



European  
Commission

# Management and Content Provision for ICT and Tourism Business Support Portal

Final report

March 2017

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*The evidence reported in the document is based on the feedback received from public and private stakeholders in tourism from all across the European Union who participated in the survey conducted for this project.*

*In some instance, especially in specific country reports, similar percentages might be reported for different categories within the same table. It must be noted that such occurrence is the result of a small number of respondents choosing those specific options resulting in similar percentages being reported.*

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# List of Abbreviations

<b>CATI</b>	Computer Assisted Telephone Interviewing
<b>CRM</b>	Customer Relationship Management
<b>DMCs</b>	Destination Management Companies
<b>DMO</b>	Destination Management Organisation
<b>DSM</b>	Digital Single Market
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>GDS</b>	Global Distribution System
<b>IaaS</b>	Infrastructure as a Service
<b>ICT</b>	Information and Communication Technology
<b>OTA</b>	Online Travel Agents
<b>PaaS</b>	Platform as a Service
<b>R&amp;D</b>	Research and Development
<b>SaaS</b>	Software as a Service
<b>SMEs</b>	Small and Medium Sized Enterprises

# Chapter 1: Desk Research

# 1 Introduction

## 1.1 Background Information

### 1.1.1 Digitalisation and SMEs

The economic growth experienced in recent decades has been attributed to small firms (Kyriakdou & Maroudas, 2010). This makes SMEs an important vehicle for growth within the EU economy. There are 23 million enterprises classified as SMEs, representing around 99% of all enterprises (European Telecommunications Standards Institute, NA). SMEs provide around 75 million jobs and generate more than half of the added value created by enterprises in the EU. The recent financial crisis in the EU led to the closure of a number of enterprises, and those enterprises that survived owe it to innovation (Real Economy, 2015). Digitalisation has been part of the innovation process undertaken by enterprises, as it allowed them to customise their products.

The current economy is characterised by the free transfer of information and by the instant access to knowledge that is only possible through the availability of technology (Mazars, NA). Emphasis is being placed on the creation of competitive advantage, innovation, the creation of new products, and the penetration of new markets. E-commerce and m-commerce are just two facets of the digitalisation phenomenon that are still evolving and are merging with other tools, including social media and cloud computing. The adoption of new advanced technology by businesses is essential to improve efficiency, create value, reduce costs, and increase access to markets (Strategic Policy Forum, 2015). Technology and the internet also have benefits for SMEs, as these tend to “grow faster, export more and create jobs” (Baker, Lomax, Braidford, Allinson, & Houston, 2015). Despite this, SMEs are still lagging behind when it comes to seizing the opportunities created by the internet.

Digitalisation offers a lot of potential for growth. Among the G20 countries, the digital economy generated around 8% of the GDP (European Commission, 2016). It is estimated that the development of mobile applications has created 500,000 new jobs in the US in the last 5 years. SMEs that engaged with customers online have witnessed a growth rate of around 22% higher than businesses in countries with low or no internet presence.

SMEs are the predominant type of business within the tourism industry (Schuler, 2013). Tourism is the third largest socio-economic activity within the EU - it directly generates up to around 5% of the EU GDP and employs 5.2% of the EU workforce (Juul, 2015). When also considering other linked activities, this percentage of income generated increases to 10% of GDP. The tourism industry has witnessed an increase in the use of digital technology among younger tourists, which has led to independent travel and self-organised holidays.

The tourism industry and information technology cannot be separated and businesses in the tourism sector need to make continuous and effective use of the available technology (Imhanwa, Greenhill, & Owrak, Relevance of Cloud Computing: A case for UK Small and Medium Sized Tourism Firms, 2015). Indeed, technology has always been an inherent aspect of the tourism industry, starting with the GDS (Andalucia Lab, 2015). The internet has had a significant impact on the tourism industry and this has led to an increase in business due to consumer e-commerce. Even travellers who do not otherwise purchase online utilise the internet as a source of information. Larger businesses in the tourism sector have taken advantage of the opportunities presented by technology and are now dominating online sales channels. However, SMEs can still compete with larger companies by integrating technology within their operations and by providing innovative and customised services to customers.



## 1.2 Information on the Project

### 1.2.1 Background to the Project

The Project “Management and Content Provision for ICT and Tourism Business Support Portal” aims to make tourism businesses, especially SMEs, more competitive and efficient by taking advantage of ICT. In order to effectively and efficiently achieve this aim, a research exercise was carried out to establish the level of digitalisation of SMEs within the tourism sector, as well as the level of skills employed by these businesses. Desk research of the current technologies and trends characterising the tourism sector, and primary research, will allow for benchmarking and the identification of potential ICT training gaps. In turn, this shall allow the optimisation of the content of the “Tourism Business Portal” in such a way that businesses gain a clear understanding of the current trends and the opportunities that they can exploit. Furthermore, relevant support shall be provided to SMEs towards acquiring the necessary skills that will help businesses in the adoption and use of digital technologies in their daily operations. Studies have shown that businesses in the tourism sector use networks to gather information that can assist them in the management of the business (Breen, King, & Walker, 2010). Having a discussion platform allows SMEs to interact amongst themselves, providing a space for them to communicate with key players in the area of digital technology and with the European Commission (EC). This will allow for SMEs to address the existing challenges in the adoption of technology, especially with the integration of e-tourism and m-tourism. Initiatives can further encourage SMEs to adopt and integrate technology into their daily operations. Thus, the project shall seek to promote such initiatives. Recommendations shall also be put forward in relation to future action that can be undertaken by the EC in this field.

For the purpose of this project, the tourism sector is defined as consisting of the following services:

- Accommodation services for visitors, including hotels, bed-and-breakfasts, farms, ranches, camping grounds, holiday resorts, recreational vehicle parks and trailer parks
- Food and beverage serving activities, including restaurants, mobile food service activities, cafés, fast food restaurants and bars
- Entertainment and recreation attractions, including museums, galleries, sports and leisure activities, shopping areas, amusements, the renting and leasing of recreational and sports goods, and fitness facilities
- Passenger transport services, including air travel, sea and coastal passenger water transport, inland passenger water transport, taxi operations, bus services, as well as the renting and leasing of cars and motor vehicles
- Travel support services, including travel agencies, tour operators, and tourism information points
- Other country specific tourism activities, such as the retail and trade of country specific goods.

In addition, further relevant input shall be sought from pertinent stakeholders and summarised into the Key Stakeholder Report. Stakeholders targeted will be from a mix of Public Administration entities as well as Private Federations.

### 1.2.2 Desk Research

The aim of the desk research was to carry out a mapping exercise of the tourism sector vis-à-vis digitalisation. The research was based upon a systematic and comprehensive benchmarking review of relevant literature, best practice, and research, both at global and European levels, and including case studies. This research was conducive to the identification of technology and practices, and their application to the tourism sector. During the desk

research, emphasis was placed on the use of advanced technology and the barriers that are hindering businesses, especially SMEs, from adopting and integrating ICT within their businesses.

The research also provides a snapshot of the current scenario in tourism, and digitalisation within EU member states. Relevant statistics were analysed in order to assess the potential for the use of ICT. Such analysis also served to establish the current level of use of technology by SMEs, the use these businesses make of the technology available, as well as the purpose for using this technology.

It is to be noted that the literature available on the tourism industry vis-à-vis digitalisation is mainly related to accommodation activity. However, a number of case studies on businesses in other related activities are provided in this report to show how related SMEs are adopting technology.

The Desk Research provided the necessary background information for the drafting of the research questions to be utilised for stakeholder research in the tourism sector, and for research with tourism operators (SMEs).

### 1.3 Section Structure

Chapter 2 of this report provides an overview on the evolution of the tourism sector and the way that the internet has drastically transformed it. It also describes the change in sales channels and evaluates the change in the role of the key players operating in the tourism sector. The same chapter takes a closer look at the travel cycle, and the importance of social media and mobile devices within it.

Chapter 3 focuses on cloud computing by providing a definition of what it involves and the potential it offers to SMEs. This chapter analyses the benefits to be gained by businesses through the use of cloud computing. This chapter also presents the results of a study that sought to analyse the experience of businesses that migrated towards cloud computing technology.

Chapter 4 identifies the main technological trends that shall characterise people's lifestyles, and how these might affect the tourism sector and tourism operators.

Chapter 5 analyses digitalisation in Europe. Through the use of relevant statistics, Chapter 5 presents an analysis on the use of the internet and social media by individuals. An analysis is also carried out on the integration and use of ICT by SMEs and tourism operators in their operations.

Chapter 6 focuses on the barriers that hinder businesses in general, SMEs, and tourism operators from adopting advanced technology. Particular emphasis is also given to businesses operating within the EU.

## 2 The Evolution of the Tourism Sector

Traditionally, the tourism sector involved various key stakeholders, including consumers (buying travel and ancillary services), suppliers (providing travel and hospitality services), different travel agents (acting as intermediaries between consumers and suppliers), Global Distribution Systems<sup>1</sup> (GDSs), Destination Marketing Organisations<sup>2</sup> (DMOs) (Jansen van Rensburg, 2014). Such a sector involving so many stakeholders was traditionally dominated by travel agents. Indeed, the suppliers of services in the tourism sector and the end customers benefitting from the service were separated geographically and, very often, customers were unaware of the different alternatives in the provision of particular services by different suppliers. With these prevailing conditions, travel agents acted as intermediaries between suppliers and customers as they proved to be a convenient and efficient way for travellers to plan and book their travels (Amdekar & Padmanabhuni, 2006). Travel agents were entrusted with the travel arrangements for travellers, from choosing the holiday destination to booking transport and accommodation, as well as what activities customers were involved in while on holiday (Juman & Gasdia, 2014). Smaller businesses in the tourism sector mostly relied on travel agents because of the difficulties encountered in reaching the international market and informing potential customers about the services being provided and their prices (Amdekar & Padmanabhuni, 2006). Within such a sector, suppliers had to pay fees to the intermediaries involved, namely the travel agents and the GDSs (Buhalis & Zoge, 2007). However, the advent of the internet revolutionised the way the tourism sector operates, from both the consumer point of view and from that of the supplier.

The advent of the internet provided a new way of communicating, which stakeholders within the tourism sector could take advantage of (Jansen van Rensburg, 2014). Indeed, the internet provided new communication and distribution channels between suppliers and consumers. Suppliers started developing their own websites and investing to ensure high SEO rankings. The new marketing and sales strategies that were then developed meant the elimination of the physical distance between the supplier and the potential customers, as suppliers themselves were able to provide direct information, including photos and videos of their products to customers. It also allowed suppliers to take direct reservations from customers. Thus, the internet gave suppliers the opportunity to decrease their reliance on travel agents, to become more competitive, and to improve their performance. Indeed, the internet allowed suppliers to operate a 24/7 shop, reduce distribution costs, improve market targeting and allow customisation in the products and services they offered (Buhalis & Zoge, 2007). Furthermore, suppliers could use technology to build a strong relationship with customers, and to build loyalty (Dixit, Belwal, & Singh, 2006). This is being done through “customised websites, value-added services, focused marketing, easy-to-use self-service tools and sophisticated contact-centre solutions (Dixit, Belwal, & Singh, 2006)”.

### 2.1 The Internet: Threat or Opportunity?

The internet was deemed a threat to traditional travel agents, especially with younger travellers who tend to plan their travel independently, have lower budgets, and who are not attached to any brand (Weber, 2013). Younger generations are used to gathering the information that they require through the internet, and would not typically consider having a travel agent plan their trip. Furthermore, there has been a change in travellers' behaviour with many travellers opting for Do-It-Yourself travel, meaning that they plan, manage, and book their travel reservations

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<sup>1</sup> Global Distribution Systems are computerised reservation networks which allow worldwide bookings of various services, including flights, accommodation, and transport (WebFinance, 2016).

<sup>2</sup> Destination Marketing Organisations are government organisations entrusted with the role of promoting a location as a tourist destination (Destination Marketing Association International, 2016).

online (Fitzpatrick, 2015). Thus, intermediaries and other key players were obliged to change their business model (Weber, 2013).

Low cost airlines have tried and succeeded in exploiting the opportunities set forth by the internet in selling flight tickets directly to customers (Dixit, Belwal, & Singh, 2006). The larger airlines soon followed suite and started offering flights online. It is estimated that airlines save around 90% on costs when selling flights online rather than over the phone. Hotels also started offering the option of online booking to customers. Furthermore, the internet also provided the means for hotels to compare the services being offered vis-à-vis prices of competitors. With regards to travel agencies, they had to change their role from that of selling trips to providing information and managing trips. Indeed, travel agencies had to specialise in specific markets, such as luxury, business and niche markets (Weber, 2013). Such markets tend to be made up of travellers who value personal relationships and contact, and are not usually driven by saving money.

The widespread use of the internet by travellers as a means of planning trips led to the development of new services (Jansen van Rensburg, 2014). In this regard, the internet led to the transfer of the work carried out by the traditional travel agents from a physical retail outlet, to what are now known as online travel agents (OTAs) (Failte Ireland, NAa). OTAs websites generally focus on offering hotel rooms, but some offer packages that include flights, hotels and car rentals that potential customers can purchase. OTAs are considered to be the fastest growing distribution channel within the tourism sector. Small businesses in the hospitality sector (small hotels, B&Bs, and guesthouses) can make effective use of OTAs, as these small businesses tend to have limited or no international exposure due to the lack of expertise and finances for the marketing of their businesses. Some of the most popular OTAs are: Expedia, Booking.com, Trivago, and HostelWorld.

OTAs provide a vast range of information to travellers which results in an increase in transparency about the products, which allow travellers to better compare between products (Buhalis & Zoge, 2007). Nowadays, customers are becoming ever-more exposed to high-quality service due to the higher standard of living (Bethapudi, 2013). Thus, customers are becoming more demanding in the services they are expecting when travelling. The developments in technology and ICT have led to a higher demand for flexible, individualised alternatives and quality information in order to get a personalised tourist experience. This is achieved through the wealth of information that is shared among customers including customer ratings on tourist destinations and services provided by different suppliers within the tourism sector.

## 2.2 Sales / Distribution Channels

It is imperative for businesses in the tourism sector to understand how potential customers are looking for information and how they are placing bookings (Failte Ireland, NAa). This allows businesses to draw up a targeted marketing strategy that is effective in increasing sales. The sales channels can be categorised as either direct or indirect, both of which can either be offline or online as shown in Figure 1.1.



Figure 1.1: Direct and Indirect Sales Channels (Failte Ireland, NAa)

The sales or distribution channels within the tourism sector were, and still are, characterised by indirect distributors who mainly operate offline but also have an online presence (Failte Ireland, NAb). The main distributors are the tour operators (wholesalers), the travel agents and the incoming tour operators (handling agents, destination management companies, and professional conference organisers). Tour operators negotiate with different suppliers to put together a holiday package. Details of the holiday package are then included in a travel programme that is then distributed to the different travel agents. The retail travel agents operate from an office where customers can access information and place bookings on behalf of customers (Destination NSW, NA). Incoming tour operators negotiate with local tourism operators to obtain contracts for overseas intermediaries. Some of these incoming tour operators can be specialised in particular areas, such as DMCs that specialise in providing travel packages for corporate meetings (Failte Ireland, NAb). PCOs are similar to DMCs, but they specialise in the organisation of large international conferences. However, as aforementioned, travel agents are now also online, where, rather than placing bookings through a physical retail outlet, customers can place bookings online (Failte Ireland, NAa). When opting to sell directly to consumers, businesses engage in two-way communication with the customers, which usually takes the form of emails and/or telephone calls (Bennett, Strydom, & et al, 2001). However, direct sales to customers can also be affected through the business's website and booking engine, through mobiles (m-commerce) and social media (Failte Ireland, NAa).

Whereas there are specific sales channels available for travellers to plan and make bookings, it is to be noted that travellers make use of different channels depending on what stage they

are at in the planning and booking of their trips. This topic is addressed in the following sections.

### 2.3 The Travel Cycle

From the consumer point of view, Google has observed what it is now being referred to as the “travel cycle” of travel consumers (Gonzalez-Soria & De la Santa, 2011). The travel cycle can be broken down into five main phases: dreaming, researching, booking, experiencing, and sharing. At the dreaming stage, travellers carry out online searches to decide where they are going to travel. During this stage, travellers refer to blogs and reviews and watch online videos. Once travellers short-list their potential destinations, they enter the researching phase where they spend a lot of time planning their travel. Nowadays, travellers seek information from multiple channels, such as suppliers’ websites, social media networks, and online travel agents (OTAs) (Juman & Gasdia, 2014). A current trend identified by Google during this phase relates to longer query strings used when doing research (Gonzalez-Soria & De la Santa, 2011). Indeed, Google witnessed searches with much more detailed requests and an intensification of the research, with more websites being visited before actually making a booking. Once travellers conclude their research, they place the required bookings, which is the third phase in the travel cycle. However, research continues even while they are experiencing their travel (experiencing phase). Travellers frequently use mobile devices (laptops, smartphones and tablets) while they are on their travels and make the necessary bookings for excursions, restaurants and so on. With social media networks having become part of our daily routine, travellers share photos and information on their experience while travelling (sharing phase). Such posts become information to other potential travellers during their dreaming phase.

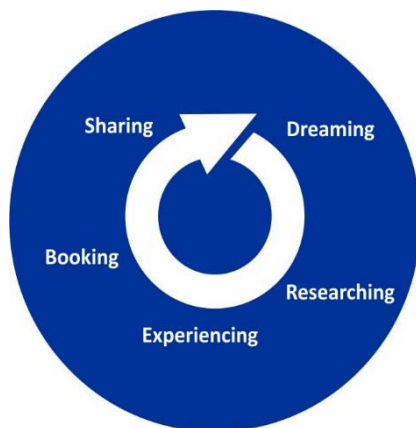


Figure 1.2: The Travel Cycle (Travel and Tour World, 2013)

### 2.4 The Role of Social Media

One of the most recent developments in technology is Web 2.0 applications. These applications allow users to network among them through the production and sharing of information, including opinions, ideas, recommendations, photos, and videos (Sigala, 2007). Internet users seek information on Web 2.0 applications in order to shape their expectations and take decisions. Thus, apart from affecting the decision making behaviour of internet users, it also affects businesses. Indeed, there is a wide range of information (positive and negative) that is being shared relating to businesses, especially those in the tourism sector. Businesses need to adapt their business operations to monitor what is being said about them on the internet.

Social media falls under the umbrella of Web 2.0 applications (Beattie, 2011). Research shows that the most viewed posts on Facebook are family and friends, news, and holidays (mainly leisure travel) (Deloitte Consulting LLP, 2015). It is estimated that the number of social media

users increased by 18% in the year 2013 (World Travel Market, 2014). Furthermore, an average number of 350 million photos are uploaded daily on Facebook, 58 million on Instagram and 400 million on WhatsApp. Indeed, travellers like to share their travel experiences through stories and photos (Deloitte Consulting LLP, 2015). In light of the importance acquired by social media, renowned brands in the tourism sector have ensured their presence on the different social networks, including Facebook, Instagram, and Twitter. This allows brands to interact and actively communicate with their customers. In research carried out by Facebook, it emerged that about half of the respondents claimed to “like” a travel brand on Facebook, mainly hotels and airlines. This phenomenon is not limited to the younger generation alone, but is also common among individuals in the age groups of 30 and 49 years, and those between 50 and 64 years. From research, it also emerged that digital channels ranked third as a source of travel ideas, with the two main sources being friends and family, and word of mouth. Indeed, around 33% of respondents in a Facebook survey stated that they started considering a trip while on social media. Only 16% stated that they ask for travel recommendations on their status update, while travellers make use of OTAs, review websites and specific brands’ websites for research prior to making bookings.

Social media is a social space for consumers, but for the tourism sector it means business (Deloitte Consulting LLP, 2015). Businesses need to go beyond simply using social media for getting feedback from customers or creating online competitions, as this does not really create lasting awareness and loyalty. In this regard, a number of businesses in the tourism sector have managed to take advantage of online trends (Porter, 2013). A trend that emerged in the year 2013 was for travellers to take “braggie” photos and upload them on social media to brag about their trips. From a survey commissioned by Hotels.com, it emerged that many travellers post their destination photo within 10 minutes of arrival. Businesses in the tourism sector have taken advantage of the “braggie” trend in order to market their services. This has taken the form of competition and give-aways of free cruises, flights and hotel stays (Pira, 2014). To be in with a chance to win these competitions and give-aways, travellers have to take photos, upload them on social networks and tag the business. The more friends and followers travellers have on social networks, the larger the audience that views the braggie.

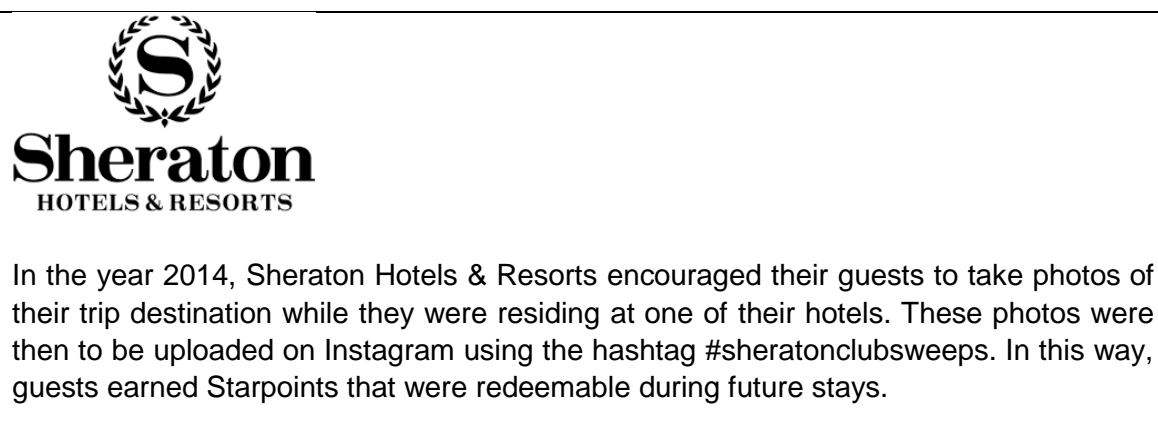


Figure 1.3: Sheraton Hotels & Resorts. (Rowan Kelleher, 2014)

## 2.5 Mobile devices

Innovation and technological change are contributing to the on-going reshaping of the tourism sector. The widespread use of mobile devices in our daily life (such as smartphones and tablets) has changed the way individuals access the internet and find information (TOURISMLink, 2012). Undoubtedly, the mobile devices which individuals carry with them everywhere they go affect the way that travellers source information on their trips and the way they make their bookings. The business travellers immediately adopted the use of these

mobile devices to plan their travels to be able to make last minute reservations. However, leisure travellers are also making increased use of it. From a study carried out by Google it emerged that around 77% of travellers use a smartphone in their spare time (such as when waiting and commuting) to get ideas for future travels (Google, 2014). However, it is to be noted that travellers make use of different devices depending on the activity that they want to carry out. Indeed, around half of the travellers who use smartphones for travel ideas, actually place their bookings through another device. The purpose for using mobile devices by travellers may vary depending on their age. In this regard, among the travellers who are aged between 18 and 24 years, those who place bookings over mobile are higher in number than those who do not (Juman & Gasdia, 2014). On the other hand, older travellers tend to use mobile devices to gather information, but then they use other means to place bookings.

Businesses do not have control over the travellers' behaviour, or how travellers access the business's websites (Vivion, 2014). However, it is very important for businesses to understand travellers' behaviour when looking for information and placing bookings relative to their trips (Juman & Gasdia, 2014). This allows businesses to provide potential customers with a relevant experience based on their preferences (Vivion, 2014). Thus, businesses need to monitor the users' journey through the use of metrics to improve that users' experience and assess the consequent results. Furthermore, booking websites need to be flexible in order to provide users with a good experience when switching between devices. Understanding the behaviour of potential customers also allows businesses to provide customised services.



Figure 1.4: Murella Restaurant QR Code Ordering System (Murella Restaurant - QR Code Smartphone Ordering System, 2013)



## 2.6 Making the Online Traveller Experience Relevant

A good marketing strategy needs to target potential guests at each and every stage of the travel cycle (Blue Magnet Interactive, 2012). In this regard, Blue Magnet Interactive<sup>3</sup> (2012), suggests ways of how businesses in the hospitality sector can target potential clients throughout the travel cycle.

During the dreaming stage, where travellers are researching to acquire ideas, businesses can use a number of methods to deliver ideas for trips (Blue Magnet Interactive, 2012). Businesses tend to keep the contact details of their customers; these can be used for email marketing to provide travel ideas. Figure 1.5 shows an example of an email sent by Premier Inn (UK) where it uses the AVIVA Women's Tour to promote the different hotels en-route on that tour.



Figure 1.5: Premier Inn E-mail Marketing (Premier Inn, 2014).

Another method is to encourage guests to upload photos and posts of their trips on their social network profiles. Figure 1.6 below shows a post uploaded by a traveller on Facebook.



Figure 1.6: Sharing of Experiences on Facebook

<sup>3</sup> Blue Magnet Interactive provides a number of services with the aim of enhancing the digital presence of their clients who are mainly in the hospitality sector (Blue Magnet Interactive, 2012).

Businesses are limited on the amount of new content that can be incorporated into a website. However, Blue Magnet Interactive (2012), suggests that businesses create blogs which allow them to include interesting content such as activities that can be done in the area, a new restaurant that has just opened and so on. Blogs also have the benefit of being captured easily by search engines thus contributing positively to a business's search engine optimisation. Figure 1.7 shows a screenshot of the blog run by the Copenhagen Downtown Hostel. Indeed, the blog is updated on a regular basis with information on upcoming activities taking place, both at the hostel and in the surrounding area.

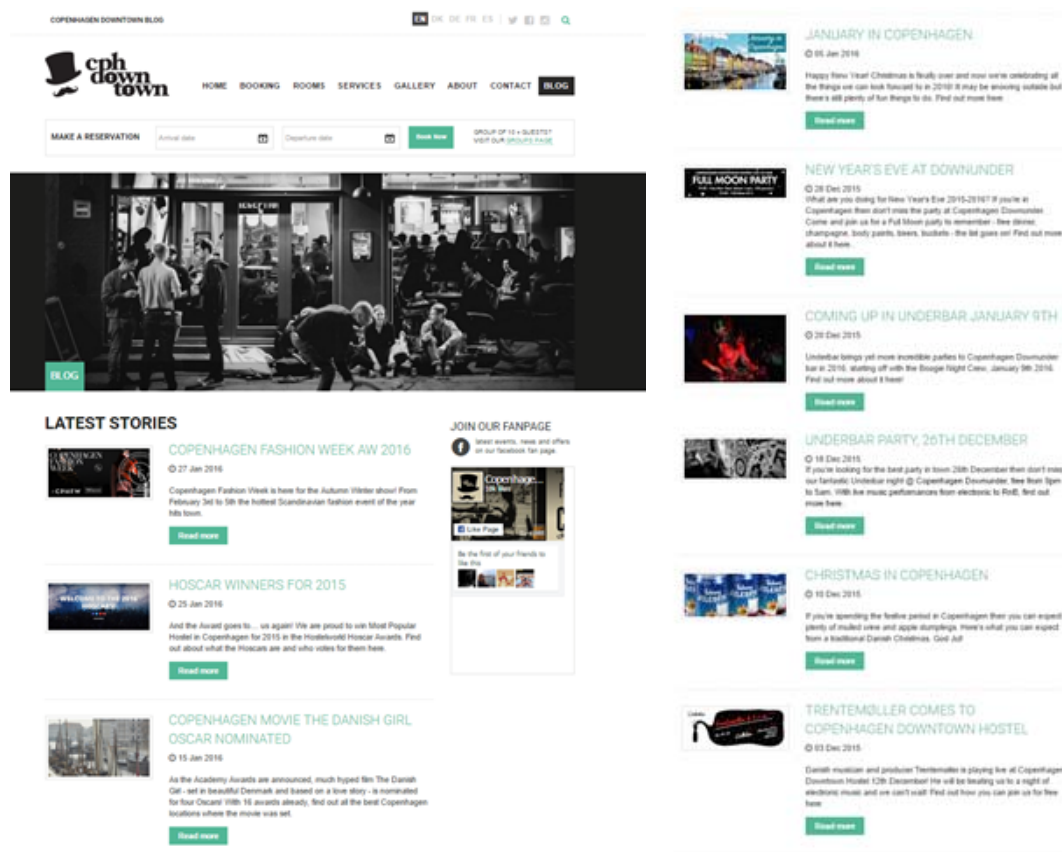


Figure 1.7: Hostel Blog (Premier Inn, 2014).

At planning stage, businesses have to ensure that travellers come across their name. In this regard, Blue Magnet Interactive (2012) highly recommends that businesses diversify their online presence and ensure that they are on the most popular channels. Businesses should also update the key search to optimise their website for search engines to ensure high ranking when research is carried out. Apart from this, OTAs have gained a lot of importance and travellers make extensive use of them when planning their trips. Thus, businesses need to be present on the main OTAs in order to increase the opportunities for potential customers to come across the business. It is also recommended that businesses sign up for alert services such as Google Alerts so that they are immediately alerted whenever they are mentioned. However, it was also highlighted that monitoring alone is not enough and businesses need to provide feedback on comments (both positive and negative) that are posted online, on websites such as TripAdvisor.

When it is time for travellers to make their bookings, it is imperative the business's website is easy for users to navigate through to encourage them to make a booking (Blue Magnet Interactive, 2012). During the research, travellers would have learnt about different brands in

the tourism sector. Businesses, should ensure that their website is optimised for searches using the exact business name (or a combination of the same).

While the travellers are on their trip, businesses should deliver a high-quality service in line with the service that was provided to the travellers online (Blue Magnet Interactive, 2012). Furthermore, businesses should promote initiatives that encourage guests and travellers to share their experience on social media. Holding contests and distributing giveaways to guests who upload photos and share their experiences helps businesses to boost their exposure.



Adventure Bellissime is an Anglo-Italian business that operates tours for incoming tourists. In 2012, Adventure Bellissime launched a photo competition where contestants had to take a photo that captured Italy's beauty and upload it onto social media (Instagram, Twitter and Facebook). Fans of the Adventure Bellissime Facebook Page voted for their preferred photo, with the winners being chosen by Adventure Bellissime from among the 10 most-voted-for photos. The Grand Prize was a vacation package that included a seven-night stay at a four-star hotel with buffet breakfasts, transfers, transportation (excluding air tickets) and tours.



Figure 1.8: Selfie Content Source: <https://www.facebook.com/ArkadiaGozo/app/910483435686590/>

## 2.7 Conclusion

This chapter analysed the technological advancements that have taken place vis-à-vis the marketing and sales of tourism products. Due to developments in technology, tourism operators were obliged to change their role and their practices in order to survive. Among other things, tourism operators had to change their sales channels to address the needs and wants of modern travellers who are keeping abreast with technology, and making use of it throughout the travel cycle. Tourism operators also had to adjust to the use of social media and actively include its use in their marketing strategies.

The following chapter focuses on the use of technology in the internal processes and procedures of businesses. Cloud computing, as one of the main emerging technologies, is tackled in the next chapter.

# 3 Cloud Computing

## 3.1 About Cloud Computing

There is no agreed definition for cloud computing, but the most cited one as defined by the US National Institute of Standards and Technology (NIST) refers to cloud computing as a

*“model enabling convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction”.*

(US National Institute of Standards and Technology, 2015)

NIST also describes the main characteristics of cloud computing:

- On-demand self-services – meaning that individuals can access services when needed
- Resource pooling – it pools different IT resources including storage, processing, memory and bandwidth
- Broad network access – services are made available through a network which can be accessed through the internet using different devices
- Rapid elasticity – services can be quickly provided, which are also customised to the needs of the users
- Measure service – the use of the provided services can be tracked, controlled and monitored through a number of indicators.

Cloud computing provides three types of service models: Software as a Service (SaaS), Platform as a Service (PaaS), and Infrastructure as a Service (IaaS). As part of the SaaS model, a number of applications can be used by users without the need to install applications on a computer. Through the PaaS model, users can build and test applications, and are provided with the run-time environment allowing the users to use the applications through cloud. IaaS provides full computer infrastructure including virtual computers, storage, servers and network devices as demanded by users through the internet. There are four different configurations of cloud computing. Cloud services can be:

- 1 Private, meaning these are built for the exclusive use of one organisation, which allows the user to have full control of the applications, ensuring security and quality of the service
- 2 Public, meaning the services are available to the general public
- 3 Hybrid, meaning a mix of both the private and public models
- 4 Community, meaning the services are used by a group of similar organisations.

## 3.2 The Need for Cloud Computing

With the internet, communication between tourism businesses and customers needs to be fast, as the provision of feedback by tourism businesses can affect the satisfaction of customers (Imhanwa, Greenhill, & Owrak, Relevance of Cloud Computing: A Case for UK Small and

Medium Sized Tourism Firms, 2015). This makes it imperative for tourism businesses to provide a fast response to customers, and cloud computing can play a role in this process. To some degree, SMEs are already using cloud services, in the form of email, social media and mobile applications (Masele & Gomez, 2012). However, with advancements in technology, cloud computing can be advantageous to SMEs as they can pay for what they actually use without having to manage their IT infrastructure and thus incurring related costs. Indeed, cloud computing allows for the scaling of resources (up and down) as and when needed, mirroring the demand the business has (Imhanwa, Greenhill, & Owrak, Relevance of Cloud Computing: A Case for UK Small and Medium Sized Tourism Firms, 2015). In such a scenario, cloud computing is effective in having businesses pay for IT resources used, making such expense a variable one and reducing barriers to entry.

Cloud computing can also spare businesses the need to install licensed software on each employee's hardware (Stanciulescu & Dumitrescu, 2014) as these can be used on cloud. Furthermore, certain administrative work, such as email and file storage, can also be externalised from the business IT infrastructure.

### 3.3 Cloud Computing in Practice

#### 3.3.1 Realising the Benefits of Cloud Computing

Stanciulescu & Dumitrescu (2014) participated in a project involving the implementation of cloud technology by a small business in the tourism sector. They used customised cloud services instead of the traditional approach of a computer, which led to improved communication and efficiency. The services used were related to a shared storage space for documents, emails, contacts, calendar and CRM applications that address the needs of the company.

For the management, the use of cloud services required a small investment compared to the recurring costs related to maintenance and the upgrade of hardware (Stanciulescu & Dumitrescu, 2014). Once the employees learned to use cloud services, it was much easier and faster for them to carry out their daily work. Indeed, employees no longer had issues with slow computers due to the use of different programmes, as the use of needed applications was done through cloud. The use of cloud services led to an enhancement in the business's response time and an improvement in the quality of the services delivered to their clients. The accounting side of the business was also more efficient, as the person in charge had faster and easier access to the information.

#### 3.3.2 The Irish Experience

A study on the Irish tourism sector showed that the majority of the businesses that migrated to cloud computing were mainly micro firms employing less than 10 employees (Carcary, Doherty, & Conway, 2014). Adopters of ICT gain a competitive advantage, which allows them to compete effectively. Through the same study, the researchers identified the main business areas for which cloud services were being utilised. It transpired that these main areas were emails, sales and marketing, CRM, R&D, finance, software applications development, and purchasing and procurement. It is interesting to note that the majority of the businesses that did not make use of any cloud services were mainly from the services sector, including, wholesale, retail, hospitality, leisure, and tourism.

The adopters of cloud computing developed a strategy with the aim and objectives for the migration to cloud computing (Carcary, Doherty, & Conway, 2014). Part of this process involved an analysis of the alignment between the business's IT strategy and the business strategy to ensure realisation of the deriving benefits. This also implies understanding the potential impacts on the business and learning how to manage and control them. Businesses

then identified the services that would be migrated through a mapping and evaluation exercise carried out by assessing the potential services to be migrated against a set of criteria. This allowed businesses to distinguish between those services that were cloud-ready from those that were not. Businesses also involved a number of stakeholders to assess the readiness of the services that were to be migrated to cloud, including management and employees. Indeed, the perceived view of management and employees affects the success of the transition from the traditional services to cloud computing, and in reducing resistance to the migration.

The study also sought to identify the main factors that hindered businesses from adopting cloud computing (Carcary, Doherty, & Conway, 2014). The main factors identified were lack of time and the lack of IT skills. Other obstacles identified related to issues of security, data ownership, and protection and compliance. Security issues seem to be the greatest barrier for the migration to cloud services as this requires that businesses trust the external provider of cloud services which has access to their business data. Rules and regulations pertaining to country jurisdiction and the free flow of data is another obstacle to the adoption of cloud computing, as there needs to be compliance with the different legal requirements in place. Businesses also mentioned financial resources as a factor for not migrating to cloud computing. However, researchers believe that this mainly originates from the lack of awareness of what cloud computing involved. This is further emphasised by the fact that there were many businesses which were unable to identify a benefit deriving from cloud computing, believing that cloud computing was unsuitable for particular businesses and that cloud computing was not widely used within their sector. Other factors mentioned include the inadequacy of broadband speed, which causes delays in the transfer of data.

### 3.4 Conclusion

This chapter provided a brief overview of cloud computing and the different types of service models that are available. Cloud computing can be used for different business needs and offers a number of benefits to users, including cost savings related to IT infrastructure and maintenance. However, adequate planning needs to be carried out in order to migrate to cloud computing with limited disruptions to the business operations. Despite the acknowledged benefits of cloud computing, obstacles still exist which hinder businesses from taking full advantage of cloud computing. In part, some of the obstacles can be attributed to the lack of awareness on what cloud computing actually involves.

It is important for tourism operators, especially SMEs, to keep abreast of the technological advancements that are currently widely used. This is especially important considering that advancements in technology is still reshaping the tourism sector. The next chapter identifies the main technological trends that are expected to affect the tourism sector in the near future.

## 4 Emerging Trends in the Tourism Sector

During the year 2016-17, the traveller is expected to be one of the most important figures around whom technology will revolve (Gutz, 2016). Travellers have heightened expectations which pose a challenge to suppliers in the tourism sector, but which will generate benefits to those suppliers who meet these expectations. According to David Chestler, executive vice-president of global enterprise sales and business development for SiteMinder<sup>4</sup>, in the past, the tourism sector mainly focused on the Connected Property, which led to the development of keyless room entry applications and RFID technology for tracking objects (Chestler, 2016). However, the focus has to shift on the Connected Guest where the hotel or supplier is connected with the travellers throughout the travel cycle. This process can be made somewhat simpler through the use of technology that is continually reshaping the tourism sector.

Every year the World Travel Market publishes a report on the main trends that are expected to characterise the tourism sector in the upcoming year. The reports for the years 2014 and 2015 have pointed out a number of technologies that are impacting the tourism sector. The main technological advancements identified are wearable electronics (World Travel Market, 2014), WeChat (World Travel Market, 2014) and Travel 3.0 (World Travel Market, 2015).

### 4.1 Wearable technologies

Wearable technologies allow travellers to be continuously updated on their trip through notifications and allow them to make last minute bookings (ICEF Monitor, 2014). Beyond this, wearable technologies allow travellers to become explorers and to “re-construct” their whole travel experience (Atembe, 2015). Travellers can use voice commands to plan their itinerary without the need for any assistance from suppliers. This contributes towards further personalisation of the trips and disintermediation of suppliers. Indeed, the tourism sector is expected to quickly take up wearable electronics due to their speed, mobility and convenience (ICEF Monitor, 2014). Estimates show that during 2015 the sale of wearable technologies increased by 50% within the United States (Chestler, 2016). Many individuals are expected to buy a wearable technology item within the next few months. This will increase the number of worldwide users to 180 million by 2016 (ICEF Monitor, 2014). Part of the increase in popularity of wearable technologies is being attributed to big brands in the tourism sector that are currently focusing on the development of applications for wearable technologies (ICEF Monitor, 2014). Those businesses that stand to gain from wearable technologies are those who can adequately use technology to meet the travellers’ individual needs (Chestler, 2016). However, mobile technologies will also pose a challenge to businesses as applications need to be very flexible to be used across different mobile devices (World Travel Market, 2015).

### 4.2 WeChat

Another technology that is expected to have a great impact on the tourism sector is WeChat<sup>5</sup> (World Travel Market, 2015). WeChat started as an instant messaging platform similar to WhatsApp. However, unlike WhatsApp, WeChat has an app-within-an-app functionality that allows users to carry out a number of activities, such as hailing a cab and managing credit card bills (Kosoff, 2015). Furthermore, around 20% of WeChat users make use of the payments feature that allows them to upload their credit card details to carry out transactions. Currently, WeChat has some 650 million worldwide monthly users (Eye for Travel, 2015).

Tencent, the owner of WeChat, announced the opening of the mobile payment feature available on WeChat for overseas transactions (Eye for Travel, 2015). This enables Tencent to

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<sup>4</sup> SiteMinder is a cloud platform for hotels which enables them to secure bookings from guests.

<sup>5</sup> Developed by a Chinese company, Tencent, which launched WeChat in the year 2011.



gain from the increase in outbound tourism and makes it easier for tourists from countries such as China travelling abroad to effect purchases and payments. The services offered through WeChat are attractive to travellers as they integrate researching and bookings features whilst keeping travellers up-to-date with relevant information (Skift, 2014).

### 4.3 Travel 3.0

The future of tourism has to hinge on “What travellers want, before they know they want it” (World Travel Market, 2015). Indeed, the tourism sector, aided by technology, shall all be about the provision of personalised services based on the travellers’ preferences. Travellers shall be able to plan and manage their trips wholly online through the use of applications and online technology (Michael, 2014). Within this scenario, the 3.0 traveller expects a high performance from the integration of different applications (Amadeus, 2015). Some of the features of Travel 3.0 are already with us and applications will soon be asking users to sign in using their social media accounts. This shall allow the collection of relevant information, such as location, which shall in turn allow the provision of relevant information and advertisements. Travellers will no longer need to search for the different options available to them, as only travel services that match their needs and preferences shall be immediately pointed out to them. Furthermore, last minute bookings and changes in bookings can be made at very short notice (Michael, 2014).

Travel 3.0 is a challenge to key players in the tourism sector who are still embracing the traditional way of operating their business (Amadeus, 2015). These players have to understand how the major brands in the tourism sector are operating. This could prove to be quite challenging to the traditional key players who are already encountering issues in embracing Travel 2.0.

### 4.4 Conclusion

The tourism sector is expected to shift from having a connected property to a connected guest where tourism operators need to engage with travellers throughout the whole travel cycle. This process is facilitated through the use of various technologies. In this regard, this chapter referred to three relevant trends that were presented at the World Travel Market in the 2014 and 2015: wearable technologies, WeChat and Travel 3.0. Through the use of wearable technologies, travellers will be continuously updated on their trip through notifications and will be able to make last minute bookings. WeChat is an application that allows travellers to conduct research, place bookings and effect payments. Travel 3.0 involves the provision of personalised services based on travellers’ preferences which shall be possible through the use of technology. The main challenge that businesses will be facing is to use technology in a flexible way to address the travellers’ needs.

The next chapter provides a snapshot of the current level of digitalisation within Europe. It provides an analysis on the level of usage and purpose of the internet and social media by individuals. An analysis is also carried out on the enterprises that are integrating technology within their organisational structures and practices.

# 5 Digitalisation in Europe

## 5.1 Internet Usage and Activities

In the last eight years, the EU (28 countries) has witnessed an increase in the number of households having access to the internet at home. Indeed, from 60% of households with internet access in 2007, it increased by 21 percentage points reaching 81% in 2015.

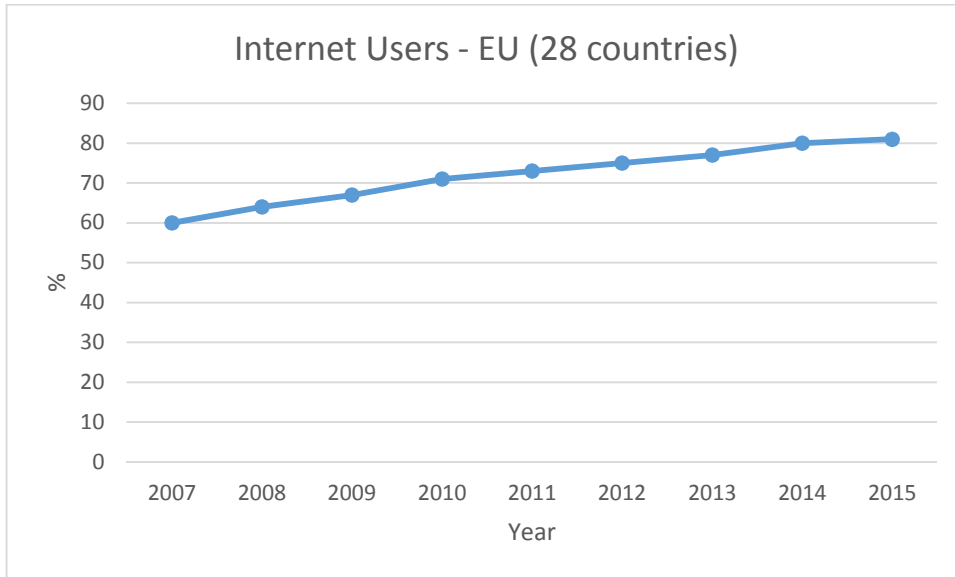


Figure 1.9: Internet Users - EU 28 countries (Eurostat, 2015 a)

Further analysis at country level shows that the level of internet penetration varies between 98% in Luxembourg and Iceland to 54% in Turkey. Overall, the EU as a whole fares well compared to other large countries / continents such as Australia (84.6%), Canada (87.1%), and (North America (87.4%) (World Bank, 2016).

