
INTERNET PENETRATION IN EUROPEAN UNION



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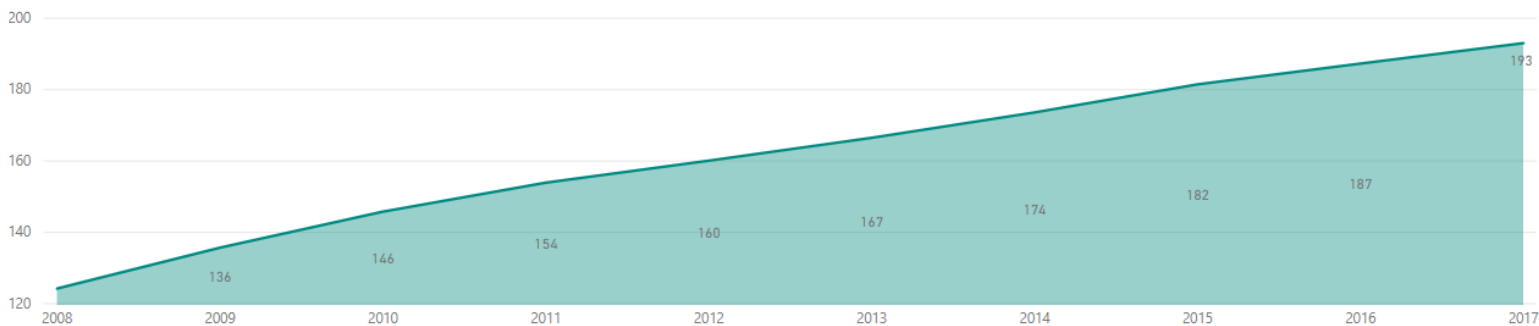
INTRODUCTION

INTERNET PENETRATION

Internet is a network of interconnected computers that is used to link the devices around the world. Today, the internet has become an essential part of our daily life as it provides the source for immense knowledge and entertainment. Internet is offering benefits to the users in variety of fields and that is the reason the internet users are increasing at a faster pace[1]. With the use of internet a daily life hassles can be tackled because the work can be done on a click which saves a lot of time and the task can be done effectively and efficiently. With the advent in the technology latest devices are introduced in the market that helps the people to stay connected with each other around the world. The tasks that can be carried with the help of internet includes building of knowledge by gathering and sharing of information, banking, buying and selling of goods and services, donation, entertainment etc.

In European union the use of internet is increasing year by year. The people are using internet as per their needs and the number of internet subscribers in European union in the year 2017 was accounted around 193 millions[2].

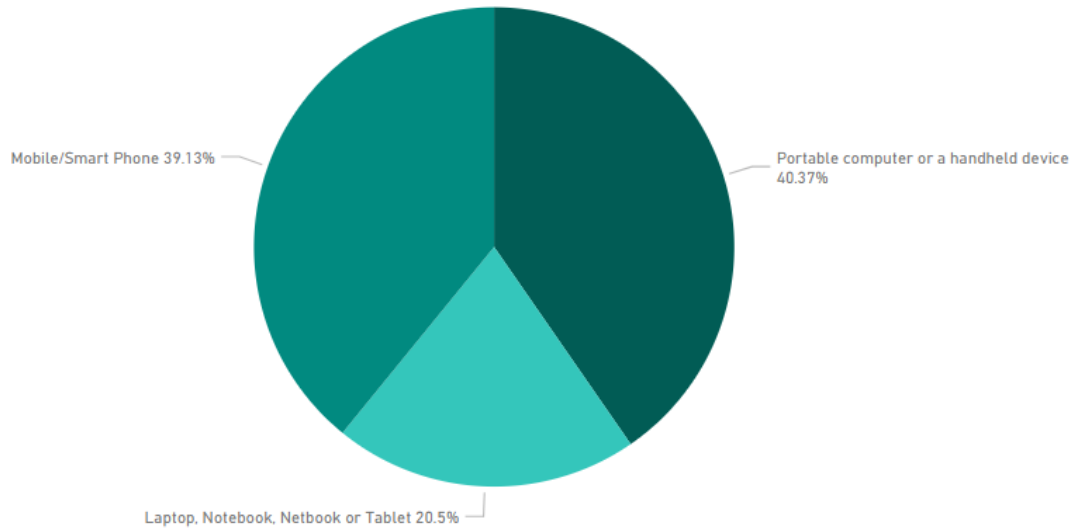
INTERNET SUBSCRIBERS IN MILLIONS:EUROPEAN UNION



The preference of people towards using the internet is increasing day by day for carrying out majority of work. The task can be done in a quick interval of time with ease. The above graph represents the information about the internet subscribers in millions from the year 2008 to 2017. It can be clearly seen that the number of internet subscribers are increasing over the period of time. In 2008, there were 126 millions internet subscribers that goes on increasing and in 2017 it accounted for 193 millions. The reason for this includes the use of internet in almost every field that makes the life of the people hassle free.

