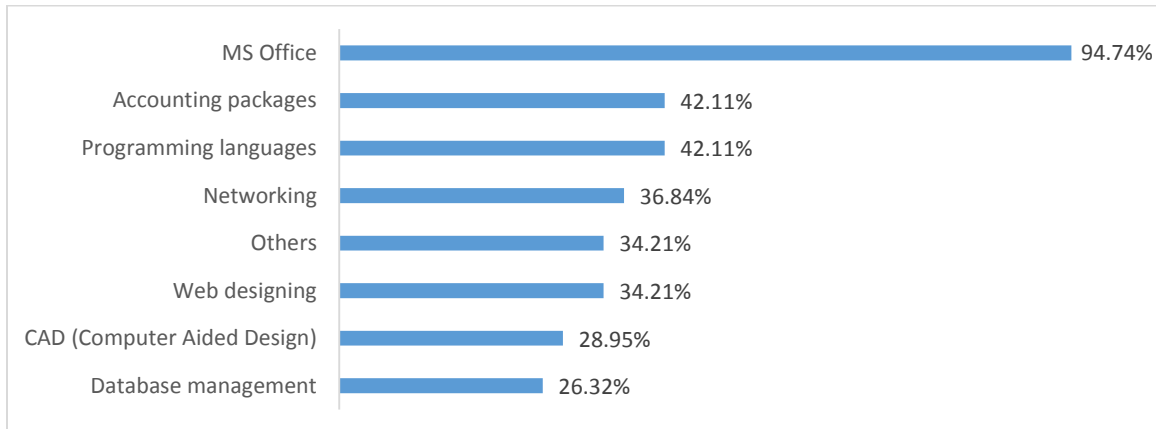


Figure 131: IT related Trainings for Teaching Staff (Total: 38 Education Establishments)

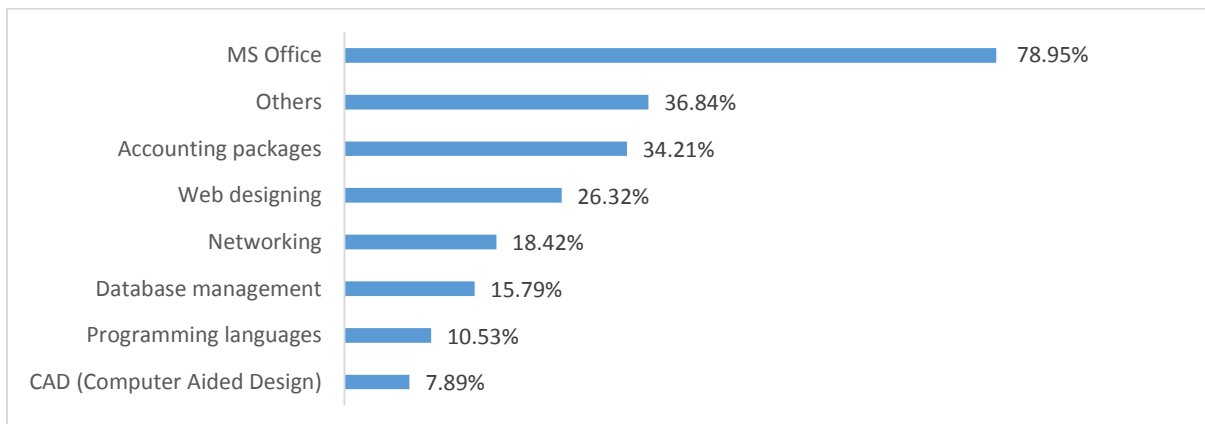


Figure 132: IT related Trainings for non-Teaching Staff (Total: 38 Education Establishments)

20. IT Man-Power

20.1 IT Staff in the Establishment (Corporate and Government)

*What percentage of full time employees are involved in IT related activities?
(Single Choice)*