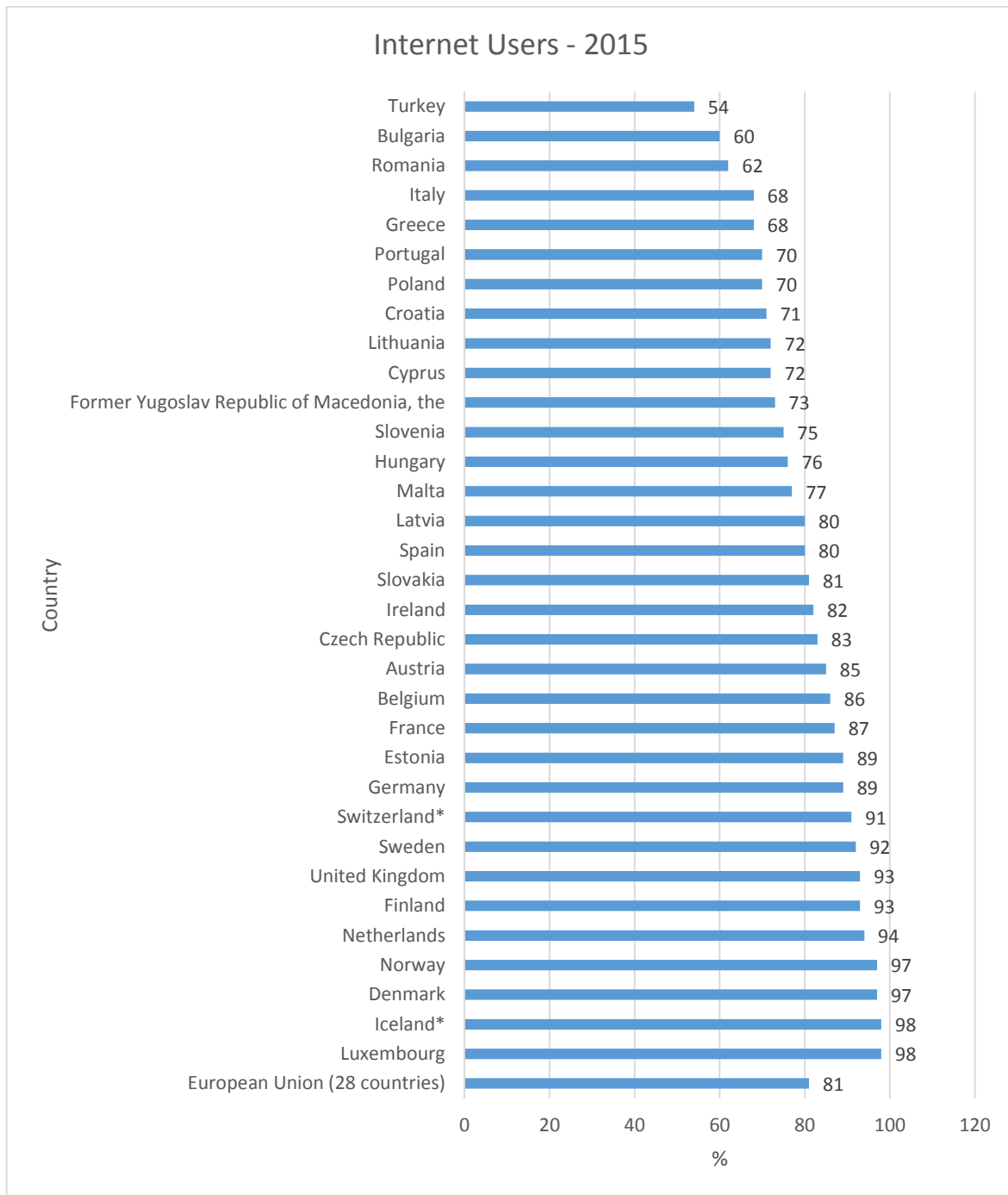


Figure 1.10: Internet Users (Eurostat, 2015 a)

Statistics show that Europeans use the internet for various activities, including for communication purposes and searching for information. Table 1.1 below shows that sending and receiving emails is the most common activity that is carried out over the internet at 69%. This is followed by finding information on goods and services (61%), reading online newspapers (54%) and participating in social media (50%).

Table 1.1: Internet Activities by Individuals - Year 2015

	European Union (28 countries) %
<b>Sending / Receiving emails</b>	69
<b>Finding information about goods and services</b>	61
<b>Reading online news sites / newspapers / news magazines</b>	54
<b>Internet use: participating in social networks (creating user profile, posting messages or other contributions to Facebook, Twitter, etc.)</b>	50
<b>Internet banking</b>	46
<b>Travel and accommodation services</b>	39
<b>Playing / downloading games, images, films or music *</b>	38
<b>Telephoning or video calls</b>	29
<b>Uploading self-created content to any website to be shared</b>	29
<b>Downloading software</b>	23
<b>Selling goods or services</b>	19
<b>Playing networked games with other persons*</b>	12
<b>Posting opinions on civic or political issues via websites (e.g. blogs, social networks, etc.)</b>	11
<b>Making an appointment with a practitioner via a website*</b>	10
<b>Creating websites or blogs*</b>	9

\* Data refers to the year 2014. Source: Taken and adapted from (Eurostat, 2015 b)

### 5.1.1 Social Media and Travel Services

For the purpose of this study, it is worth analysing in further detail the individuals' participation in social media and their interest in travel and accommodation services.

Data provided by Eurostat (2015) shows that there has been an increase in the number of individuals who participate in social media. Such participation means the creation of a profile and the posting of messages on the different social media networks. Indeed, this was done by 50% of individuals within the EU in 2015, translating into an increase of 12 percentage points on the year 2011.

Table 1.2: Individuals' Participation In Social Media (Eurostat, 2015 b)

	2011	2013	2014	2015
<b>European Union (28 countries) %</b>	38	43	46	50

A breakdown of this statistic shows that the individuals who participate in social media are mainly those aged between 16 and 24 years. However, in three years, there has been an average increase of 10 percentage points in the number of individuals aged 35 to 44 years, 45 to 54 years, and 55 to 64 years who participate in social media.

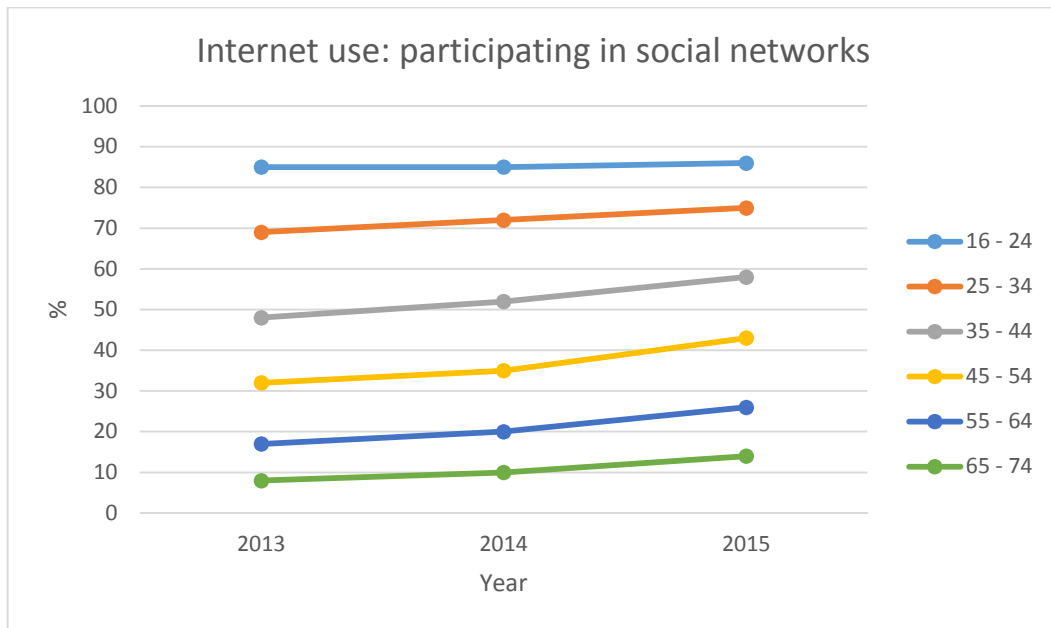


Figure 1.11: Internet Use: Participating in Social Networks According to Age (Eurostat, 2015 b)

Nordic countries, especially Iceland and Norway, rank high in their citizens' participation on social media, together with Luxembourg, Belgium and the United Kingdom. Indeed, in Iceland, 83% of citizens participate in social media, compared to 73% in Norway, 68% in Luxembourg, 67% in Belgium, and 66% in the United Kingdom.

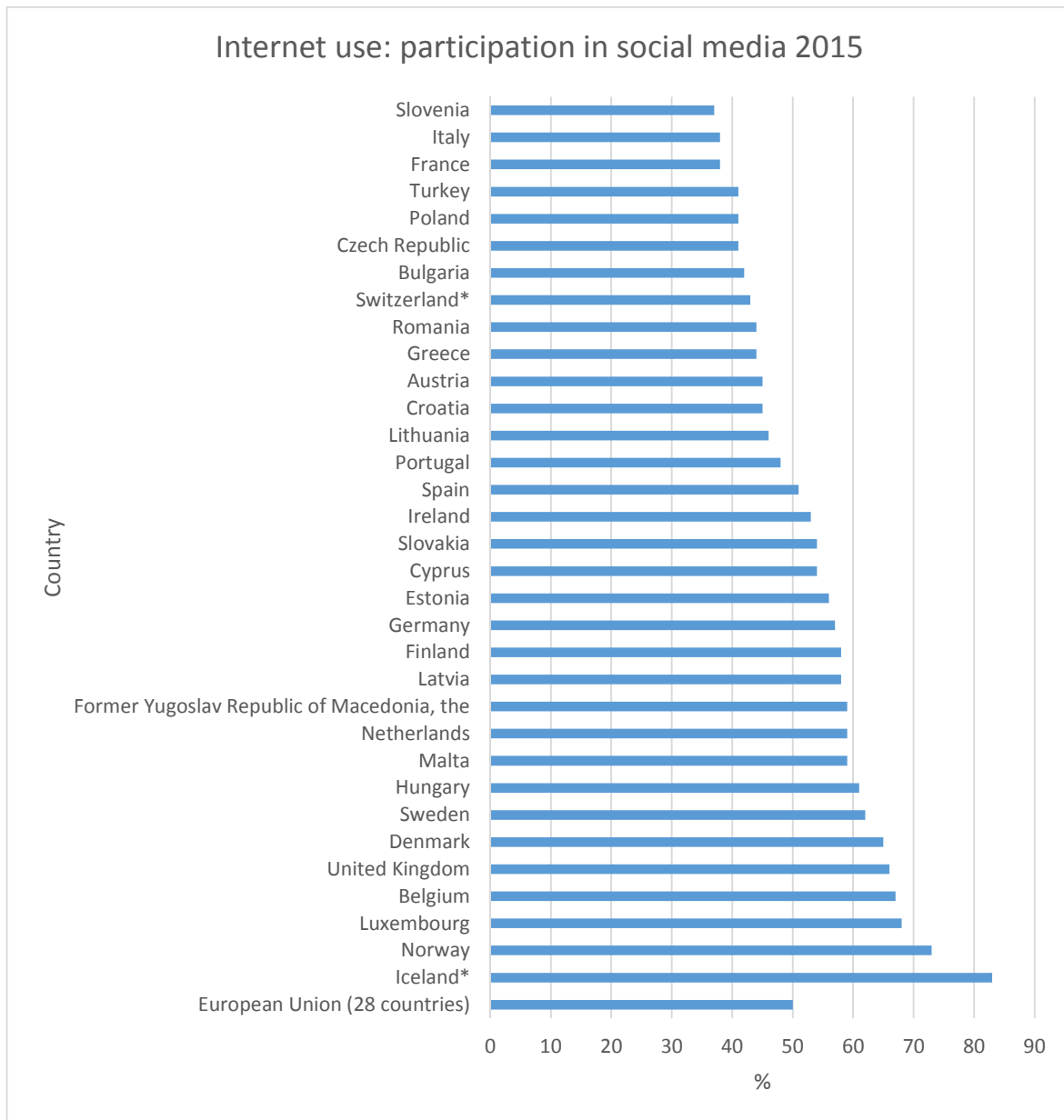


Figure 1.12: Internet Use: Participation in Social Media by Country (Eurostat, 2015 b)

Focusing on travel and accommodation services, the number of individuals using the internet for this activity stood at 39% in the year 2015. This reflects an increase of 8 percentage points since 2007.

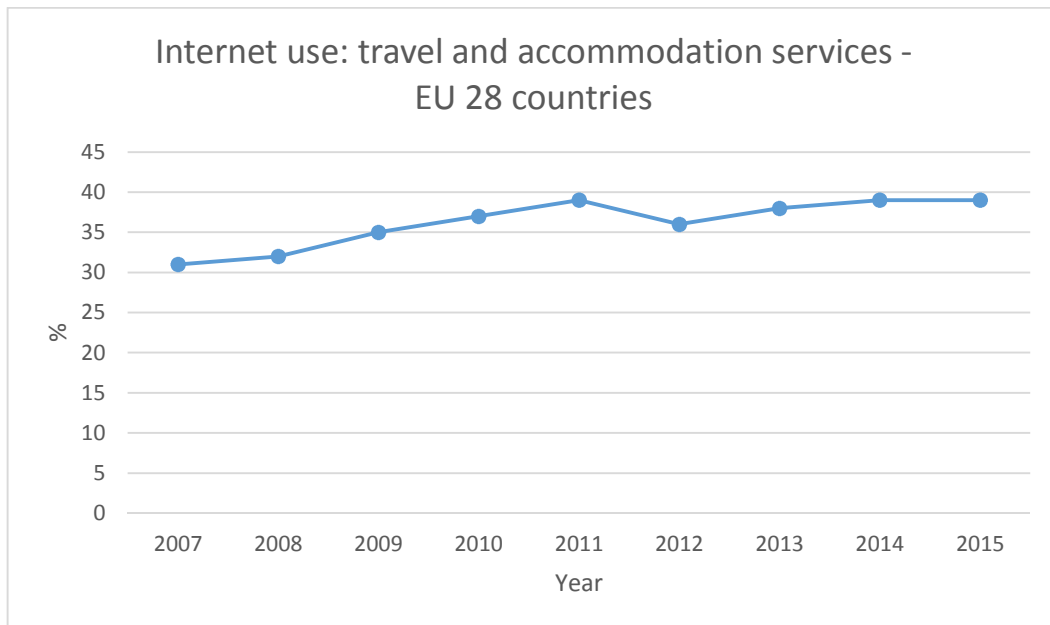


Figure 1.13: Internet use: travel and accommodation services (Eurostat, 2015 b)

Those who make use of the internet for the purpose of travel and accommodation services are mainly those aged between 25 and 34 years. The older age group experienced the largest increase in the use of the internet for this activity, with a 15 percentage point increase among those aged between 65 to 74 years, standing at 24% in 2015 compared to 9% in 2007.

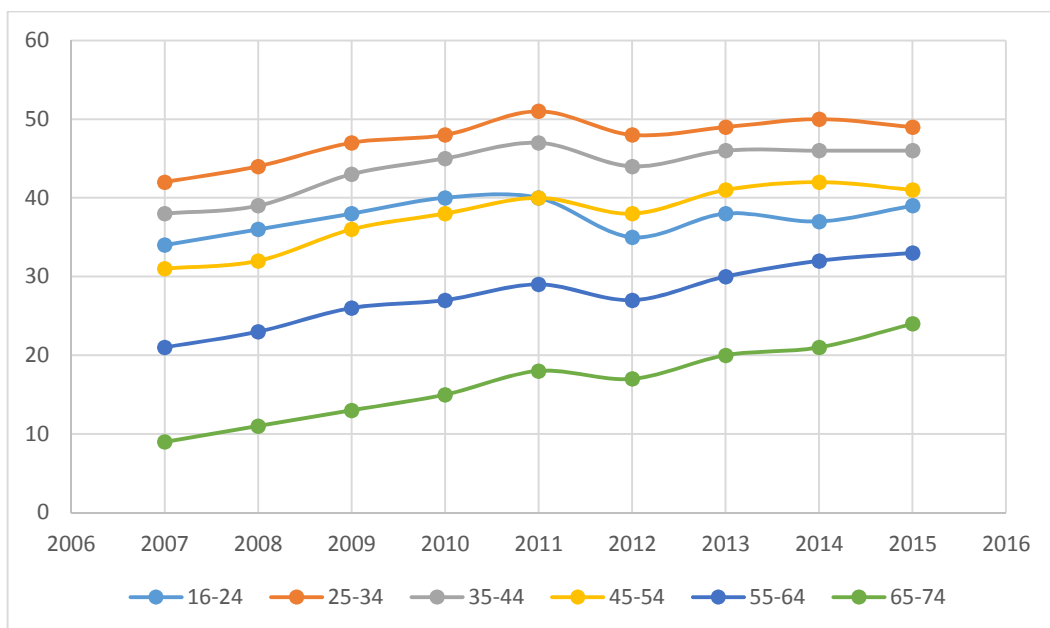


Figure 1.14: Internet Use: Travel and Accommodation Services According to Age (Eurostat, 2015 b)

An analysis at country level shows that the use of the internet for travel and accommodation services is most common in the Nordic countries. As shown in Figure 1.15, 66% of individuals in Denmark and Luxembourg use the internet for travelling purposes. These are followed by Finland (64%), Norway (62%), and Germany (58%).

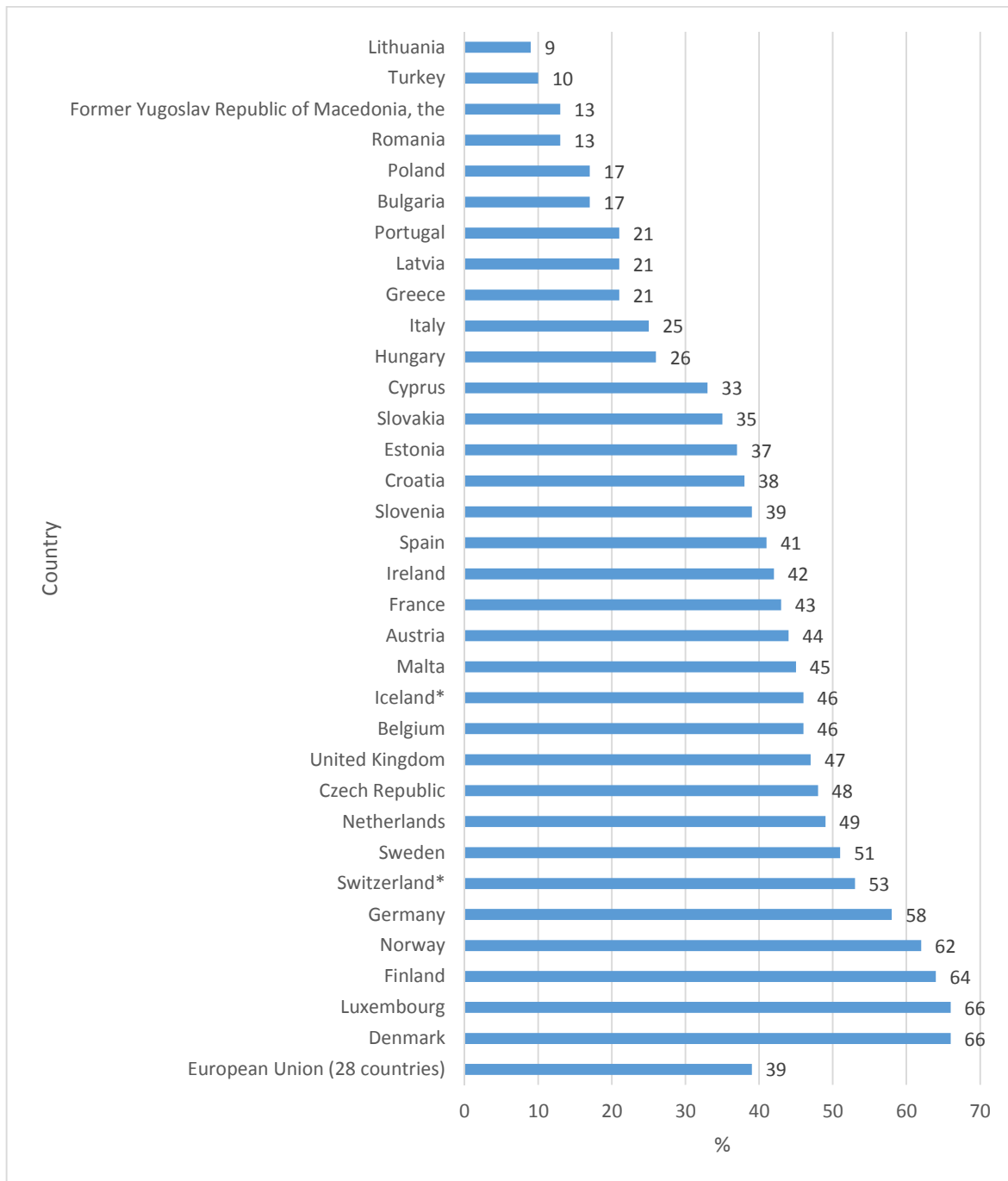


Figure 1.15: Internet Use: Travel and Accommodation According to Country (Eurostat, 2015 b)

\* Data refers to the year 2014

An indication on the percentage of European citizens placing their travel related bookings online can be obtained using the Eurostat’s data on the online booking of travel and holiday accommodation. Data on online bookings shows a similarity in trend to those observed in the individuals’ participation in social media and the use of the internet for travel and accommodation purposes. Indeed, the number of people making online bookings for their trips has increased consistently, almost year on year, reaching a peak in 2014 at 27%.



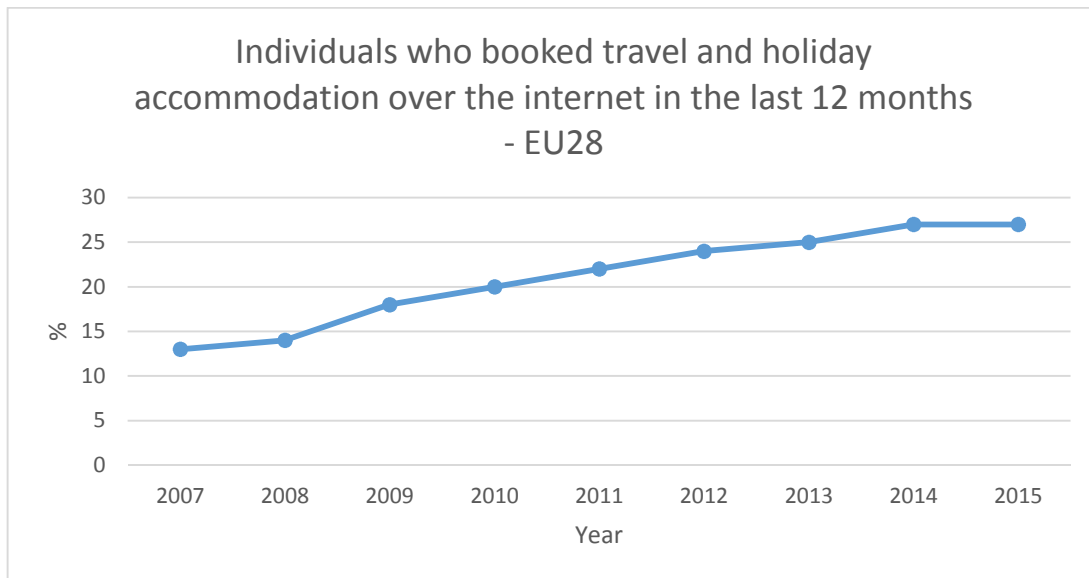


Figure 1.16: Individuals Who Booked Travel and Holiday Accommodation Over the Internet in the Last 12 Months - EU28 (Eurostat, 2015 c)

Once again the majority of the individuals placing travel bookings online are citizens of Nordic countries. Denmark positions itself first among the EU28 with the highest number of individuals making online bookings at 57%. Denmark is followed by Norway (54%), the UK (51%), Sweden and Finland (both 49%).

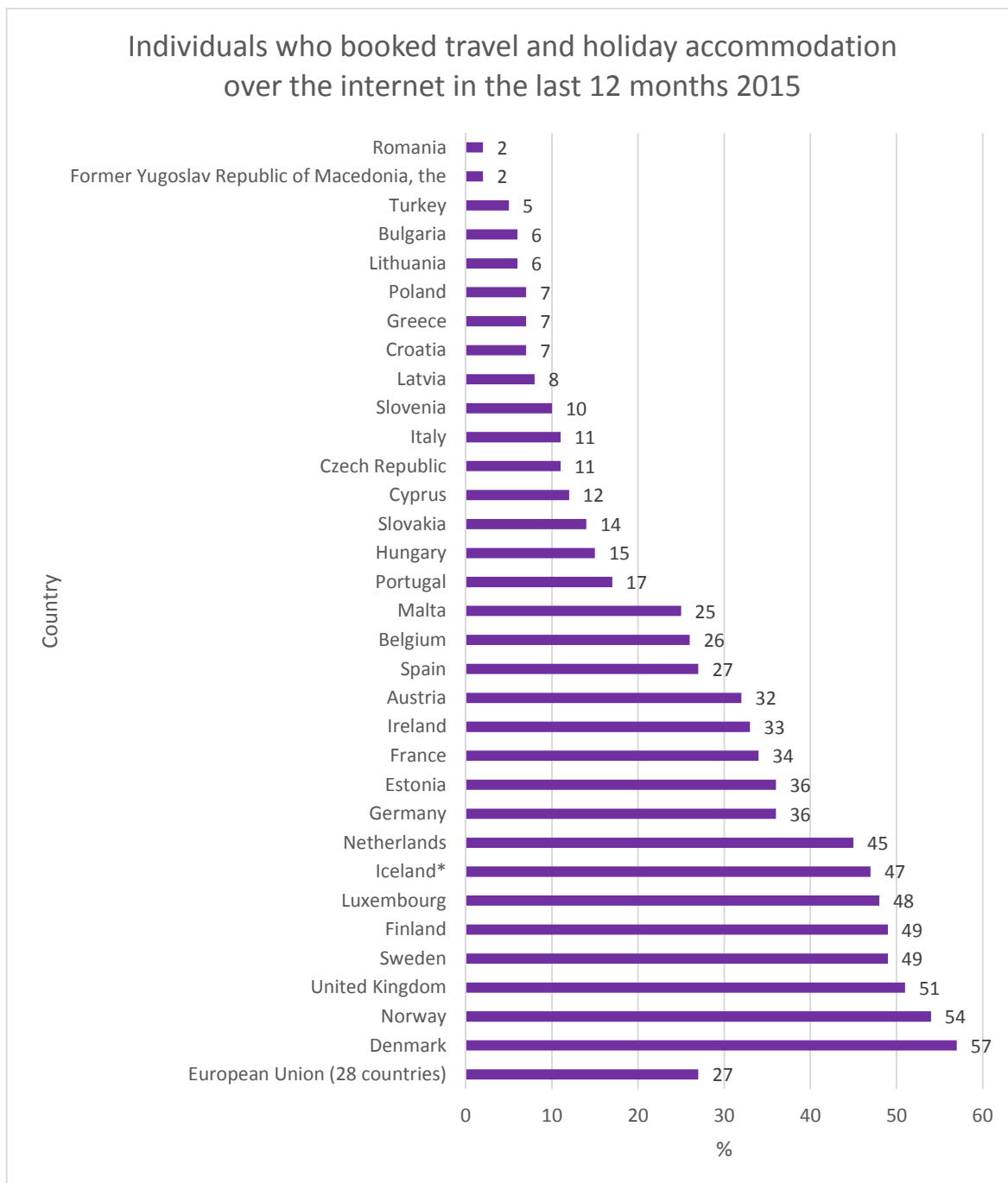


Figure 1.17: Individuals Who Booked Travel and Holiday Accommodation over the Internet in the Last 12 Months by Country (Eurostat, 2015 c)

The role that ICT plays in the tourism sector can also be gauged by the data presented in the Flash Eurobarometer 414 “Preferences of Europeans towards Tourism” (2015). The research carried out as part of this project sought to identify the main sources of information when travellers are planning their trips. In line with global trends, in the EU it also emerged that the main sources of information are recommendations from friends, colleagues or relatives (55%). However, 46% of the respondents cite websites as important sources of information. The ample use of websites was mostly identified by individuals in Finland (65%), the Netherlands (63%), and Luxembourg (58%). According to the same report, those aged between 15 and 24 years are more likely to consider recommendations from family and friends (67%) and social media (13%) than the other age groups. Websites were mentioned by more than half of the respondents in the age groups 15 to 24 years, 25 to 39 years, and 40 to 54 years. Those aged

55 years and over are the least likely to refer to websites and seem to be the ones to mostly make use of travel agencies (23%) and free catalogues or brochures (14%).

The Eurobarometer also sought to identify the methods used by travellers to organise<sup>6</sup> trips and holidays. In this regard, the internet was the main method utilised by 66% of the respondents (European Commission, 2015 b). Travellers in Ireland, Finland, and the Netherlands made extensive use of the internet for the organisation of their holidays at 84%, 83%, and 82% respectively. An analysis according to age shows that those in the age group 25 to 39 years are the ones most likely to book their holidays over the internet (77%). Travellers aged 55 years and over are the ones least likely to use the internet for organising holidays (51%), instead preferring to do so through a travel agency (20%).

## 5.2 ICT and SMEs in the EU

### 5.2.1 E-commerce within the EU

There seems to be a correlation between the increased level of internet access and e-commerce (Tourism Economics, 2013). Indeed, the larger the internet penetration, the larger the number of businesses that make use of e-commerce.

Despite acknowledging the importance of e-commerce, the number of European SMEs that receive orders over the internet is still low. Between the years 2010 and 2015, the number of SMEs that retail online increased by just 5%, standing at 19% in 2015.

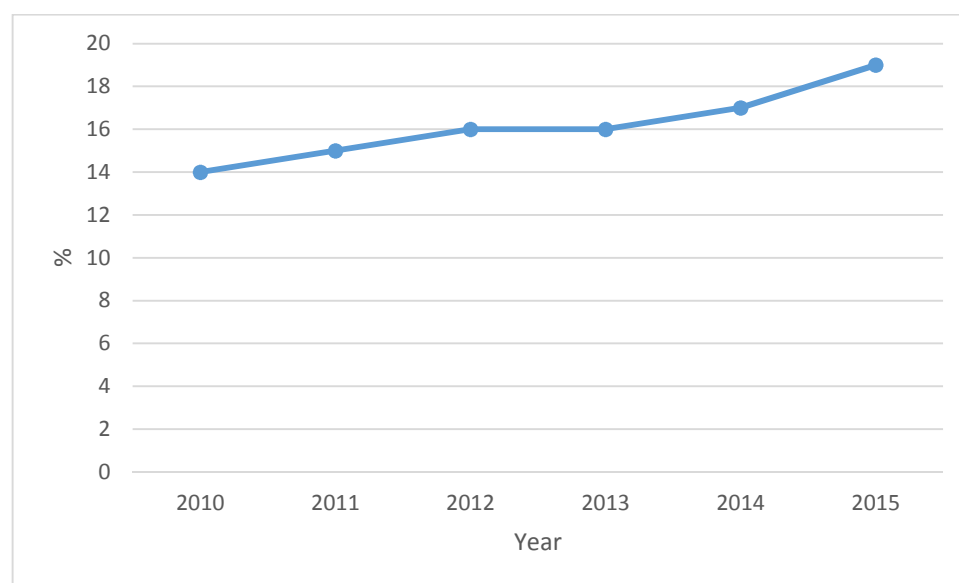


Figure 1.18: SMEs Having Received Orders via Computer Mediated Networks - EU28 (Eurostat, 2016 b)

In line with the statistics on internet usage, Nordic countries rank high in the number of SMEs that make use of e-commerce. Indeed, Iceland ranks first with 33% of SMEs selling online, followed by Ireland which ranked second at 32%.

<sup>6</sup> For the purpose of the fieldwork as part of the Eurobarometer 414 “Preferences of Europeans Towards tourism”, ‘organise’ meant looking for information, comparing prices and placing bookings.

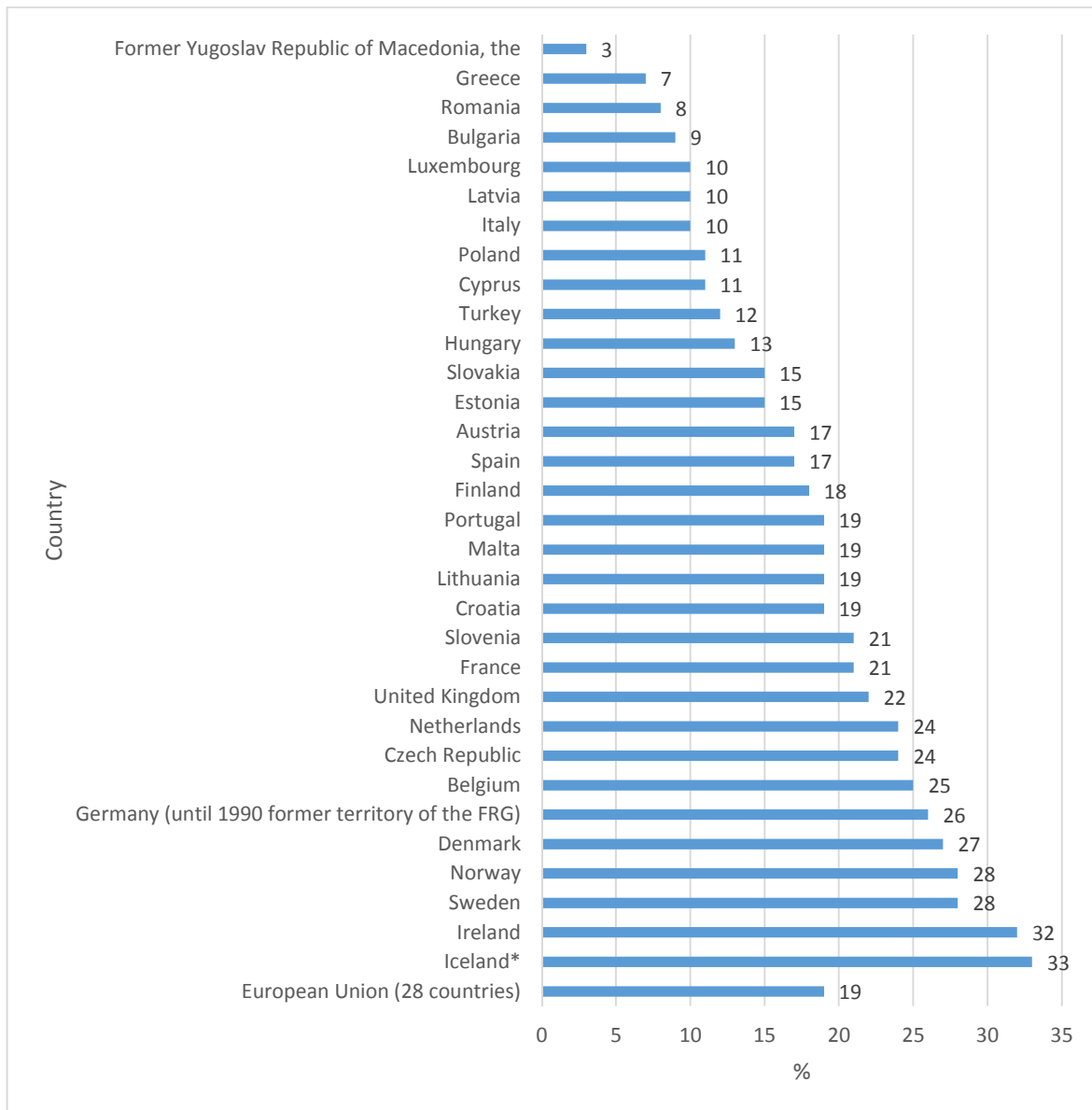


Figure 1.19: SMEs Having Received Orders via Computer Mediated Networks by Country – 2015 (Eurostat, 2016 b)

\* data refers to the year 2014

Specific data relative to the use of e-commerce by SMEs in the tourism sector could not be sourced. However, Eurostat collates data relative to the adoption of e-commerce by enterprises in the accommodation sector. This sector has witnessed a higher percentage increase in the number of enterprises that have adopted e-commerce as a sales channel. Indeed, e-commerce adoption has increased from 44% in 2009 to 63% in 2015.

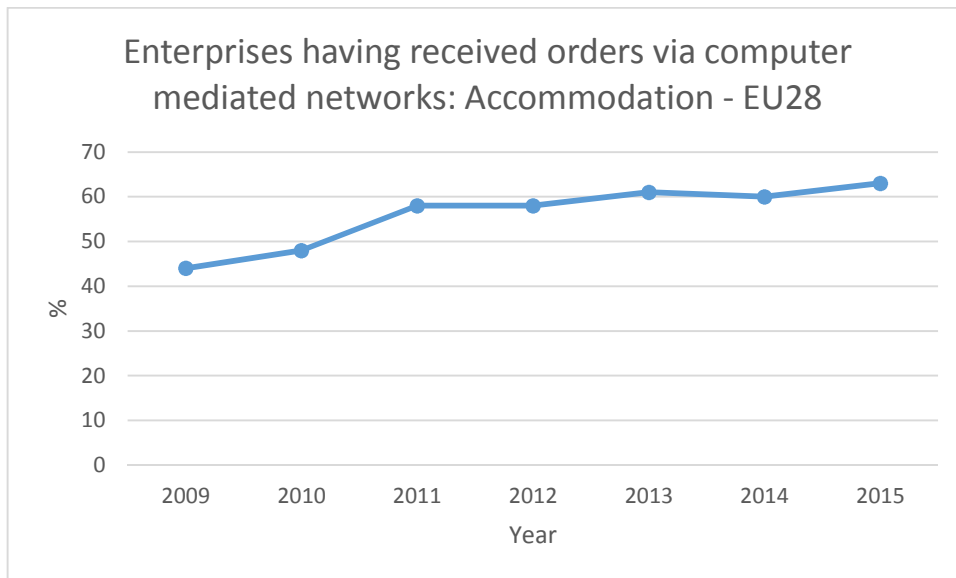


Figure 1.20: Enterprises Having Received Orders via Computer Mediated Networks: Accommodation - EU28 (Eurostat, 2016 b)

Whereas previous analyses have always shown the Nordic countries to be at the forefront in terms of internet usage, this trend is not present within the accommodation sector. Indeed, analysis at country level shows that the countries with the higher number of accommodation enterprises selling their product via the internet are: Ireland (86%), Spain (83%), Slovenia (79%), Malta and UK (both at 77%).

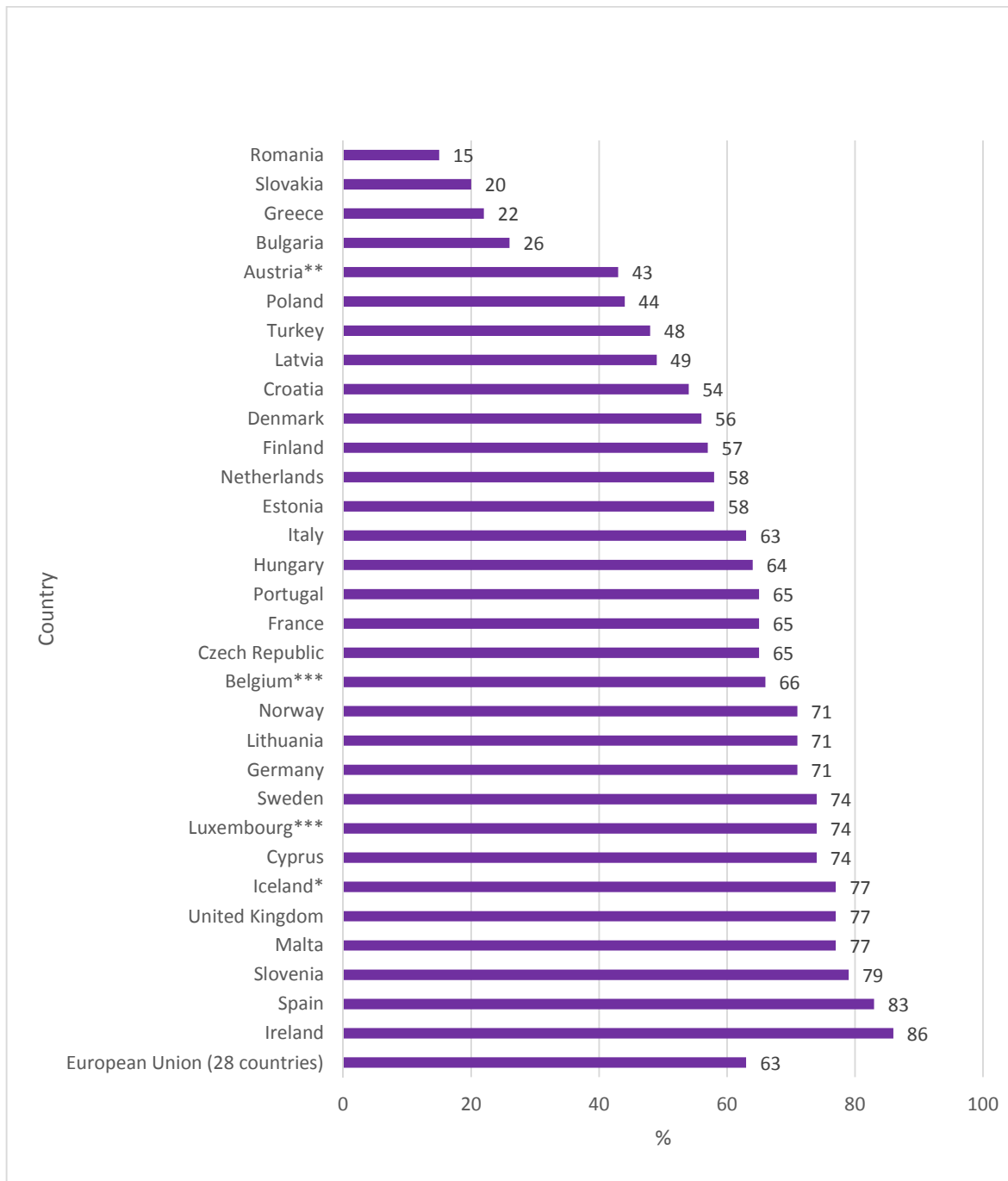


Figure 1.21: Enterprises Having Received Orders via Computer Mediated Networks: Accommodation by Country 2015 (Eurostat, 2016 b)

- \* data refers to the year 2014
- \*\* data refers to the year 2013
- \*\*\* data refers to the year 2012

Eurostat also collates data on the country from which the sale is made. It is interesting to note that, for both the enterprises in general and for the accommodation enterprises specifically, there is a higher percentage of enterprises that sell within their own country. Figure 1.22 shows that, whereas there was a constant increase in the number of enterprises selling online, most of these enterprises are selling within their own country. In 2015, 17% of the enterprises were selling within their country with almost half (8%) of these selling to other countries within the EU. Only 4% of the enterprises are selling to countries outside the EU.

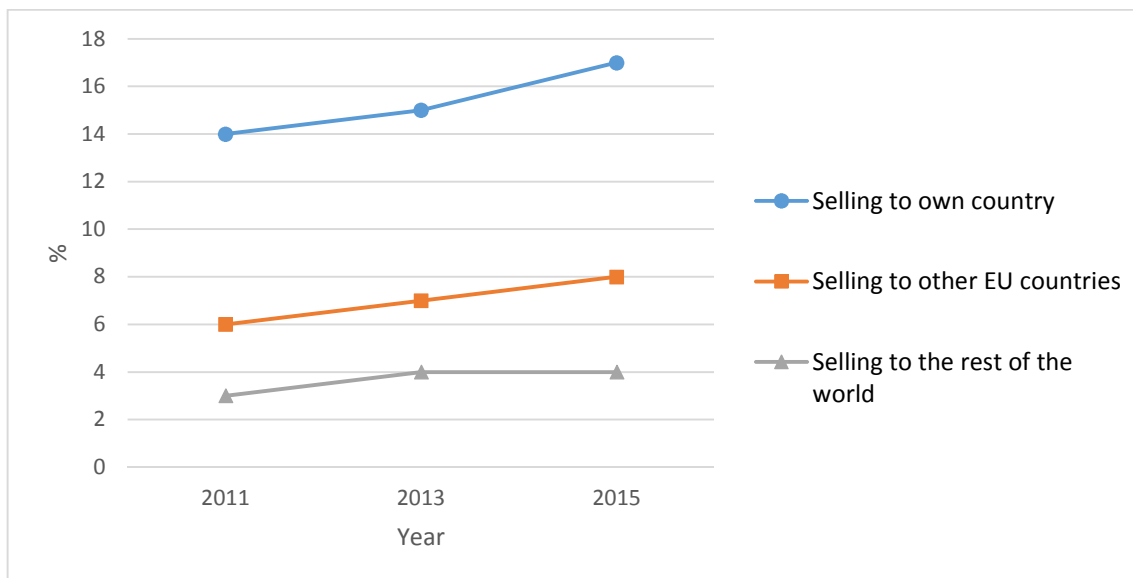


Figure 1.22: Enterprises Having Received Electronic Sales: Country of Sales - EU28 (Eurostat, 2016 b)

A similar trend can also be witnessed in Figure 1.23. In 2015, 63% of the enterprises in the accommodation sector were selling their product to customers within the boundaries of their country. A lower percentage of enterprises were selling to customers in other countries of the EU and to those outside the EU, standing at 53% and 43% respectively.