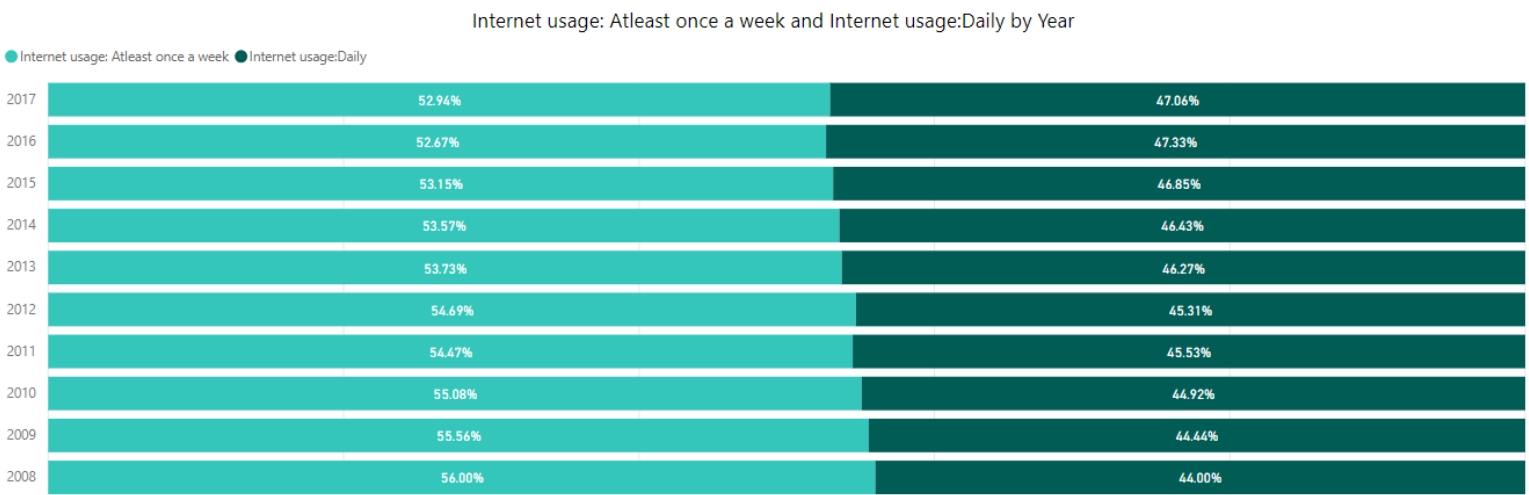
MODES OF ACCESSING INTERNET IN EUROPEAN UNION

Portable computer or a handheld device, Laptop, Notebook, Netbook or Tablet and Mobile/Smart Phone



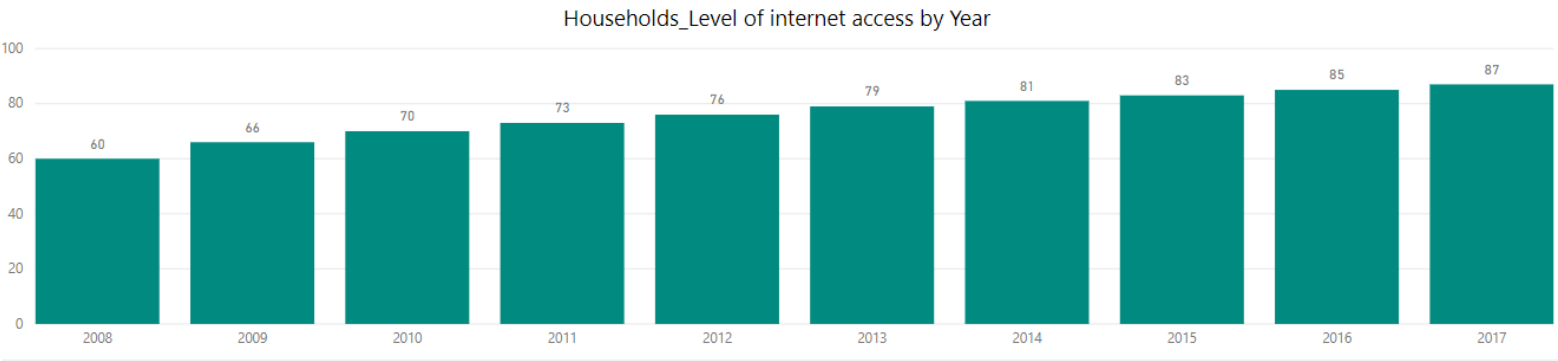
With the advancement in technology, for accessing the internet on the move variety of devices have been invented and introduced so that the people can make use of them as per their requirement. These mobile devices includes mobile/smart phones, laptops, notebooks, tablets and portable computers and various hand held devices. The above pie chart represents the information about the distribution of various mobile devices for accessing the internet in the European union while on the move or away from the homes for the year 2017. It can be clearly seen that the most preferred devices for internet access among the people are portable computers or handheld devices which contributes to 40.37% of the total, followed by mobile/smart phones. While the laptop, notebook or tablets contributed to 20.5% of the total.