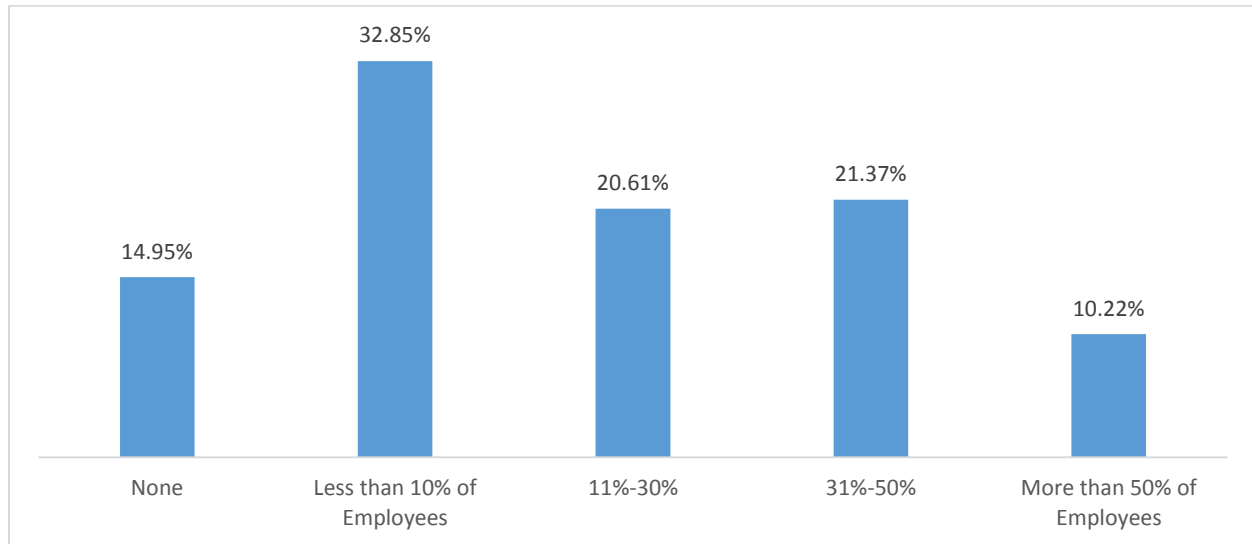


Figure 133: Percentage of Employees involved in IT (Total: 1184 Corporates and Govt. Establishments)

20.2 IT Staff and Students in the Education

What percentage of employees (Non-Teaching) is specialized in IT? (Single Choice)

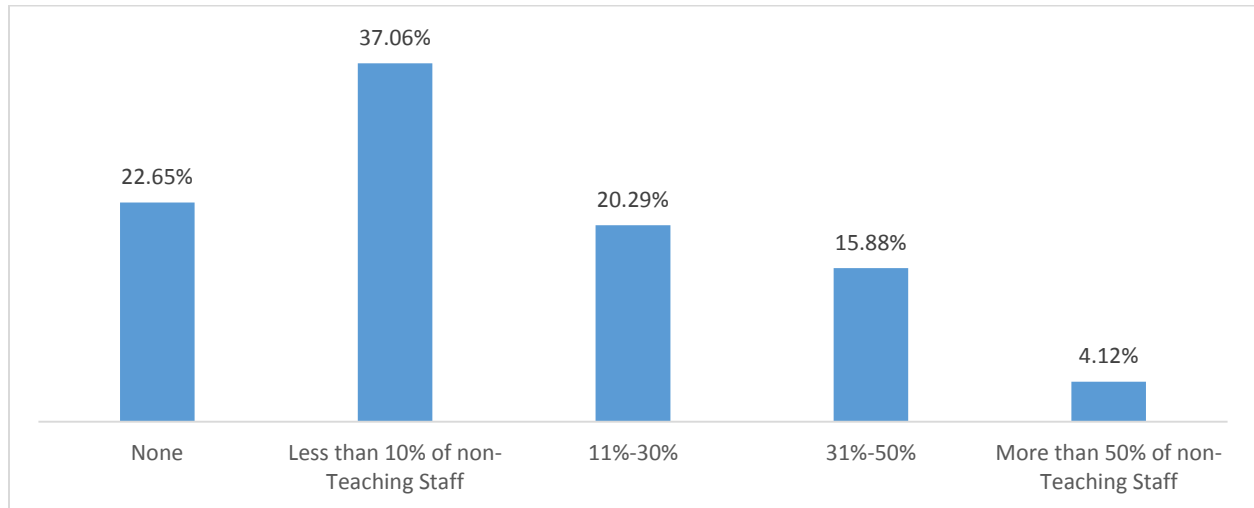


Figure 134: Percentage of Employees (non-Teaching) specialized in IT-related Fields (Total: 337 Education Establishments)

What percentage of teachers is teaching IT related courses? (Single Choice)