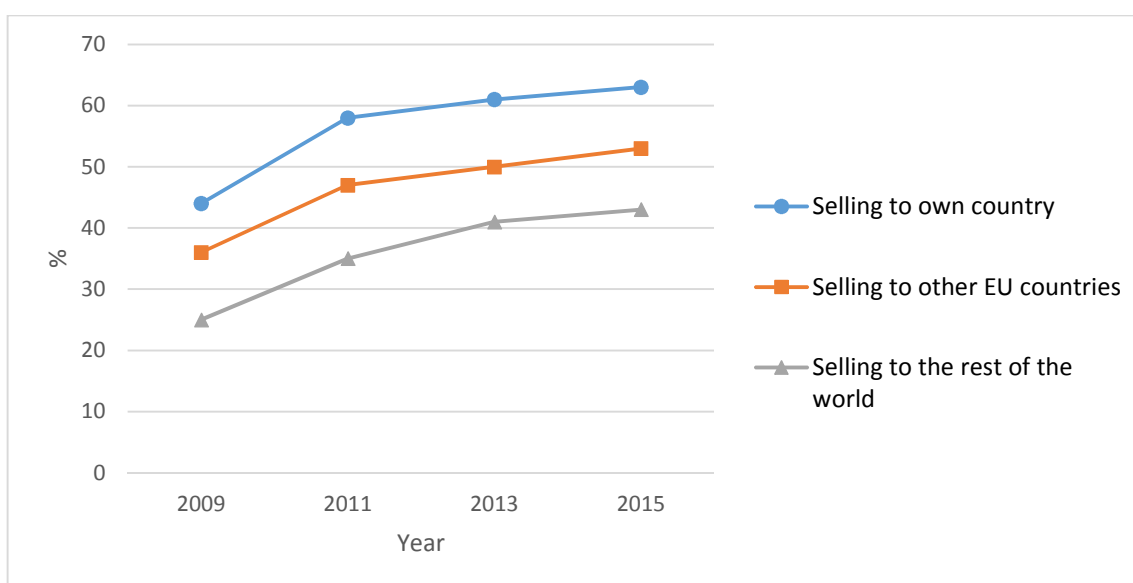


Figure 1.23: Accommodation Enterprises Having Received Electronic Sales: Country of Sales - EU28 (Eurostat, 2016 b)

### 5.2.2 Income Generated from e-Commerce

The income generated from e-commerce as a percentage of the total income has remained at a constant level of 8% to 9% in the last five years at an EU level. However, focusing on the accommodation industry, there has been a constant increase in the total turnover generated from e-commerce. In the year 2010 the income generated from e-commerce represented 11% of the total turnover generated by the accommodation sector, which has now increased significantly to 27% in 2015.

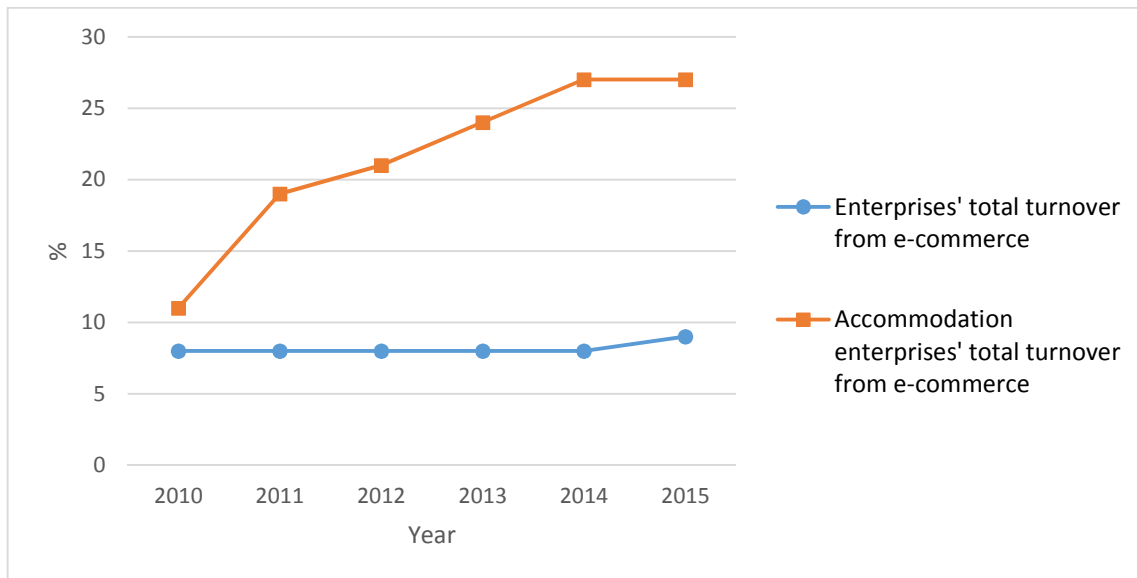


Figure 1.24: Total Turnover from e-Commerce - EU28 (Eurostat, 2016 f)

An analysis at country level shows that Lithuania is the country whose accommodation enterprises have generated most of the turnover from e-commerce, representing 40%. Lithuania is followed by Norway, which generated 37%; Ireland and UK which both generated 35%; and Spain and the Netherlands, both of which generated 34%.



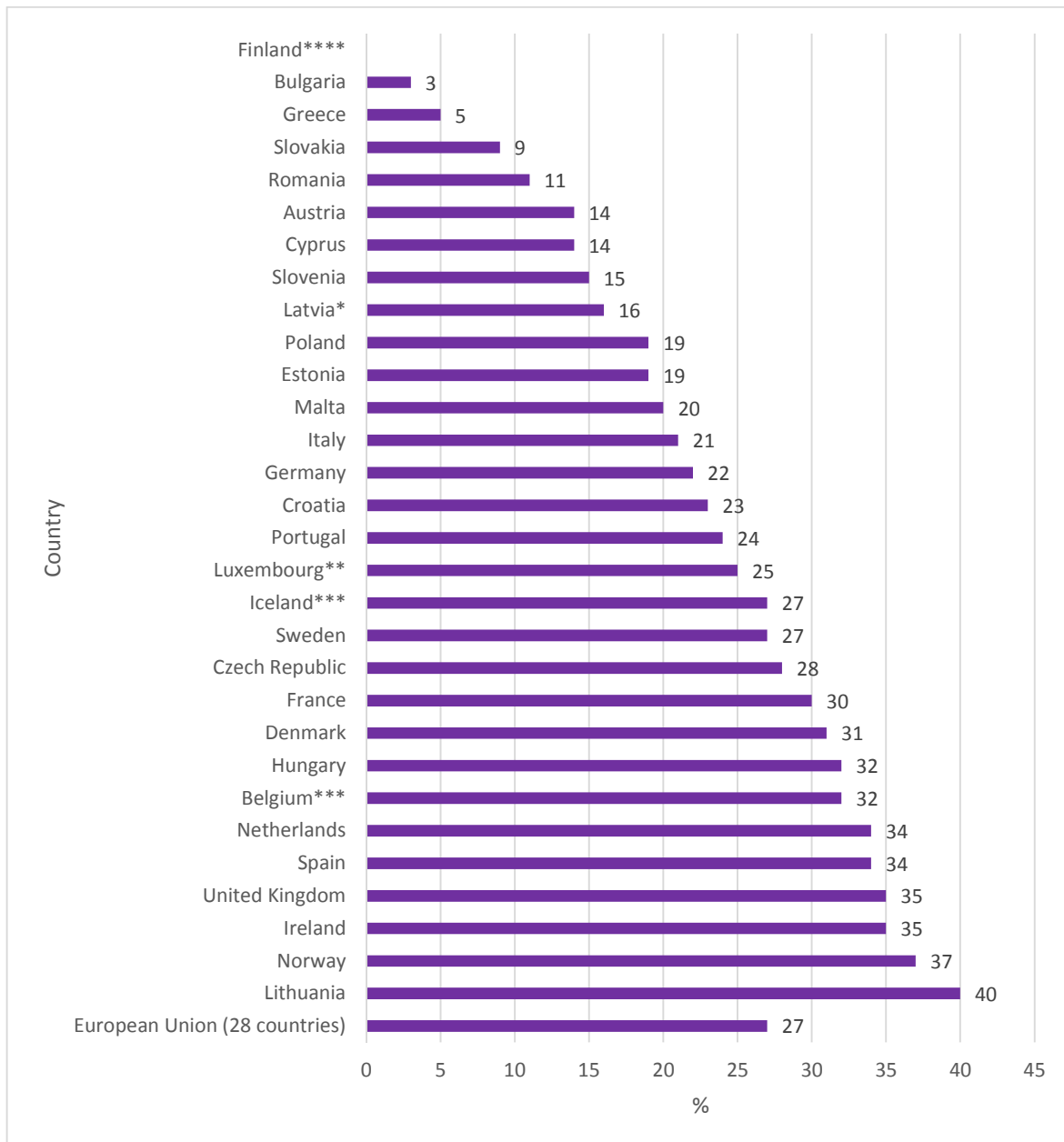


Figure 1.25: Accommodation Enterprises' Total Turnover from e-Commerce by Country 2015 (Eurostat, 2016 f)

\* data refers to the year 2014

\*\* data refers to the year 2013

\*\*\* data refers to the year 2012

\*\*\*\* data unavailable

### 5.2.3 Enterprises Participation in Social Media

Data relative to the enterprises' use of social media is only available for the years 2014 and 2015 (Eurostat, 2016 e). Between 2014 and 2015, there was a four-percentage-point increase in the number of SMEs making use of social media, to stand at 36% in 2015. An analysis at country level shows that Malta has the highest number of SMEs that engage on social networks (71%), followed by Ireland (61%), Netherlands and Iceland (60%) and Norway (58%).

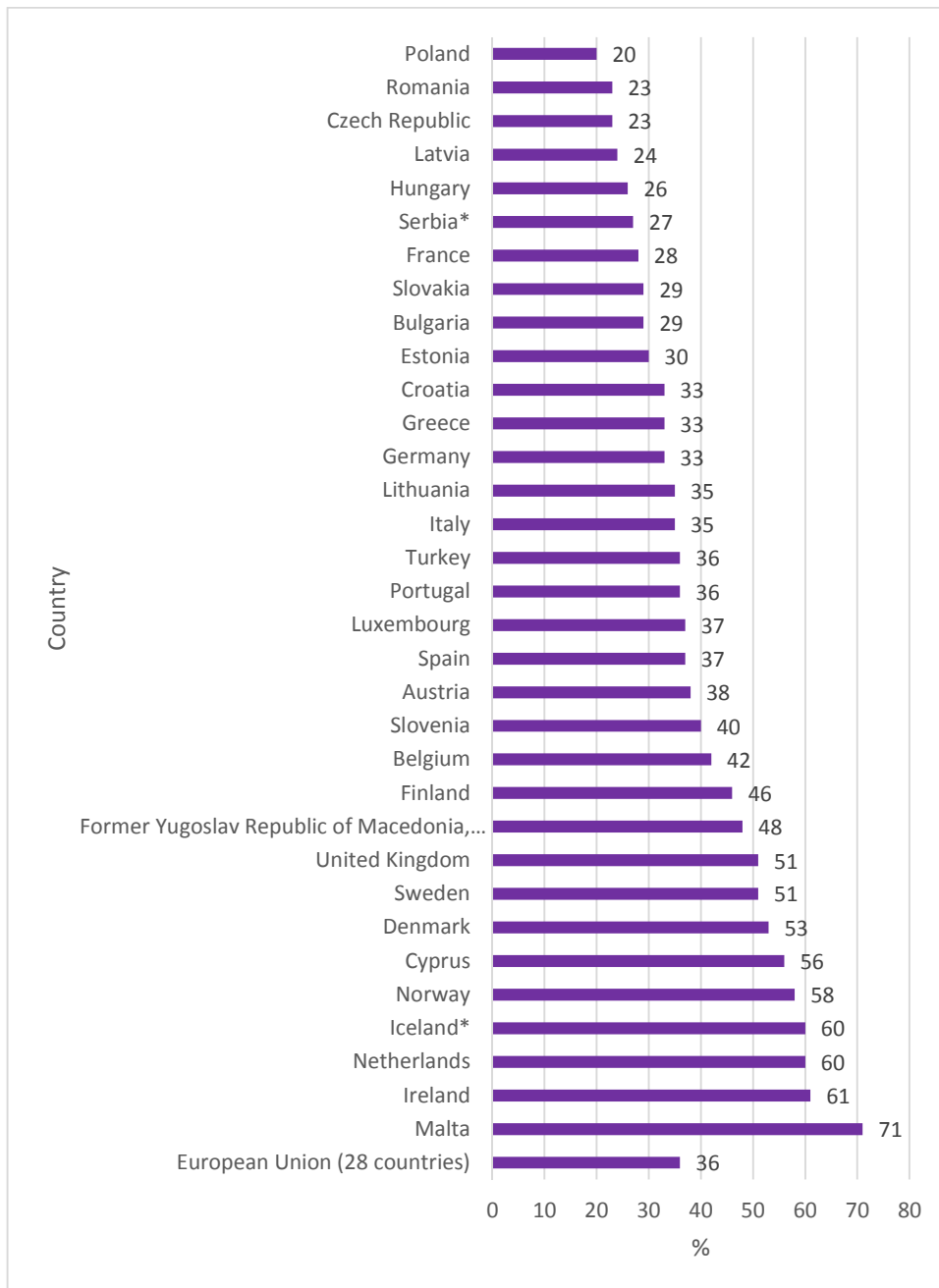


Figure 1.26: SMEs Using Social Media by Country 2015 (Eurostat, 2016 e)

\* data refers to the year 2014

Focusing on the accommodation sector, 73% of the businesses in the accommodation sector participated in social media in the year 2015, translating into an increase of five-percentage-points over the previous year. Further analysis shows that businesses in the Irish accommodation sector are the ones that mostly participate in social media at 95%. The Nordic countries also rank high, with Norway at 93% (ranking second), Sweden and Iceland at 88% (ranking fourth and fifth) and Finland at 86% (ranking sixth). The Netherlands ranks third in the list at 89%.

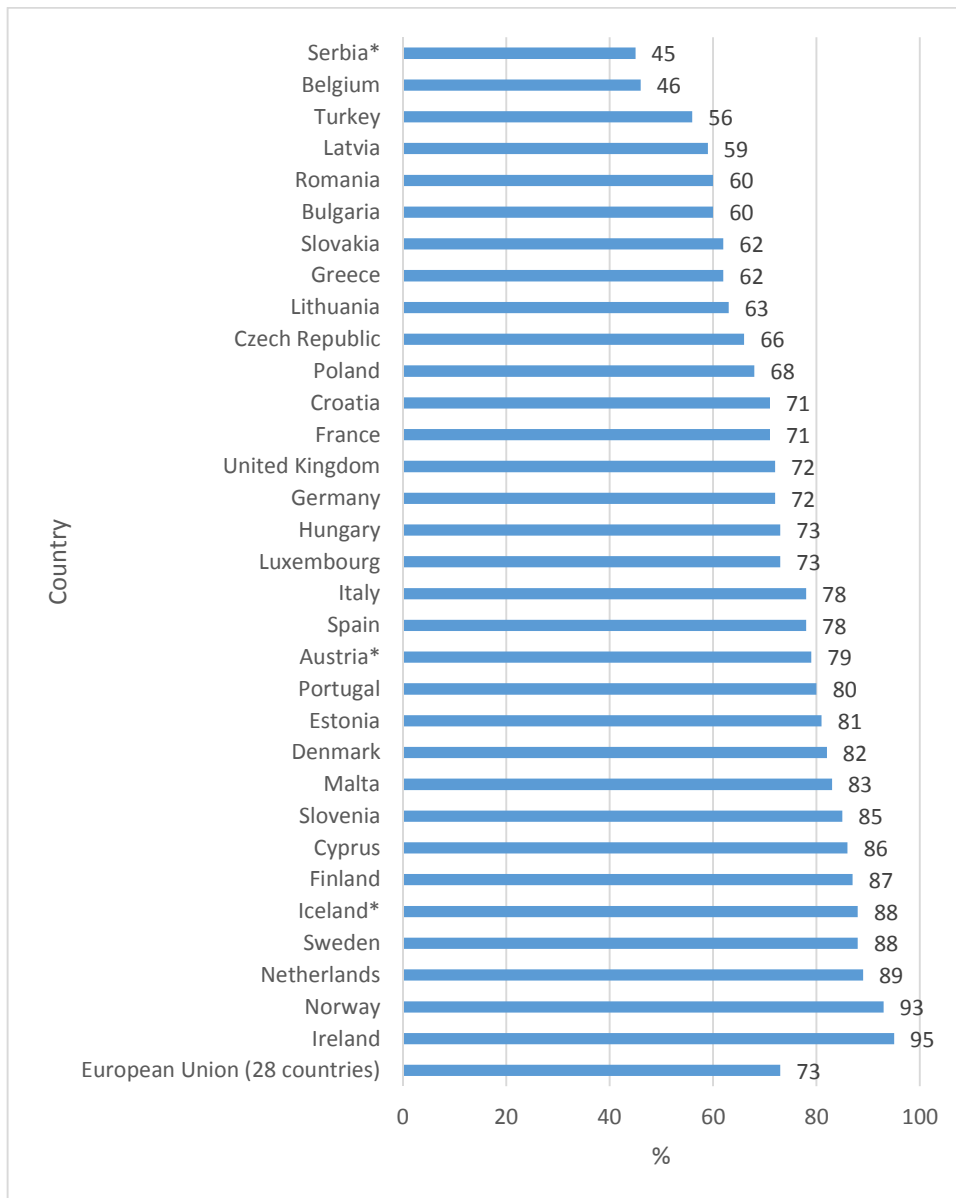


Figure 1.27: Accommodation Enterprises Using Social Media by Country 2015 (Eurostat, 2016 e)

\* data refers to the year 2014

SMEs mainly make use of social media as a way of developing the enterprise's image or to market its products (30%). Around 20% of the enterprises also use social media to extract feedback from customers, whilst 14% use it for recruiting purposes. Social media is also being used by 10% of enterprises as a way of involving customers in the development of goods or services. Only 9% of enterprises use social media to collaborate with other businesses.

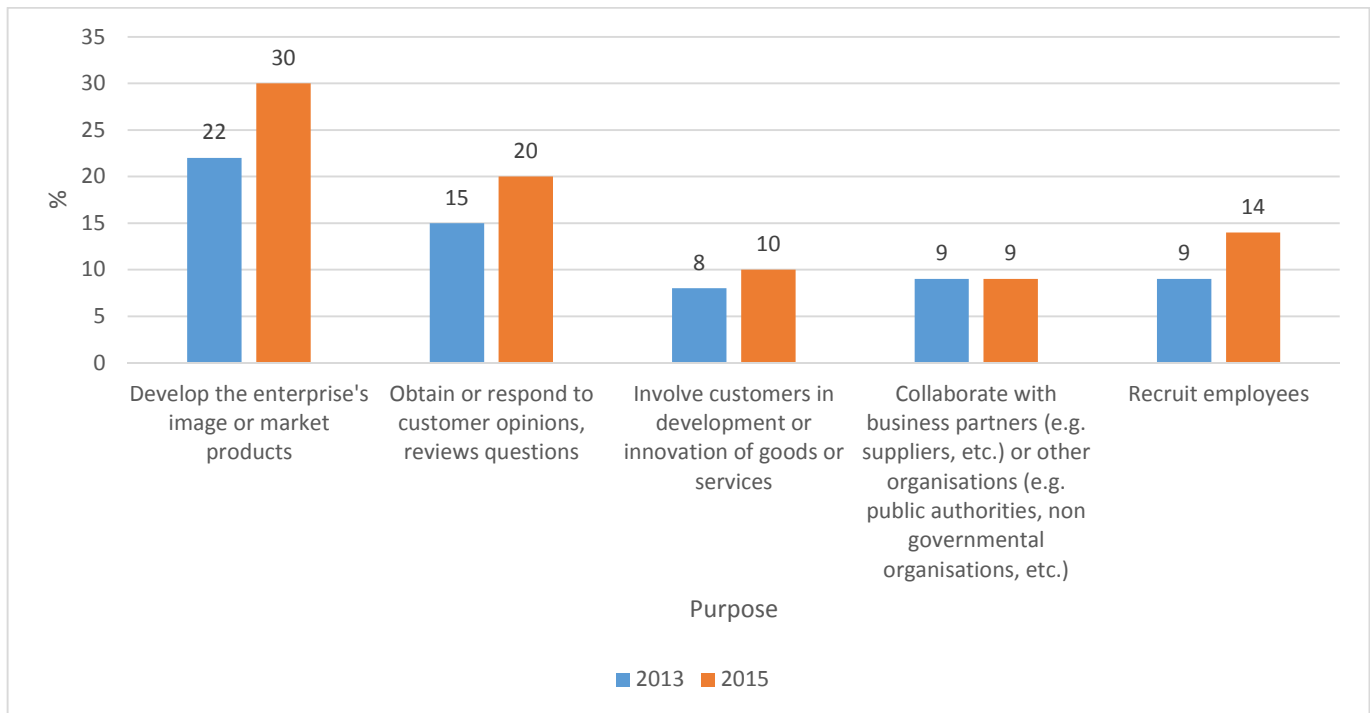


Figure 1.28: Purpose of Use of Social Media by Enterprises - EU28 (Eurostat, 2016d)

### 5.3 Cloud Computing

Data available through Eurostat shows that, in the year 2014, 18% of SMEs purchased cloud computing services used over the internet. An analysis at country level shows that 50% of Finnish SMEs purchased cloud computing services, followed by Iceland (42%), Italy (40%), Sweden (39%) and Denmark (37%).

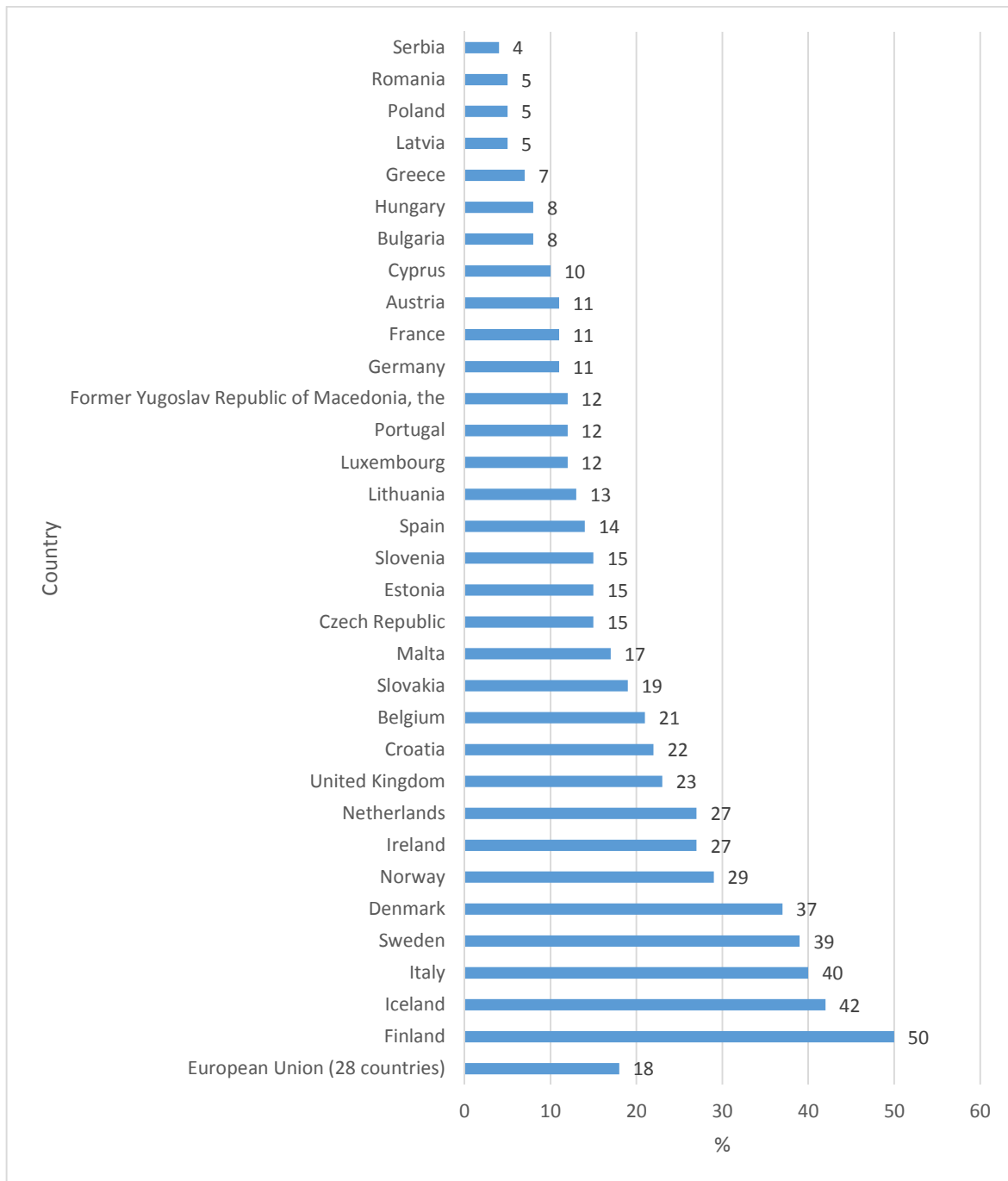


Figure 1.29: SMEs Purchasing Cloud Computing Services Used Over the Internet by Country 2014 (Eurostat, 2016 a)

Data for the year 2015 is sporadic but, from the data available, it appears that there has been an overall increase in the purchase of cloud computing services. Finland still ranks first on the list with 53% of SMEs purchasing cloud computing services. However, Norway and Ireland witnessed an eight-percentage-point increase in the number of SMEs purchasing such services. Malta also experienced a significant increase of seven percentage points in just one year.

Table 1.3: SMEs Purchasing Cloud Computing Services 2014 – 2015 (Eurostat, 2016 a)

	2014 %	2015 %	Change %
<b>Finland</b>	50	53	3
<b>Norway</b>	29	37	8
<b>Denmark</b>	37	36	-1
<b>Ireland</b>	27	35	8
<b>Belgium</b>	21	24	3
<b>Malta</b>	17	24	7
<b>Croatia</b>	22	22	0
<b>Slovakia</b>	19	20	1
<b>Slovenia</b>	15	17	2
<b>Lithuania</b>	13	16	3
<b>Spain</b>	14	14	0
<b>Cyprus</b>	10	13	3
<b>Hungary</b>	8	10	2
<b>Greece</b>	7	9	2
<b>Latvia</b>	5	8	3
<b>Romania</b>	5	8	3
<b>Poland</b>	5	7	2
<b>Bulgaria</b>	8	5	-3

Table 1.4 shows the main cloud computing services purchased by SMEs in the EU28. The main cloud computing services bought related to emails and the storage of files.

Table 1.4: Cloud Computing Services Purchased by SMEs in the Year 2014

	EU28 2014 (%)
<b>Buy email (as a CC service)</b>	12
<b>Buy office software (e.g. word processors, spreadsheets, etc.) (as a CC service)</b>	6
<b>Buy hosting for the enterprise's database (as a CC service)</b>	7
<b>Buy storage of files (as a CC service)</b>	10
<b>Buy finance or accounting software applications (as a CC service)</b>	6
<b>Buy Customer Relationship Management software (as a CC service)</b>	4
<b>Buy computing power to run the enterprise's own software (as a CC service)</b>	3
<b>Buy high CC services (accounting software applications, CRM software, computing power)</b>	8

Focusing on the accommodation sector, 18% of businesses within this sector bought cloud computing services in 2014. Once again, the Nordic countries and Italy ranked high among the accommodation businesses purchasing cloud computing services. Indeed, Iceland ranks first at 64%, followed by Finland (56%), Sweden (46%), Italy (45%), and Denmark (35%).

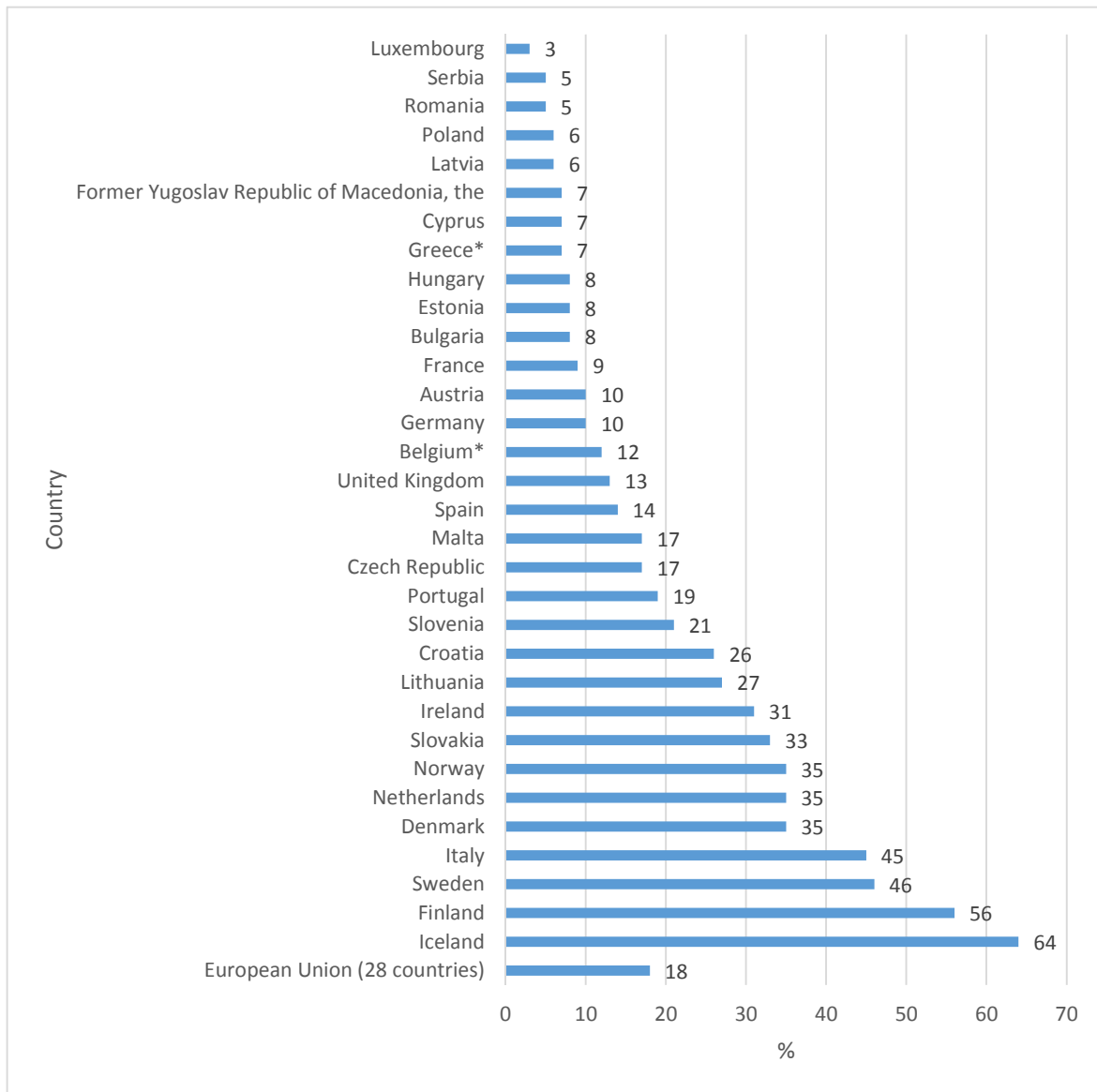


Figure 1.30: Accommodation Businesses Purchasing Cloud Computing Services Used Over the Internet by Country 2014 (Eurostat, 2016 a)

\* data refers to the year 2015

Table 1.5 shows that there has been an overall decrease of around five percentage points in the number of accommodation businesses that purchased cloud computing services in the year 2015. Surprisingly, Eurostat data shows that Cyprus experienced the highest increase (50 percentage points) in the number of businesses purchasing cloud services. Romania also had a high increase of 22 points in the number of businesses purchasing cloud services. On the other hand, businesses purchasing cloud services in Iceland and Finland decreased by over 50 percentage points.

Table 1.5: Accommodation Businesses Purchasing Cloud Computing Services 2014 – 2015 (Eurostat, 2016 a)

	2014 %	2015 %	Change (%)
<b>Cyprus</b>	7	57	50
<b>Norway</b>	35	43	8
<b>Croatia</b>	26	37	11
<b>Italy</b>	45	32	-13
<b>Romania</b>	5	27	22
<b>Hungary</b>	8	24	16
<b>Malta</b>	17	20	3
<b>Ireland</b>	31	18	-13
<b>Iceland</b>	64	12	-52
<b>Czech Republic</b>	17	10	-7
<b>Slovakia</b>	33	7	-26
<b>Portugal</b>	19	7	-12
<b>United Kingdom</b>	13	7	-6
<b>France</b>	9	7	-2
<b>Estonia</b>	8	6	-2
<b>Finland</b>	56	3	-53

In line with the general trend for SMEs, most of the businesses in the accommodation sector investing in cloud services, purchased email services. This was followed by other cloud products such as accounting software applications, CRM and storage.

Table 1.6: Cloud Computing Services Purchased by Accommodation Businesses in 2014 (Eurostat, 2016 a)

	EU28 %
<b>Buy email (as a CC service)</b>	13
<b>Buy office software (e.g. word processors, spreadsheets, etc.) (as a CC service)</b>	7
<b>Buy hosting for the enterprise's database (as a CC service)</b>	7
<b>Buy storage of files (as a CC service)</b>	8
<b>Buy finance or accounting software applications (as a CC service)</b>	7
<b>Buy Customer Relationship Management software (as a CC service)</b>	5
<b>Buy computing power to run the enterprise's own software (as a CC service)</b>	3
<b>Buy high CC services (accounting software applications, CRM software, computing power)</b>	10

## 5.4 Summary

The first part of this chapter analysed use of the internet over time across the EU28 countries, and the activities that individuals carry out over the internet. In recent years, there has been a continuous increase in the use of the internet, which is mainly used for communication purposes. There has also been an increase in individuals' participation on social media through the creation of profiles and the uploading of postings. There is a high percentage of individuals



who use the internet for travel and accommodation services, especially among those aged 25 and 34 years. In 2015, around 27% of EU citizens booked their travel arrangements over the internet.

The second part of this chapter focused on how enterprises are making use of the internet and other technology available. The uptake of e-commerce by EU SMEs is still low, standing at 19% in the year 2015. However, there is a much higher percentage of enterprises in the accommodation sector that made use of e-commerce in the year 2015 (63%) whose 27% of income was generated from e-commerce. There is a high percentage of operators in the accommodation sector (73%) that are making use of social media as a way of engaging with travellers. Enterprises mainly make use of social media to develop the enterprises' image or that of their products. Data shows that, in 2014, only 18% of enterprises bought cloud computing services, which mainly related to emails and the storage of files.

The next chapter identifies the main barriers that are hindering SMEs and tourism operators from integrating technology within their business. Particular emphasis is also given to the circumstances of enterprises operating within the EU.

# 6 Challenges

## 6.1 Barriers to ICT Adoption in SMEs

As quoted by Lian Chan (2012), the OECD (2009) evidenced that businesses face a number of barriers when adopting ICT and internet services. These can be classified as either internal or external barriers. Internal barriers refer to the resources available to the business and to the operational approach adopted by the management (Lian Chan, 2012). On the other hand, external barriers relate to the environment external to the business.

Such barriers tend to play a significant role in the adoption of ICT (Antlova, 2009). The owner or manager's characteristics affect the approach in which the business is run and thus, affects the growth of the same business. The past experience and training of the owner affect the likelihood of the adoption of ICT. Indeed, in the case of SMEs, employees tend to have low levels of training and are sceptical of ICT. The adoption of ICT very much depends on the view of the owner vis-à-vis ICT (Parida, Johansson, Ylinenpaa, & Braunerhjelm, 2010). Indeed, in certain cases, owners believe that ICT is only for larger firms or they fail to understand the need for ICT within their business. In this regard, ICT applications within SMEs are usually utilised for traditional areas, such as administration, payments, and sales (Antlova, 2009). However, ICT has been underutilised by SMEs in areas such as marketing, purchases and the management of customer relations. This can be derived from the lack of awareness on the application of ICT and the resulting benefits. When owners acknowledge the importance of ICT for their business, the stumbling block would be unskilled or low skilled employees (Parida, Johansson, Ylinenpaa, & Braunerhjelm, 2010). It was found that ICT was easily adopted by businesses who had employees that understood how to use ICT.

Whereas the costs of ICT for particular purposes have decreased, it can still involve a considerable cost to the SMEs (Antlova, 2009). SMEs have limited funds, which are very often dependent on the size of the business. Although businesses may obtain credit from banks, they still might not invest if they do not anticipate a positive return on investment (Parida, Johansson, Ylinenpaa, & Braunerhjelm, 2010). This can encourage businesses to use application with low levels of sophistication and opt, for example, for a simple website that just contains the product information rather than incorporating a payment gateway. Part of the solution might be the availability of "open source" software<sup>7</sup> (Antlova, 2009). However, such software would still require a knowledgeable person who is able to modify the source code. Irrespective of the level of sophistication of the applications, these would still need maintenance and updating which, at some point, would still cause problems to the business if it does not have adequately skilled employees (Parida, Johansson, Ylinenpaa, & Braunerhjelm, 2010).

Although the internal barriers tend to be the main inhibitors for the adoption of ICT, external barriers also play a part. External barriers are usually related to technological factors and the surrounding environment in which the business operates. Infrastructure is a very important factor for enterprises to efficiently and effectively use technology for their operations (TOURISMLink, 2012). The challenges imposed by infrastructure have decreased over the years due to the reduced costs of hardware and internet connectivity (Sakulsureeyadej, 2011). SMEs that intend to adopt e-commerce require broadband (Parida, Johansson, Ylinenpaa, & Braunerhjelm, 2010). However, its availability may depend on the location of the business. Indeed, businesses located in remote locations and on the periphery may not have access to

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<sup>7</sup> Open source software is publicly accessible software that can be modified and shared. This is possible because the creators provide the source code which allows for such modifications to be carried out. Open source software does not usually carry a fee for the license, but the terms of the licence specify that those who modify the software share it with others without charging a fee.

the same quality of services as businesses in urban areas. From research carried out in Ireland, it emerged that SMEs in the County of Donegal, a region in Ireland, still do not exploit the advantages set forth by technology due to the lack of infrastructure available (Duffy, 2010). The same research showed that SMEs in Donegal have low levels of internet connection and ownership of computers for business use (Duffy, 2010). Thus, such businesses do not take advantage of ICT applications such as database management, document management, statistical analysis and accounting software. Furthermore, a low percentage of hotels updated their websites on a regular basis.

When conducting e-business activities, SMEs may face issues of security and trust from potential customers (Parida, Johansson, Ylinenpaa, & Braunerhjelm, 2010). Indeed, customers perceive larger established businesses to be more credible and secure compared to smaller ones. The major area of concern relates to the use of credit cards to pay for online transactions, which issue raises concerns over the security of data transmitted.

When operating online, businesses would be carrying out transactions with customers in different countries (Parida, Johansson, Ylinenpaa, & Braunerhjelm, 2010). Thus, businesses need to be aware of the different legal and regulatory environments in which they are carrying out transactions. This issue emanates from the fact that there is no standard legal framework relative to this cross jurisdiction issue, which means that firms could be operating under different jurisdictions with inconsistent laws. This can pose a challenge to the smaller firms and can be a barrier for ICT applications such as e-commerce.

## 6.2 Barriers to ICT adoption in Europe

Apart from the aforementioned barriers, the Strategic Policy Forum identified a number of barriers that are hindering businesses in the EU to adopt ICT and advanced technology (Strategic Policy Forum, 2015). One such barrier relates to the current practices within and organisational structure of the businesses, especially in the case of SMEs. Furthermore, there are not enough support initiatives and incentives for businesses to amend their practices and organisational structures to adopt ICT. The same forum also refers to the gains to be achieved through the Digital Single Market (DSM) and emphasises the priority for encouraging the creation of digital infrastructure at a European level. However, the creation of the DSM poses a number of challenges that require a clear understanding of the existing advanced technology and its potential impact from policy makers. This is imperative in order to develop relevant regulations that support the adoption of technology and do not hinder the achievement of the targeted outcomes.

The Flash Eurobarometer 413 “Companies engaged in online activities” identified the main difficulties encountered when selling goods and services outside the country in which they operate (European Commission, 2015 a). Many of the issues identified are related to the export of goods, but some of the issues apply to the provision of services in general and to the tourism sector in particular. The issues that turn out to be challenging to the enterprises are those related to costs. One such instance relates to solving cross-border complaints and disputes that are found to be too expensive for the businesses. Indeed, 21% of the businesses<sup>8</sup> identified the resolution of disputes as a major problem, while it was a minor problem to another 20% of the businesses. Other issues that emerged during the research are related to the level of skills and information available to the businesses. Businesses referred to the complexity of foreign taxation (38%), the lack of awareness on the rules to be followed (37%), and the lack of language skills to deal with foreign customers (39%). Businesses in the

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<sup>8</sup> Businesses that sold products and services online to another EU country, used to sell online or have tried to sell online.

accommodation sector encounter difficulties related to the communication infrastructure. They mainly identified the company's own slow internet connection (47%) and the slow internet connection of the customers (27%). Accommodation enterprises are also concerned about the lack of data protection when selling abroad (39%) and the security systems and procedures in place in other countries when effecting payments (33%).

A survey on ICT adoption issues in the EU also sought to understand the main barriers for the adoption of ICT by SMEs in the tourism sector (TOURISMLink, 2012). The survey results highlighted some of the issues aforementioned, such as the lack and cost of infrastructure and technical equipment, and the lack of skilled employees. In addition, the survey also identified other factors inherent to the tourism sector or to the size of the businesses. Indeed, SMEs mentioned the dearth of ICT applications designed for small and micro enterprises in the tourism sector. Another relevant issue identified was the difficulty encountered in collaborating with other businesses due to the existing divergent platforms and the lack of standard data.

### 6.3. Summary

Despite acknowledging the need for enterprises to embrace technology, there are still a number of barriers that are hindering businesses from integrating technology into their operations. This chapter identified the main internal and external barriers that are hindering such integration. The main internal barriers are the owner-manager characteristics, the skills level of employees and the cost of ICT. While it is recognised that the internal barriers constitute the most significant barrier, external barriers also have a role. External barriers mainly relate to the infrastructure, security and trust from customers, and lack of knowledge on the relevant legal and regulatory environment. The lack of knowledge on the relevant legal and regulatory environment is amplified within the EU because of the lack of standard legal frameworks across the bloc. Thus, there is the need for the creation of the digital infrastructure on a European level. Other issues were identified through the Flash Eurobarometer, where businesses mentioned cross-border complaints and disputes, and language skills. The TOURISMLink study also identified a number of barriers that are specific to SMEs and to the tourism sector. Such barriers include the lack of ICT applications designed for mini and micro enterprises, the existing divergent platforms and the lack of standard data.

# Chapter 2:

## Key Stakeholder Research

# 1 Methodology

For this research a three phase methodological approach was adopted. The following are the phases of the research undertaken:

- Stage 1: Desk research
- Stage 2: Key stakeholder research
- Stage 3: Tourism SME research

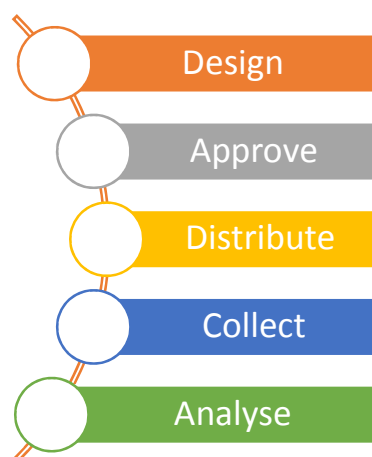
This report highlights the main findings for the second phase, the key stakeholder research.