INTERNET USAGE FREQUENCY



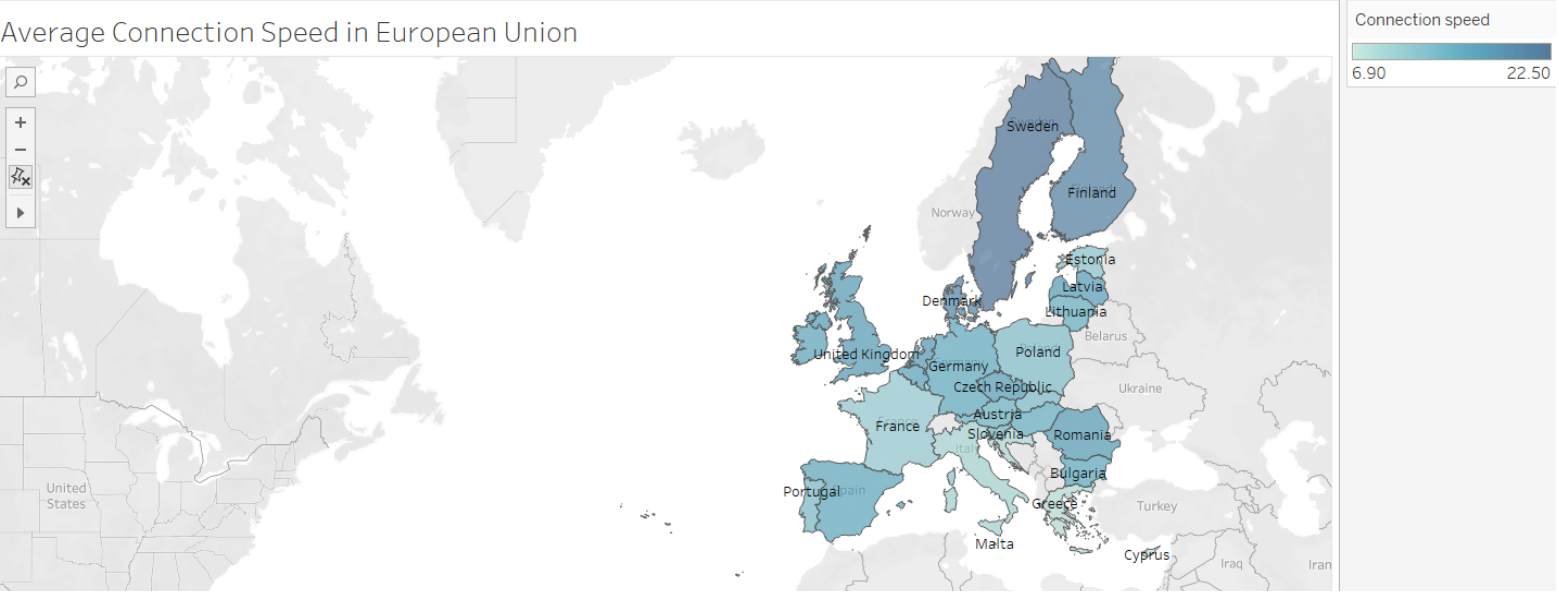
The above graph represents the usage frequency of internet among the people of European union from the year 2008 to 2017. The frequency is divided into two categories i.e. once a week and on the daily basis. It can be seen that in the year 2008, the internet usage frequency once a week contributes to 56% of the total people while on the other hand 44% of the total individual used the internet on the daily basis. With the advancement in technology and increase in the use of various mobile devices, the increase in the usage frequency on the daily basis observed to be increasing and in the year 2017 the total of 47.06% of individuals used the internet on daily basis while 52.94% used atleast once in a week. Hence, it can be inferred that over a period of time, the daily frequency of internet usage has observed the increment.

% OF HOUSEHOLD WITH INTERNET ACCESS



The graph represents the information about the percentage of households that have the internet access at their homes in the European Union from the year 2008 to 2017. Household internet access helps the people to stay connected to others around the world and for sharing and receiving the information while being at home. It can be clearly seen that the household internet access has seen the increment over the years which shows that how the internet is becoming an essential part in the life of the people in the European countries. In 2008, total of 60% of the houses had the internet access,that increased year by year and reached out to 87% in the year 2017.