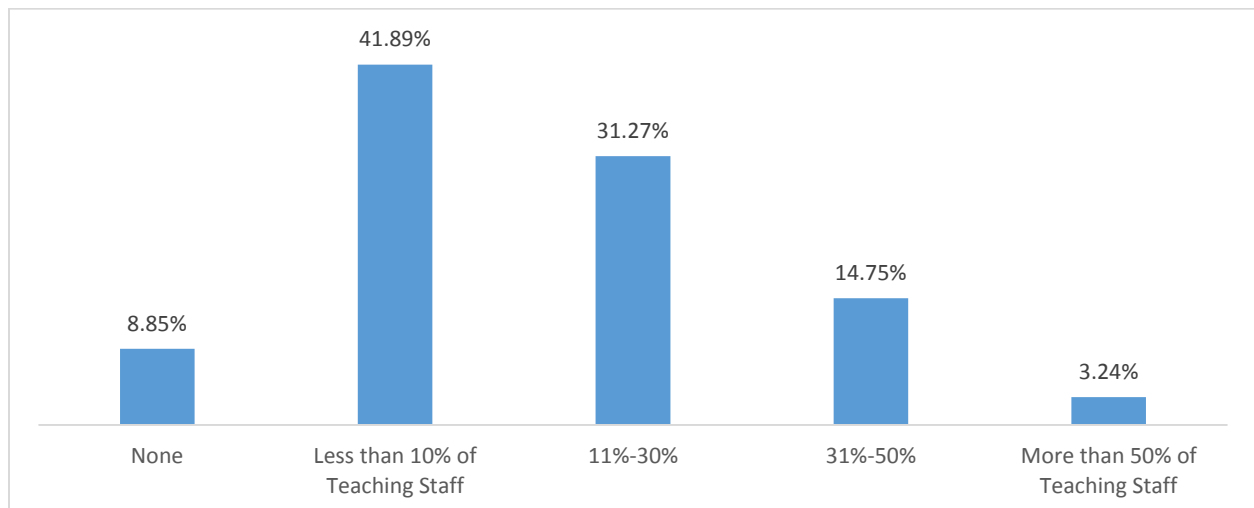


Figure 135: Percentage of Teachers teaching IT-related courses (Total: 337 Education Establishments)

What percentage of students enrolled at the college/university level are in IT-related fields? (Single Choice)

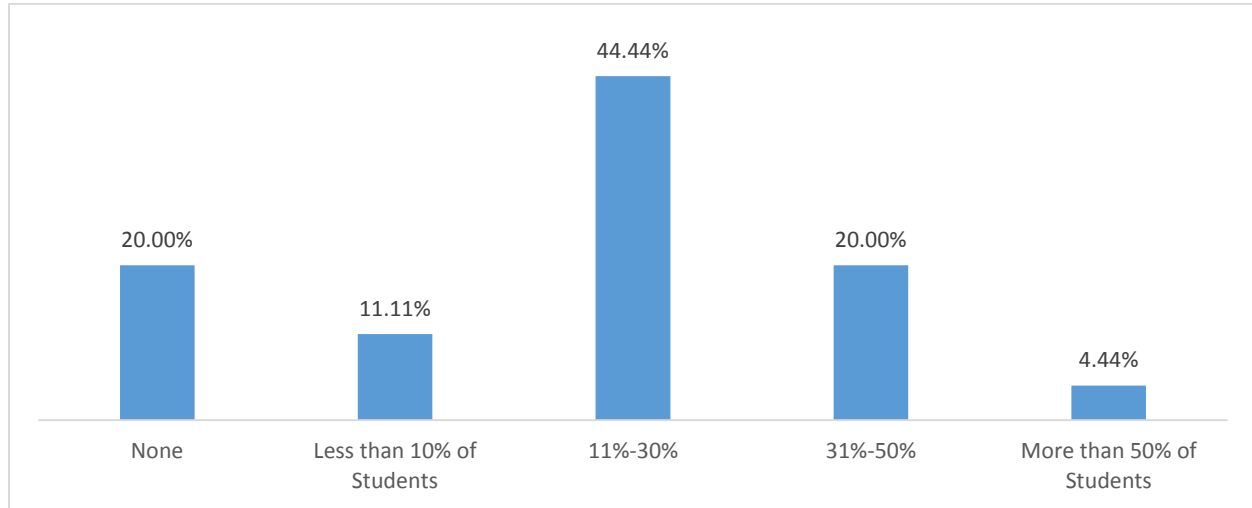


Figure 136: Percentage of Students Enrolled in IT-related Fields (Total: 45 Education Establishments)