Initially the research study was planned to consist of face-to-face interviews with key stakeholders in the tourism industry, specifically the target respondents were split into private associations and public administration entities. While the target respondents remain unchanged, the methodology for data collection was modified to also include telephone interviews and self-completion questionnaires, as well as face-to-face interviews

Local research partners were contracted from different countries across the EU and tasked to identify key players of the tourism industry in their allocated country. The targeted stakeholders fell under either:

- Public Administration, at
  - national level
  - sub-national level
  - regional level and
  - local level or
- Private Federations.

The following research approach was followed after identifying the target population with the contracting authority:



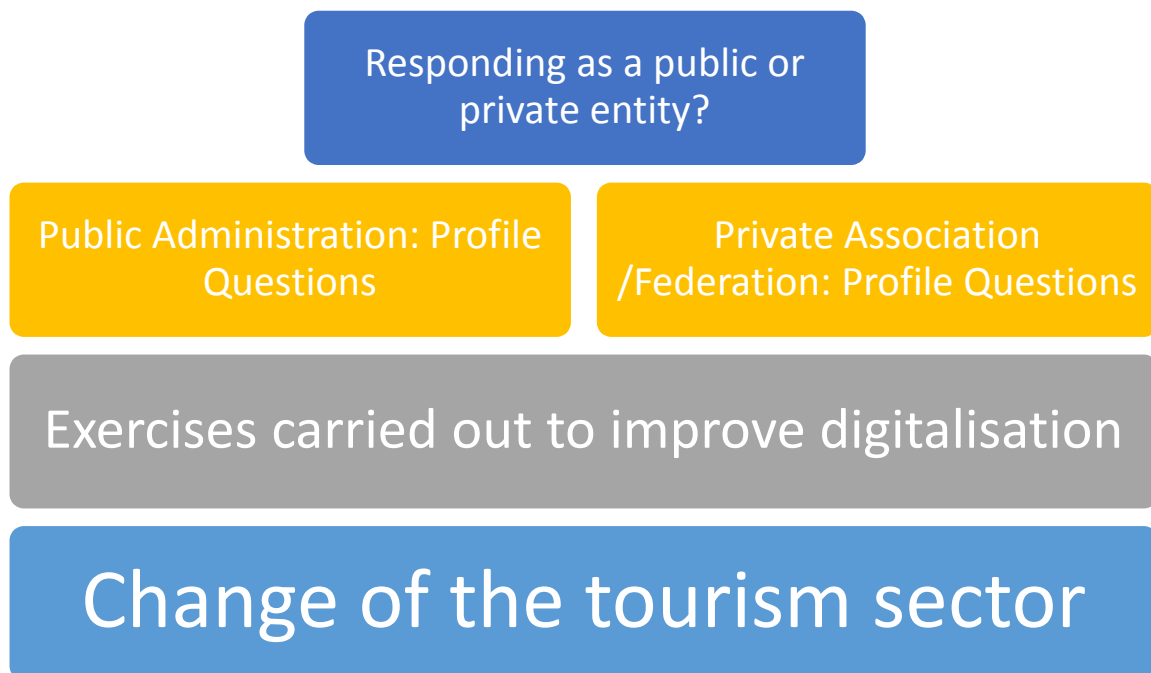
## 1.1 Stage 1: Design

Two questionnaires were designed, in order for the questions to reflect the type of target respondent profile; either public administration entities or private federations. The two questionnaires were developed together with the contracting authority in order to ensure that the questions asked were in line with the overall goals of the project and the aims of the contracting authority. For this the informal Digital Tourism Network Steering Group provided their expertise under the supervision of the European Commission.

Questions were split into three categories:

- 1 The profile of the respondent: questions were intended to determine the type of stakeholder answering the questionnaire. The first question, similar for both questionnaires, was to indicate if respondents were responding as a private or public entity. Depending on the answer given, the appropriate questionnaire was displayed with more specific questions related to the stakeholder profile.
- 2 Exercises carried out to improve digitalisation: this category was aimed at gauging the type of exercises that were carried out by the entity. Specifically, the exercises aimed towards the identification of the importance that digitalisation has for the particular category of respondents, and the projects which were embarked upon or in the pipeline.
- 3 Development of tourism sector: respondents' perceptions on how the tourism industry has changed and how the sector will continue to develop in the near future.

The questionnaire sequence was as follows:



## 1.2 Stage 2: Approve

The draft questionnaires were sent to the contracting authority for review. Feedback was provided and adjustments were made as a result. Once approved, the questionnaire was uploaded onto a customised survey tool and used by all research partners. The survey tool received final approval from the contracting authority, after which the distribution phase kicked in.

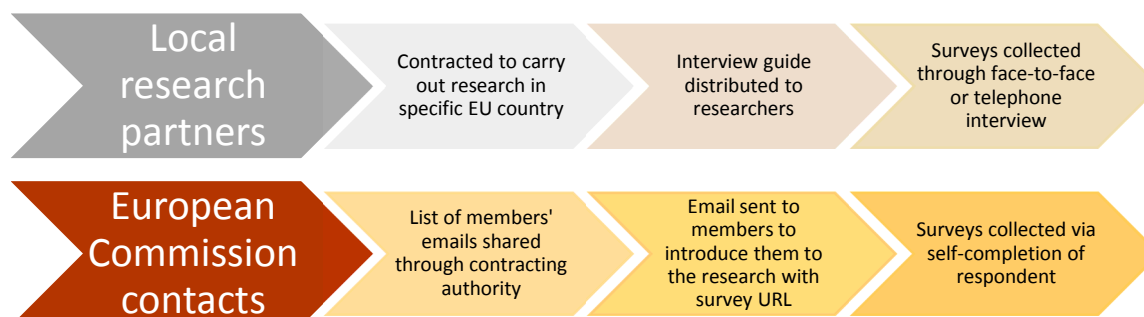
## 1.3 Stage 3: Distribute

A final confirmation from the contracting authority prompted the research team to begin the dissemination process.

The survey was disseminated via two main methods:

- 1 through the local research partners
- 2 The contacts provided by the European Commission, e.g. the Member States, the Digital Tourism Network Steering Group, European Tourism Industry Associations and Federations, etc..

The local research partners contacted key stakeholders identified, and conducted the survey either via telephone or face-to-face interviews. The digital tourism network steering committee shared a list of associations and federations which were contacted via email to self-complete the survey.



All of the steering committee's members were contacted via email to take part in the online interview and invited to complete the questionnaire online. An email was sent to each member individually to notify them of, and introduce them to, the research project and, specifically, to introduce the key stakeholder research study. An opt-out option was also provided (as standard procedure) for those respondents who wanted to opt out of any communication on the project.

## 1.4 Stage 4: Collect

Local research partner collection was carried out over a period of two months, starting from the end of February through to April 2016. Following the successful completion of the local research partners' collection, the collection of data from the public and private stakeholders of the European Commission was undertaken.

All of the steering committee's members were contacted via email to take part in the online interview and invited to complete the questionnaire online. An email was sent to each member individually to notify them of, and introduce them to, the research project and, specifically, to



the key stakeholder research study. The URL sent to the members remained active until June 2016.

Overall, both collection methods resulted in 158 valid responses, of which 85 consisted of Private Federations and 73 of Public Administration entities. Table 2.1 and Figure 2.1 below highlight the collection of responses per country, split into the two distinct types of responses.

*Table 2.1: Frequency of Country Responses*

Member state	Private	Public	Total
Austria	3	3	6
Belgium	5	2	7
Bulgaria	4	1	5
Croatia	2	3	5
Cyprus	6	2	8
Czech Republic	3	2	5
Denmark	2	3	5
Estonia	3	2	5
Finland	2	3	5
France	2	4	6
Germany	3	4	7
Greece	4	1	5
Hungary	3	3	6
Ireland	3	2	5
Italy	3	5	8
Latvia	3	3	6
Lithuania	4	2	6
Luxembourg	3	1	4
Malta	2	2	4
Netherlands	3	1	4
Poland	1	4	5
Portugal	3	3	6
Romania	5	4	9
Slovakia	4	1	5
Slovenia	3	2	5
Spain	2	4	6
Sweden	2	3	5
United Kingdom	2	3	5
Total	85	73	158

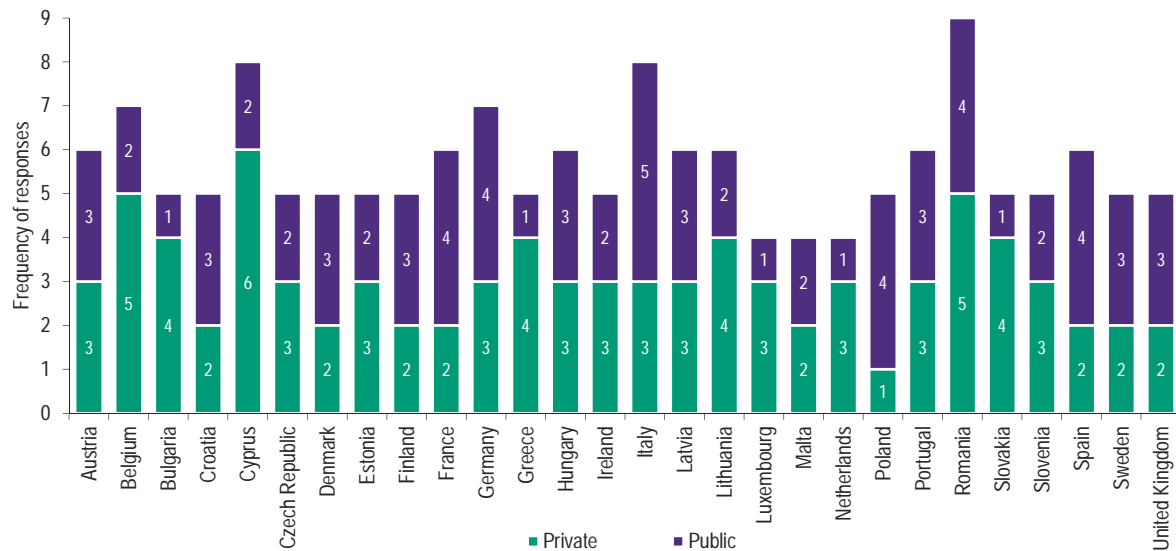


Figure 2.1: Frequency of Country Responses

All research findings carried out in the analysis phase are based on the aforementioned responses.

### 1.5 Stage 5: Analyse

The methodological approach to analysing the data collected was dependant on the type of question category.

- 1 “Profile of respondent” questions: the responses were separated into public and private entity responses. These questions were all closed ended.
- 2 “Exercises carried out to improve digitalisation” and “Change of the tourism sector” questions: these questions were common for both private and public entity responses, therefore the data analysis compared the responses from the two types of entities. These questions were either closed or open ended. Open-ended responses were coded and split into the different points, and then grouped with other similar points from other respondents.

## 2 Findings

### 2.1 Profile of Respondents

#### 2.1.1 Private Federations

From the responses obtained from private federations, 93% of all respondents commented that their federation is primarily active in the area of tourism. This shows that the target population was adequately fit to answer the questionnaire and hence represent the target market of the research project.

The sizes of the federations responding varied, however it was found that 74% of those answering the survey had less than 400 members.

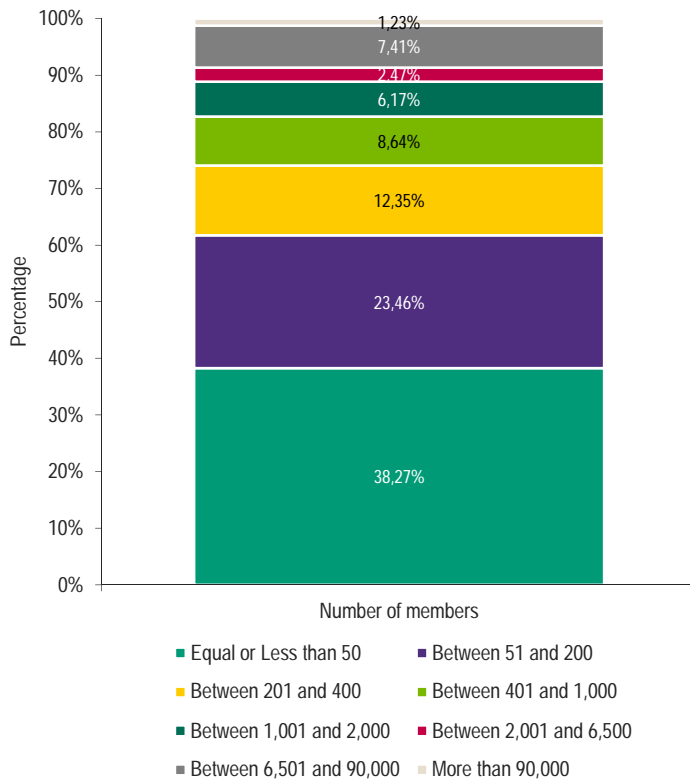


Figure 2.2: Number of Members – Private federation

## 2.1.2 Public Administration

Respondents answering as public administration organisations were asked to state their organisational status. As shown in Figure 2.3, 41% of the respondents identified themselves as national public administration agencies in charge of tourism. This was followed by 29% from regional public administration entities and 16% from local public administration agencies.

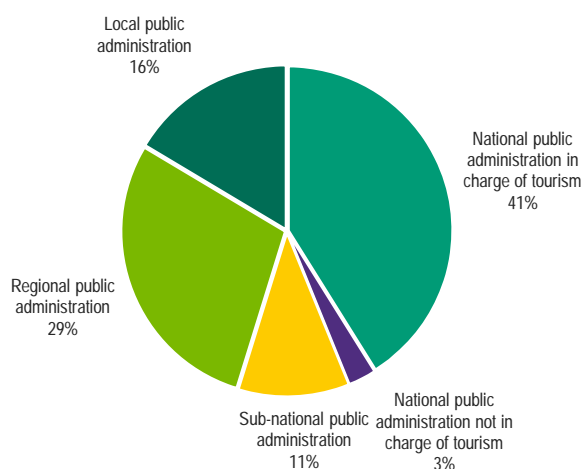


Figure 2.3: Public Administration

## 2.2 Exercises Improving Digitalisation

This category of questions included asking respondents if they have carried out any exercise aimed towards improving the level of digitalisation within the tourism industry amongst their members, or in their jurisdiction. The questions which followed then asked for more detail on the type of exercise that had been carried out or was currently being carried out.

### 2.2.1 Exercise to Help Improve Digitalisation of Tourism Businesses Being Carried Out

Respondents were asked a closed ended question about whether they have undertaken exercises aimed towards improving their members' digitalisation, specifically:

**Has your organisation carried out any exercise aimed at helping its members or helping tourism businesses improve their use of digitalisation?**

Options available were:

- Yes
- Exercise currently in progress
- Not yet, but planning to do so in the future
- No, and currently not planning so either.

It was noted that the majority of respondents had carried out one or more exercises to help their members improve digitalisation from both the public and private entities. From the data collected, 77% of public entity respondents and 64% of private entity respondents indicated that they have already or are currently undertaking a project aimed at helping members digitalise. The findings indicate that approximately 20% of both private and public entities have not yet carried out such an exercise and are not planning to do so in the near future.

Figure 2.4 shows the overall responses. Very similar percentages are noted between the public and private agencies, however one might notice that public administration agencies acted earlier than the private agencies in addressing digitalisation issues. Private entities are however catching up fast, as a higher percentage is planning future projects along the digitalisation theme (12.94% compared to 5.48% of public administration).

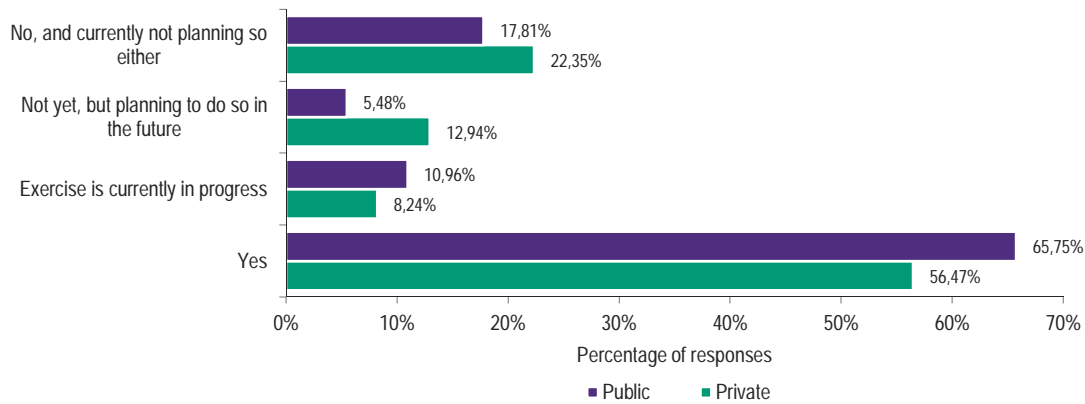


Figure 2.4: Carried out Exercise To Help Members Improve their Level of Digitalisation

### 2.2.2 Focus of Exercise

Respondents who answered either: ‘Yes’; ‘The exercise is currently in progress’; or “No, but planning to do so in the future” where prompted to give an indication of the main focus area of the activity, specifically asked

**What is / was / will be the main focus / subject of this exercise? Check any that apply.**

Figure 2.5 shows the focus area/s of the projects undertaken by the specific category of respondents. It was noticed that the improvement of the general understanding of digitalisation and digital skills were a focus of both types of organisations (public and private).

Conversely, projects of commercial focus, such as those aimed at improving e-marketing skills, were drastically more promoted by private than public agencies. Whereas understanding the legal implications of online presence and online trading, and the use of e-governance functions (which are areas more tied to compliance) were, understandably, predominantly the focus for public administrations.

Public administration also opted for the ‘other’ option, where the studies also focused on:

- Digitalisation and help of statistics for verifying and improving national statistics of touristic circulation
- Encouraging internet marketing
- Promoting local tourist businesses and attractions
- Improving regional tourist information services
- Advocating online presence and communication
- Promoting local tourist attractions
- Expanding and enhancing their web platform
- Increasing the digitalisation of the regional tourism offer
- Enhancing professionalism within tourism companies in the area.

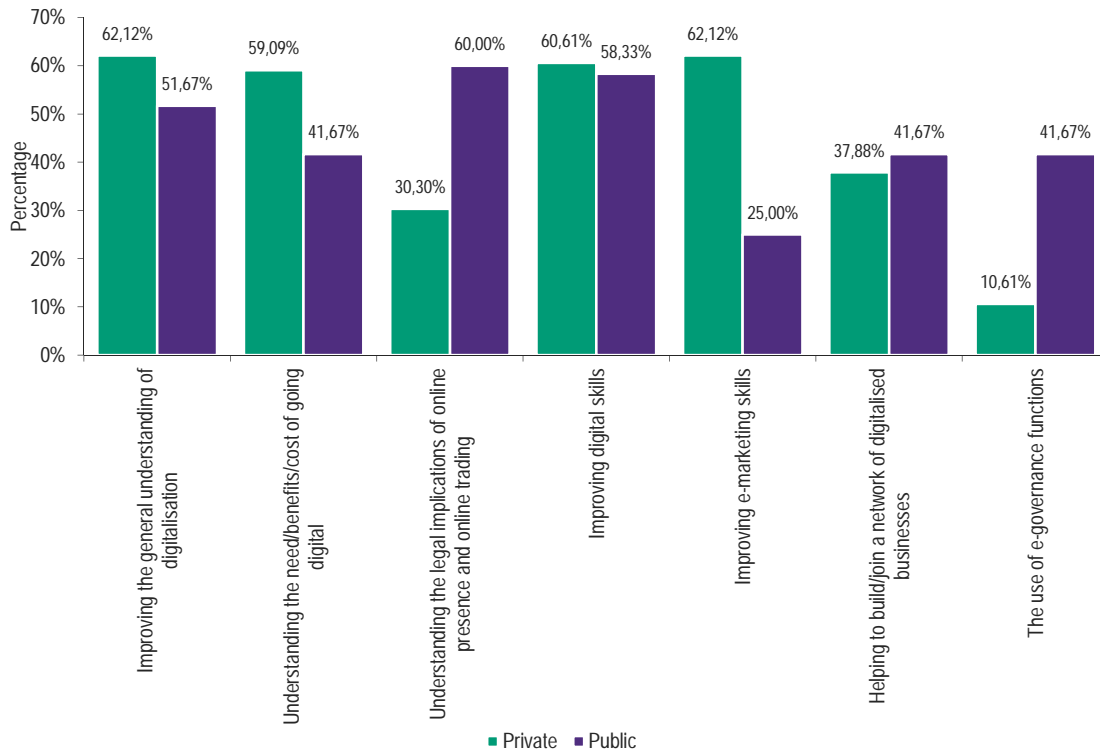


Figure 2.5: Focus of Study Undertaken

### 2.2.3 Specific Exercises

Those respondents, who answered “Yes”, meaning that their organisation has carried out exercises aimed at improving digitalisation, were asked the following open-ended question:

**If yes, please specify what has been done?**

The open-ended responses could be broadly categorised into 13 types of exercises; five of these types of exercises were found in responses for both public administration entities and private federations, whereas the remaining eight types of exercises were found to be specific to the type of respondent (public or private agency).

**Five groups were common for both categories of respondents:**

- **Educational**, including information sessions, newsletters and educational trips
- **Networking consultation** such as, sharing of information, review of legislation and research
- Provision of **online reservation systems**, such as a web booking engine, mobile platform and website
- **Promotion**, such as fairs and marketing activities
- **Website audit**

**Four were exclusively identified by the private federations:**

- **Individual support**
- **Development of new products**, including new technology
- **Application development** including the smart use of social media platforms
- **National/international projects**

**Four were exclusively identified for the public administration entities:**

- **Collection of data** which aids in the development of strategies
- **Improving e-Government services**
- Provision of **financial support** for the acquisition of ICT material, research and consultancy services related to ICT services
- **Assistance to go online**

Figure 2.6 exhibits the specific types of projects that the entities have carried out, in relation to the digitalisation of their tourism members. The data shows clearly that the four types of activities which were shared by both types of respondents had the highest frequency. This clearly shows that projects undertaken by the public sector do not differ from those undertaken by private federations and vice versa.

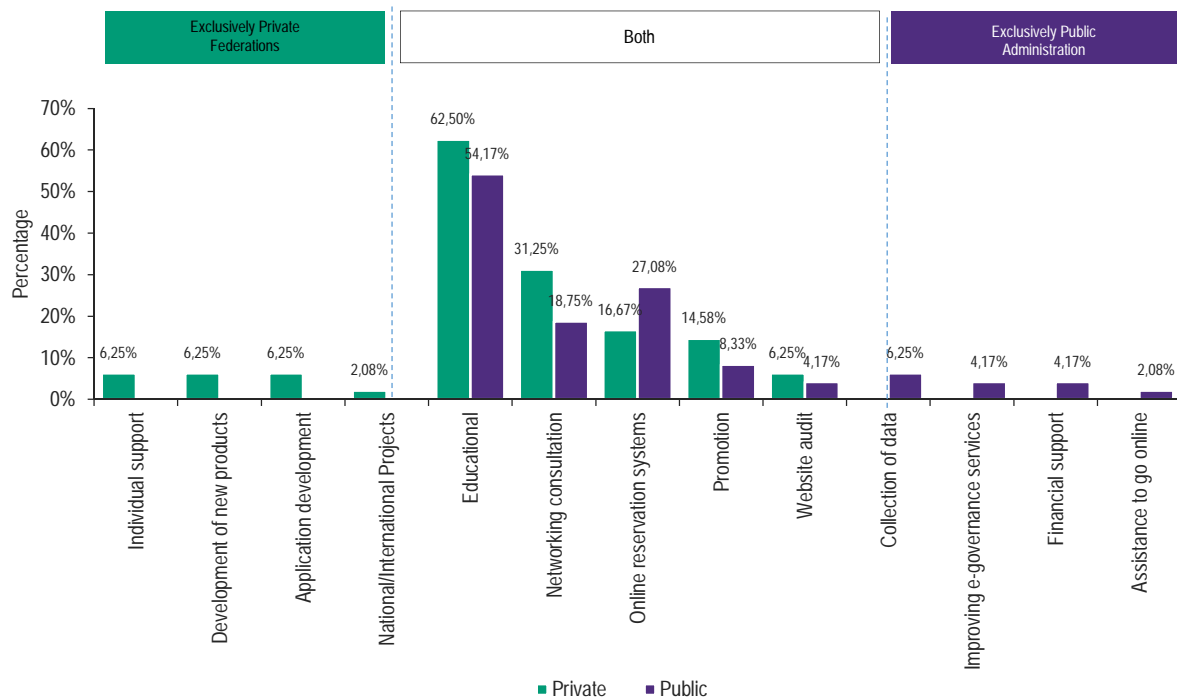


Figure 2.6: Specific Type of Project Undertaken

The desk research findings suggest that, due to changes in technologies, businesses should promote the use of social media for information sharing with customers in order to increase their brand awareness with no or minimally increased costs. Although it was expected that such themes would feature strongly as key project areas, these did not feature as leading themes for both public and private agencies

It was also noted that the core activities undertaken by both private and public agencies gravitate along the same topics. It is thus important to ensure that both types of organisation engage in frequent dialogues and communicate with each other to avoid unnecessary duplication of effort. A coordinated approach could ensure that a more diverse range of projects are undertaken, with the aim of reaching a more diverse audience with different digitalisation themes.

The desk research found that ICT applications within SMEs are utilised for the traditional areas, such as administration, payments and sales (Antlova, 2009). However SMEs need more encouragement to use ICT in marketing, purchasing and the management of customer relations. Therefore it is suggested that the public administration and private federations work on a national/regional strategy to focus on topical areas.



## 2.3 Change of the Tourism Sector

This section of the questionnaire sought to find the respondents' perceptions of how the tourism sector has changed over the past 10 years. Participants were also asked to give their opinion as to how they envisage the tourism market will change in the near future (five years).

### 2.3.1 How Tourism Customers Have Changed

Both public and private respondents were asked:

How has the tourism customer changed over the past 10 years?

#### Response categories found in both public and private entity responses

Change in tourist behaviour	<ul style="list-style-type: none"> <li>• there is a change in tourist behaviour such as: <ul style="list-style-type: none"> <li>– more dependence on digitalisation</li> <li>– more interest in gathering information, mainly online</li> <li>– book everything themselves rather than using booking agents.</li> </ul> </li> </ul>
Higher demand	<ul style="list-style-type: none"> <li>• a higher demand is noticed for: <ul style="list-style-type: none"> <li>– higher quality services</li> <li>– more choice</li> <li>– new products</li> <li>– new destinations</li> <li>– tailored products/services.</li> </ul> </li> </ul>
More informed	<ul style="list-style-type: none"> <li>• the customers are more informed about: <ul style="list-style-type: none"> <li>– prices</li> <li>– destinations</li> <li>– conscious about issues such as the environment, health and safety.</li> </ul> </li> </ul>
Shorter trips	Although the frequency of travelling has increased, the duration of the stay has decreased.
The way tourists choose and arrange holidays	<p>The method of how tourists might choose to book their holiday has also changed, as there is a higher demand for low cost flights and last minute bookings. This has been coupled with an increase in personal bookings as compared to using a travel agent.</p> <p><b>This finding is confirmed by the desk research, where it was found that the tourism sector was highly dominated by travel agents and the advent of the internet has revolutionised the way the sector operates. The desk research also highlighted that low cost airlines had successfully exploited the use of digitalisation by offering online flight booking services.</b></p>
Different tourist profile	Tourists today have a different profile, more diverse in cultures, tastes, languages and age groups.
Growth in tourists	The tourism market has increased in size as travelling has become more affordable (this includes both domestic and international travel). There is an increase in repeat tourists.

Responses specific to private Associations / Federations	
Conscious about certain issues	The mainstream tourist is more concerned about specific issues than in the past, such as environmental awareness, health and safety, accessibility and transparency in dealing with businesses.
Higher costs for suppliers	The demand by tourism customers is more dependent on digitalisation. This poses an added cost for businesses and tourism suppliers, as they need to implement the new technologies as well as spend more on training to have staff that are able to utilise modern technologies.
Excess supply	Due to the increased ease of entering the tourism market, the number of suppliers of any tourism product has increased, thus leading to tougher competition.
More opportunities for small businesses	There are more opportunities for small businesses to enter a market and grow, especially due to the ease of reaching and serving the ultimate consumer.
Responses specific to public administration entities	
Looking for experiences	Public administration respondents commented on the tourism customer now being more inclined to seek out non-traditional holidays, such as adventure and rural tourism, when compared to 10 years ago.
Use of apps and social media	<p>The use of applications, specifically mobile apps and social media was found to be a new challenge. Customers use such applications before, during and post-holiday (to research and comment on their experiences).</p> <p><b>The desk research findings showed that the effect of the internet allows for direct communication with users and it enables photos, videos and experiences to be shared. It was also found that one of the latest developments in technology is Web 2.0-driven applications. Such applications allow users to network and share information, helping them make instantaneous and better-informed decisions.</b></p>
New marketing opportunities and communication	Businesses have the opportunity to exploit digital technologies for the purpose of marketing and communication with clients/potential clients. This can be done at no or little cost to the business, such as creating an account on social media websites. The opportunity is readily available, and it is up to the businesses to make use of it.

Figure 2.7 exhibits the grouped responses obtained, and their respective percentage of agreement. There seems to be consensus among both public and private entities that the greatest change in the type of tourism customer relates to customers being more informed, tourist behaviour changing, and a higher demand.

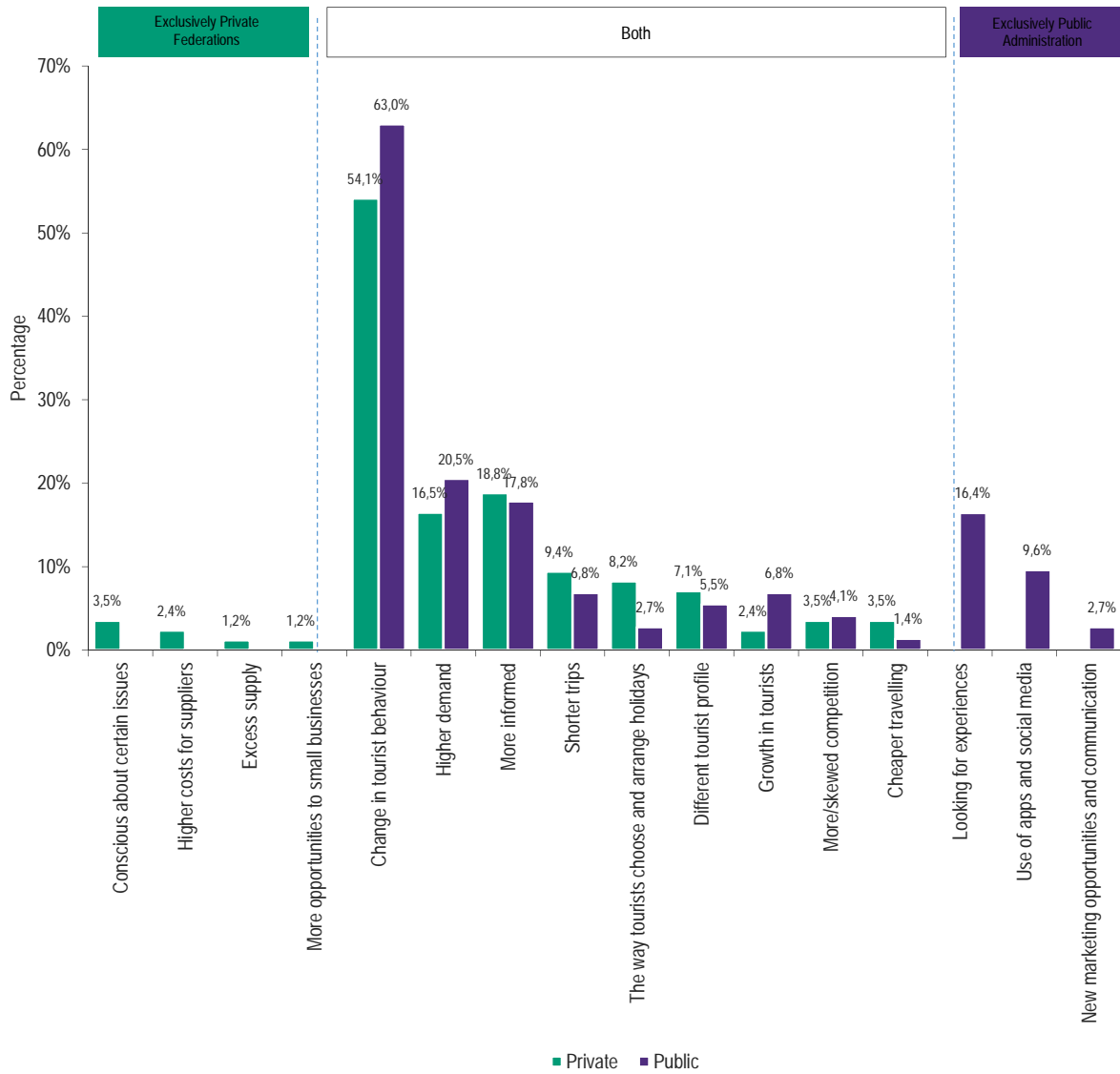


Figure 2.7: How Tourism Customers Have Changed in the Last 10 Years

### 2.3.2 How Tourism Customers Will Change

Respondents were also asked to give their opinion on how they believe the industry will change in the near future, specifically:

#### How do you expect the tourism sector to change in the near future (next five years)?

When asked for the perception of how the tourism industry will change in the near future, responses agreed that the trend noticed over the last 10 years will continue on the trajectory and intensify.

#### Response categories found in both public and private entity responses

More use of technology	More use of technology, including new technology, increased interactions with service providers, location specific applications and smart destinations.
More businesses adapt to digitalisation	More businesses adapt to digitalisation, such as acquiring new skills, the use of technology such as targeted marketing, and the use of big data.
High quality expectations	Customers will continue to demand increasingly better, high-quality service and experience.
Change in behaviours	Change in behaviours, such as low budget trips, shorter stays, change in tourist profile, more frequent travels and increased city breaks.
Dominance of personal research	<p>The tourism industry has seen a high increase in the use of online travel agents (OTAs), use of social media for searching as well as marketing, and increased importance of search engine optimisation (SEO). This will further emphasise the dominance of personal researching. The desk research findings showed that a rise in OTAs were the consequence of low cost airlines minimising their costs by adding online booking, and that the rise in OTAs provided a range of information to customers and comparisons between products and services.</p> <p><b>The desk research findings suggested businesses try to exploit the rise in the use of social media by encouraging their customers to share their experiences. This can be encouraged by holding contests and rewarding guests who upload their experiences, such as uploading photos (which increase brand awareness).</b></p>
Trends will continue/intensify	The trends noticed over the past 10 years will continue and intensify exponentially within the next five years.
Growth in visitors	Growth in tourist figures globally (especially from minority groups) will intensify.
More globalised competition	The competition will become more globalised due to the increased ease of travelling. Competition is expected to be more destination focused.

More awareness	Tourists will become more demanding of destination standards, especially in terms of respect for the environment and personal security.
More geographical accessibility	Tourists require connectivity. This will lead to improved broadband connection and infrastructure even in remote destinations that seek to attract a share of global tourism.  <b>The desk research found that external barriers to ICT adoption in Europe included infrastructure.</b>
New legislation and directives	Currently, regulatory and legal environments differ between member states. This was identified in the desk research to be an inhibitor for ICT adoption within the tourism sector due to cross jurisdictions, which means that firms could be operating under different jurisdictions with inconsistent laws. The introduction of new legislation and directives, such as the EU Package Travel Directive in 2018, will better help establish monitoring systems for the publicly-funded creation of jobs and to streamline the legislation across the EU.  <b>The desk research found that external barriers to ICT adoption in Europe included lack of knowledge on relevant legal and regulatory environments.</b>
Security issues	Security issues are a major concern to tourists. This has had a direct effect on the demand (or lack of) experienced by specific destinations.

#### Responses specific to private Associations /Federations

Lack of labour	Responses received from private federations indicated that, should the trend experiences over the last 10 years continue, there will be a few less favourable consequences such as lower employment, less tax revenue collected, and less demand for labour.
Less tax money	
Lower employment	

#### Responses specific to public administration entities

Real time information	Increased need for real time information; tourists will continue to demand instant information and are more aware of their options, resulting in quicker access to information.
Other issues	It is thought that other matters such as climate change and increased terror threats will continue to affect the industry.
More disruptions in tourism technologies	Responses from public administration entities indicated that disruptions to the industry will occur and these will come, mainly, from the technological front.
Traditional travel agents limited	Public administration entities said that, although there will be less demand for traditional travel agencies, they do not envisage that these will be replaced in their entirety but rather demand for their services will

market	<p>shift to group booking, specialty/luxury travel and businesses.</p> <p><b>The desk research highlighted that, due to changes in technology, tourism operators were obliged to change their role and their practices in order to survive. Key stakeholders expect this will continue for the next five years.</b></p>
Cheaper cost of digitalising	Tourism businesses will find it cheaper to digitalise in the future, which will increase the adoption rate.

The following chart summarises all responses:

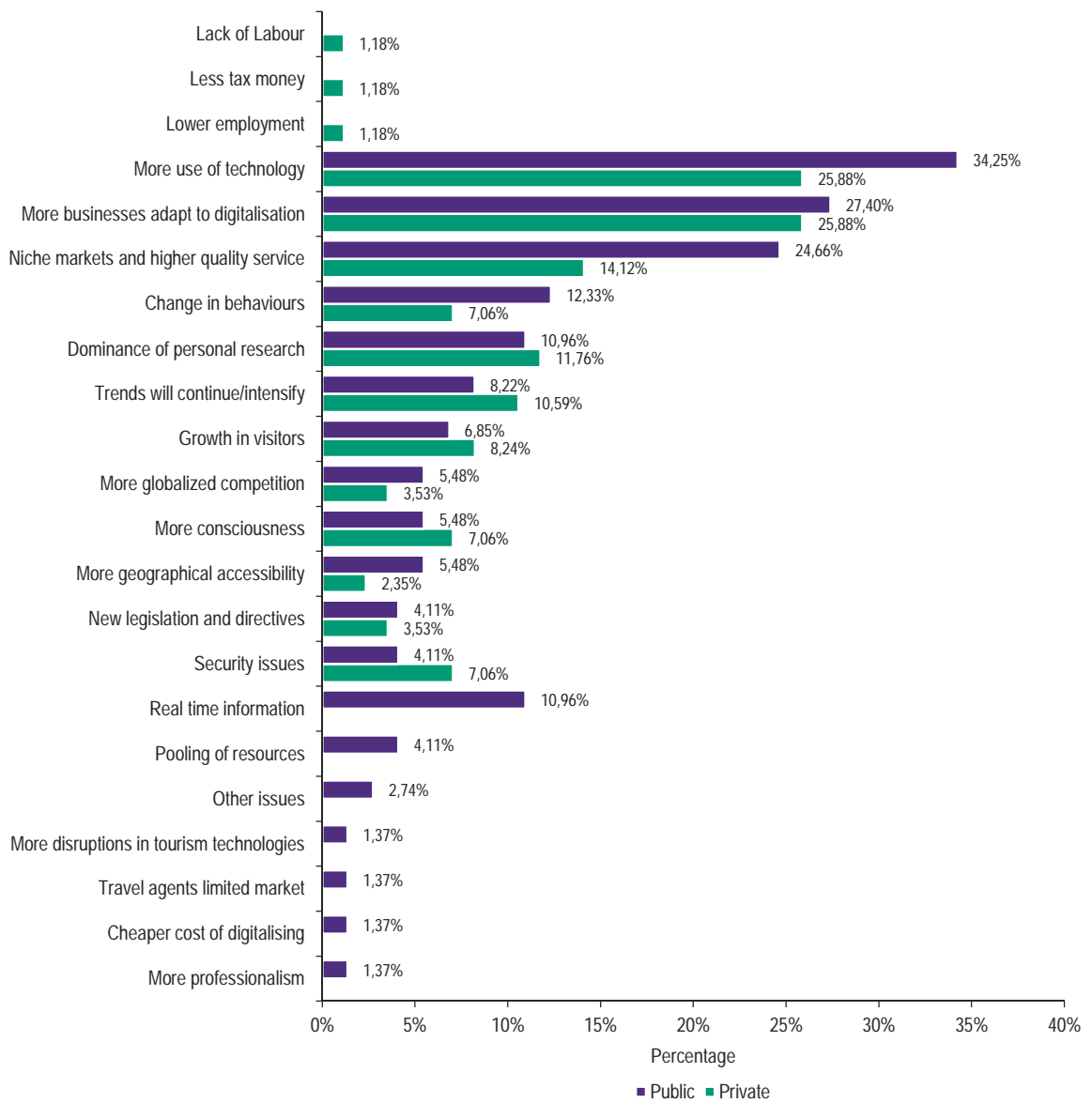
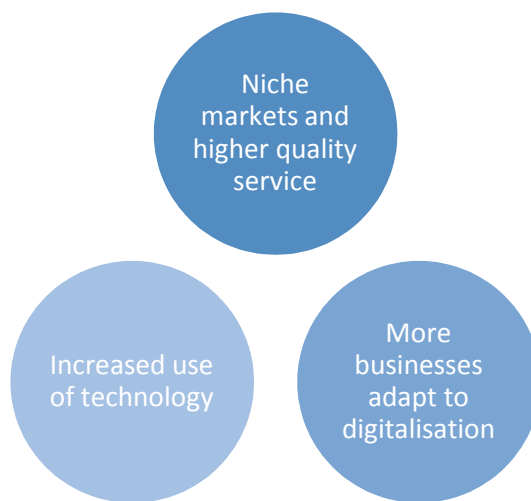


Figure 2.8: Summary of Responses on How Tourism Will Change in the Next Five Years

In summary, the following specific trends are expected to intensify in the near future:

- growth in visitors (results from more accessible travel and especially to areas deemed safe)
- change in behaviours (seeking a more specialised/customised product)
- more consciousness (especially environmental and safety), and
- real time information.

Respondents of both public and private entities agreed that the following will be the three most probable and prominent changes to the tourism sector within the next few years:



*Figure 2.9: How Customers Will Change in the Next Five Years*



# Chapter 3(i): SME Research – Overall Analysis

# 1 Quantitative Research

Quantitative research was carried out with the aim of establishing the current level of digitalisation within tourism SMEs and micro-enterprises. This research specifically gauged:

- 1 The level of awareness of current market trends vis-à-vis online business
- 2 The level of awareness and opinion on available tools that allow business to be in sync with current market trends
- 3 The adoption and usage of ICT tools for different business operations, including management, commerce and internal practices
- 4 The skills and digital literacy levels present within the SMEs
- 5 The identification of any training needs.

Furthermore, the survey tried to identify:

- 1 The technologies that SMEs had introduced or were planning to introduce
- 2 The experienced or expected results from the introduction of such ICT technology
- 3 The difficulties encountered during the introduction of the ICT tool.

## *Methodology*

### Research Method

The Consortium Research Team opted for an online survey as the main technique for data collection. Each Research Partner developed a list of businesses (and contact details) located within their country. This list was then used to send out emails with information on the project and inviting recipients to participate in the survey by following the link provided in the same email. During the data collection period, regular reminders were sent to the businesses to entice them to participate and hence increase the response rate of the survey. During the monitoring of the data collection, the Consortium Research Team decided use the Computer Assisted Telephone Interviewing (CATI) and Pen and Paper Assisted Interviewing (PAPI) systems in conjunction with the online survey in the countries that achieved a low response rate. It is to be noted that, in some countries, either the CATI or PAPI was used. This approach was deemed more appropriate in the case of countries that historically have a low response rate.

The Consortium Research Team developed the first draft of the business questionnaire, on the basis of an elaborate questionnaire composed by the informal Digital Tourism Network Steering Group. The consolidated questionnaire was submitted to the European Commission for approval. The questionnaire was then amended by the Research Team to reflect the recommendations and changes requested by the European Commission, and forwarded to the different Research Partners for translation. The translated version of the survey was tested together with the full survey so as to identify any potential issues that might be encountered during the data collection phase in the different countries. Any major issues highlighted during this testing phase were pointed out to the European Commission for guidance. The finalised

questionnaire (and the translated versions) were then uploaded on the Consortium’s online data entry system for the data collection.

### Data Collection

Data collection took place between 28th April and 5th July 2016 using the CATI, CAWI and PAPI systems. The CATI and CAWI systems allowed the data to be entered directly on the Consortium Online Data Entry System. In the case of the PAPI system, the interviewers had to input the data collected in the data entry system at a later stage. The use of the online data entry system catered for skipping, whereby non-applicable questions were automatically skipped and the respondent (or interviewers) were directed to the next relevant question.

### Response Rate

This section provides an estimate of the distribution of surveys per country. It is to be noted that the response rate from different countries varied from 2% to 15%. Various elements affected the response rates, including the following:

- 1 Method of data collection: The countries that only used online surveys had to work harder to reach a high response rate. If an issue was identified with the response rate, other methods such as CATI were used in addition to online surveying to increase response rates.
- 2 Country Situation: Certain events, such as the Brexit referendum, affected the response rates achieved, even when adopting multiple data collection methods.