AVERAGE CONNECTION SPEEDS IN EUROPEAN UNION COUNTRIES

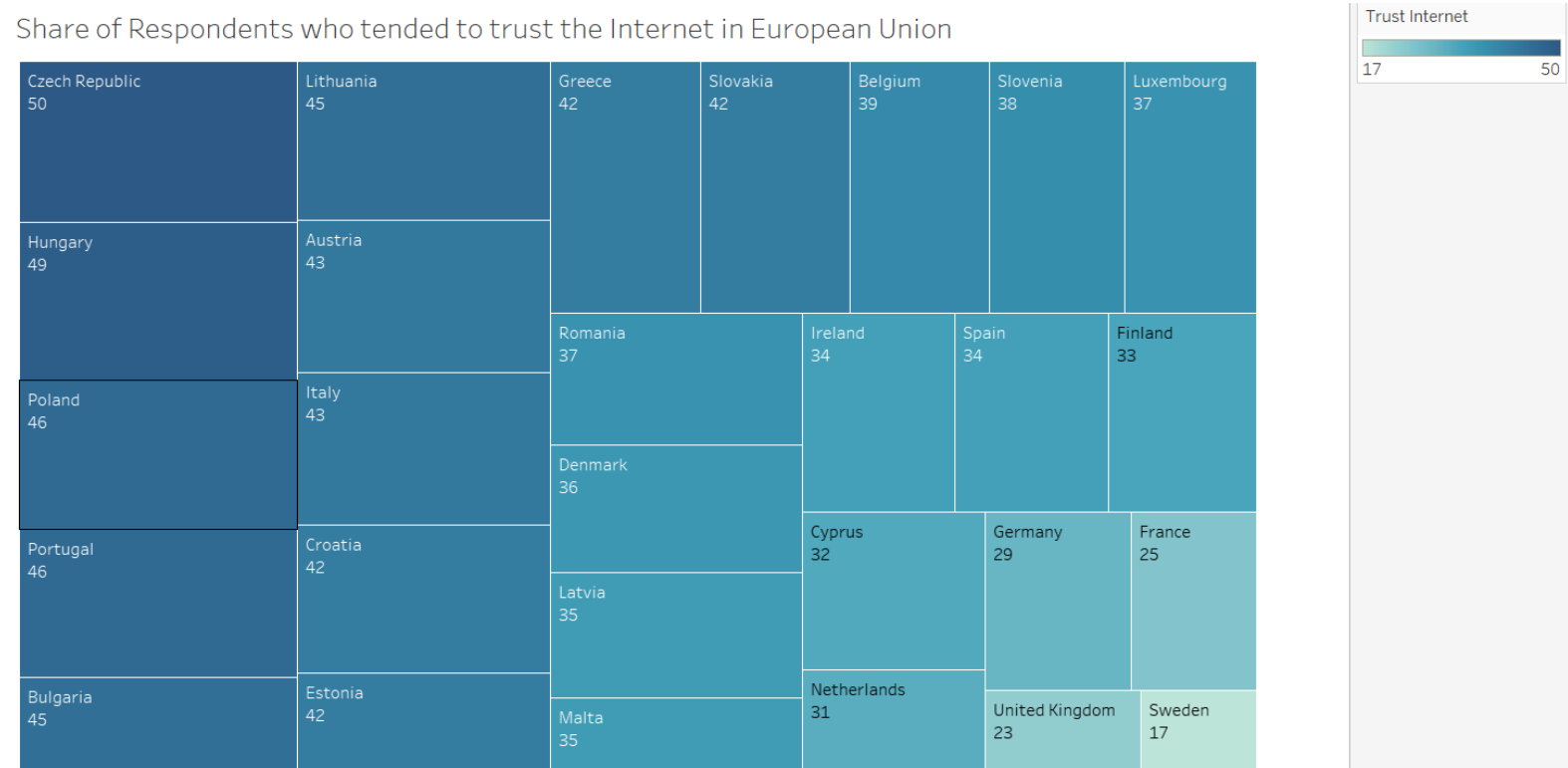


Connection speed is an important aspect while performing the tasks. It controls the various activities that are being performed over internet. If the connection speed is good then the work like sending and receiving emails, watching movies, playing games, accessing social media websites, making a video call etc can become easy to perform.

The above map represents the various European countries as per the average connection speeds in Mbps. The representation is for the year 2017 for the countries of the European union. Amongst all, Sweden has the good average connection speed of 22.5 Mbps followed by Finland and Denmark. While on the other hand Cyprus has the lowest average connection speed of 6.90 Mbps.

% OF RESPONDENTS TRUST ON THE INTERNET

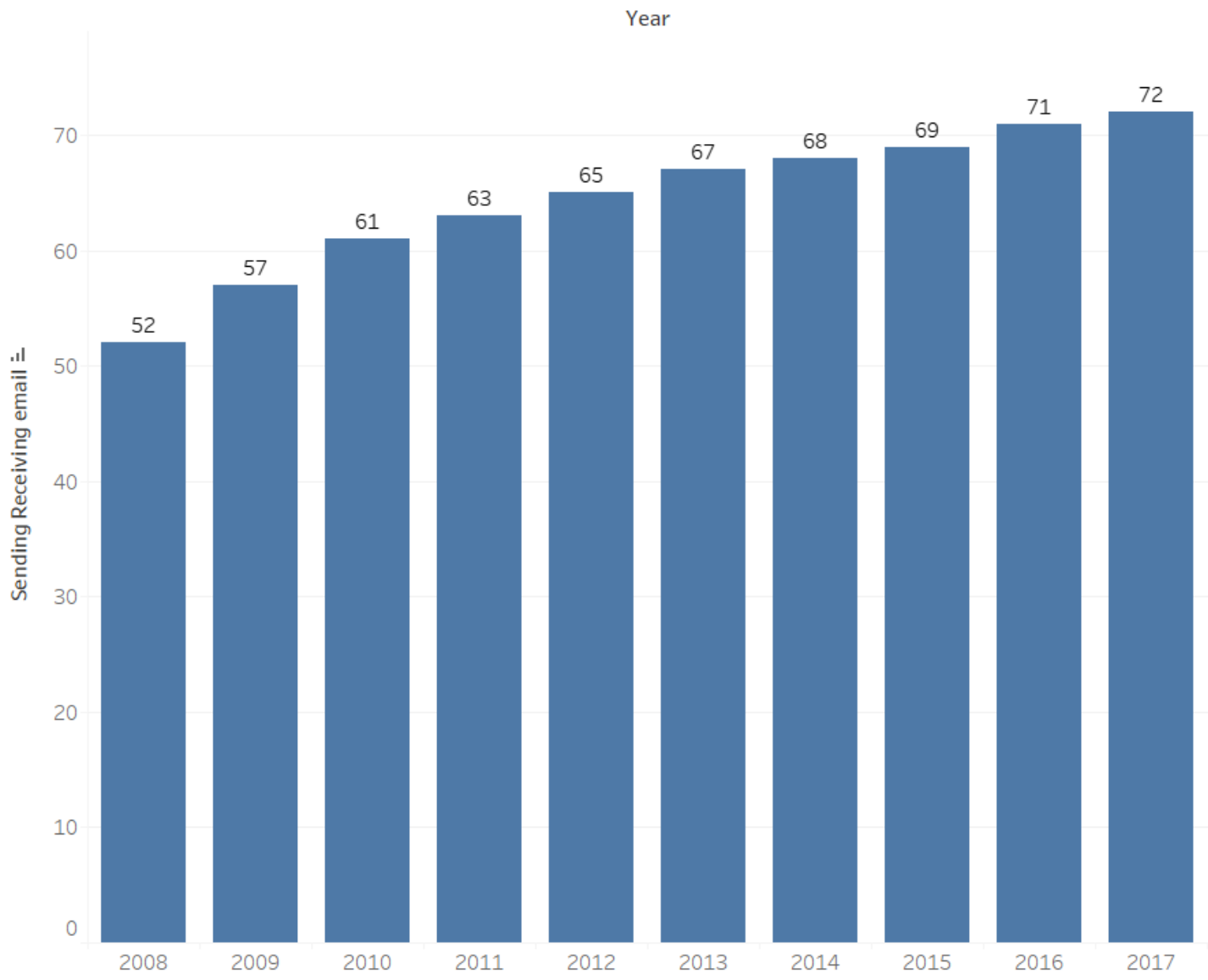
Share of Respondents who tended to trust the Internet in European Union