Table 3i.1 below also provides information on the distribution of the surveys collected by country.

*Table 3i.1: Response Rates and Participation by Country*

Country	Share of surveys collected
Austria	3.0%
Belgium	2.4%
Bulgaria	3.6%
Croatia	3.5%
Cyprus	2.7%
Czech Republic	3.8%
Denmark	3.3%
Estonia	2.5%
Finland	5.8%
France	3.4%
Germany	5.3%
Greece	3.5%
Hungary	5.7%
Ireland	2.3%
Italy <sup>9</sup>	4.5%
Latvia	3.7%
Lithuania	4.9%
Luxembourg	1.7%
Malta	2.7%

<sup>9</sup> The bulk of the responses were received from businesses that were not initially identified by the Research Partner, but other sources.

Netherlands	3.0%
Poland	6.2%
Portugal	3.7%
Romania	3.4%
Slovakia	2.1%
Slovenia	4.2%
Spain	5.4%
Sweden	1.4%
United Kingdom	2.6%

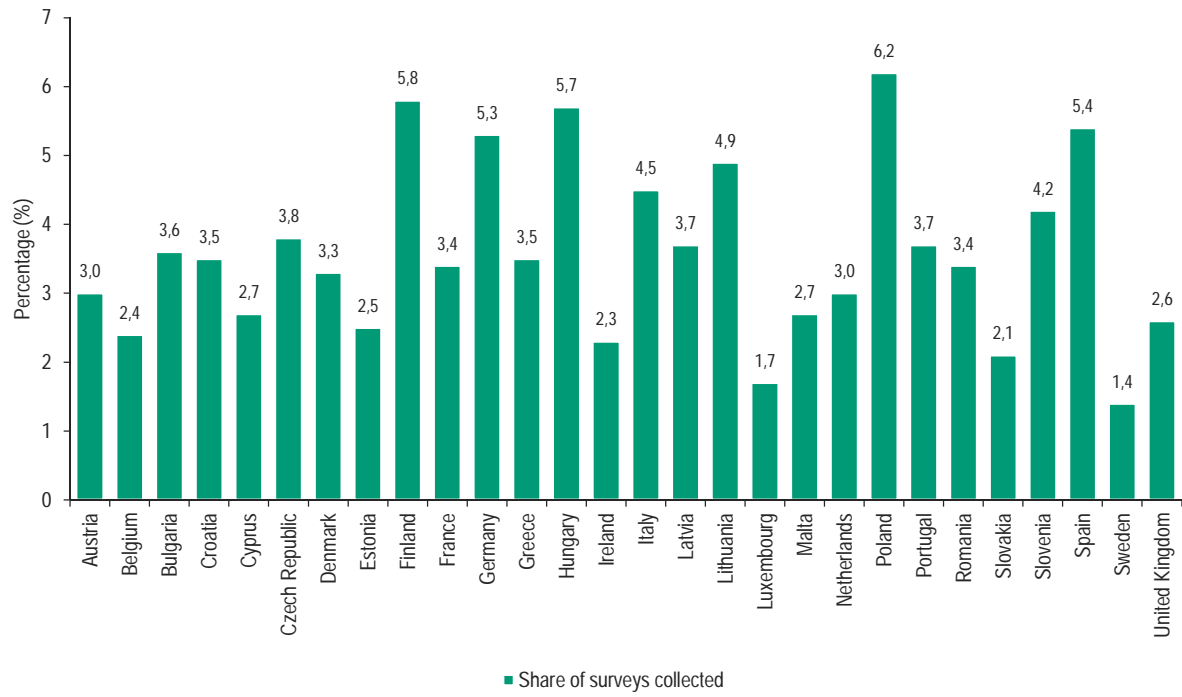


Figure 3i.1: Country of Business Operation

## 2 Research Results

For analysis purposes, the questionnaire can be split into three (3) main sections, namely Profile of the Businesses, the Level of Digitalisation of the Businesses, and Attitudes to Digitalisation.

### 2.1 Profile of the Businesses

#### 2.1.1 Sub-Sector of Operation

This section presents information relative to the profile of the businesses that participated in the survey. The survey targeted different sub-sectors that make up the tourism sector or that are somehow linked to the tourism sector, with the majority of the respondents being from the serviced accommodation section (42.7%) and the catering sector (26.7%). It is to be noted that 2.9% of the survey participants were entities whose products/services do not fall within the tourism portfolio, but which provide a service to the tourism sector.

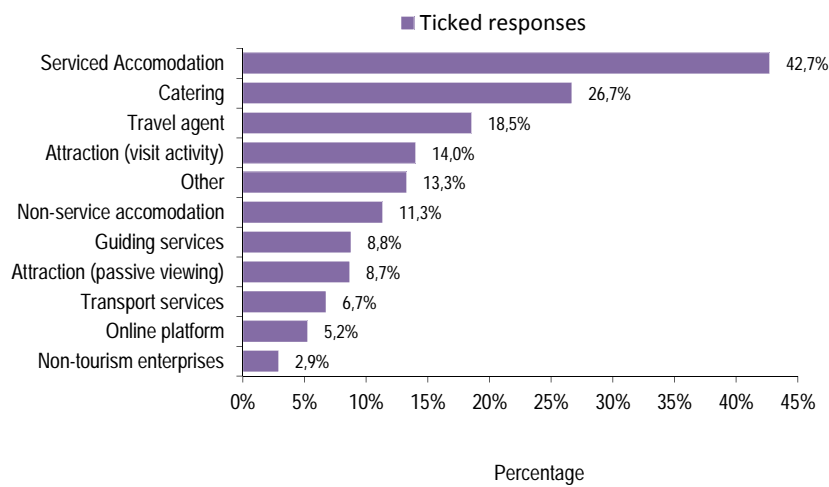


Figure 3i.2: Sub-sector

#### 2.1.2 Size of Business

An analysis of the size of the surveyed businesses shows that most of the businesses that answered the survey were micro-enterprises (44.1%) and small enterprises (30.3%).

## Size of business

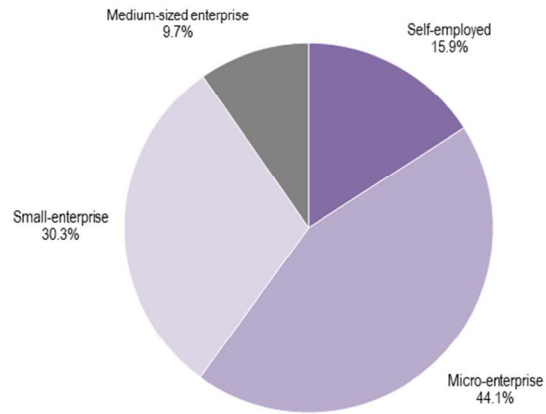


Figure 3i.3: Size of Business

### 2.1.3 Years of Operation

Most of the surveyed businesses have been in operation for three years or more (87.6%). These were followed by those that have been in business for a period of 1–2 years (9.1%).

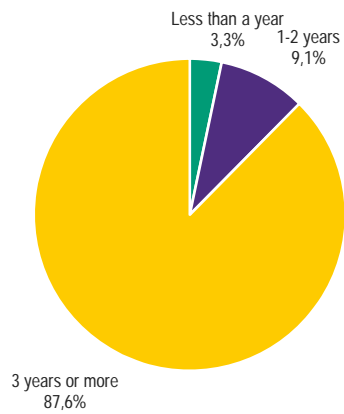


Figure 3i.4: Years Operating

### 2.1.4 Geographical Location of Business

The majority of the respondents (51.7%) indicated that their business is operating in an urban area. However, there was also a significant percentage (33.6%) that operated in a rural or coastal areas (17.3%).

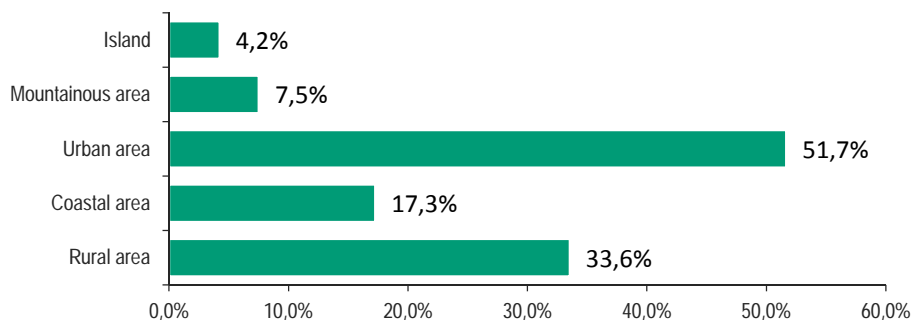


Figure 3i.5: Type of Area of Business

### 2.1.5 Negotiation Power

One of the interesting questions that the researchers had prior to launching the survey was whether businesses are at the mercy of suppliers (given their relative size) or whether they had some control over the conditions dictated by suppliers. Indeed, the businesses were asked to use a scale from 1 to 5 (with 1 meaning that the businesses have to accept the terms and conditions of their suppliers and 5 meaning that the suppliers have to accept the terms and conditions of the businesses). Data shows that 38.1% of the respondents gave a score of three, which might signify that the businesses have a varied degree of negotiation power depending on the supplier. However, it has been noted that the power scale is skewed more towards the supplier than the operator, as 37.1% indicated having to mostly accept the terms (score of 1 and 2) compared to 24.8% of those who reported having full or close-to-full control of the terms (score of 4 and 5).

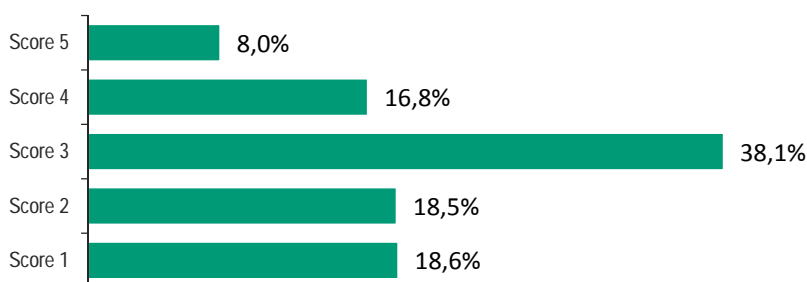


Figure 3i.6: Negotiation Power with Main Suppliers

## 2.2 Level of Digitalisation

The survey sought to identify the digital technologies currently being adopted by tourism businesses in their operations. Data shows that businesses make extensive use of email, with 88.1% of the surveyed businesses indicating that this is a technology that they use. Other types of technologies that are extensively used by these businesses include basic office

software (87.4%) and websites (85.3%). This is followed by a high percentage of businesses making use of social media (77.6%) and internet banking (77.0%). On the other hand, businesses have reported low usage of systems such as online professional networks, property management systems, as well as instant chat. It was interesting to note that a number of systems that are being widely promoted as business aids helping businesses to work more efficiently are still low on adoptions. System such as CRM (22.2%), stock control (20.2%), mobile applications (21.4%), eGovernment services (34.6%) and analytics (31%) could still see a significant improvement in their usage.

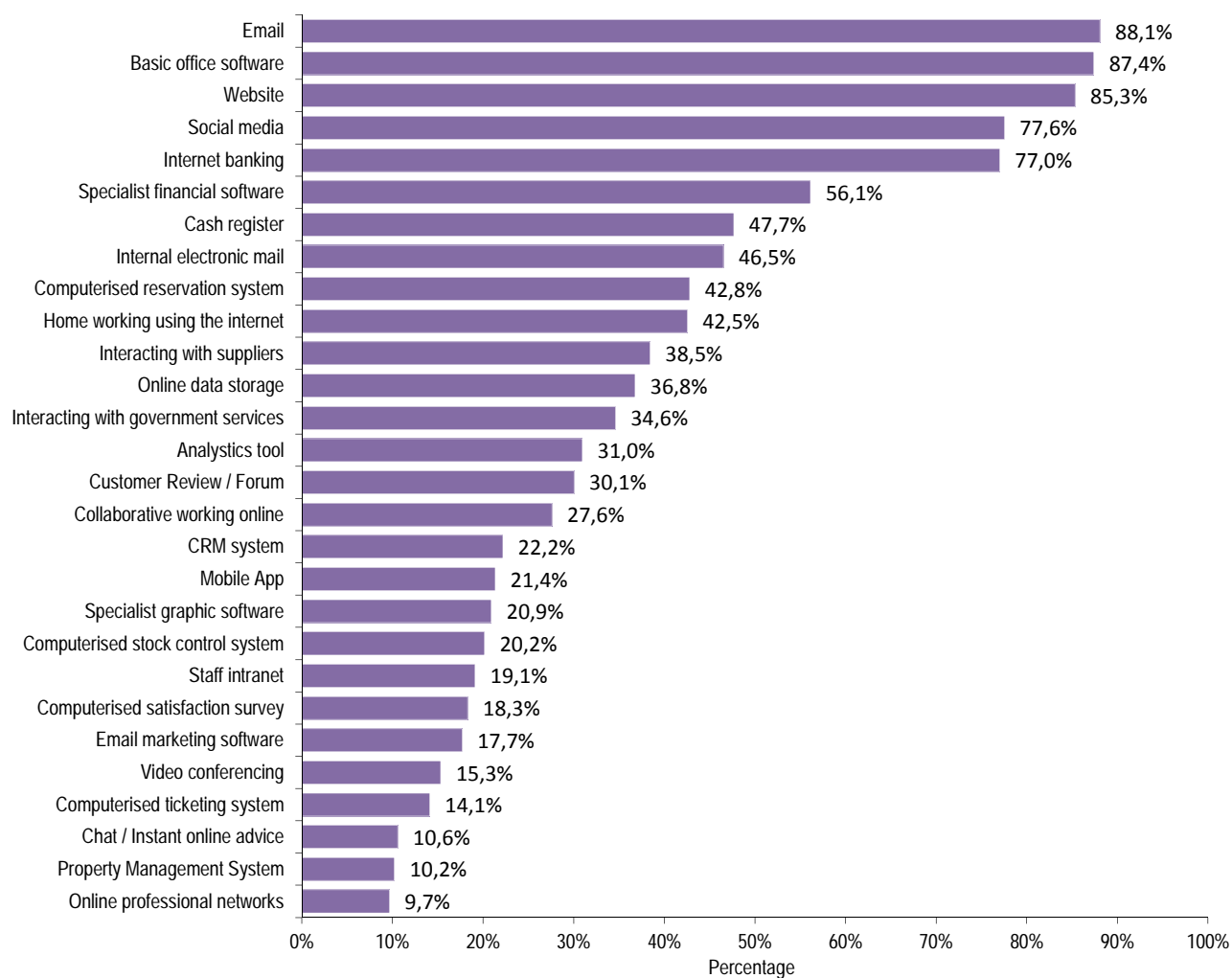


Figure 3i.7: Level of Digitalisation



Businesses that make use of social media indicated that they mainly make use of Facebook as a social media platform. In fact, the absolute majority (98.3%) of those using social media reported using Facebook. Other social media platforms, such as Twitter, Instagram and LinkedIn, are also popular among the businesses, but to a much lower extent, at 29.4%, 26.6% and 22.0% respectively.

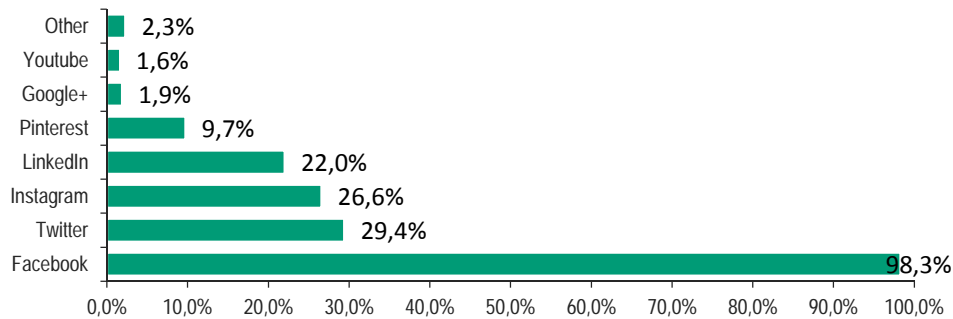


Figure 3i.8: Social Media Platforms

Focusing on the businesses that had previously indicated operating a website, the survey sought to gauge the sophistication of the websites that the businesses use for their operations, be it owned by the business itself or a third-party website. Most business make it possible for customer to send email, book and file a complaint via their own website, whereas reviews, owner contact and online bookings are the functions that are most popularly allowed from third-party websites (although at significant lower adoption rate). As, the table below shows, most businesses prefer offering services from their own website rather than having third-party services integrated.

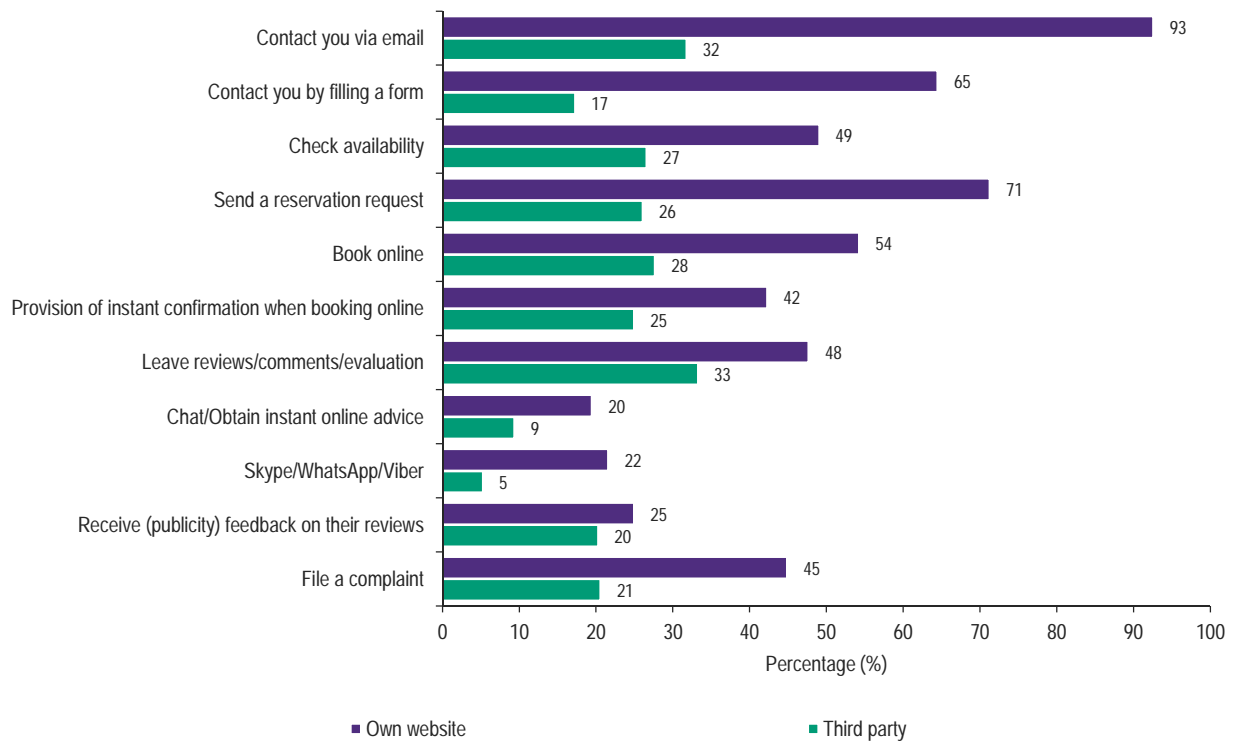


Figure 3i.9: Functionality of Site

In the area of data storage specifically related to customer information, 69.8% of businesses reported storing this information (Figure 3i.10). Additional data in Figure 3i.11 shows this is mainly done through a CRM system (46.4% of those who said they store data). However, there is a high percentage of businesses that still store data on spreadsheet documents (38.9%) or on paper (38.3%).

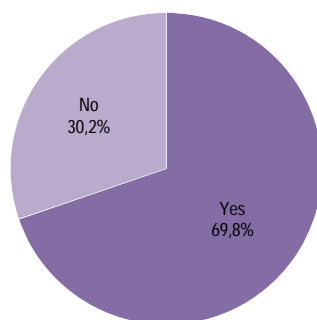


Figure 3i.10: Storage of Customer Information

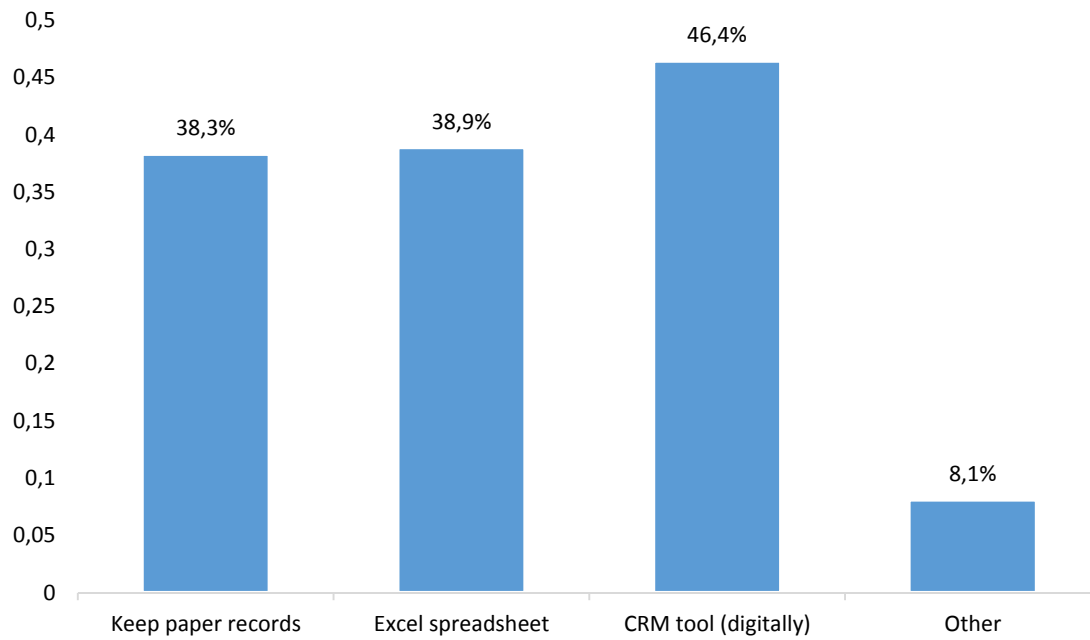


Figure 3i.11: Storage of Information

Businesses were asked about the Analytics tools they use to measure communication with customers. The most commonly used tools are Google Analytics (35.6%) and Facebook Insights (34.8%).

Analysis of the filtered data shows that 81.5% of the businesses that use analytics tools, mainly use Google Analytics. This is followed by those using Facebook Insights (47.7%). No other platform obtained significant responses.

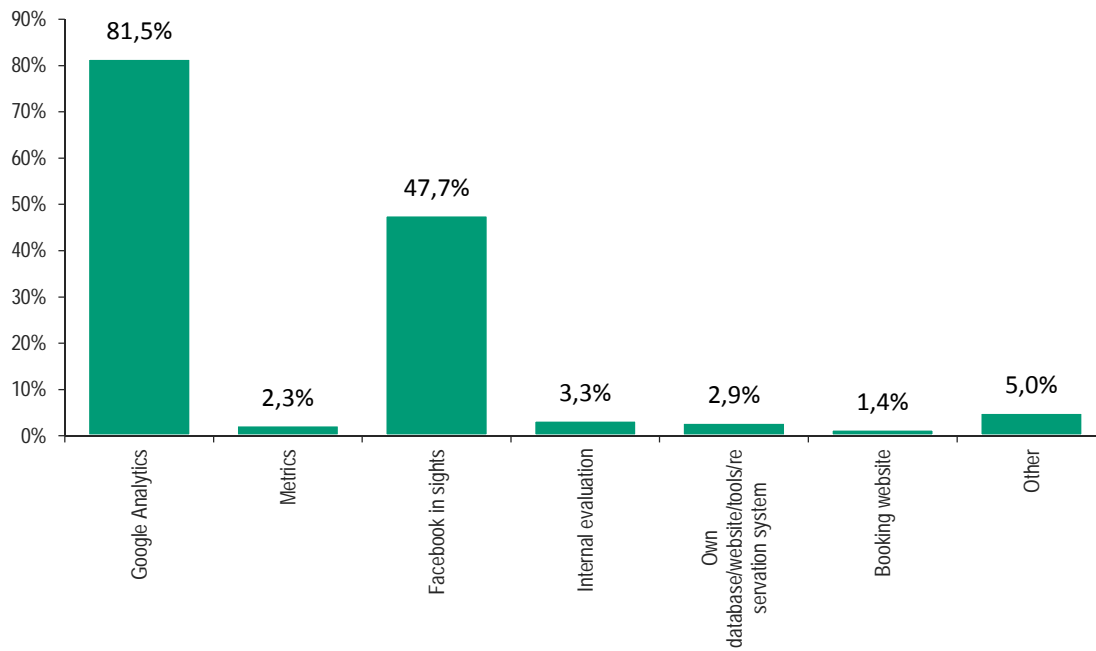


Figure 3i.12: Analytics Tools to Measure Communication with Customers

The survey sought to identify the main effects on the business resulting from the introduction of digital technologies by gauging the level of agreement of the businesses with a number of statements. The most common effects achieved through the introduction of the identified digital technologies were the increase in customer acquisition (87.2%), improvements in online brand visibility (86.5%) and increases in customer retention (75.8%).

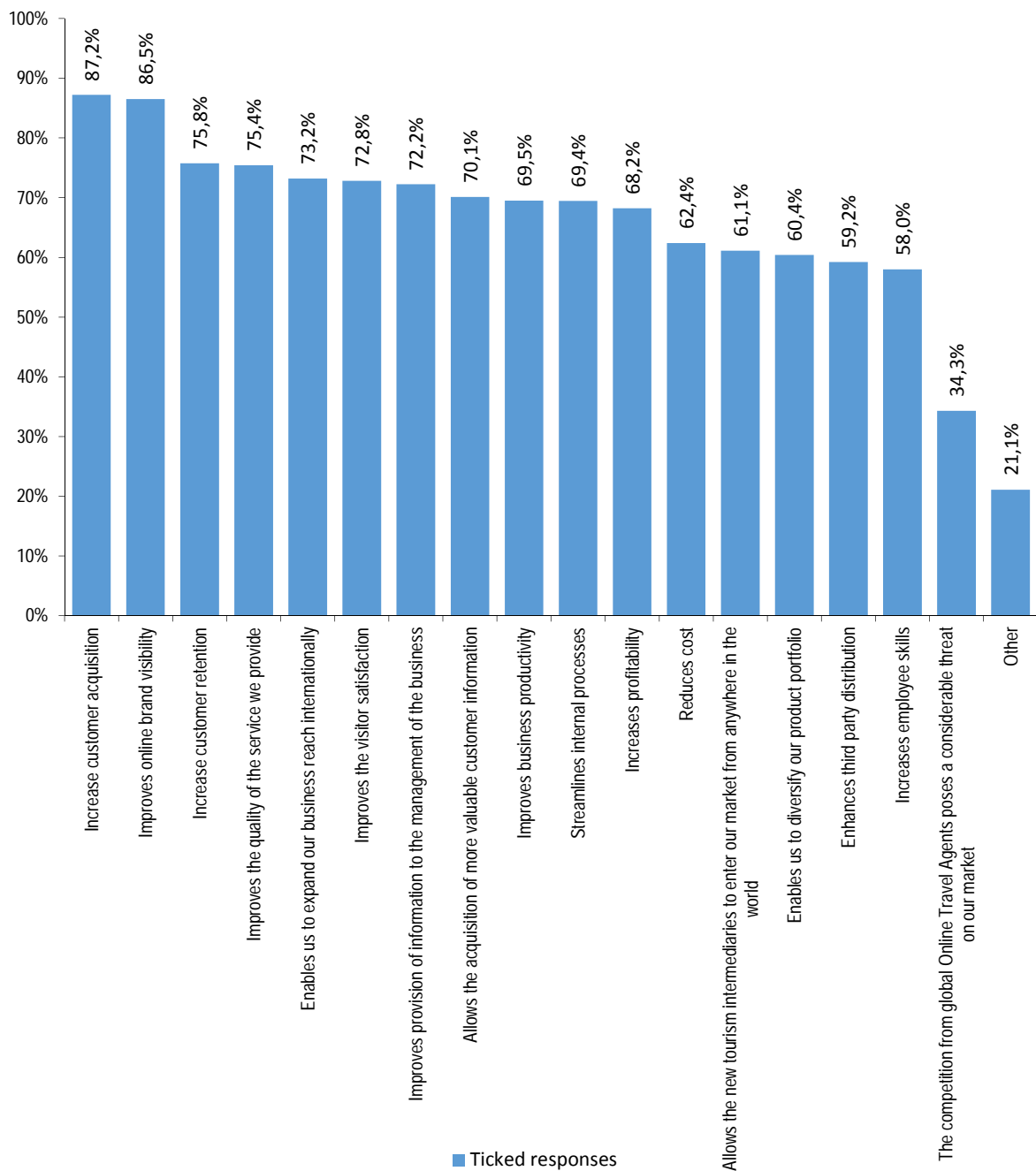


Figure 3i.13: Impact of Digitalisation on Business Operations

Respondents who choose “Other” as an option, indicated, amongst others, that digitalisation completes and improves flow of information and communication (4.3%). It is worth noting that some of those mentioning other effects of digitalisation on businesses, highlighted negative, rather than positive, outcomes. These outcomes included increased costs (1.5%), creation of more problems (0.8%), and the loss of personal touch and contact (0.6%).

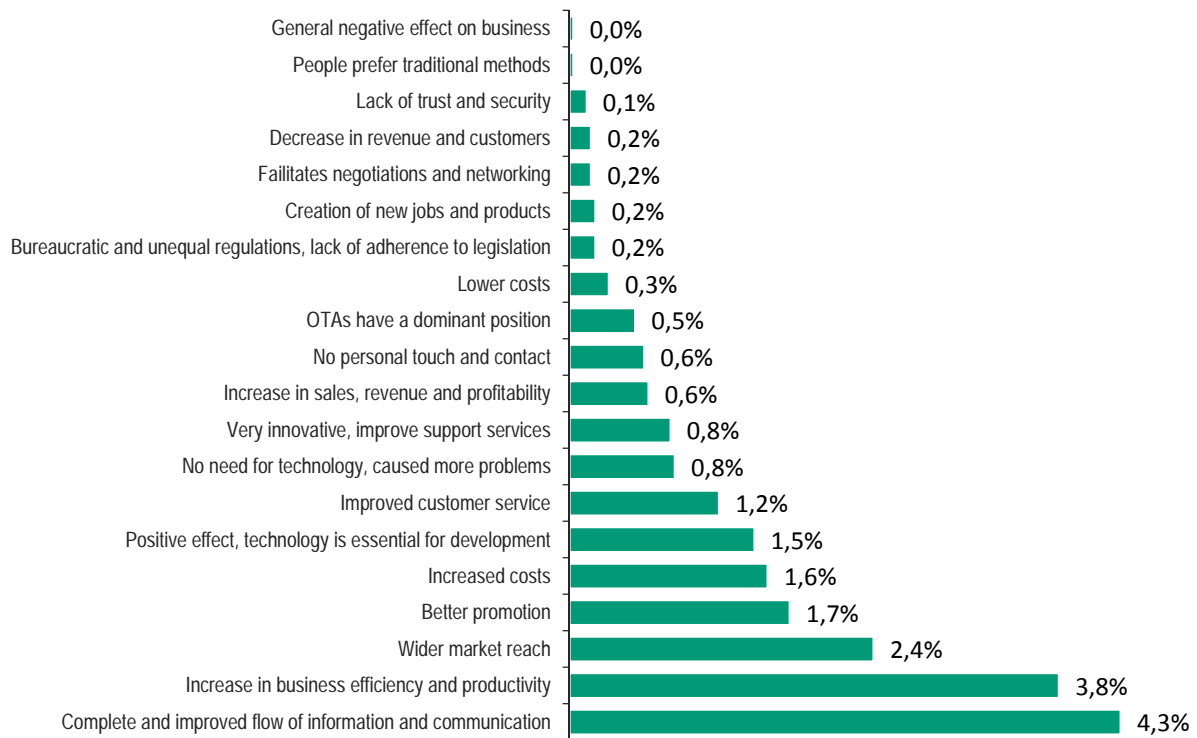


Figure 3i.14: Other Feedback Provided

Through the survey, it was also possible to identify the main issues encountered by businesses during the introduction of digital technologies. The main difficulty encountered during such an introduction was the need for training to be able to use this relevant technology (64.9%). This is followed by the costs and uncertain return (53.7%) and insufficient knowledge to be able to identify opportunities (53.1%). These concerns will be taken into account by the consortium in the development of webinars so as to highlight and provide counter arguments to these perceived issues.

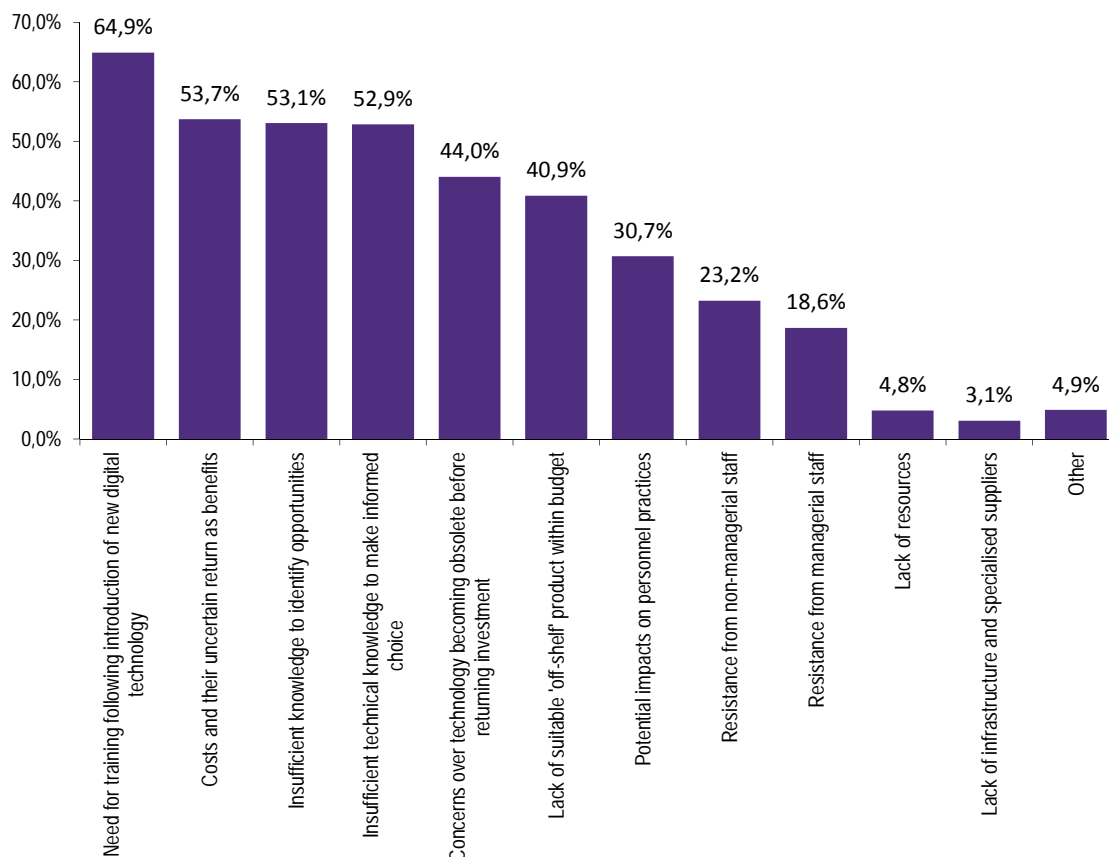


Figure 3i.15: Difficulties in the Implementation of Technologies

The survey sought to gauge the usage of different technological hardware for business purposes. From the data collected it emerges that the device mostly used is the desktop computer, on which the respondents spend around 48.8% of their time. Laptop computers attract 27.9% of the usage time, followed by smartphones (18.6%) and tablets (4.7%). The above data shows that large devices (desktops and laptops) still dominate business usage, probably because these are easier to use given that most software works on these devices. However portable devices are quickly catching on as users value mobility.

#### Time spent on each device

Device	Mean percentage
Desktop computer	48.8%
Laptop computer	27.9%
Smartphone	18.6%
Tablet	4.7%

Figure 3i.16: Time Spent on Each Device

Respondents were also asked about their plans to implement additional digital technologies. From the survey, it emerged that the majority of the respondents (52.1%) do not have any plans to introduce additional technology. In the case of those who indicated otherwise, 27.1% of the businesses stated that they are planning the introduction of more digital technology in the next 12 months, with another 20.5% indicating that they are planning to do so in the next one-to-three years.

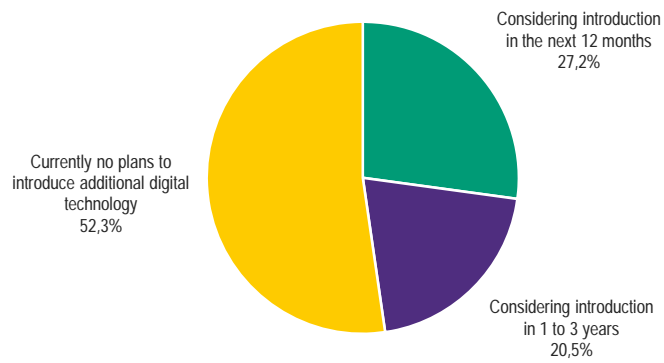


Figure 3i.17: Plans for Additional Digital Technology

Those who indicated willingness to invest were subsequently asked which technologies they were aiming to invest in. Further analysis shows that a computerised reservation system is the technology that businesses are planning to implement (13.4%). This is followed closely by the introduction of a mobile application (13.0%) and the creation of a website (10%).



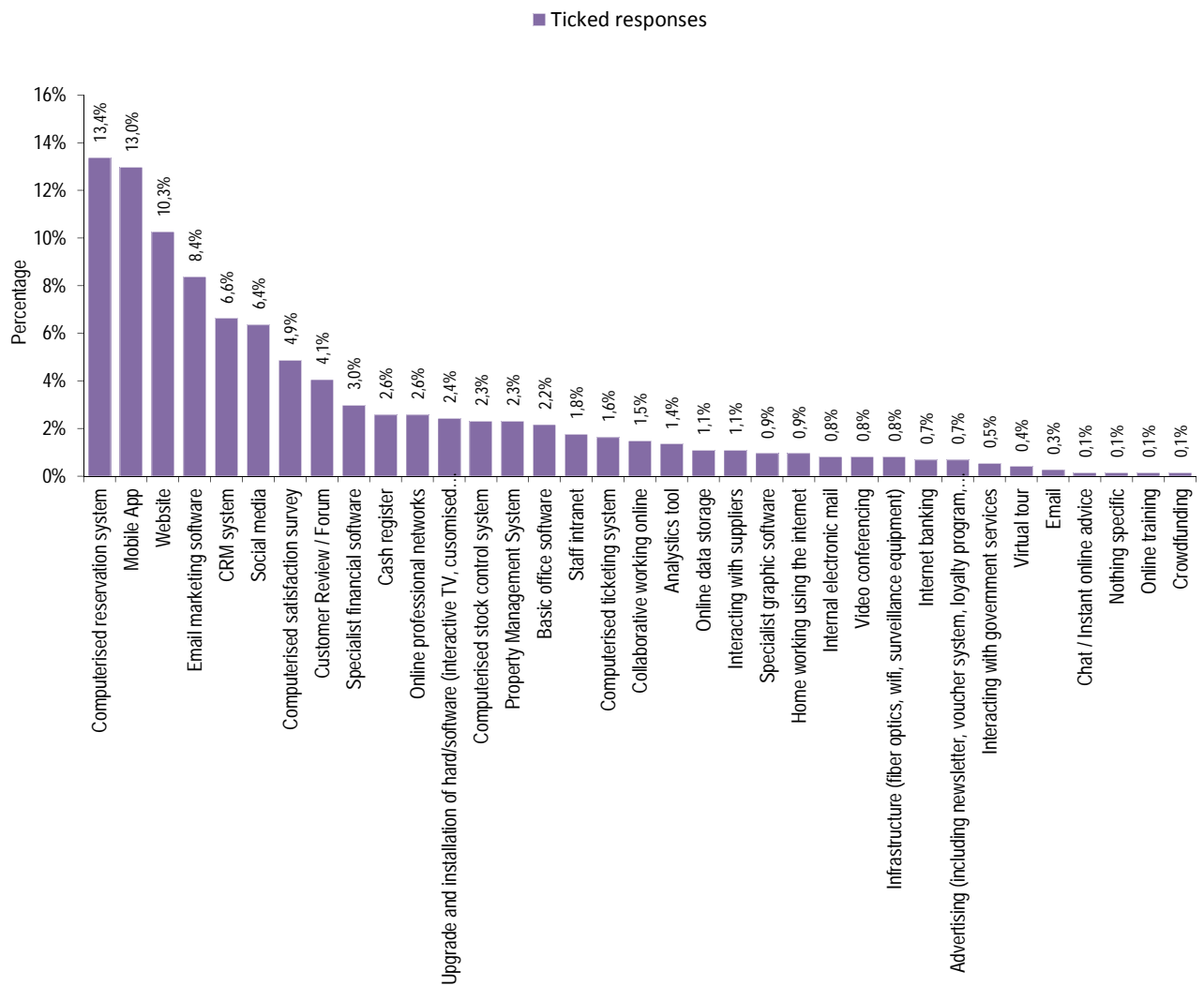


Figure 3i.18: Digital Technology to be Introduced in the Next 12 Months

### 2.3 Attitudes to Digitalisation

The last part of the survey focused on establishing the attitude of SMEs vis-à-vis digital technologies. The main reason behind the digital technologies adopted is the need for an online presence in order to be competitive in today's market, with 89.0% of businesses agreeing with this statement. There is also a high percentage of businesses that digitalised their business to achieve growth (87.5%), and others that did so as they are optimistic about the future opportunities provided by digitalisation (82.0%). It also emerged that 63.8% improved digitalisation as part of a clear vision of the role of digitalisation in their business. Although this is a high overall percentage, it is the one which scored lowest and it could be fuelled by the notion that digitalisation is implemented piecemeal and not as part of a clear strategy.

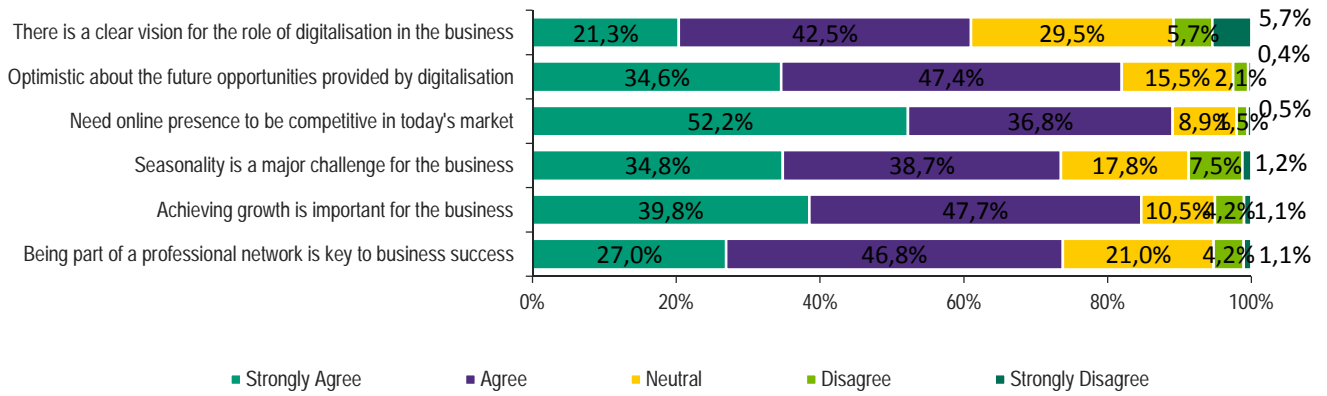


Figure 3i.19: Reasons for Improving Digitalisation

The result achieved following the introduction of the relevant digital technologies (or expected to be achieved in the case of the planned adoption of digital technologies) was mainly related to the more effective and efficient management of the business (75.5%). Other relevant advantages are the growth in the market for business products/services (74.4%) and the improvement in customer satisfaction (71.0%) which ranked second and third respectively.