As per the year 2017 survey Standard Eurobarometer 88 for the age bracket of 16 years and above, the objective is to know the European people’s trust in the internet. As seen from the above graph, it can be inferred that 50% of the people of Czech Republic stated that they trust the internet, followed by Hungary, Poland and other countries. While on the other hand in Sweden only 17% people stated that they tend to trust on the internet.

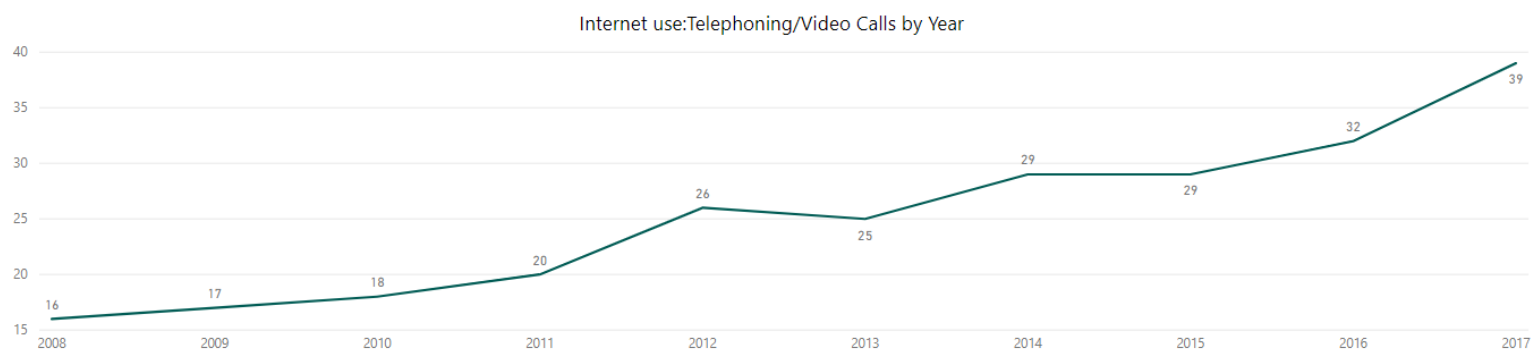
% OF INDIVIDUAL USING INTERNET: SENDING AND RECEIVING EMAILS

Individuals using the internet for sending/receiving e-mails



Sending and receiving emails over internet is considered to be a crucial task. It is considered to be an important medium of communication. Email always proves to be useful in companies and businesses to communicate among themselves across same countries or other parts of the world. Emails are supported by all the mobile devices. The graph represents the use of internet made by the people of European countries for sending and receiving emails from the year 2008 to 2017. In the year 2008 52% of the total individuals had made the use of internet for sending and receiving emails and with years the percentage increased and in the year 2017 it accounted to 72%.