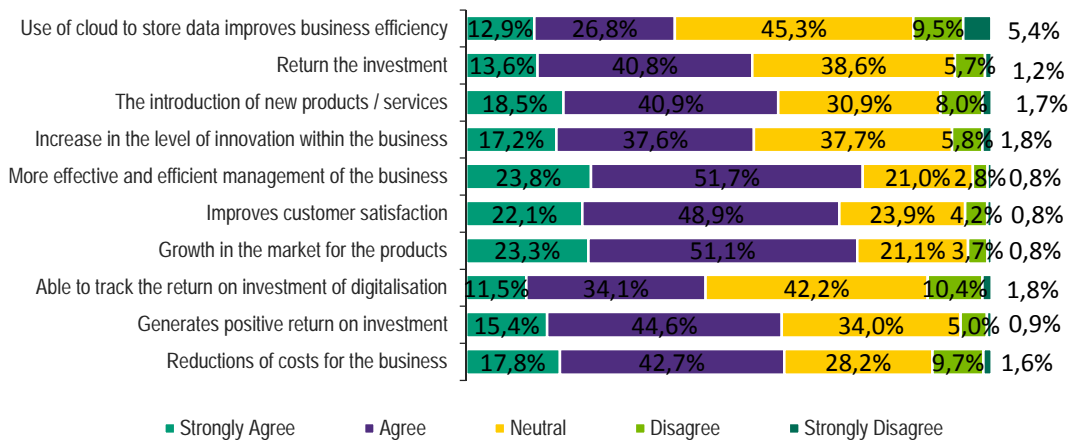


Figure 3i.20: Advantage of Improved Digitalisation

The businesses that indicated that digitalisation increased their level of innovation were asked to provide more information on the technology that was implemented. The most common type of digital technology introduced is related to the use of software and application for managing purposes (24.0%). This is followed by a new marketing strategy (21.3%) and an online booking reservation system (17.7%).

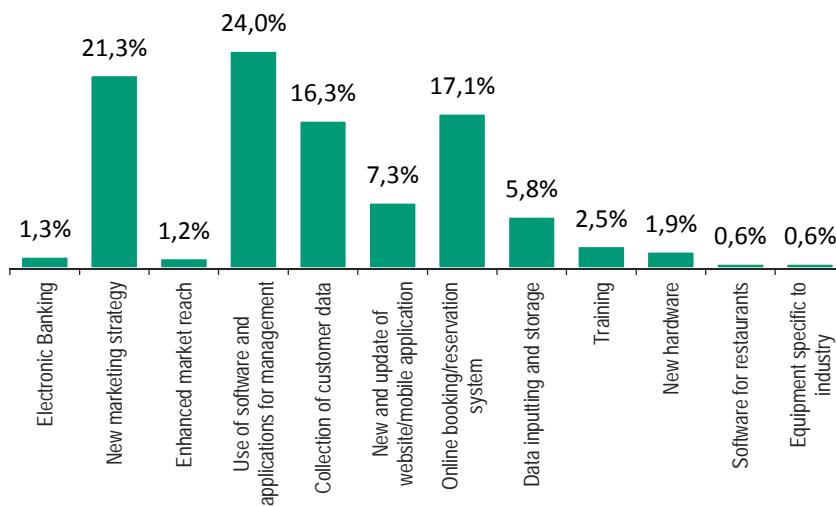


Figure 3i.21: Type of Digital Technology that Led to Innovation

The study also sought to identify the obstacles that are preventing businesses from carrying out further improvements vis-à-vis digitalisation. This is key to the overall project, as it seeks to improve digitalisation amongst SMEs and, hence, the identification of the perceived obstacles is critical. It emerged that the main obstacle is related to a lack of finance (56.5%). Other major obstacles are the current level of technology being sufficient for the business purposes (55.6%), the difficulty in keeping up with the rapid pace of technological change (51.7%), and the high cost of training on digital skills (47.4%). The project, through its various phases/Work Packages, will seek to address these obstacles head-on. The launch of webinars will provide free training to owners and their employees that will be directly linked to the implementation of digitalisation (some of which can be done without injecting cash but investing only one's time). The Tourism Business Portal content will also be improved to better expose today's technologies and to be more relevant to the target audience. Although this is not expected to immediately boost the adoption of digital technologies, it will act as a kick-starter and could lead the way for businesses to explore more different technologies that could help the business realise better performance.

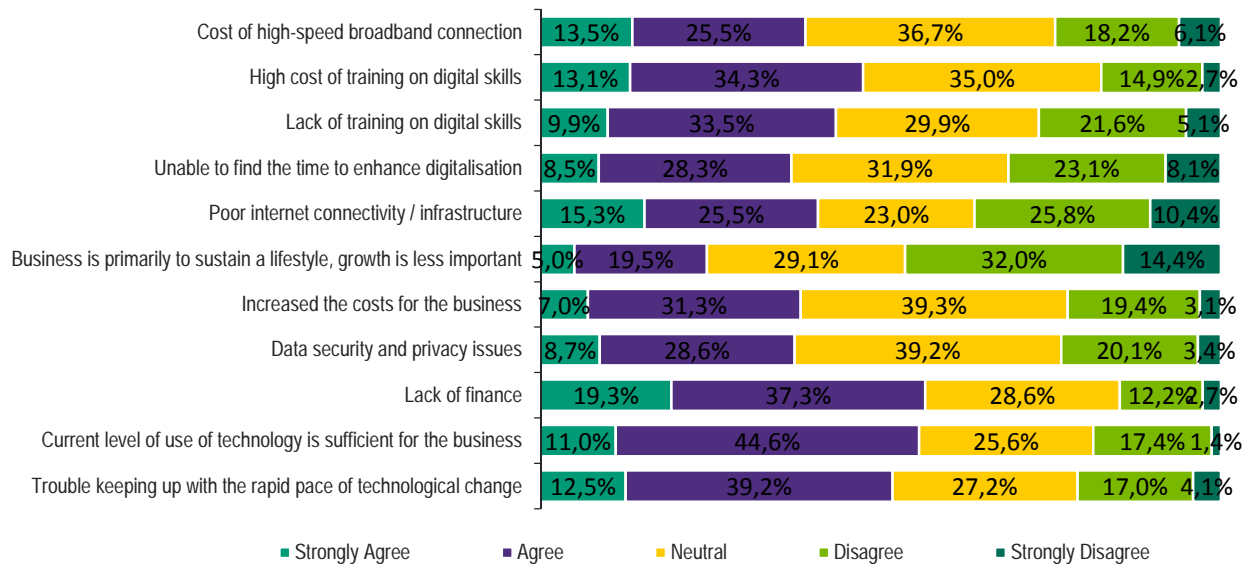


Figure 3i.22: Obstacles Preventing Further Improvement in Digitalisation

# Chapter 3(ii):

## SME Research – Country Analysis

# 1 Austria

## 1.1 Level of digitalisation

Findings show that 93.0% of businesses in Austria use emails as a digital technology (Figure 3ii.1). Other technologies that rank high include the use of websites (86.0%), basic office software (82.6%), and internet banking (79.1%). On the other hand, Austrian businesses are least likely to use computerised ticketing systems (3.5%), Property Management Systems (PMS) (4.7%), and video conferencing facilities (5.8%) (Figure 3ii.2).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

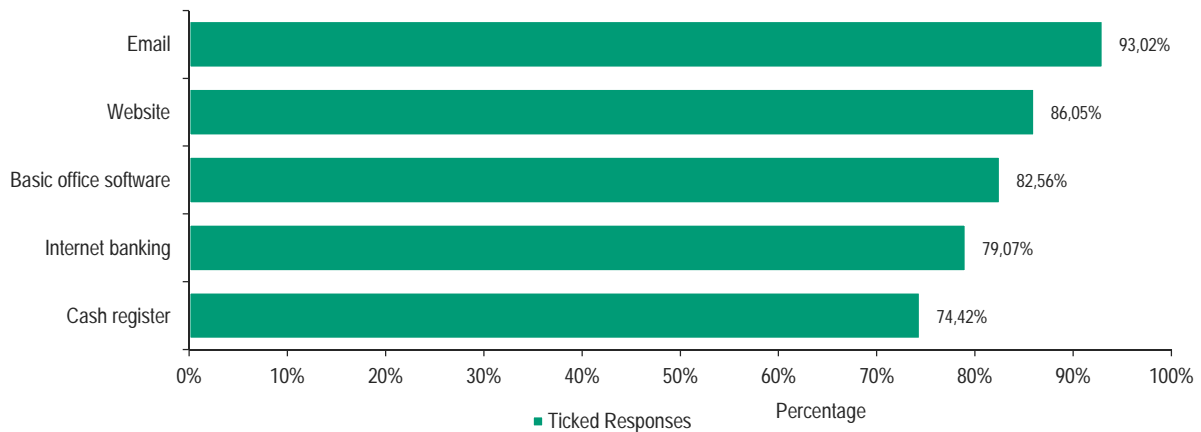


Figure 3ii.1: Digitalisation Adopted by Austrian SMEs

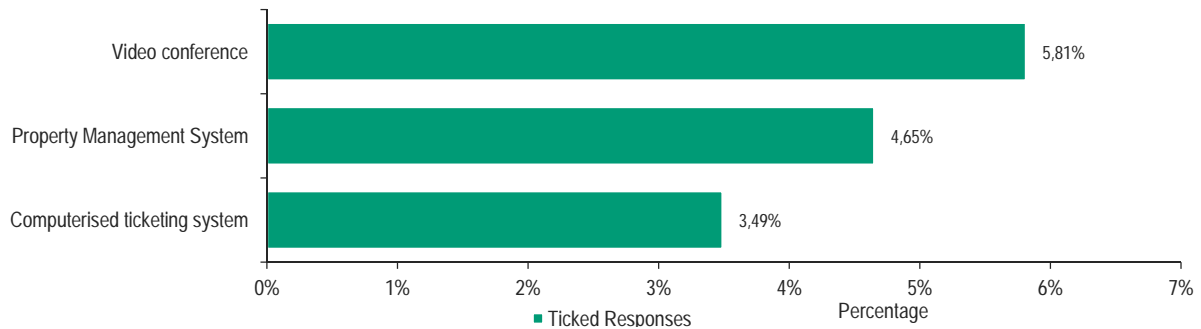


Figure 3ii.2: Digitalisation Least Adopted by Austrian SMEs

## 1.2 Social Media and Websites

### 1.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Austria at 96.6% (Table 3ii.1). Businesses in Austria also use Instagram (39.7%), Pinterest (15.5%) and Twitter (15.5%). However, LinkedIn ranked low at 10.3% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 8.6% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

#### Which social media platform does your business use?

Table 3ii.1: Social Media used by Austrian SMEs

Social media	Percentage
	96.55%
	39.66%
	15.52%
	15.52%
	10.34%
	8.62%

### 1.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to both businesses using their own website and third-party websites is the email function, standing at 85.1% and 39.2% respectively. In the case of businesses having their own website, the second most common feature available is the contact form (74.3%), followed by sending a reservation request (71.6%). Other common functionality features for the businesses using third-party websites, include the functionality of leaving reviews and online booking, which ranked second (35.1%) and third (27.0%) respectively.

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

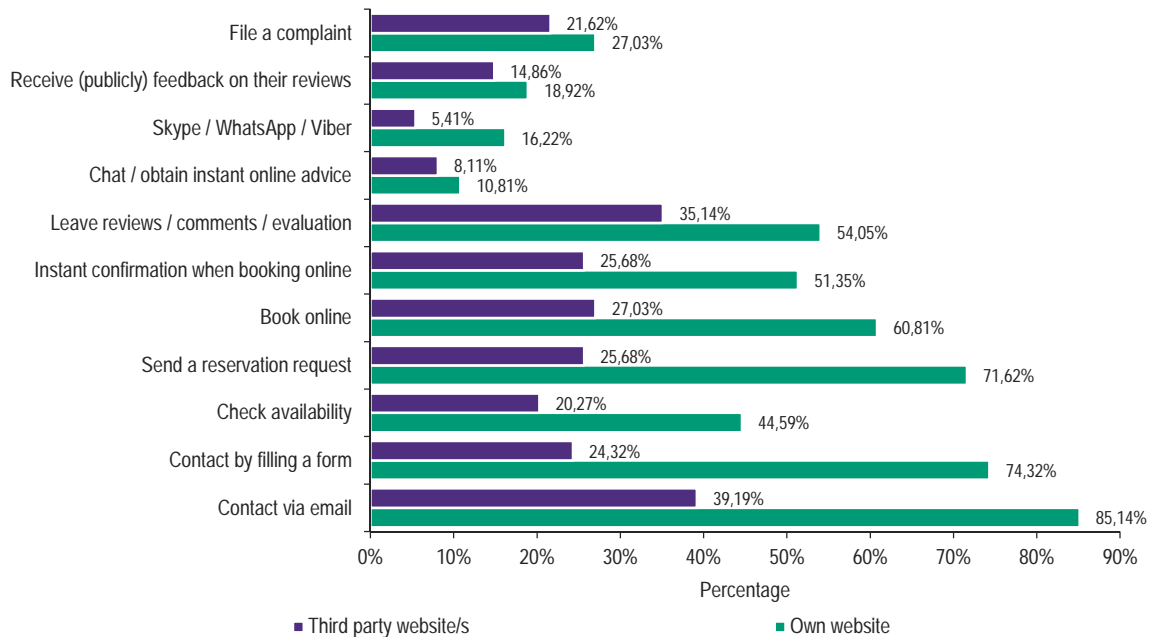


Figure 3ii.3: Usage of Websites by Austrian SMEs

**1.3 Data Processing**  
**1.3.1 Storage of Information**

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked the following question:

**Where do you store the information?**

Research shows that, in Austria, information on customers is stored by 59.3% of businesses (Figure3ii.4).

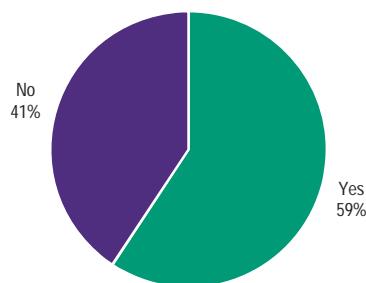


Figure 3ii.4: Austrian SMEs Storing Customer Information

Further analysis (Figure 3ii.5) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 64.7% of the businesses that store



customer information. There are high percentages of businesses that make use of paper records (25.5%) and Excel spreadsheets (21.6%) to store data.

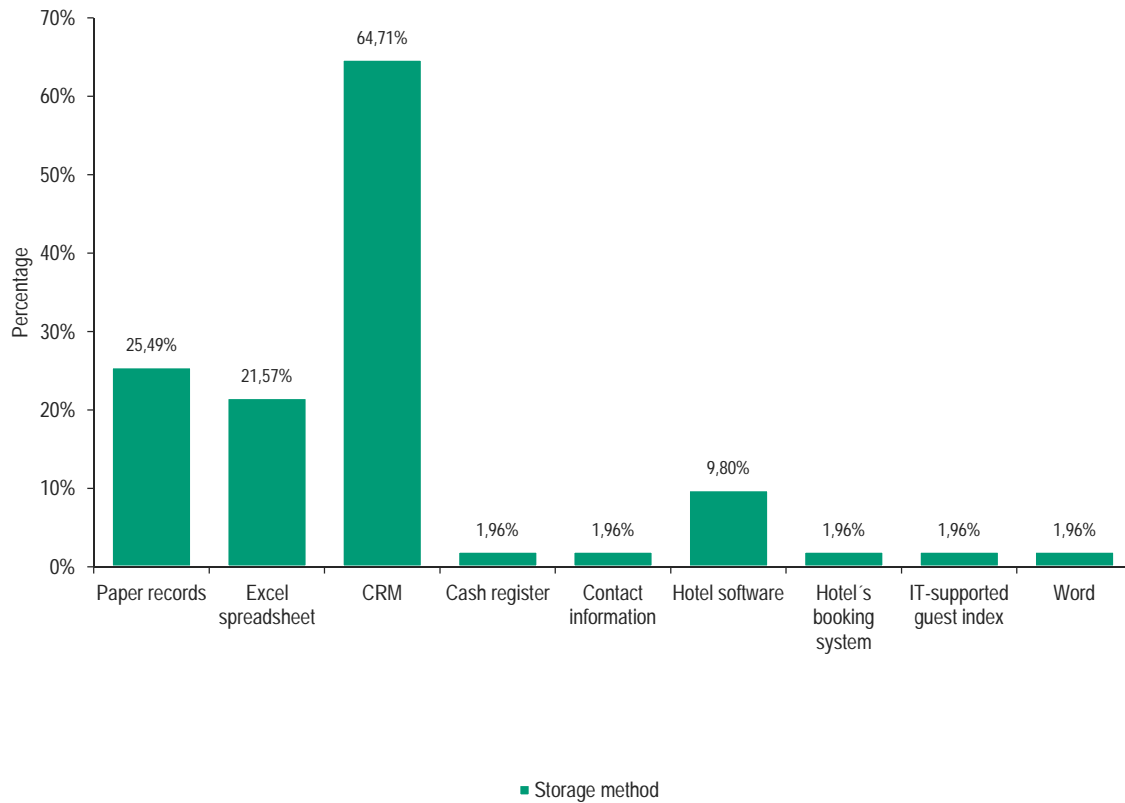


Figure 3ii.5: Methods for Storing Customer Information by Austrian SMEs

### 1.3.2 Time spent on each device

Figure 3ii.6 shows that Austrian businesses spend the highest amount of time on desktop computers (64%), whilst they spend the least time on tablets (5%).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

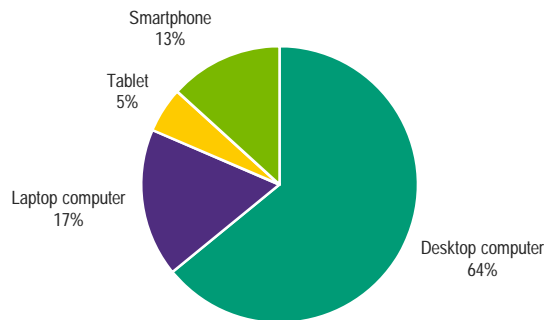


Figure 3ii.6: Percentage of Time Spent on Device to Conduct Business by Austrian SMEs

## 1.4 Attitudes Towards Digitalisation

### 1.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Austrian businesses seek to achieve higher online presence (77.9%), increase growth (76.7%) and as a means to help them respond to seasonality (73.3%) (Figure 3ii.7).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

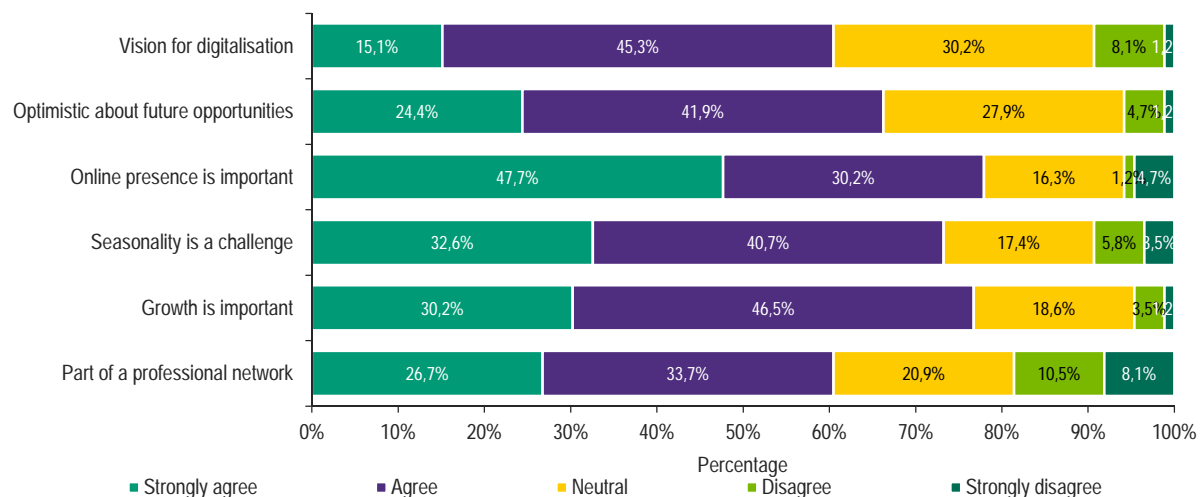


Figure 3ii.7: Austrian SMEs' Motivation to Get Digitalised

### 1.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Austrian businesses that digitalisation improves customer satisfaction (58.8%), enables the more effective management of business (55.3%), and reduces costs (53.0%) (Figure 3ii.8). It is worth noting that the option "the use of cloud to

store data improves business efficiency” registered the highest percentages of neutral (51.8%) and disagreement results (28.2%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

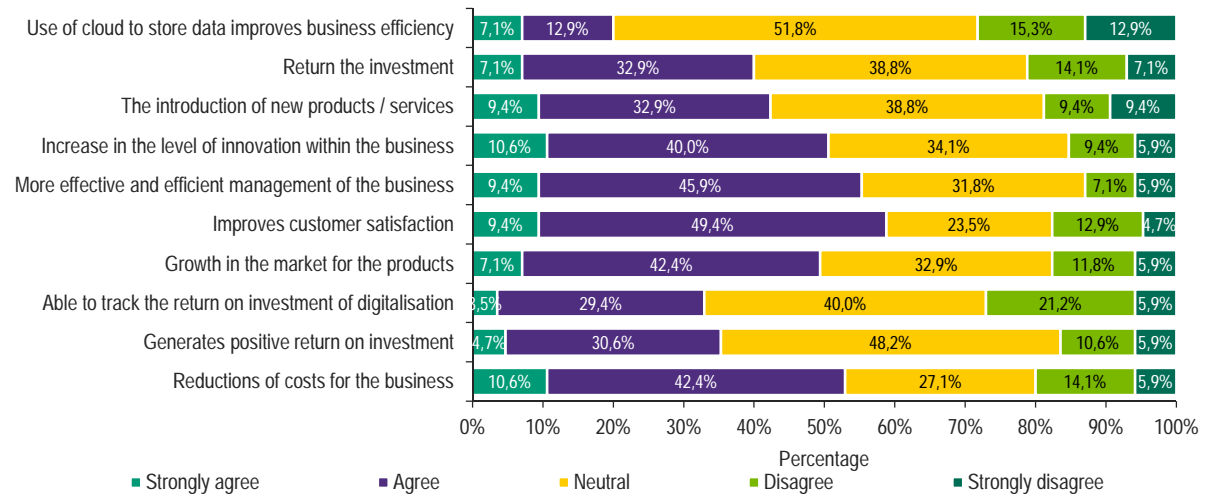


Figure 3ii.8: Advantages Expected/Experienced by Austrian SMEs from Digitalisation

## 1.5 Challenges

### 1.5.1 Difficulties in the Implementation of New Digital Technologies

Austrian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to costs and their uncertain return as benefits (41.9%) (Figure 3ii.9). Other difficulties encountered by businesses include concerns over technology becoming obsolete before making a return on investment (37.3%) and insufficient technical knowledge to make informed choices (37.2%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

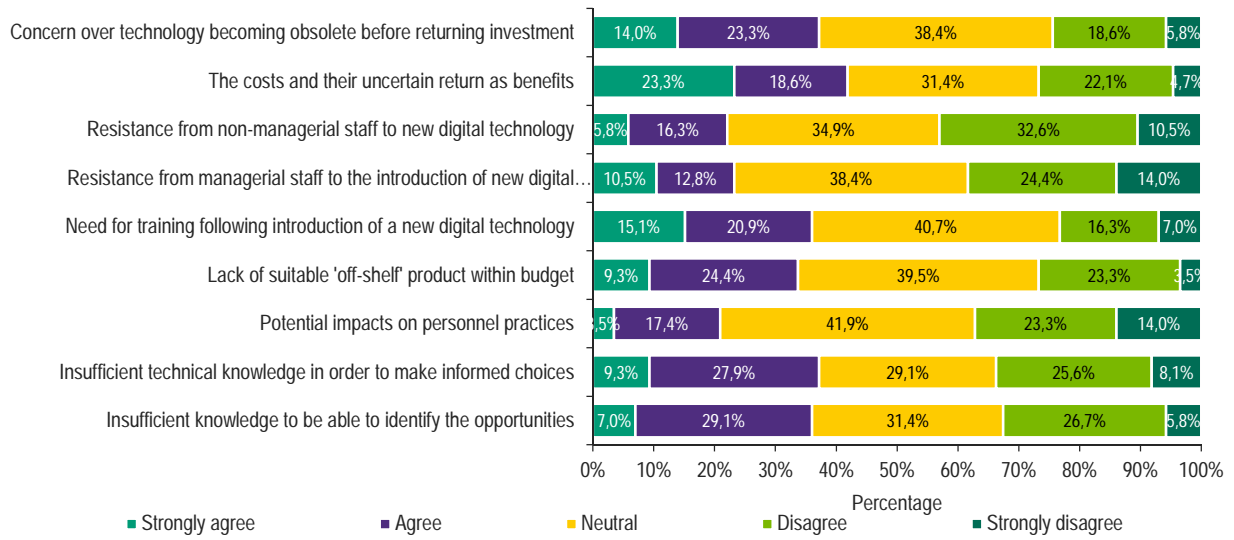


Figure 3ii.9: Austrian SMEs' Difficulties to Implement New Technology

### 1.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is the belief that the current technology in use by the business is sufficient to meet their needs (64.7%) (Figure 3ii.10). Apart from this, the main issue for businesses that wish to improve digitalisation is poor internet connectivity/infrastructure, rapid technological change, and increased costs, as indicated by 41.2% of the Austrian businesses. The lack of importance of business growth (21.2%) and the costs of high-speed broadband internet (24.7%) were the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

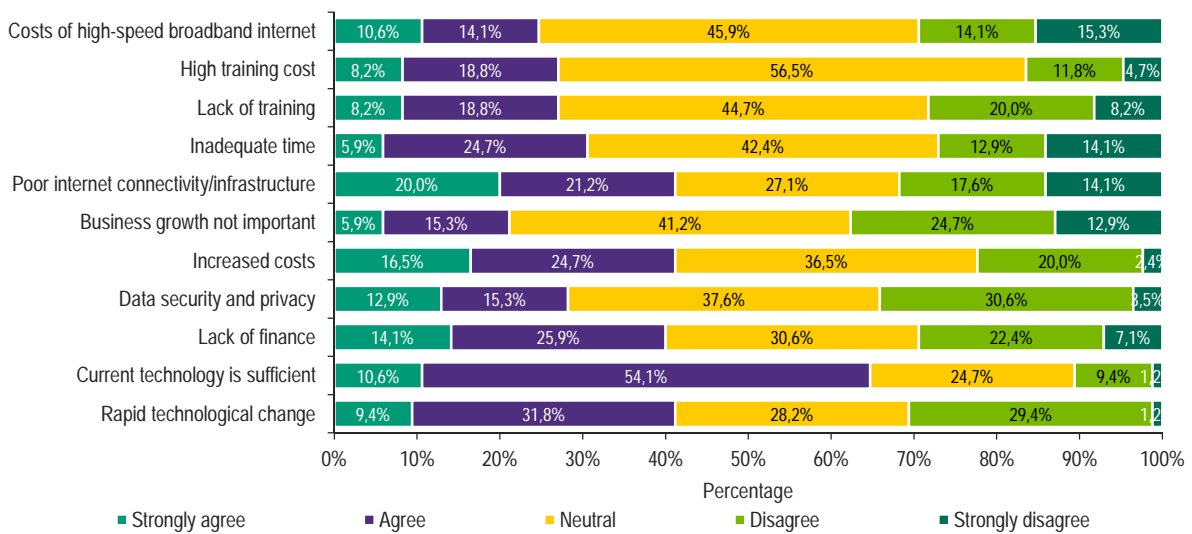


Figure 3ii.10: Austrian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

## 2 Belgium

### 2.1 Level of Digitalisation

Findings show that 95.65% of businesses in Belgium use email as a digital technology (Figure 3ii.11). Other technologies that rank high include the use of basic office software (88.41%), websites (86.96%), and internet banking (84.06%). On the other hand, Belgian businesses are least likely to use computerised stock control system (7.25%), chat/instant online advice (7.25%), and Customer Relationship Management systems (11.59%) (Figure 3ii.12).

All respondents were asked to answer the following question:

**Does your business currently make use of the following digital technologies?**

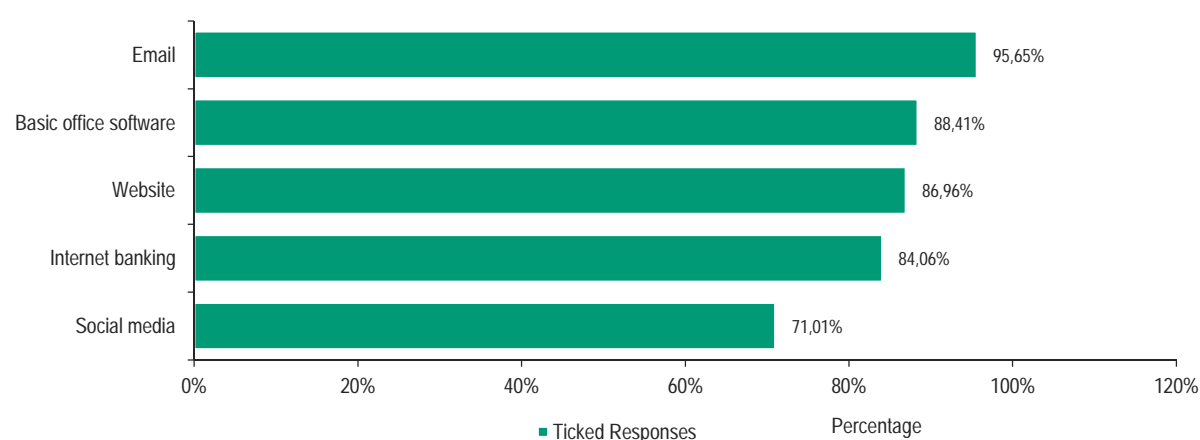


Figure 3ii.11: Digitalisation Adopted by Belgian SMEs

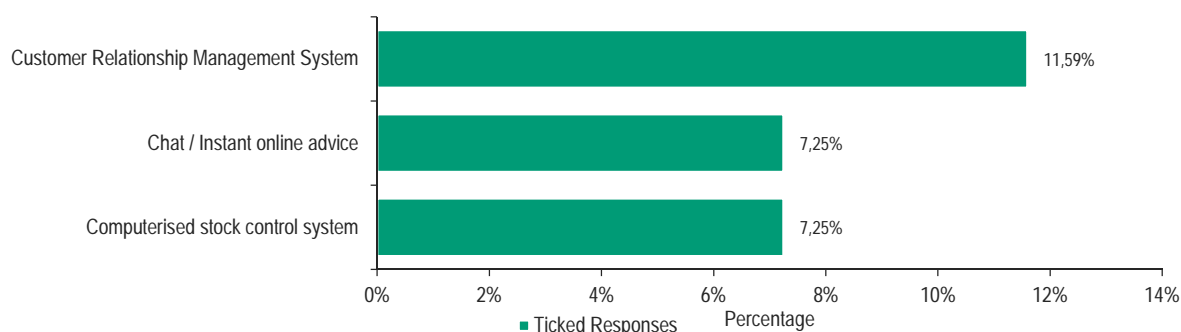


Figure 3ii.12: Digitalisation Least Adopted by Belgian SMEs

### 2.2 Social Media and Websites

#### 2.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Belgium at 93.88% (Table 3ii.2). Businesses in Belgium also use Instagram (30.61%), Pinterest (10.20%) and Twitter (42.86%). However, LinkedIn ranked at 32.65% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 2.04% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.2: Social Media Used by Belgian SMEs

**Usage of social media platform**

Social media	Percentage
	93.88%
	30.61%
	10.20%
	42.86%
	32.65%
	2.04%

### 2.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 98.33%, whilst the second is sending contact by filling a form (80.0%), followed by sending a reservation request (78.33%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluation at 35.00%, followed by contact via email and book online (both at 33.33%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

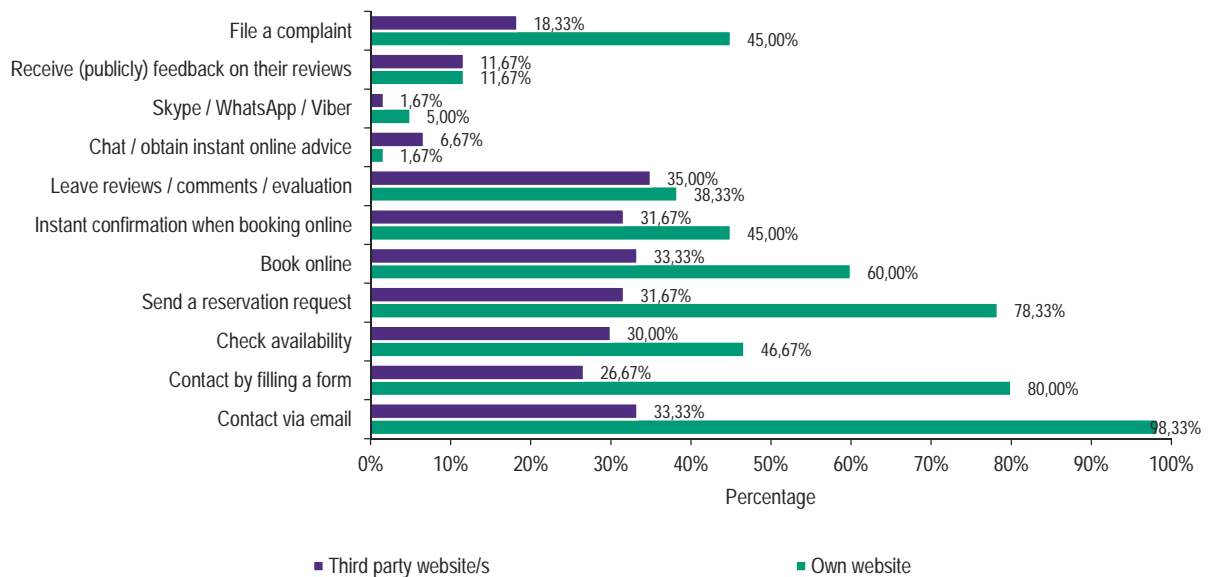


Figure 3ii.13: Usage of Websites by Belgian SMEs

## 2.3 Data Processing

### 2.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Belgium, information on customers is stored by 78% of businesses (Figure 3ii.14).

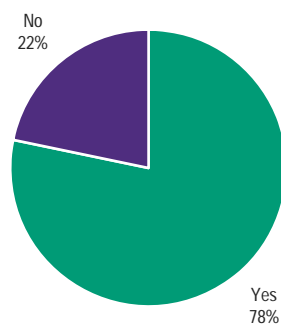


Figure 3ii.14: Belgian SMEs Storing Customer Information

Further analysis (Figure 3ii.15) shows that data storage is mainly done through the Customer Relations Management (CRM) tool, which is used by 51.85% of the businesses



that store customer information. There are high percentages of businesses that make use of paper records (27.78%) and Excel spreadsheets (22.22%) to store data.

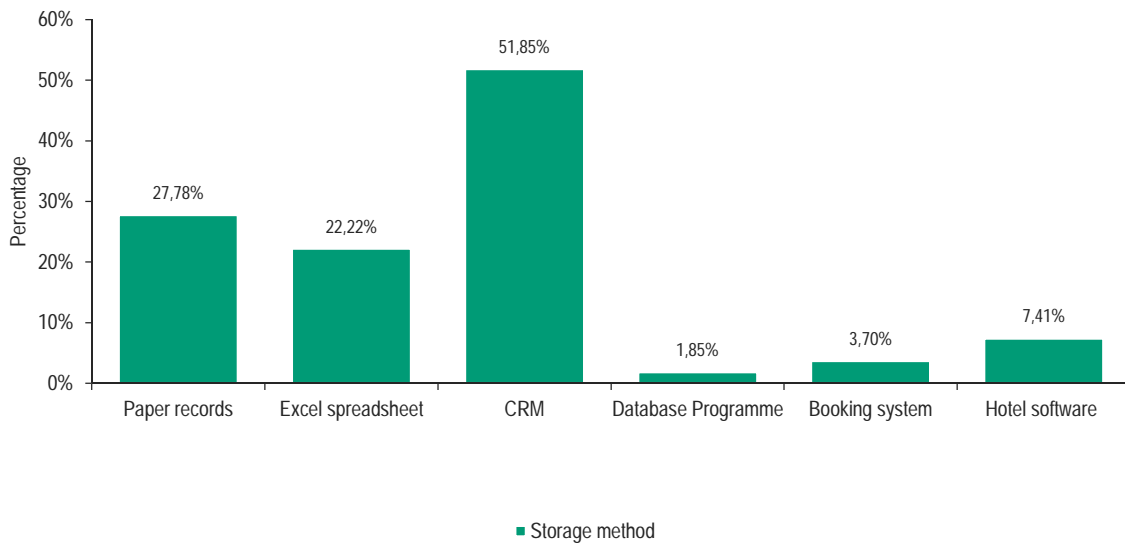


Figure 3ii.15: Methods for Storing Customer Information by Belgian SMEs

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

**2.3.2 Time Spent on Each Device**

Figure 3ii.16 shows that Belgian businesses spend the highest amount of time on desktop computers (65%), whilst they spend the least time on tablets (6%).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

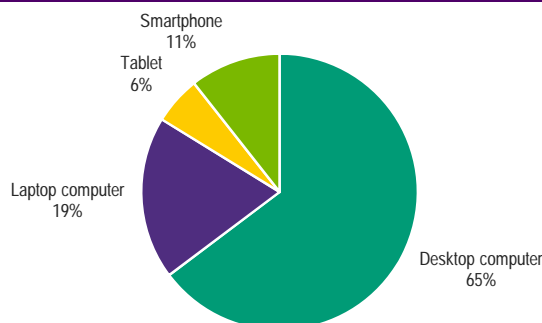


Figure 3ii.16: Percentage of Time Spent on Device to Conduct Business by Belgian SMEs

## 2.4 Attitudes Towards Digitalisation

### 2.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Belgian businesses believe that an online presence is important (80%), are optimistic about future opportunities (75%), and believe that growth is important (74%) (Figure 3ii.17).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

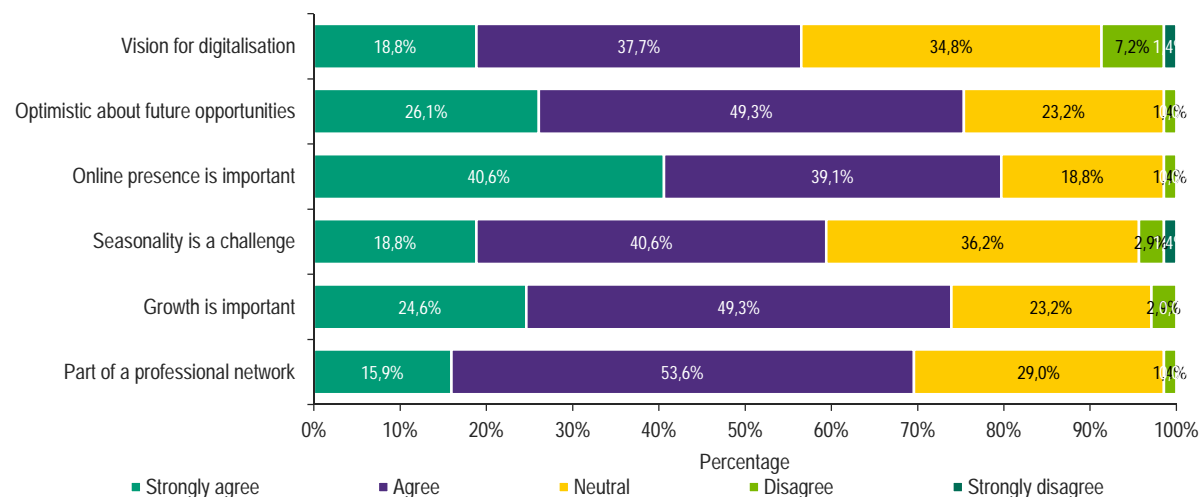


Figure 3ii.17: Belgian SMEs' Motivation to Get Digitalised

### 2.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Belgian businesses that digitalisation generates positive return on investment (64%), improves customer satisfaction (59%), enables growth in the market for the products (55%), and provides more effective and efficient management of the business (55%) (Figure 3ii.18). It is worth noting that the option "the ability to track the return on investment of digitalisation" registered the highest percentages of neutral (67%) and disagreement results of 6%.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

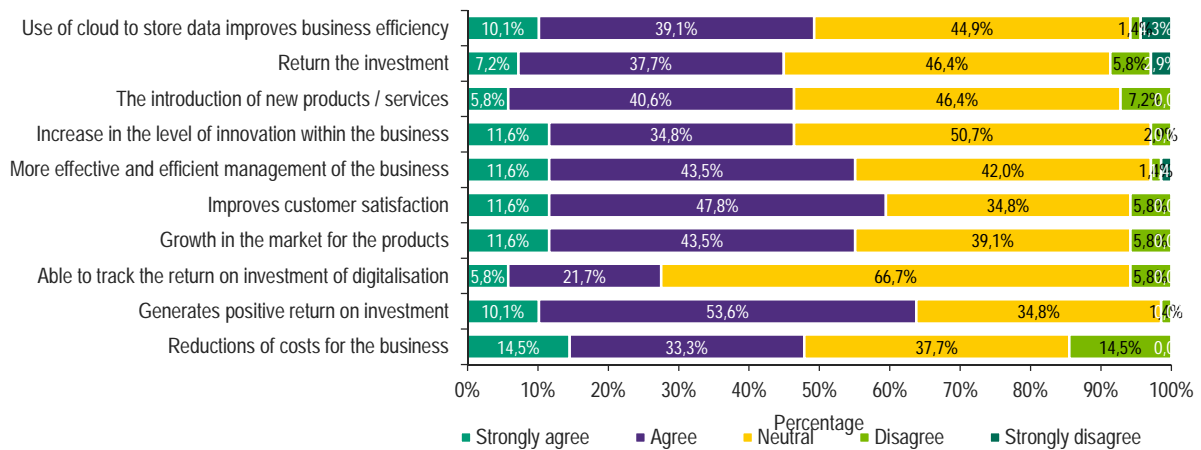


Figure 3ii.18: Advantages Expected/Experienced by Belgian SMEs from Digitalisation

## 2.5 Challenges

### 2.5.1 Difficulties in the Implementation of New Digital Technologies

Belgian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following introduction of a new digital technology (59.4%) (Figure 3ii.19). Other difficulties encountered by businesses include insufficient knowledge to be able to identify the opportunities (56.5%), and the insufficient technical knowledge in order to make informed choices (56.5%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

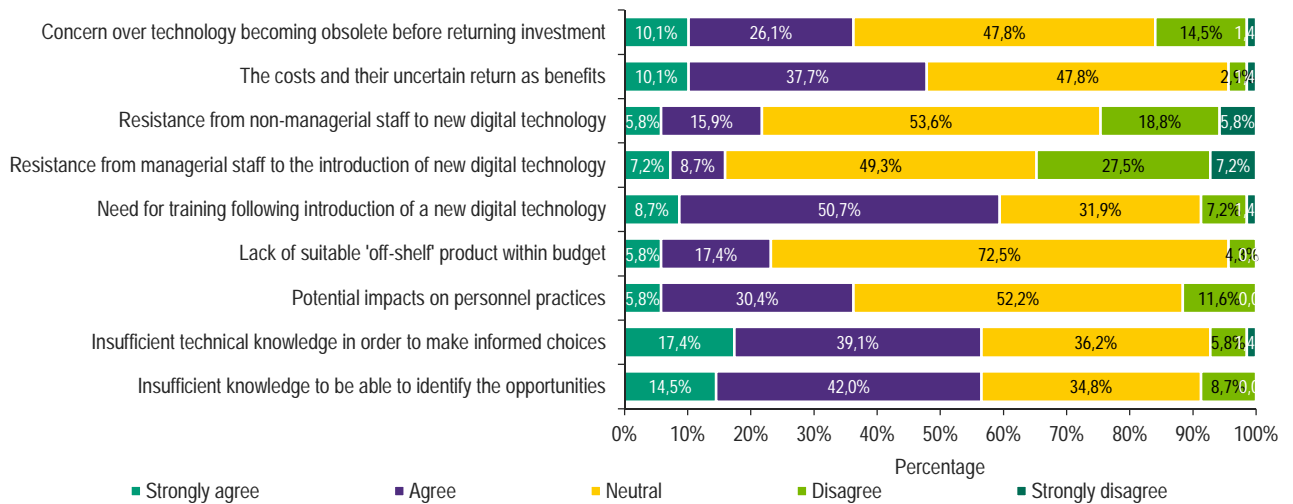


Figure 3ii.19: Belgian SMEs' Difficulties to Implement New Technology

## 2.6.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is rapid technological change (59.4%) (Figure 3ii.20). Apart from this, the main issues for businesses that wish to improve digitalisation is that they believe current technology is sufficient (57.9%), lack of finance (50.7%), and poor internet connectivity/infrastructure (47.8%), as indicated by Belgian businesses. The lack of importance of business growth and the costs of high-speed broadband internet (both at 21.7%), were the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

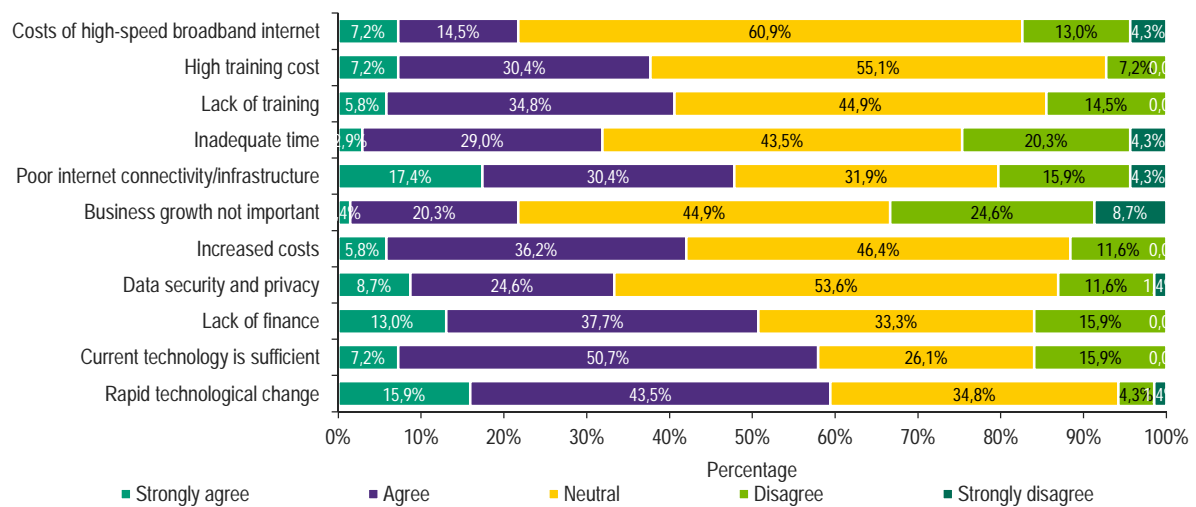


Figure 3ii.20: Belgian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

## 3 Bulgaria

### 3.1 Level of Digitalisation

Findings show that 77.67% of businesses in Bulgaria use emails as a digital technology (Figure 3ii.21). Other technologies that rank high include the use of a cash register (72.82%), social media (69.90%), and internet banking (65.05%). On the other hand, Bulgarian businesses are least likely to use computerised customer satisfaction surveys, Property Management Systems (PMS), and specialist graphic software, all with a 9.71% usage rate (Figure 3ii.22).