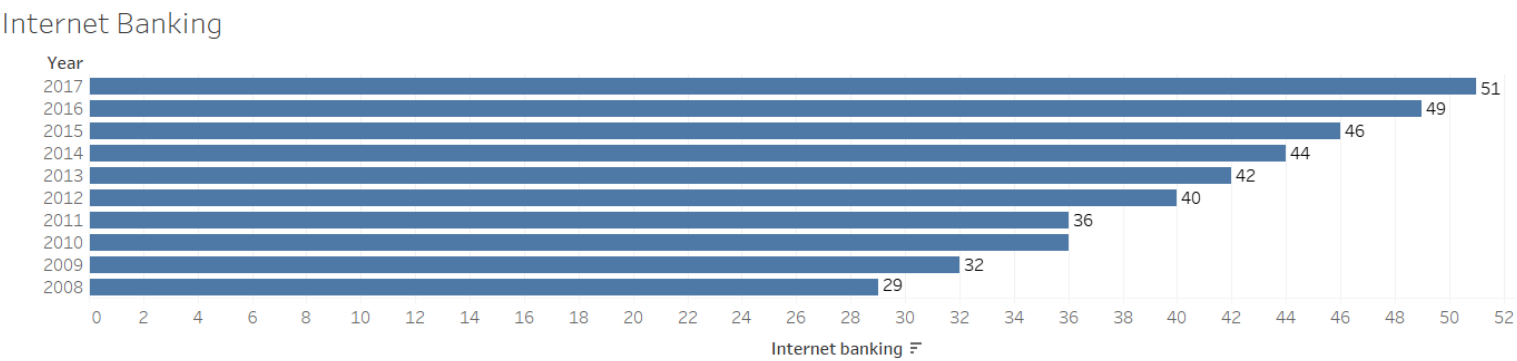
% OF INDIVIDUAL USING INTERNET: TELEPHONE AND VIDEO CALLING



With the advent in technologies and growing use of smart phones, telephone and video call has gained the popularity among the individuals to connect with the people around the world. There are various applications in the smart phones that supports video calling feature hence it is widely used by the people.

The line chart represents the usage of internet by individuals for telephoning and video calling from the year 2008 to 2017. In 2008 it was accounted that 16% of the individuals use internet for calling but year by year the figure increased and in the year 2017 39% of the individuals makes the use of the internet for placing telephone and video call.

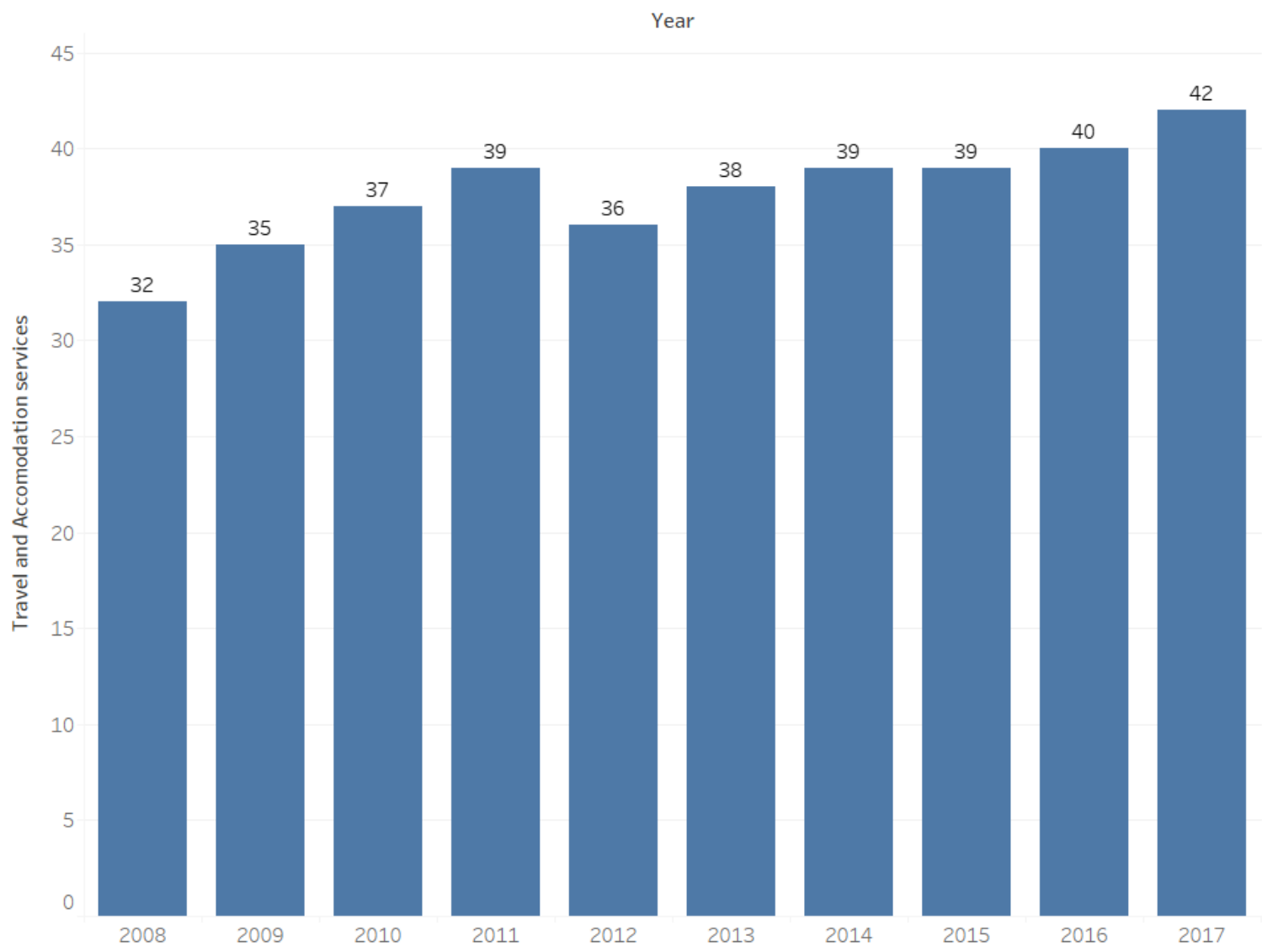
% OF INDIVIDUAL USING INTERNET: INTERNET BANKING



Internet banking is one of the quickest and easiest way to perform all the important banking related tasks while sitting at home by making the use of the internet. It supports money transfer, applying for the loans and manages the account information. It has gained the popularity in Europe over a period of time. The above graph represents the internet banking usage by the people from the year 2008 to 2017. In the year 2008, 29% percent of the total individuals made the use of the internet for the purpose of internet banking and the increased trends can be seen for the other years as well and in the year 2017 it accounted for 51% of the total individuals.