All respondents were asked to answer the following question:

**Does your business currently make use of the following digital technologies?**

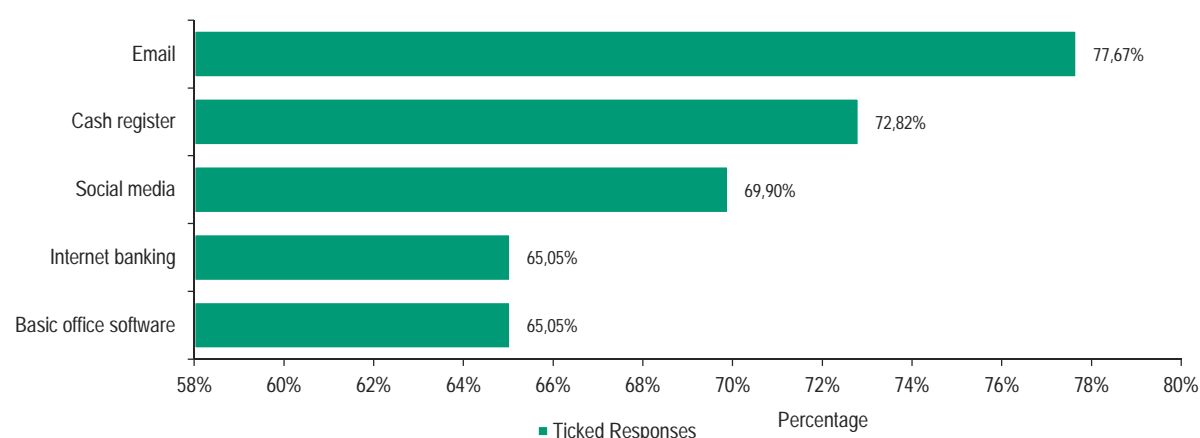


Figure 3ii.21: Digitalisation Adopted by Bulgarian SMEs

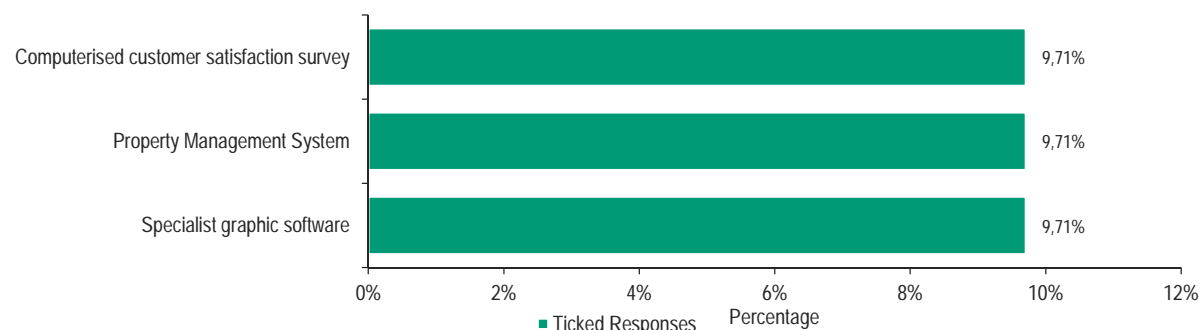


Figure 3ii.22: Digitalisation Least Adopted by Bulgarian SMEs

### 3.2 Social Media and Websites

#### 3.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Bulgaria at 98.59% (Table 3ii.3). Businesses in Bulgaria also use Instagram (14.08%), Pinterest (2.82%) and Twitter (18.31%). However, LinkedIn ranked low at 14.08% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 2.82% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.3: Social Media Used by Bulgarian SMEs

**Usage of social media platform**

Social media	Percentage
	98.59%
	14.08%
	2.82%
	18.31%
	14.08%
	2.82%

**3.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 96.77%, whilst the second is sending a reservation request (87.1%), followed by contact by filling in a form (69.35%). In the case of businesses using third-party websites, the most common features available are both online booking, as well as leaving reviews/comments/evaluation at 25.81%, followed by contact via email (24.19%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

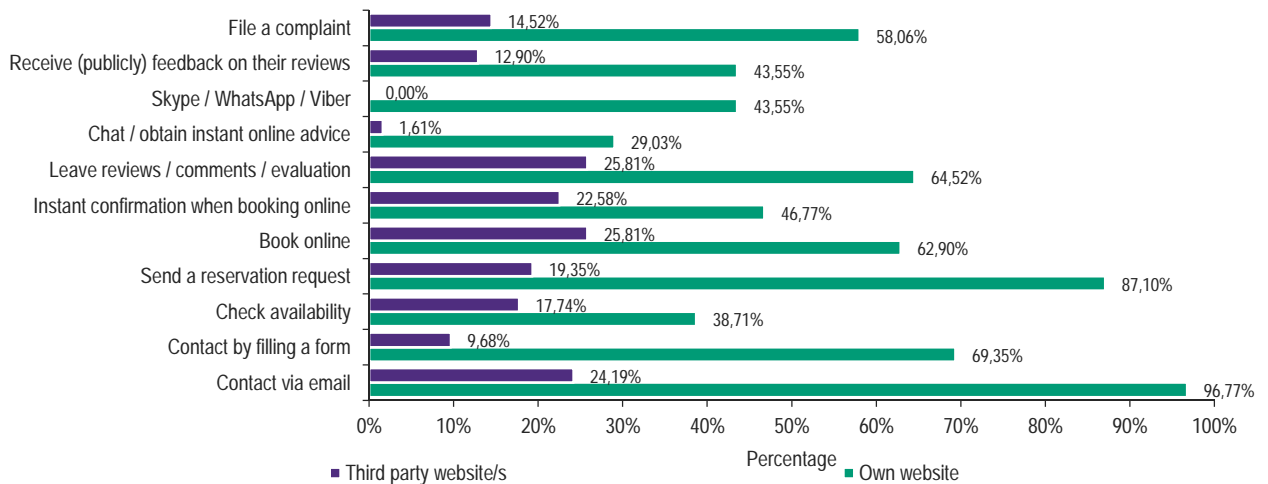


Figure 3ii.23: Usage of Websites by Bulgarian SMEs

### 3.3 Data Processing

#### 3.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Bulgaria, information on customers is stored by 75% of businesses (Figure 3ii.24).

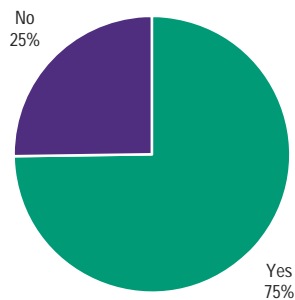


Figure 3ii.24: Bulgarian SMEs Storing Customer Information

Further analysis (Figure 3ii.25) shows that data storage is mainly done through Excel spreadsheets (53.25%), paper records (41.56%), and a Customer Relations Management (CRM) tool (32.47%). There are high percentages of businesses that make use of email (5.19%) and database programmes (1.30%) to store data.

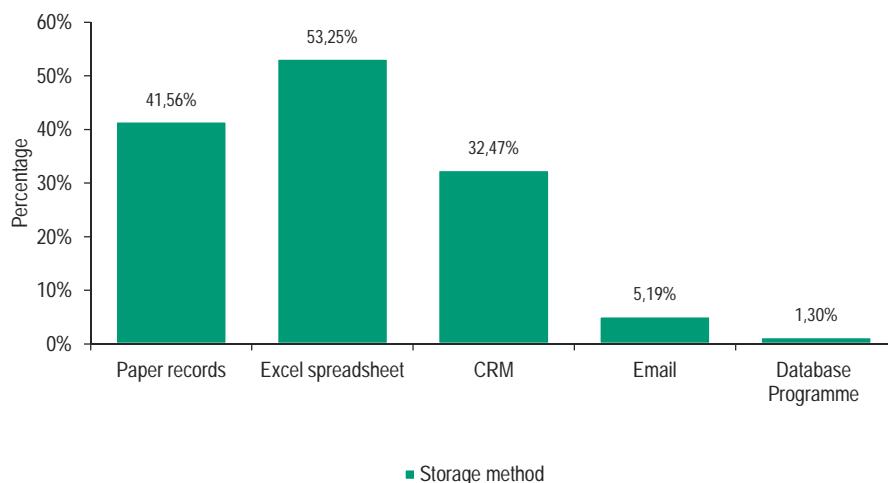


Figure 3ii.25: Methods for Storing Customer Information by Bulgarian SMEs

### 3.3.2 Time Spent on Each Device

Figure 3ii.26 shows that Bulgarian businesses spend the highest amount of time on desktop computers (44%), whilst they spend the least time on tablets (6%).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

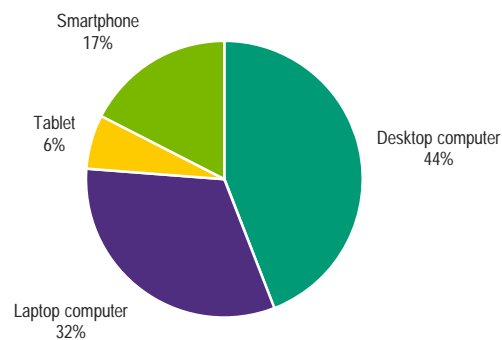


Figure 3ii.26: Percentage of Time Spent on Device to Conduct Business by Bulgarian SMEs

## 3.4 Attitudes Towards Digitalisation

### 3.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Bulgarian businesses believe that growth is important (93%), are optimistic about future opportunities (87%), and seek to form part of a professional network (83%) (Figure 3ii.27).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

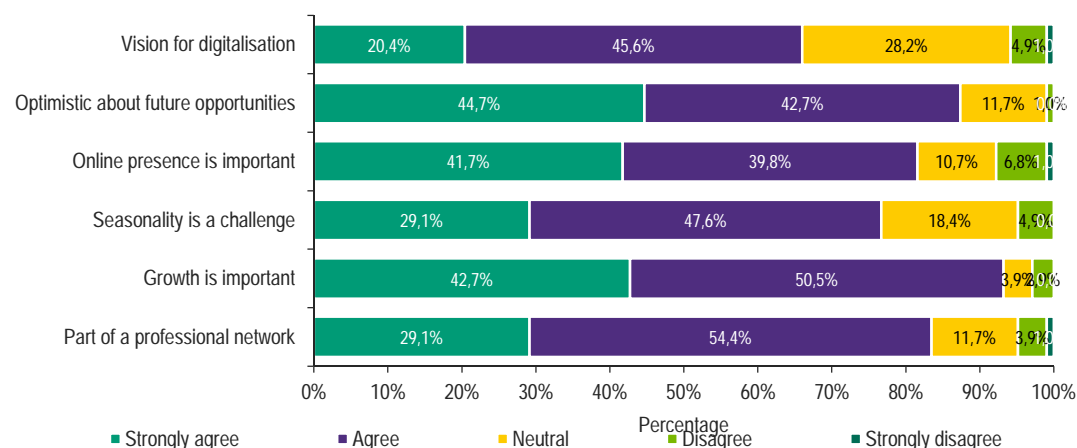


Figure 3ii.27: Bulgarian SMEs' Motivation to Get Digitalised



### 3.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Bulgarian businesses that digitalisation provides more effective and efficient management of the business (82%), allows for growth in the market for products (71%), and reduces costs (68%) (Figure 3ii.28). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (45%) and high percentage disagreement results (10%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

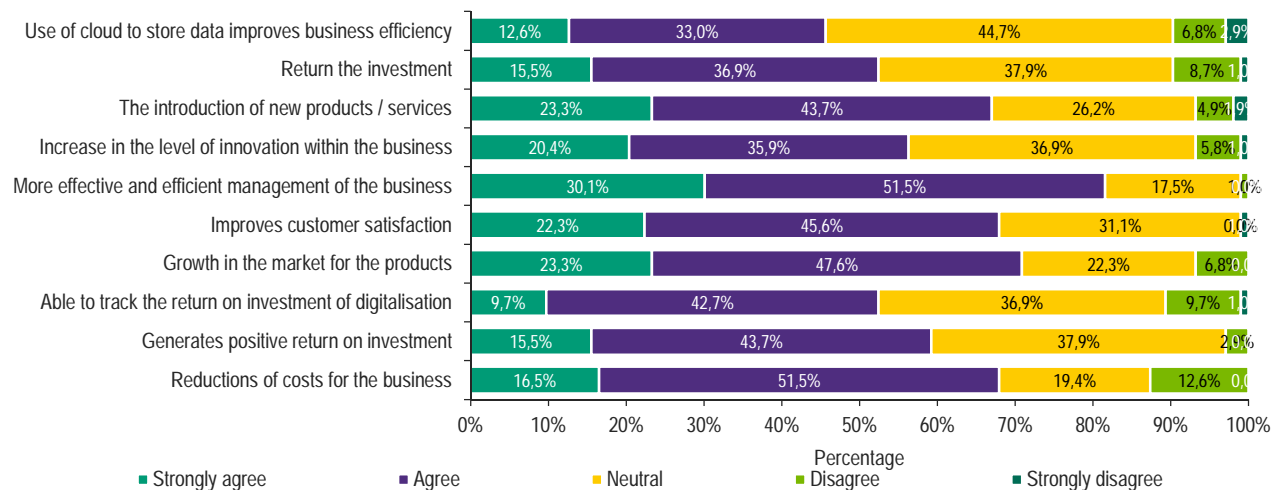


Figure 3ii.28: Advantages Expected/Experienced by Bulgarian SMEs from Digitalisation

### 3.5 Challenges

#### 3.5.1 Difficulties in the Implementation of New Digital Technologies

Bulgarian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of a new digital technology (73%) (Figure 3ii.29). Other difficulties encountered by businesses include concerns over insufficient knowledge to be able to identify opportunities (57%) and the potential impacts on personnel practices (50%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

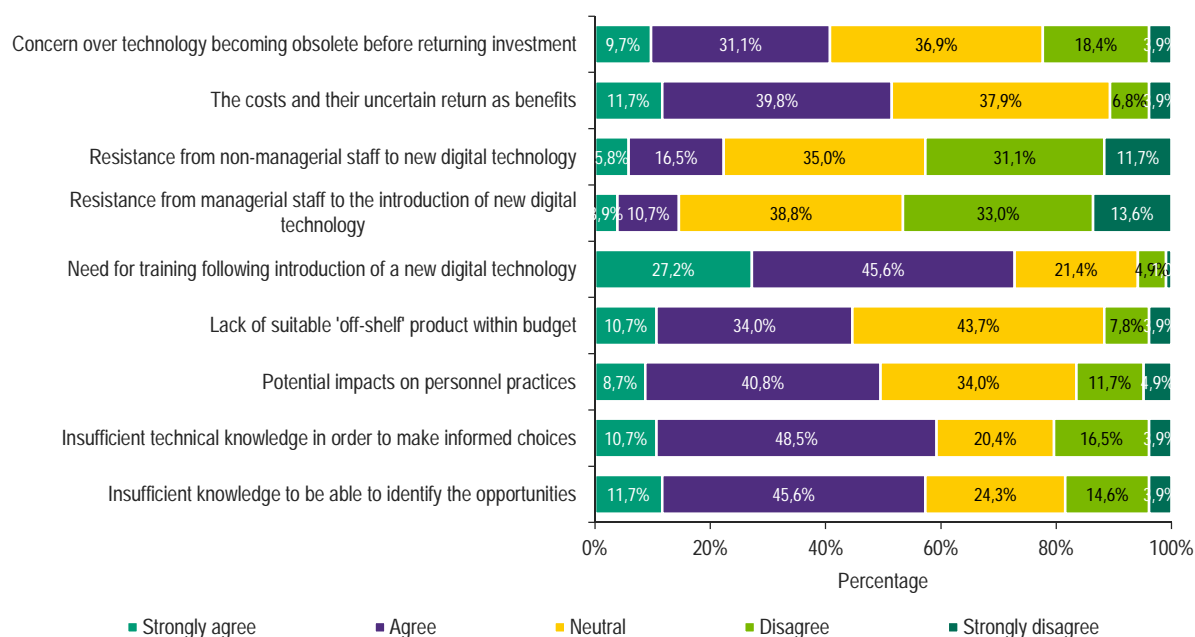


Figure 3ii.29: Bulgarian SMEs' Difficulties to Implement New Technology

### 3.6.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is lack of finance (67%) (Figure 3ii.30). Apart from this, the main issue for businesses that wish to improve digitalisation is that they believe the current technology is sufficient (61.1%), data security and privacy issues (49.6%), and rapid technological change (48.5%), as indicated by Bulgarian businesses. Inadequate timing (19.4%) and the lack of business growth importance (30.1%) were the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

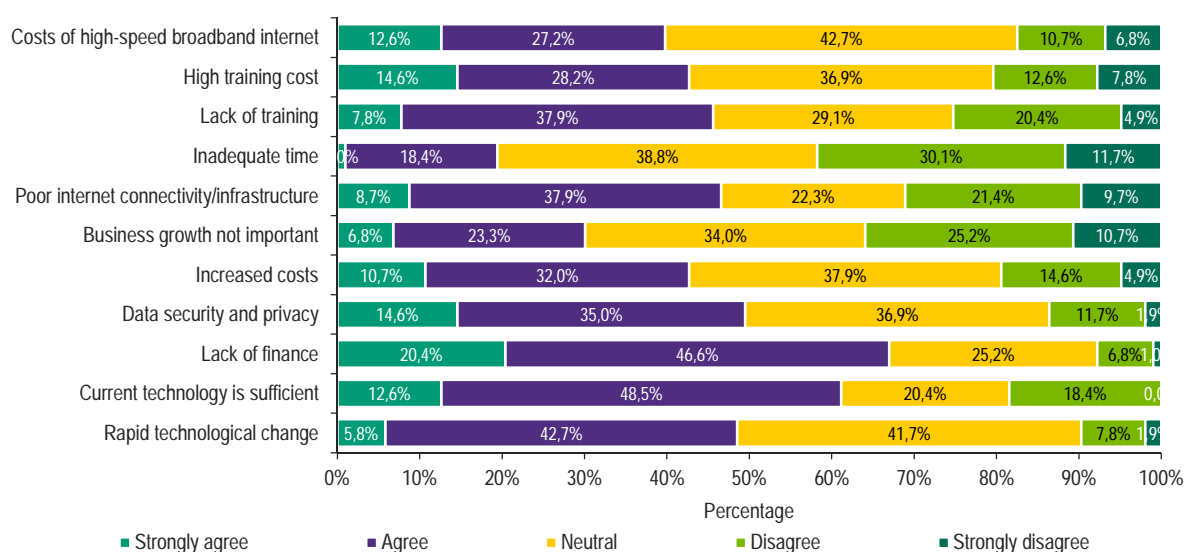


Figure 3ii.30: Bulgarian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

## 4 Croatia

### 4.1 Level of Digitalisation

Findings show that 98.02% of businesses in Croatia use emails as a digital technology (Figure 3ii.31). Other technologies that rank high include the use of websites (96.04%), internet banking (91%), and basic office software (89.1%). On the other hand, Croatian businesses are least likely to use Property Management Systems (PMS) (4.95%), specialist graphic software (7.92%), and chat/instant online advice (11.88%) (Figure 3ii.32).

All respondents were asked to answer the following question:

**Does your business currently make use of the following digital technologies?**

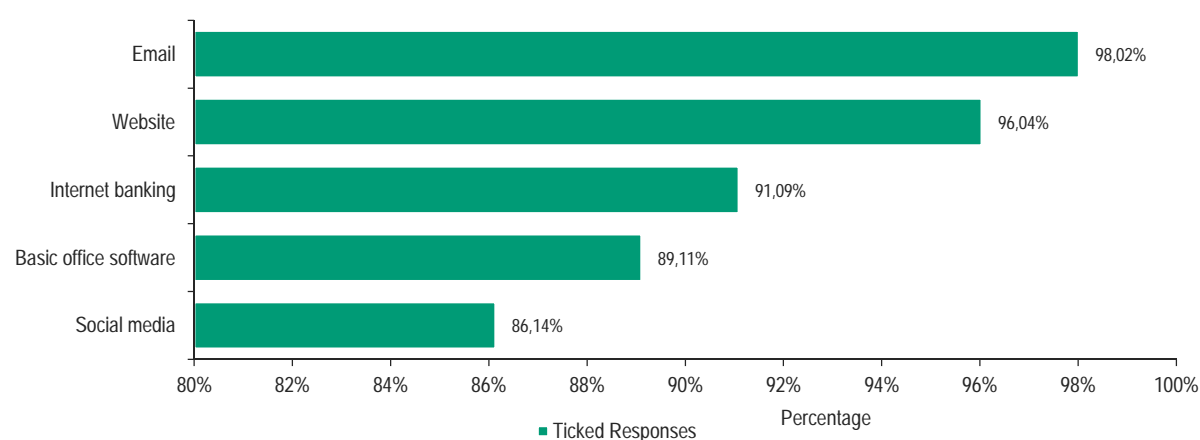


Figure 3ii.31: Digitalisation Adopted by Croatian SMEs

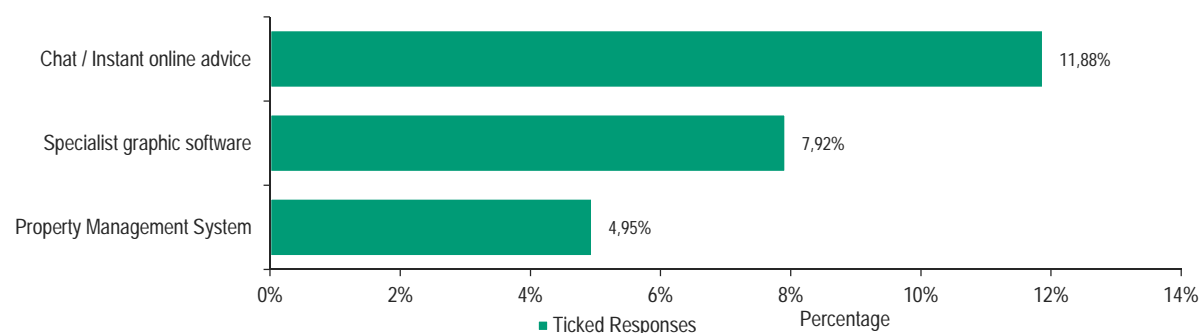


Figure 3ii.32: Digitalisation Least Adopted by Croatian SMEs

### 4.2 Social Media and Websites

#### 4.2.1 Social Media Platform



Evidence shows that Facebook is the most used social media platform in Croatia at 100% (Table 3ii.4). Businesses in Croatia also use Instagram (28.74%), Pinterest (12.64%) and Twitter (36.78%). However, LinkedIn ranked at 29.89% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 3.45% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.4: Social Media used by Croatian SMEs

**Usage of social media platform**

Social media	Percentage
	100%
	28.74%
	12.64%
	36.78%
	29.89%
	3.45%

**4.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 100%, whilst the second is sending a reservation request (83.51%), followed by contact by filling in a form (73.20%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 42.27%, followed by booking online (40.21), and by both instant confirmation when booking online and checking availability (both at 38.14%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

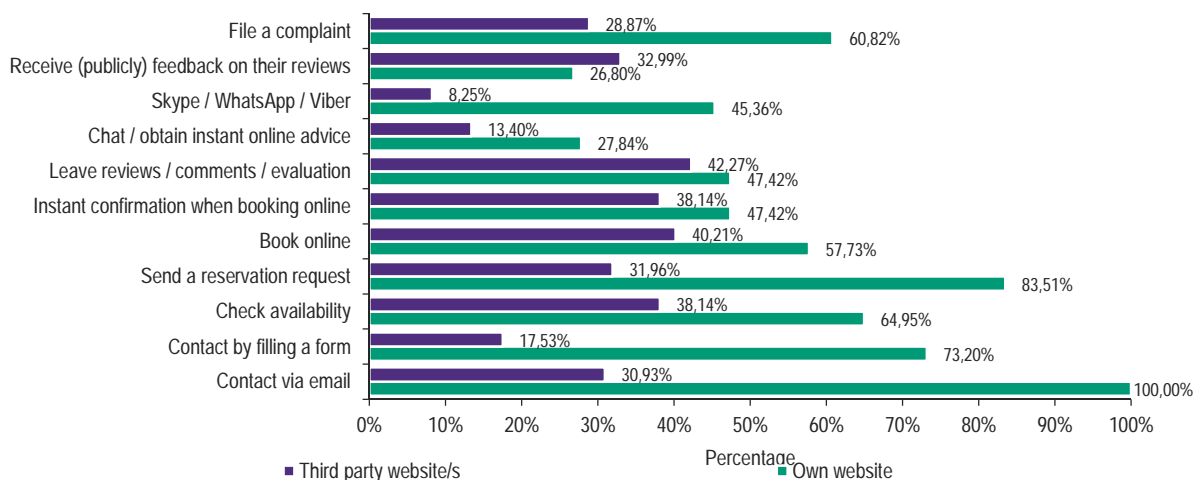


Figure 3ii.33: Usage of Websites by Croatian SMEs

## 4.3 Data Processing

### 4.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### “Where do you store the information?”

Research shows that, in Croatia, information on customers is stored by 73% of businesses (Figure 3ii.34).

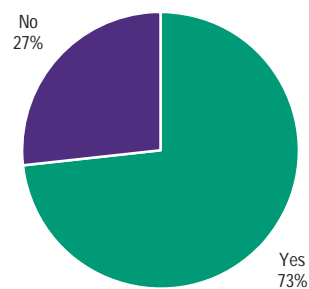


Figure 3ii.34: Croatian SMEs Storing Customer Information

Further analysis (Figure 3ii.35) shows that data storage is mainly done through the Customer Relations Management (CRM) tool, which is used by 41.89% of the businesses that store customer information. There are high percentages of businesses that make use of Excel spreadsheets (36.49%), paper records (35.14%) and email (4.06%) to store data.

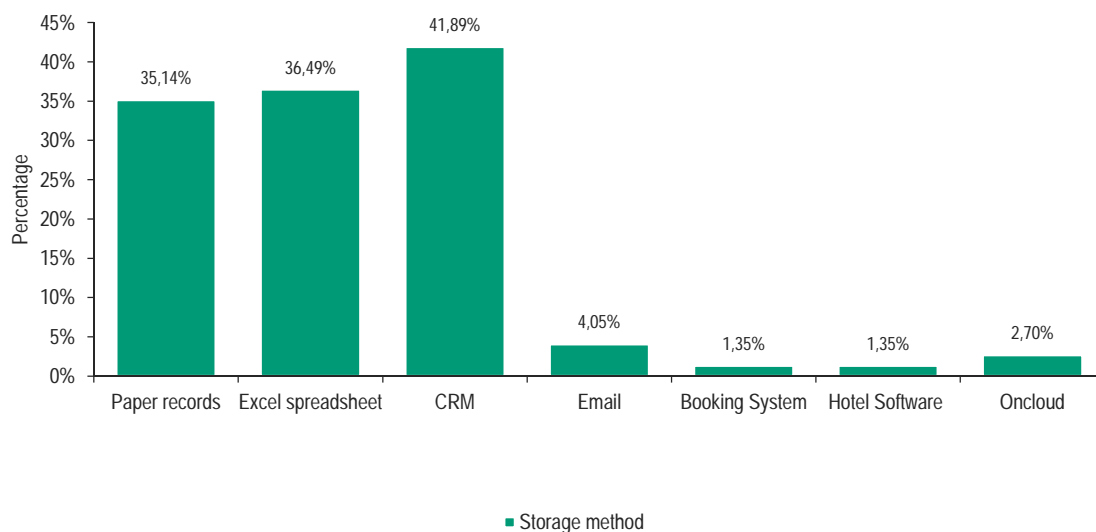


Figure 3ii.35: Methods for Storing Customer Information by Croatian SMEs

### 4.3.2 Time Spent on Each Device

Figure 3ii.36 shows that Croatian businesses spend the highest amount of time on desktop computers (40%) whilst they spend the least time on tablets (3%).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

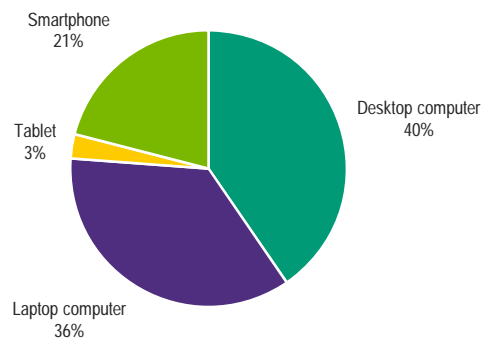


Figure 3ii.36: Percentage of Time Spent on Device to Conduct Business by Croatian SMEs

## 4.4 Attitudes Towards Digitalisation

### 4.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in adoption and use of digitalisation. Data collected shows that Croatian businesses believe an online presence is important (96%), believe that growth is important (94%), and that it allows businesses to form part of a professional network (92%) (Figure 3ii.37).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

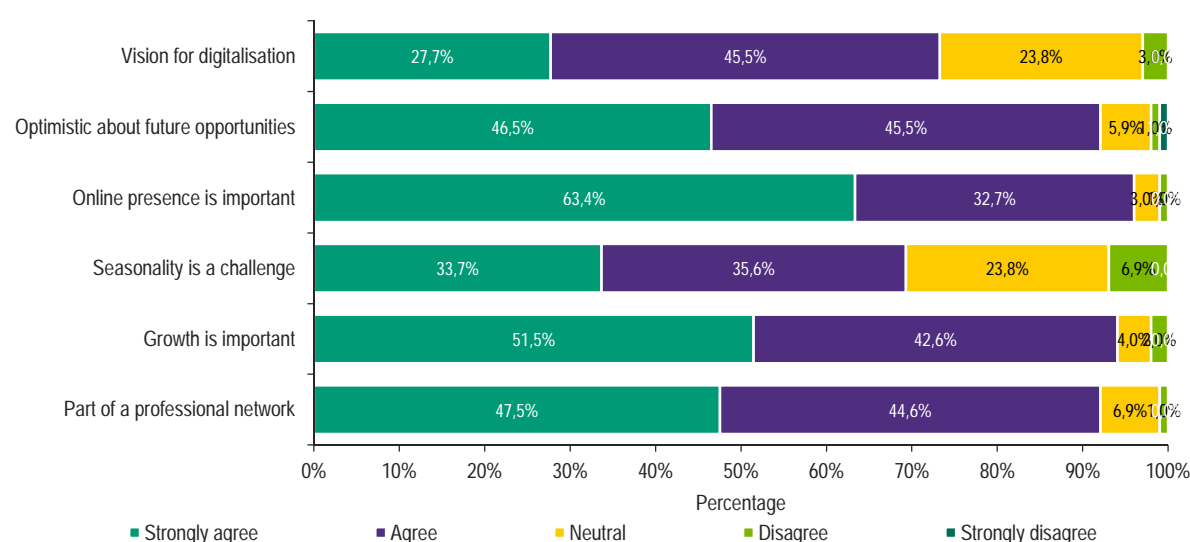


Figure 3ii.37: Croatian SMEs' Motivation to Get Digitalised

### 4.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Croatian businesses that digitalisation allows for growth in the market for the products (89%), provides more effective and efficient management of the business (87%), and improves customer satisfaction (78%) (Figure 3ii.38). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered a high percentage of neutral (34%) and disagreement results (8%).

All respondents were asked to answer the following question:



**Please rate your level of agreement/disagreement with each of the following statements.**

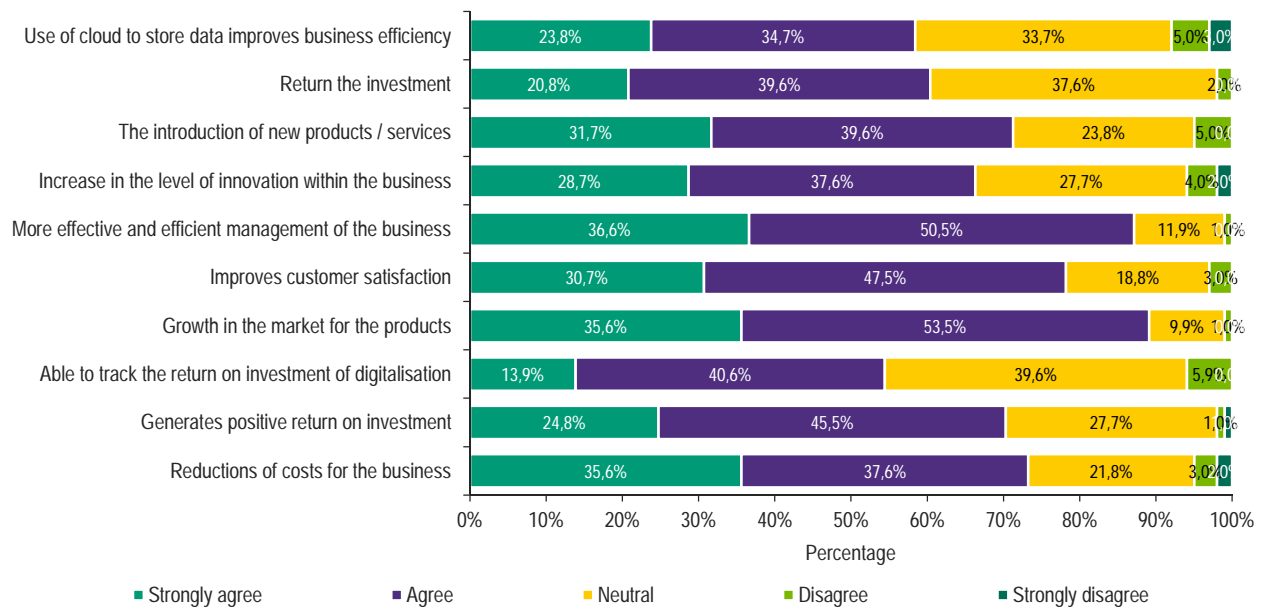


Figure 3ii.38: Advantages Expected/Experienced by Croatian SMEs from Digitalisation

## 4.5 Challenges

### 4.5.1 Difficulties in the Implementation of New Digital Technologies

Croatian businesses agree that the primary difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of a new digital technology (72%) (Figure 3ii.39). Other difficulties encountered by businesses include concerns over technology becoming obsolete before making a return on investment (52%), and insufficient technical knowledge to make informed choices (58%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

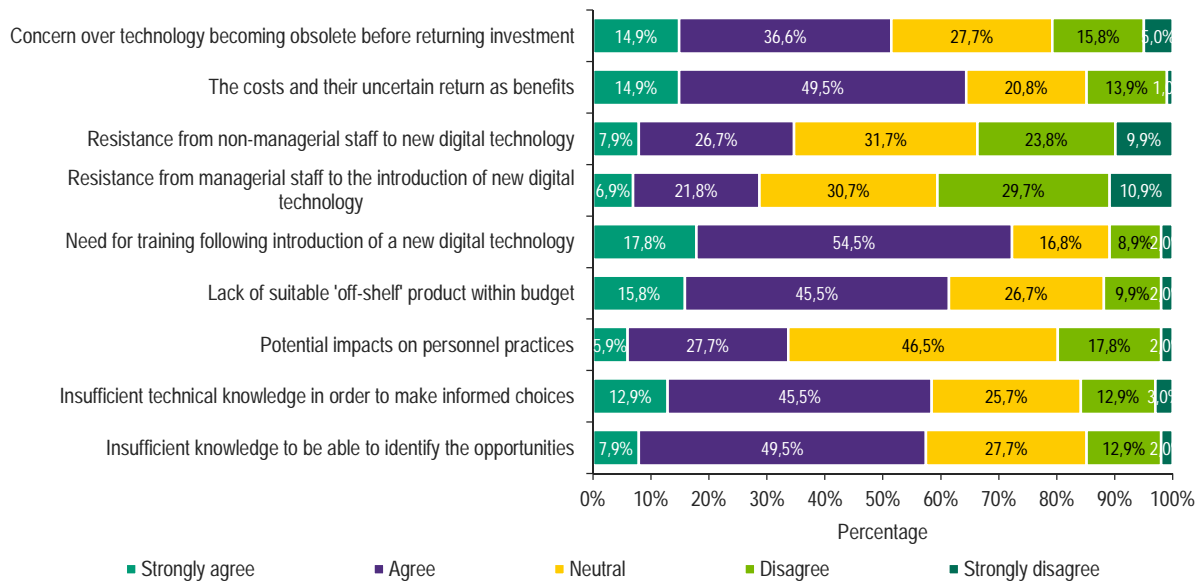


Figure 3ii.39: Croatian SMEs' difficulties to Implement New Technology

### 4.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is lack of finance (61.3%) (Figure 3ii.40). Apart from this, the main issue for businesses that wish to improve digitalisation is rapid technological change (52.5%), and lack of training (46.5%) as indicated by Croatian firms. The lack of importance of business growth (12.9%) and increased costs (23.8%) were the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

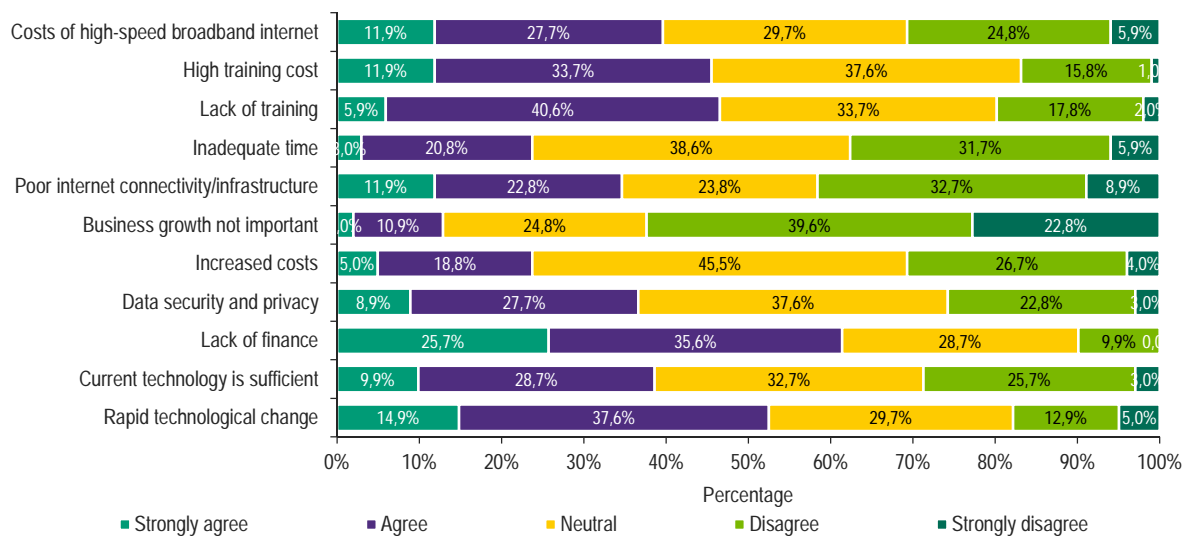


Figure 3ii.40: Croatian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 5 Cyprus

## 5.1 Level of Digitalisation

Findings show that 89.61% of businesses in Cyprus use websites as a digital technology (Figure 3ii.41). Other technologies that rank high, include the use of social media (87.01%), email (87.01%), and basic office software (75.32%). On the other hand, Cypriot businesses are least likely to use interaction with government services online (11.69%), Property Management Systems (PMS) (14.29%) and specialist graphic software (16.88%) (Figure 3ii.4).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

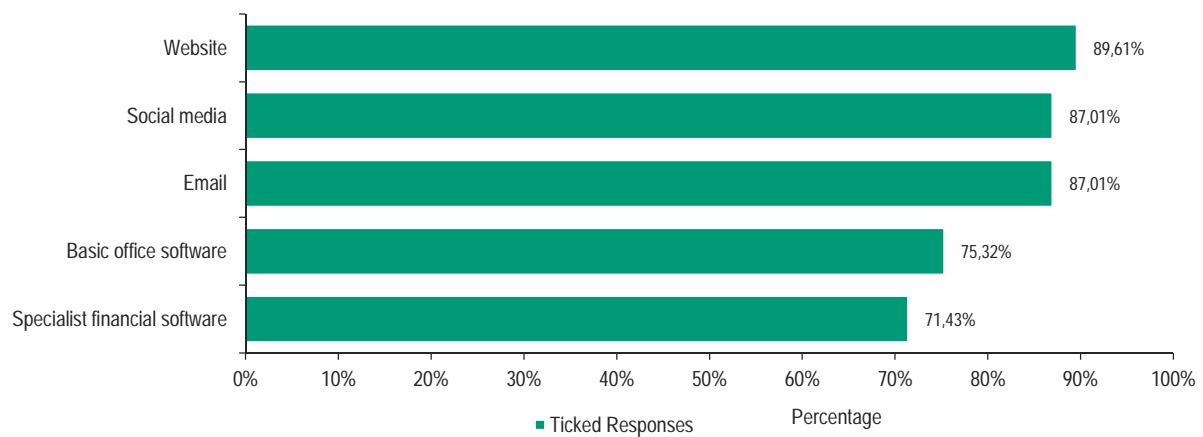


Figure 3ii.41: Digitalisation Adopted by Cypriot SMEs

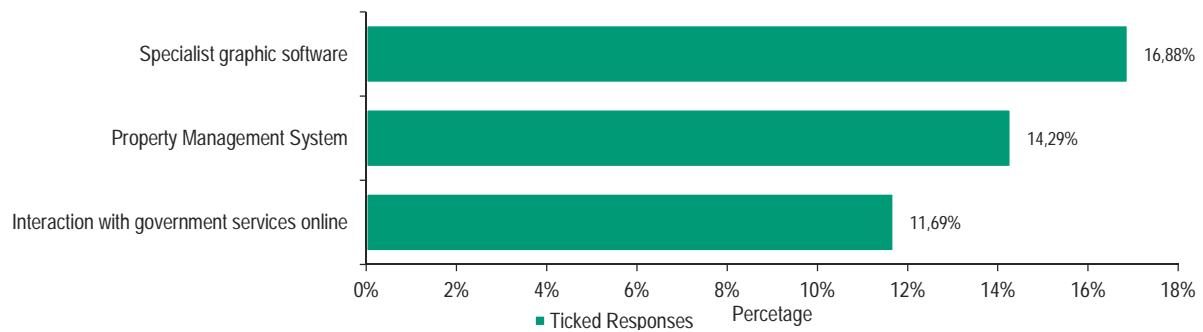


Figure 3ii.42: Digitalisation Least Adopted by Cypriot SMEs

## 5.2 Social Media and Websites

### 5.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Cyprus at 100% (Table 3ii.5). Businesses in Cyprus also use Instagram (20.90%), Pinterest (11.94%) and Twitter (32.84%). However, LinkedIn ranked at 20.90%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 5.97% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.5: Social Media Used by Cypriot SMEs

**Usage of social media platform**

Social media	Percentage
	100%
	20.90%
	11.94%
	32.84%
	20.90%
	5.97%

**5.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses’ own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 92.75%, whilst the second is sending a reservation request (76.81%), followed by receiving feedback on their reviews (75.36%). In the case of businesses using third-party websites, the most common feature available is online booking at 28.99%, followed by instant confirmation when booking online and sending a reservation request (both at 18.84%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

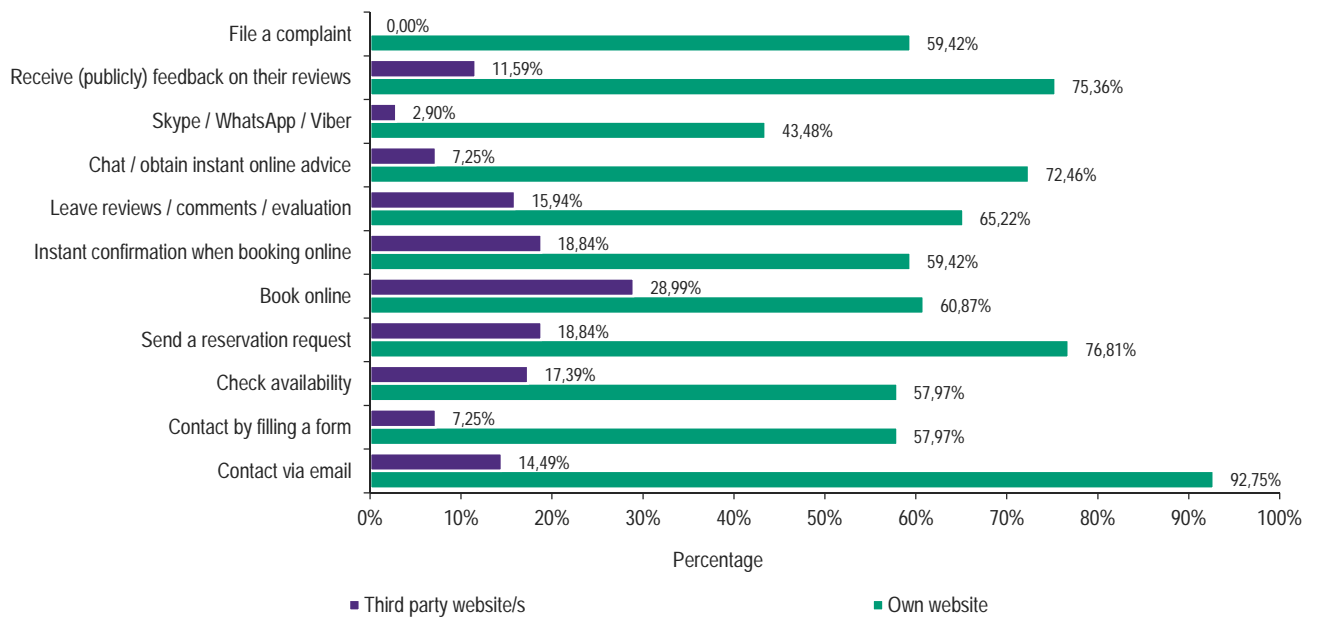


Figure 3ii.43: Usage of Websites by Cypriot SMEs

### 5.3 Data Processing

#### 5.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Cyprus, information on customers is stored by 90% of businesses (Figure 3ii.44).