% OF INDIVISUAL USING INTERNET: TRAVEL AND ACCOMMODATION SERVICES

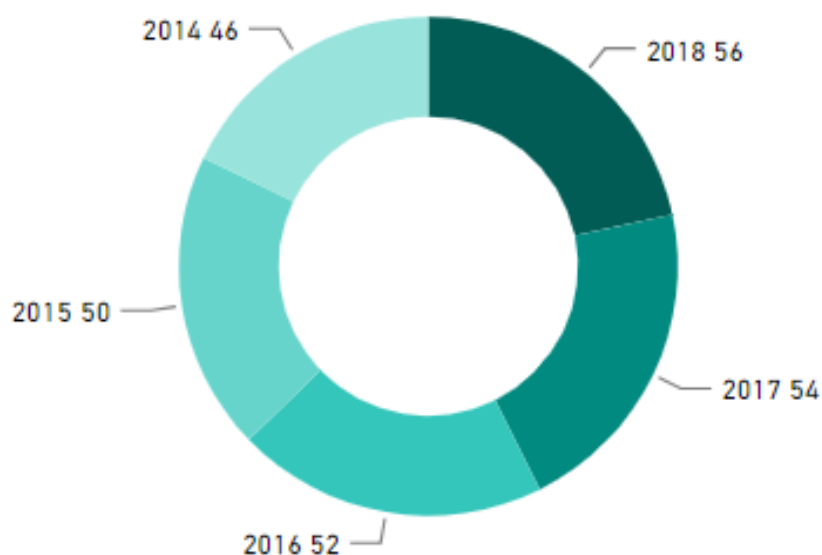
Travel and Accomodation Services in %



Another field where internet plays an important role is in the area of travel and accommodation. People can easily plan their trips and can easily book travel tickets as well accommodation online by checking variety of options and offers. The graph represents the usage of internet made by the people in the European Union for the travel and accommodation services from the year 2008 to 2017. In the year 2008, 32% of the total individuals used internet for travelling and accommodation. The trend increased till 2011, however there was a slight drop in 2012 but since then the graph kept on increasing and in 2017 the value accounted to 42%.

% OF INDIVIDUAL USING INTERNET: SOCIAL MEDIA

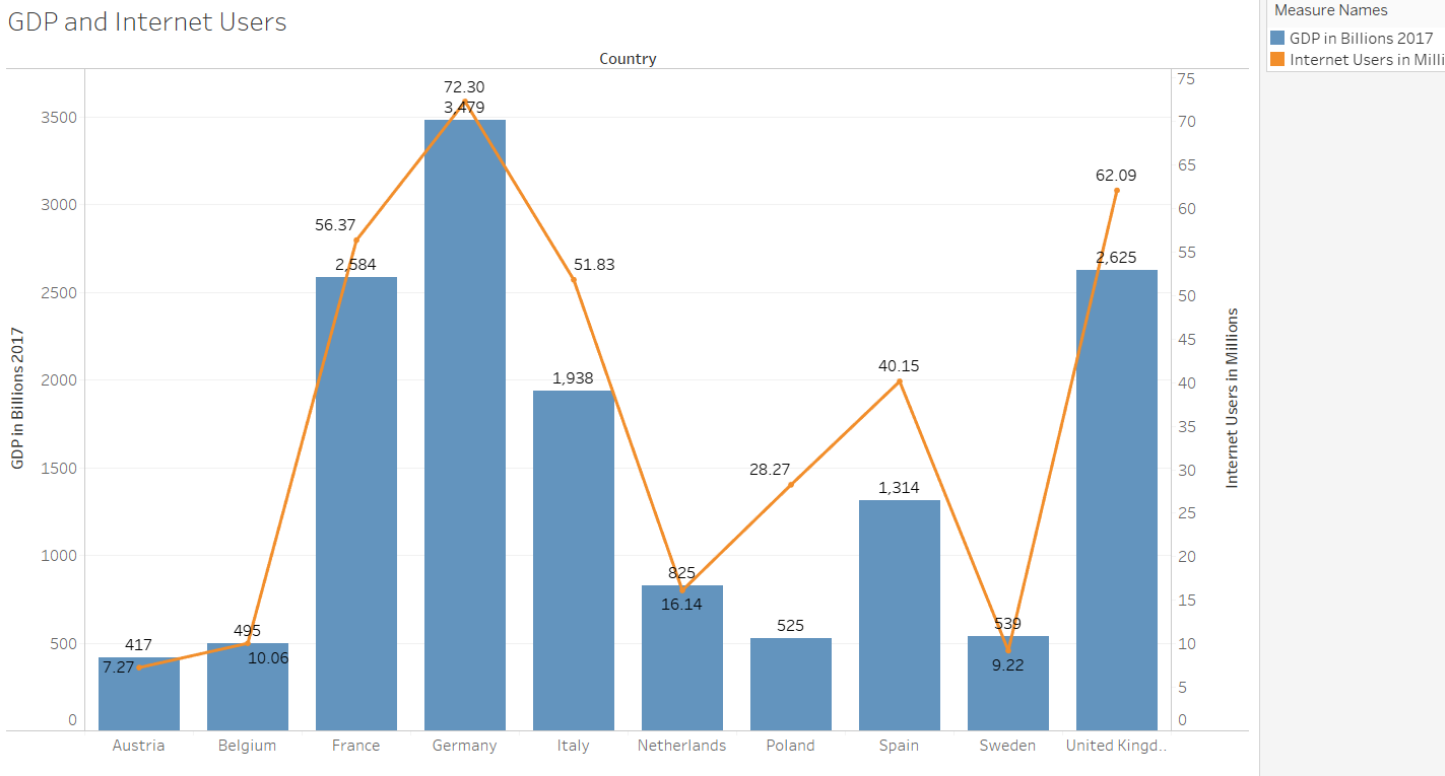
Participation in Social Media(% of individuals) by Year



Social media is another platform where the individuals make the use of the internet. The internet usage includes creating the profile, posting the images, videos and messaging on social media websites. Participation of individuals in the various social media platforms has increased over a period of time.

The chart presents the information about an individual's internet usage in participating in the social media platforms from the year 2014 to 2018. In 2014, 46% of the total individuals made the use of internet for participation in the social networking. The trend increased year by year and in 2018 it accounted for 56%.

HOW DOES GDP AND INTERNET USERS IN 2017 RELATED?



Checking if the internet users in a country affects the GDP as well. Taken top 10 countries as per GDP and internet users. The countries with highest number of internet users have the higher GDP as well. For Germany, the number of internet users are 72.30 millions and it is having the GDP of 3479 billion US dollars followed by other countries like United Kingdom, France etc. While on the other hand, for the countries like Austria and Belgium, the number of internet users are less as compared to other hence is their GDP's. It can be inferred that more and more the users use internet , the effect can be seen in the GDP as well.

CONCLUSION



The use of Internet in the European Union shows a positive trend from 2008 to 2017. About 87% of the household had an internet connectivity in 2017 that experienced the increase of 27% as compared to the connectivity in 2008. The increase in percentage of internet subscribers in Europe also grew from 126 millions in 2008 to 193 millions in 2017. Maximum number of internet users prefer to use internet atleast once in a week. Portable computer and hand held devices are the most preferred mobile device to connect to the Internet. Sweden was amongst the top in terms of average connection speed while Cyprus was amongst the lowest in this regard. More than 50% of the people of Czech Republic trust in the internet. Mostly the people of Europe use internet for sending and receiving the emails followed by internet banking and social media. Moreover, the European countries with more number of internet users accounted for high GDP in 2017 as in the case of Germany and France.

REFERENCES

[1]I. Help and C. Hope, "What are the advantages of the Internet?", Computerhope.com, 2019. [Online]. Available: <https://www.computerhope.com/issues/ch001808.htm>. [Accessed: 23- Jun- 2019].

[2]"Importance of Internet in our life - KLIENT SOLUTECH", KLIENT SOLUTECH, 2019. [Online]. Available: <http://www.klientsolutech.com/internet-in-our-life/>. [Accessed: 23- Jun- 2019].

APPENDIX

S.No.	Chart Title	Tool Used	Reason
1	INTERNET SUBSCRIBERS IN MILLIONS:EUROPEAN UNION	Power BI	Area chart is used because the values need to analysed on time axis
2	MODES OF ACCESSING INTERNET IN EUROPEAN UNION	Power BI	Pie chart to show the contribution of each part with the whole
3	INTERNET USAGE FREQUENCY	Power BI	Bar chart for better visualisation and comparison of attributes
4	% OF HOUSEHOLD WITH INTERNET ACCESS	Power BI	Bar chart for better visualisation and comparison of attributes
5	AVERAGE CONNECTION SPEEDS IN EUROPEAN UNION COUNTRIES	Tableau	Map to show the countries corresponding to the values correctly using colour pattern
6	% OF RESPONDENTS TRUST ON THE INTERNET	Tableau	Tree map to show the countries corresponding to the values correctly using colour pattern
7	% OF INDIVIDUAL USING INTERNET: SENDING AND RECEIVING EMAILS	Tableau	Bar chart for better visualisation and comparison of attributes
8	% OF INDIVIDUAL USING INTERNET: TELEPHONE AND VIDEO CALLING	Power BI	Line chart is used because the values need to be depicted on time series
9	% OF INDIVIDUAL USING INTERNET: INTERNET BANKING	Tableau	Bar chart for better visualisation and comparison of attributes
10	% OF INDIVIDUAL USING INTERNET: TRAVEL AND ACCOMMODATION SERVICES	Tableau	Bar chart for better visualisation and comparison of attributes
11	% OF INDIVIDUAL USING INTERNET: SOCIAL MEDIA	Power BI	Donut Chart to show the contribution of each part with the whole
12	HOW DOES GDP AND INTERNET USERS IN 2017 RELATED?	Tableau	Bar and line for showing the data of both the attributes correctly