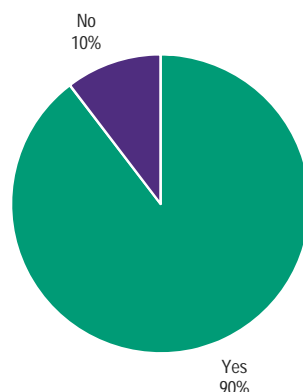


Figure 3ii.44: Cypriot SMEs Storing Customer Information

Further analysis (Figure 3ii.45) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 68.12% of the businesses that store customer information. There are high percentages of businesses that make use of paper records (49.28%) and Excel spreadsheets (20.29%) to store data.

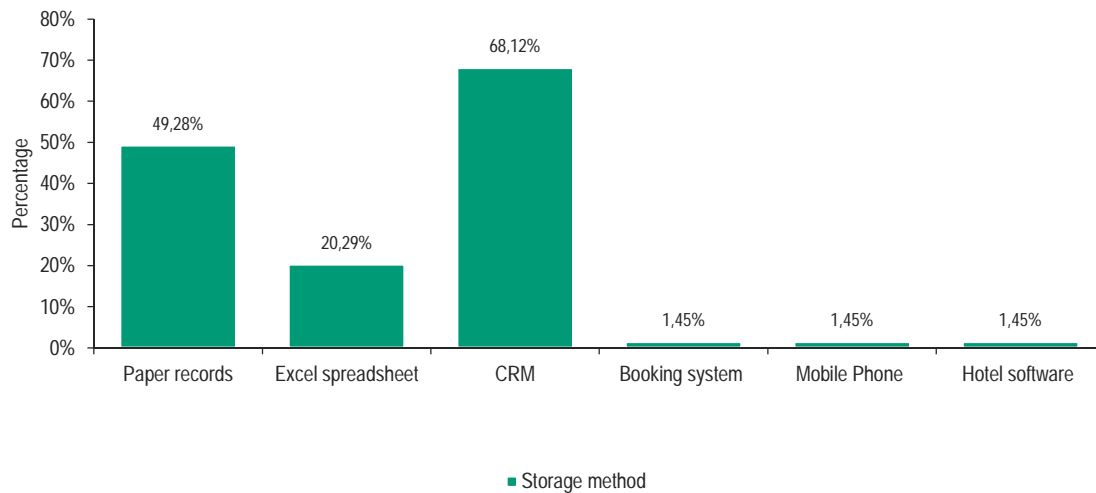


Figure 3ii.45: Methods for Storing Customer Information by Cypriot SMEs

### 5.3.2 Time Spent on Each Device

Figure 3ii.46 shows that Cypriot businesses spend the highest amount of time on desktop computers (54%), whilst they spend the least time on tablets (7%).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

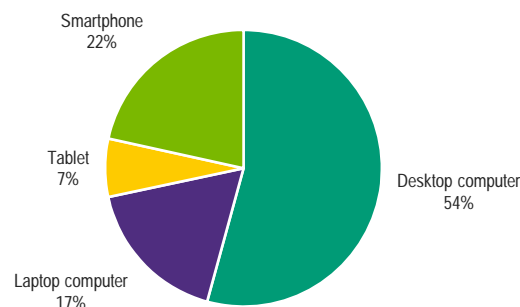


Figure 3ii.46: Percentage of Time Spent On Device to Conduct Business by Cypriot SMEs

## 5.4 Attitudes Towards Digitalisation

### 5.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Cypriot businesses believe that online presence is important (95%), are optimistic about future opportunities (95%), and believe that seasonality is a challenge (94%) (Figure 3ii.47).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

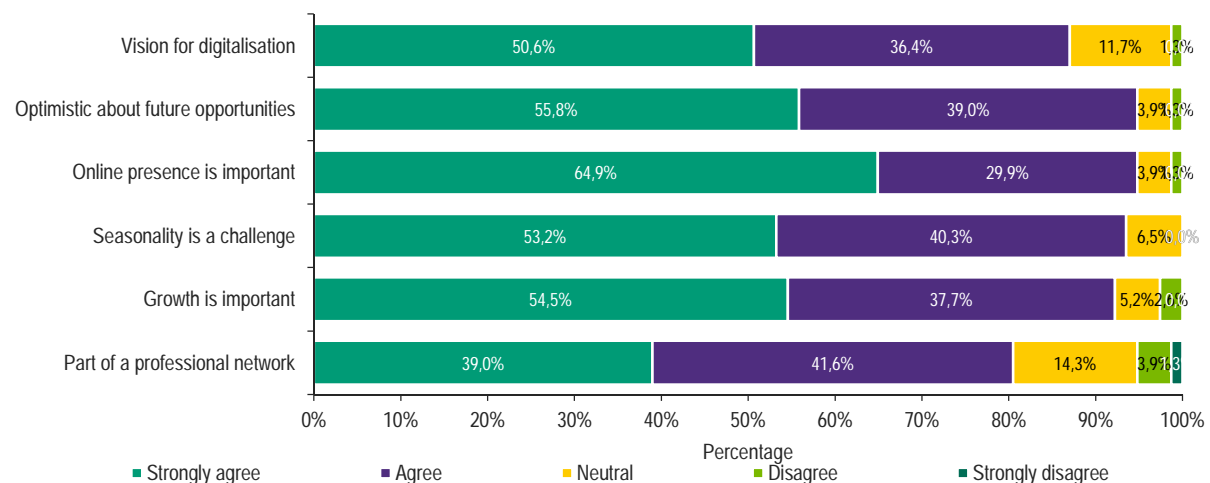


Figure 3ii.47: Cypriot SMEs' Motivation to Get Digitalised

### 5.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Cypriot businesses that digitalisation provides more effective and efficient management of the business (92%), improves customer satisfaction (91%) and provides a return on investment (90%) (Figure 3ii.48). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered the percentages of neutral (19%) and disagreement results (8%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

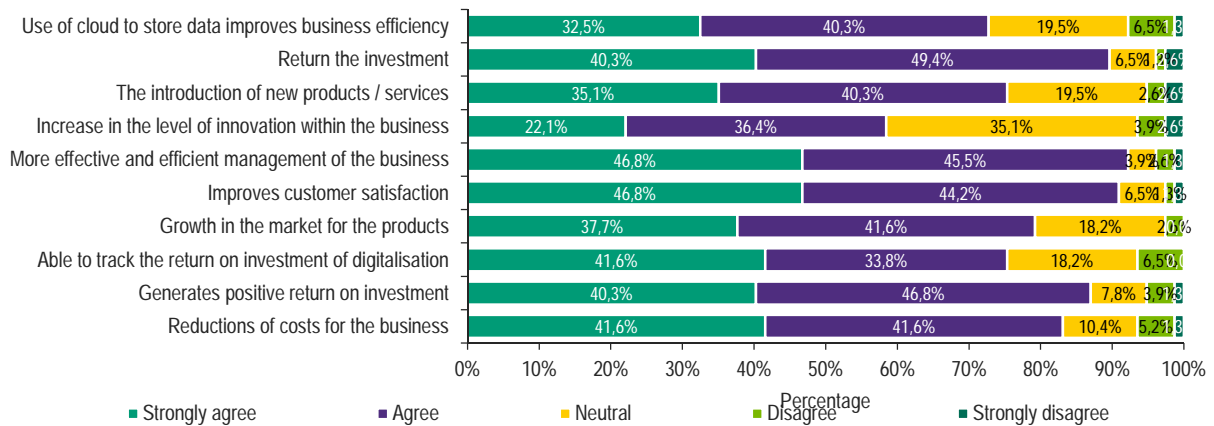


Figure 3ii.48: Advantages Expected/Experienced by Cypriot SMEs from Digitalisation

### 5.4 Challenges

#### 5.5.1 Difficulties in the Implementation of New Digital Technologies

Cypriot businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following introduction of a new digital technology (60%) (Figure 3ii.49). Other difficulties encountered by businesses include concerns over technology becoming obsolete before making a return on investment (38%), and the costs involved (42%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

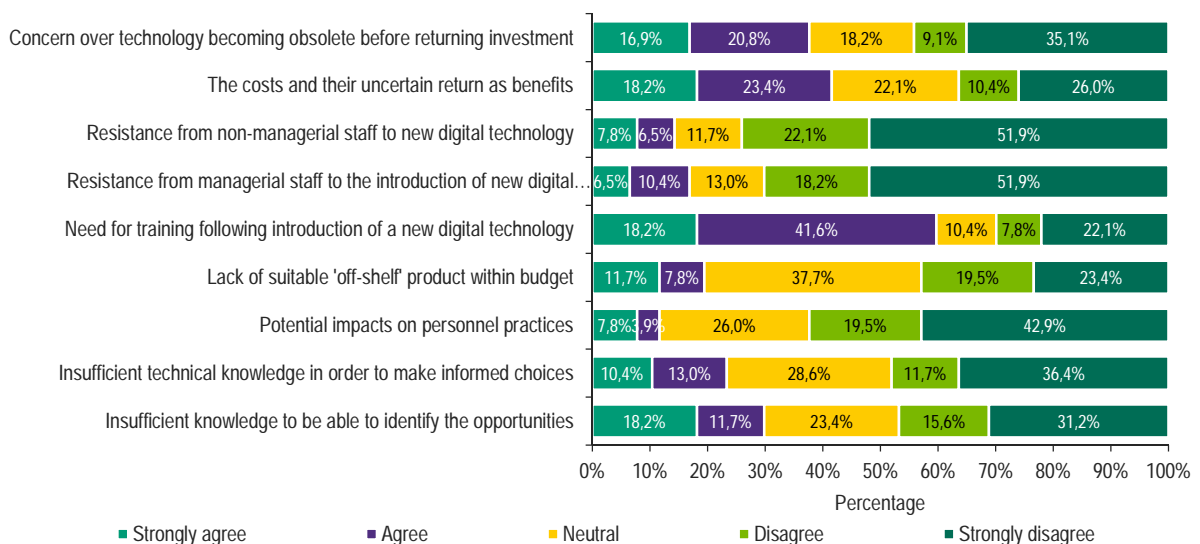


Figure 3ii.49: Cypriot SMEs' Difficulties to Implement New Technology



### 5.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is that current technology is sufficient (74.1%) (Figure 3ii.50). Apart from this, the main issues for businesses that wish to improve digitalisation are the high cost of training (72.8%), and the costs of high-speed broadband internet (63.7%) as indicated by Cypriot businesses. Inadequate timing and poor internet connectivity/infrastructure (both at 16.9%) were the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

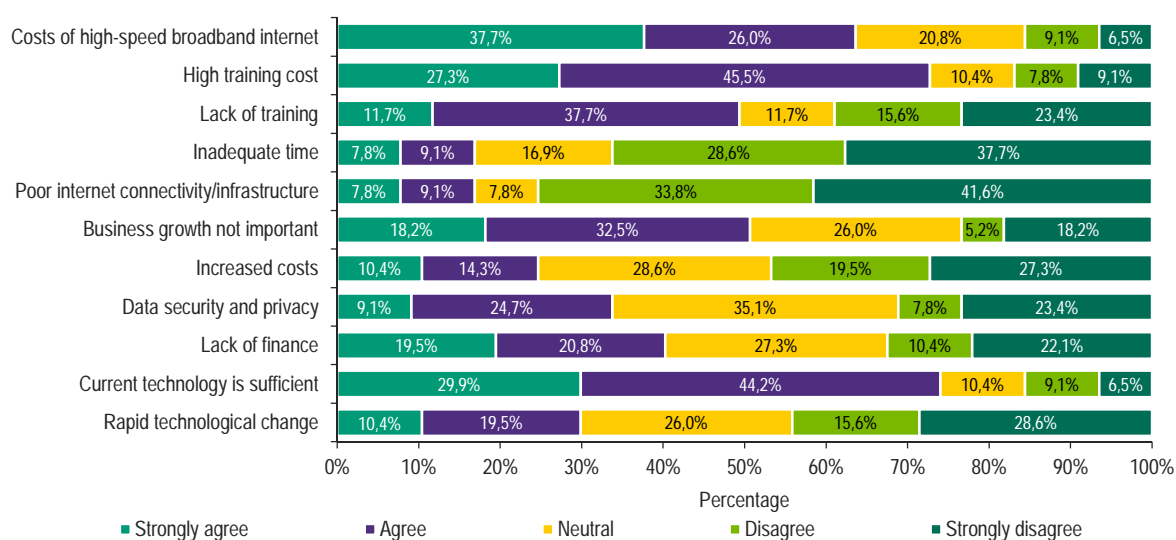


Figure 3ii.50: Cypriot SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 6 Czech Republic

## 6.1 Level of Digitalisation

Findings show that 96.33% of businesses in the Czech Republic use basic office software as a digital technology (Figure 3ii.51). Other technologies that rank high, include the use of email (94.50%), internet banking (90.83%), and websites (89.91%). On the other hand, Czech businesses are least likely to use Property Management Systems (PMS) (3.67%), online professional networks (6.42%), and Customer Relationship Management Systems (8.26%) (Figure 3ii.52).

All respondents were asked to answer the following question:

**Does your business currently make use of the following digital technologies?**

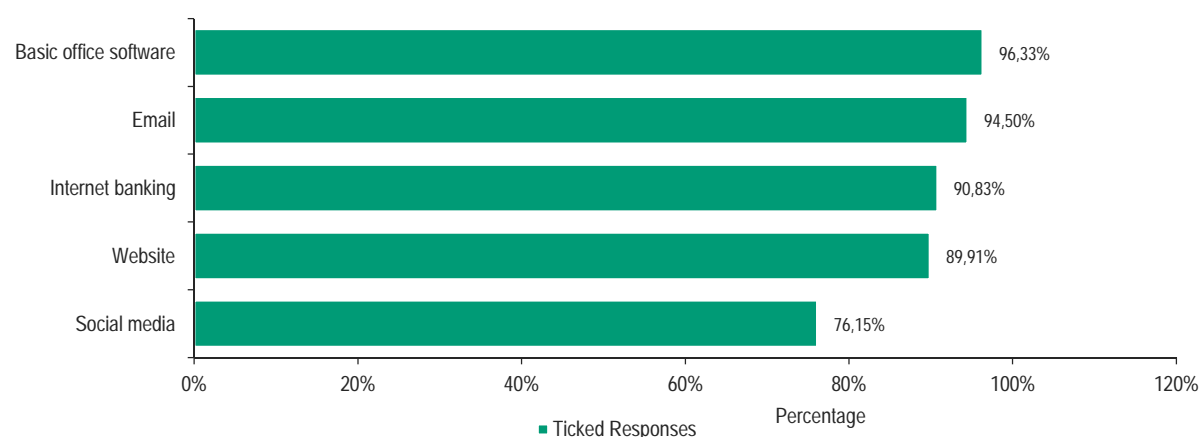


Figure 3ii.51: Digitalisation Adopted by Czech SMEs

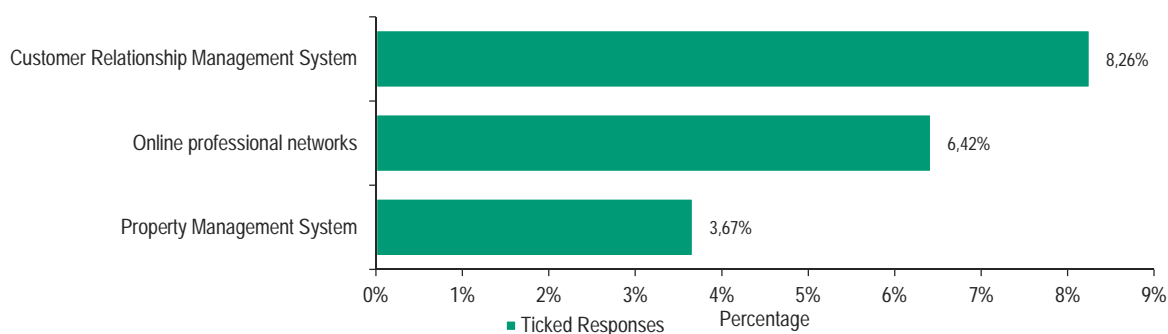


Figure 3ii.52: Digitalisation Least Adopted by Czech SMEs

## 6.2 Social Media and Websites

### 6.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in the Czech Republic at 97.59% (Table 3ii.6). Businesses in the Czech Republic also use Instagram (20.48%), LinkedIn (19.28%), and Twitter (16.87%). However, Pinterest ranked at 7.23% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 1.2% of usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

#### Which social media platform does your business use?

Table 3ii.6: Social Media used by Czech SMEs

#### Usage of social media platform

Social media	Percentage
	97.59%
	20.48%
	7.23%
	16.87%
	19.28%
	1.20%

### 6.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 94.90%, whilst the second is sending a reservation request (70.47%) followed by contact by booking online (45.92%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluation at 21.43%, followed by contact via email (20.41%), then sending a reservation request (18.37%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

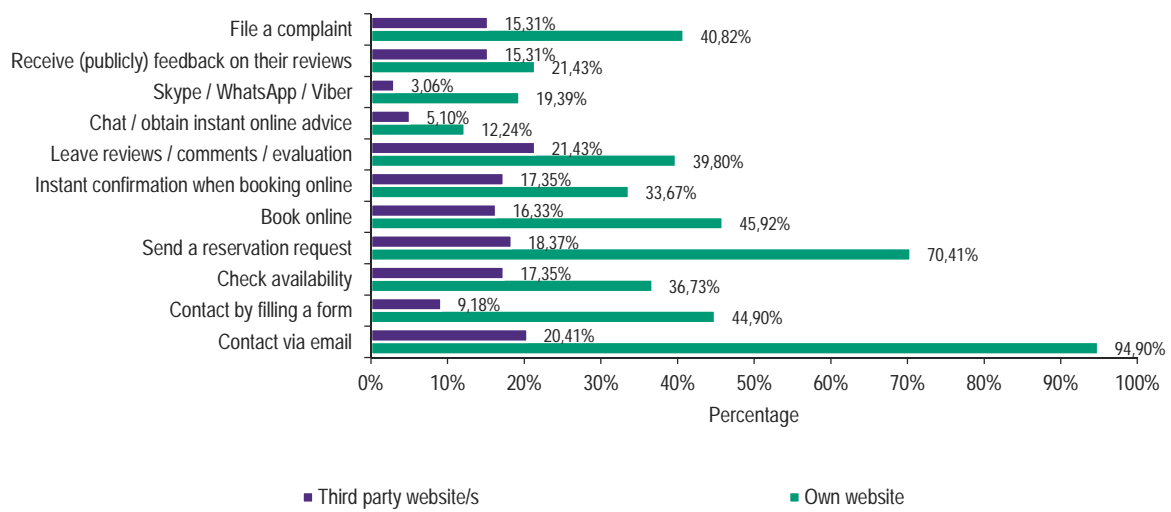


Figure 3ii.53: Usage of Websites by Czech SMEs

### 6.3 Data Processing

#### 6.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that in the Czech Republic, information on customers is stored by 57% of businesses (Figure 3ii.54).

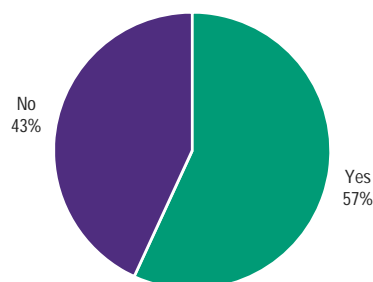


Figure 3ii.54: Czech SMEs Storing Customer Information

Further analysis (Figure 3ii.55) shows that data storage is mainly done through Excel spreadsheets (58.06%) by the businesses that store customer information. There are high percentages of businesses that make use of Customer Relationship Management (CRM) (32.26%) and paper records (29.03%) to store data.

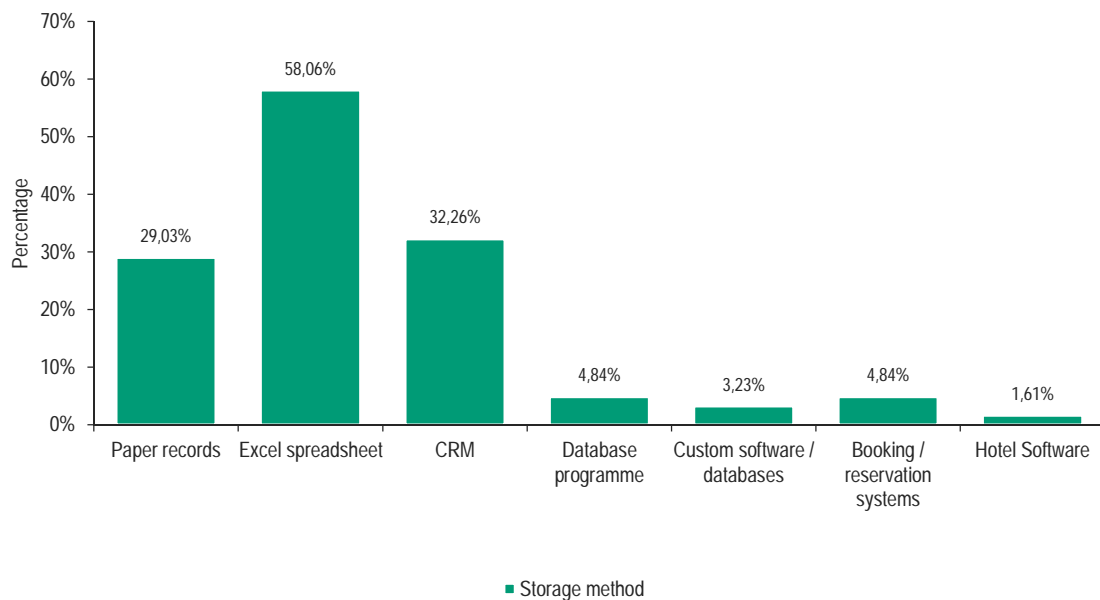


Figure 3ii.55: Methods for Storing Customer Information by Czech SMEs

### 6.3.2 Time Spent on Each Device

Figure 3ii.56 shows that Czech businesses spend the highest amount of time on desktop computers (51%), whilst they spend the least time on tablets (4%).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

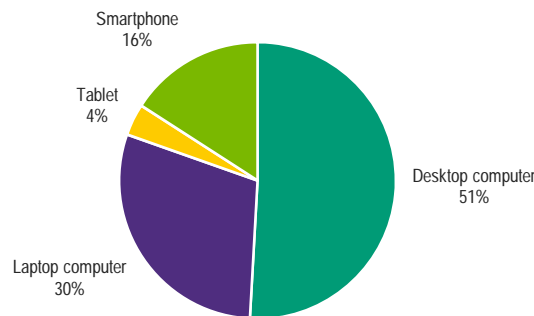


Figure 3ii.56: Percentage of Time Spent on Device to Conduct Business by Czech SMEs

## 6.4 Attitudes Towards Digitalisation

### 6.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Czech businesses believe that growth is important (86%), believe that an online presence is important (82%), and are optimistic about future opportunities (72%) (Figure 3ii.57).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

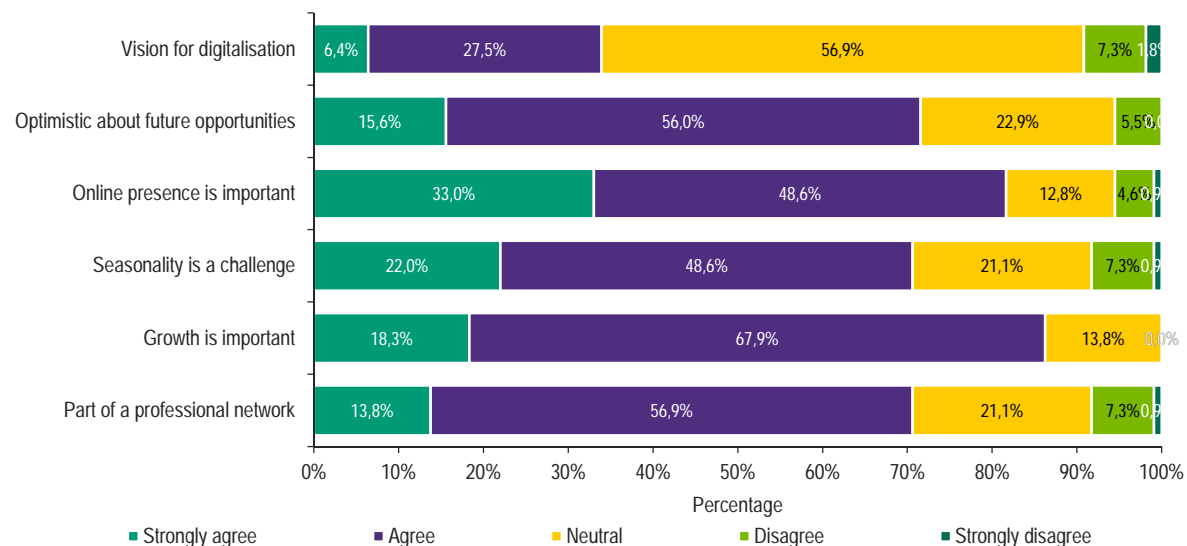


Figure 3ii.57: Czech SMEs' Motivation to Get Digitalised

### 6.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Czech businesses that digitalisation enables more effective management of business (63%), improves customer satisfaction (63%), and allows for growth in the market for the products (60%) (Figure 3ii.58). It is worth noting that the

option “the use of cloud to store data improves business efficiency” registered a high percentage of neutral (63%) and disagreement results (18%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

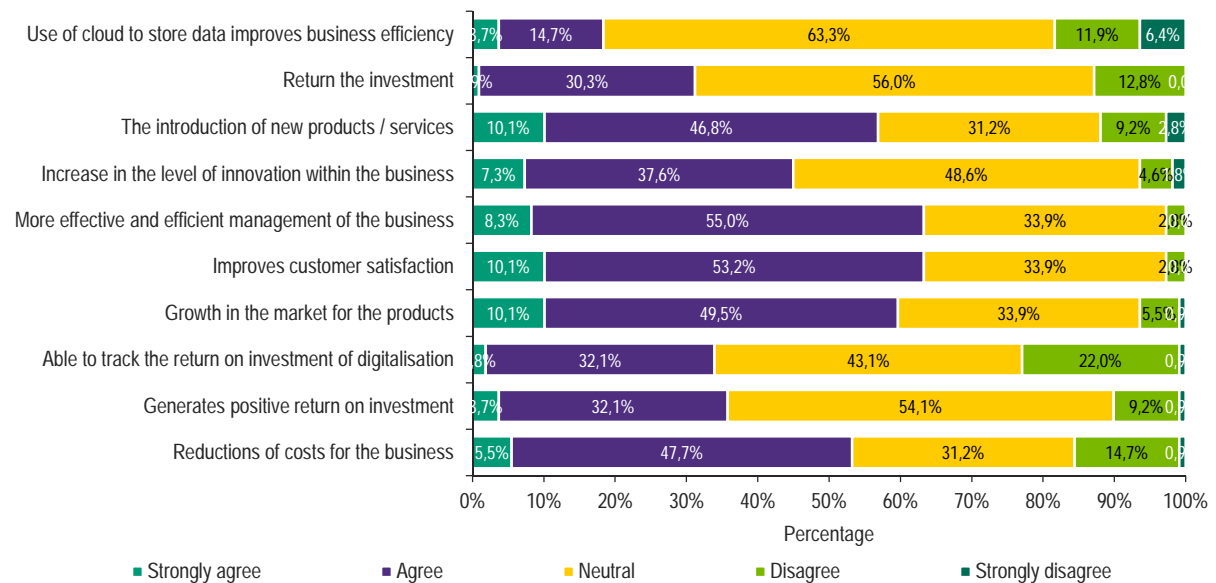


Figure 3ii.58: Advantages Expected/Experienced by Czech SMEs from Digitalisation

## 6.5 Challenges

### 6.5.1 Difficulties in the Implementation of New Digital Technologies

Czech businesses agree that the major difficulty with regards to the costs and their uncertain return as benefits (62%) (Figure 3ii.59). Other difficulties encountered by the need for training following introduction of a new digital technology (59%) and concern over technology becoming obsolete before returning investment (53%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

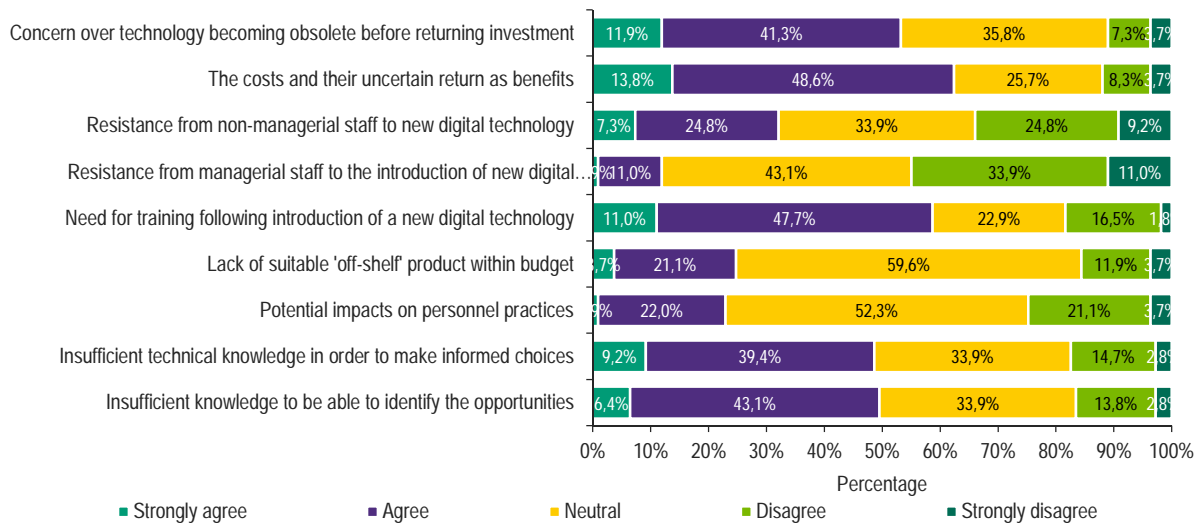


Figure 3ii.59: Czech SMEs' Difficulties to Implement New Technology

### 6.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is the belief that the current technology in use by the business is sufficient to meet their needs (56.9%) (Figure 3ii.60). Apart from this, the main issue for businesses that wish to improve digitalisation is high training costs (45%), and increased costs (43.1%), as indicated by Czech businesses. The lack of importance of business growth (17.4%), and data security and privacy issues (17.5%), were the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:



**Please rate your level of agreement/disagreement with each of the following statements.**

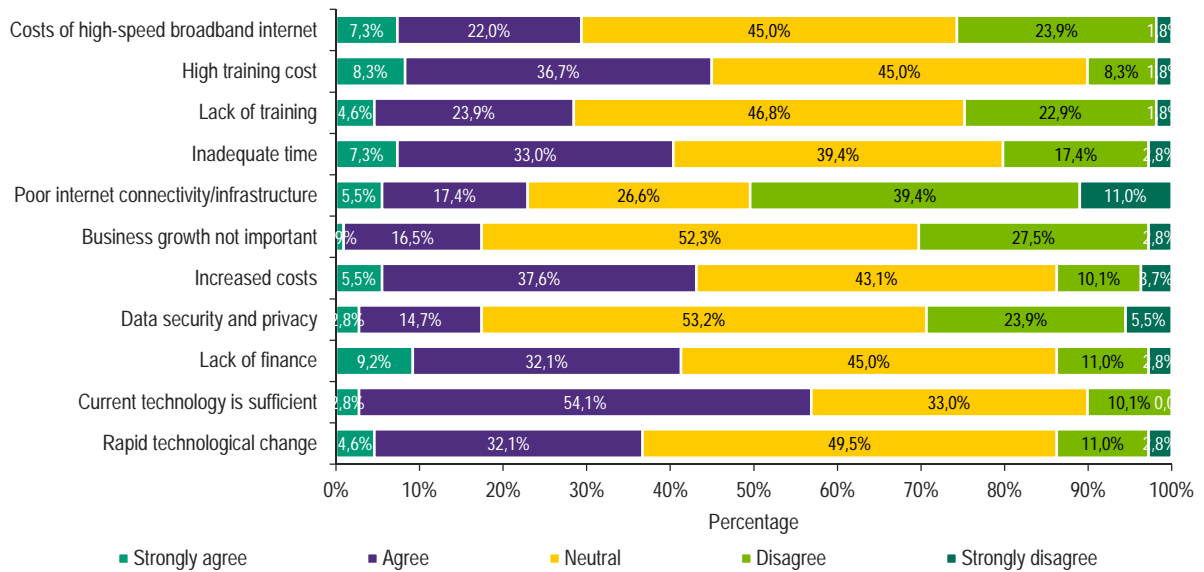


Figure 3ii.60: Czech SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 7 Denmark

## 7.1 Level of Digitalisation

Findings show that 92.63% of businesses in Denmark use email as a digital technology (Figure 3ii.61). Other technologies that rank high include the use of internet banking (92.63%), websites (91.58%), and basic office software (86.32%). On the other hand, Danish businesses are least likely to use Property Management Systems (PMS) (2.11%), computerised stock control systems (6.32%) and chat/instant online advice (7.37%) (Figure 3ii.62).

All respondents were asked to answer the following question:

**Does your business currently make use of the following digital technologies?**

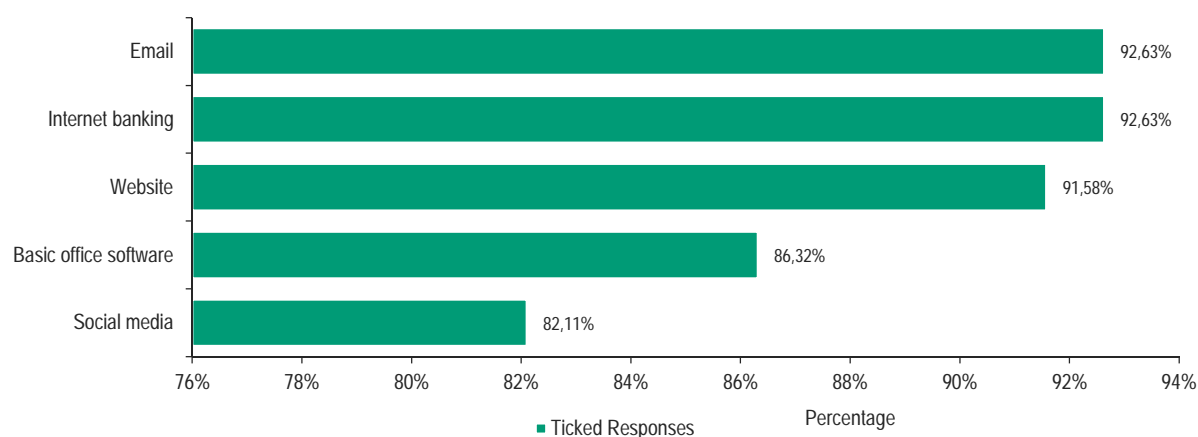


Figure 3ii.61: Digitalisation Adopted by Danish SMEs

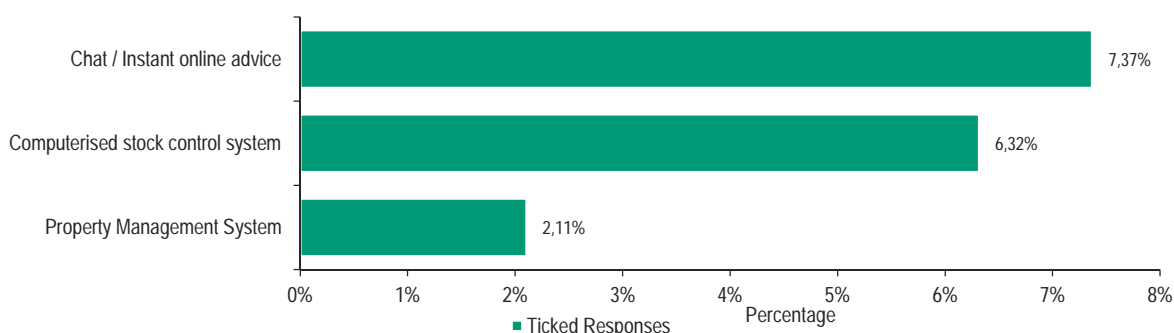


Figure 3ii.62: Digitalisation Least Adopted by Danish SMEs

## 7.2 Social Media and Websites

### 7.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Denmark at 98.72% (Table 3ii.7). Businesses in Denmark also use LinkedIn (39.74%), Instagram (33.33%), Pinterest (5.13%) and Twitter (17.95%). However, Pinterest ranked at 5.13% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 5.13% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

#### Which social media platform does your business use?

Table 3ii.7: Social Media Used by Danish SMEs

#### Usage of social media platform

Social media	Percentage
	98.72%
	33.33%
	5.13%
	17.95%
	39.74%
	5.13%

### 7.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 93.10%, whilst the second is sending a reservation request (75.86%), followed by contact by filling in a form (71.26%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluation at 35.63%, followed sending a reservation request (29.89%). Respondents indicated that instant confirmation when booking online, booking online and contact via email are jointly the third-most common feature when using third-party websites at 28.74%.

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

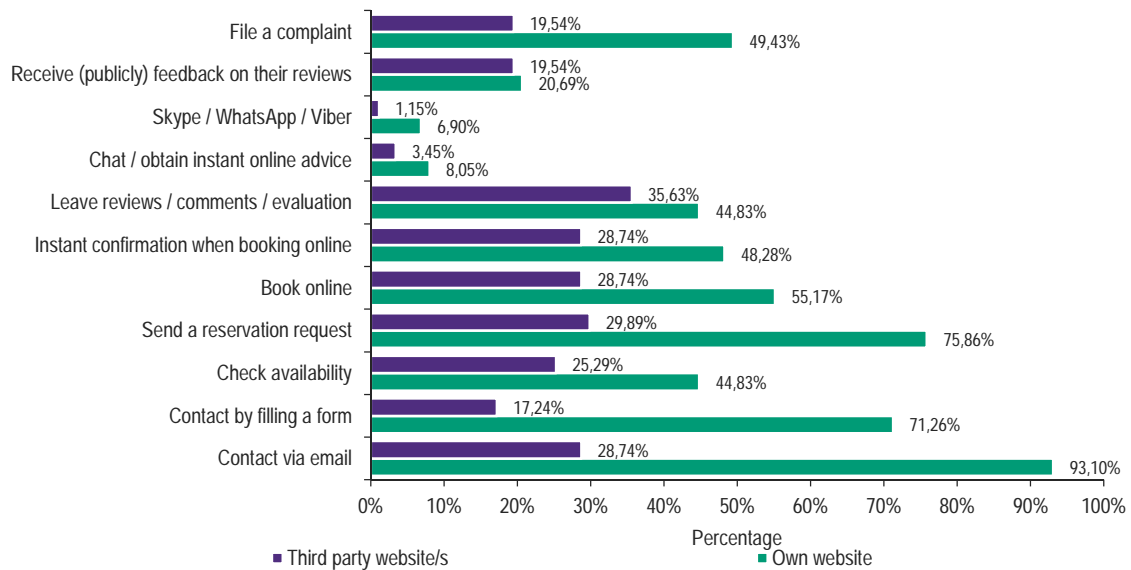


Figure 3ii.63: Usage of Websites by Danish SMEs

### 7.3 Data Processing

#### 7.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Denmark, information on customers is stored by 61% of businesses (Figure 3ii.64).

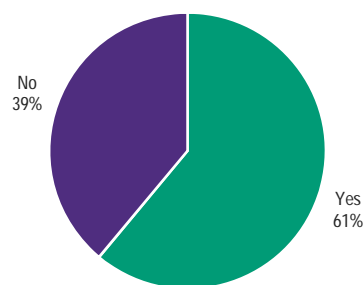


Figure 3ii.64: Danish SMEs Storing Customer Information

Further analysis (Figure 3ii.65) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 65.52% of the businesses that

store customer information. There are high percentages of businesses that make use of paper records (15.52%) and Excel spreadsheets (12.07%) to store data.

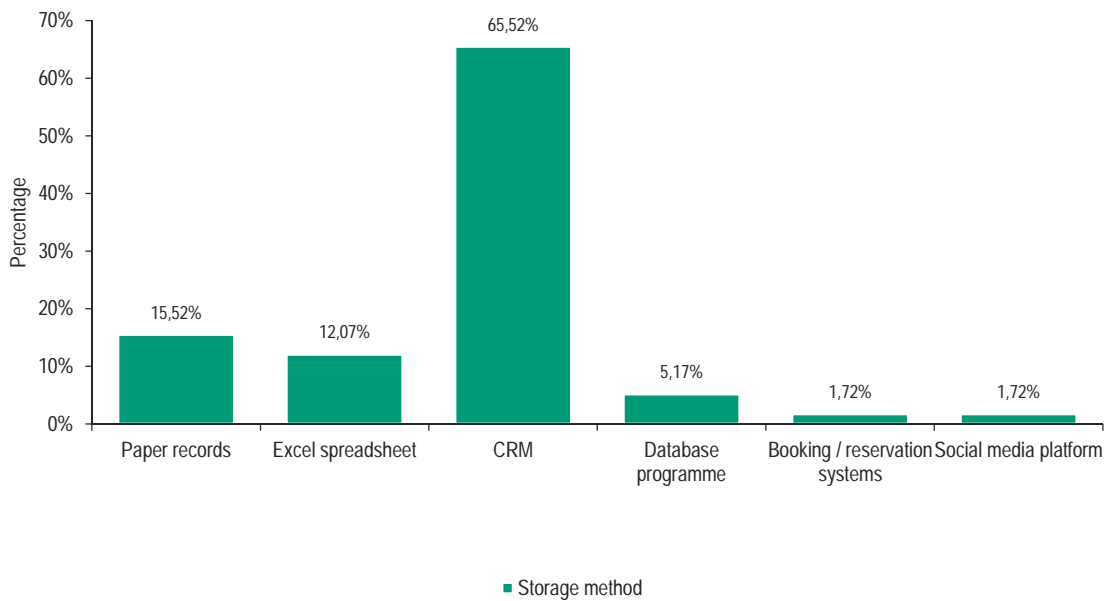


Figure 3ii.65: Methods for Storing Customer Information by Danish SMEs

### 7.3.2 Time Spent on Each Device

Conclusions show that Danish businesses spend the highest amount of time on desktop computers (48%), whilst they spend the least time on tablets (8%) (Figure 3ii.66).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

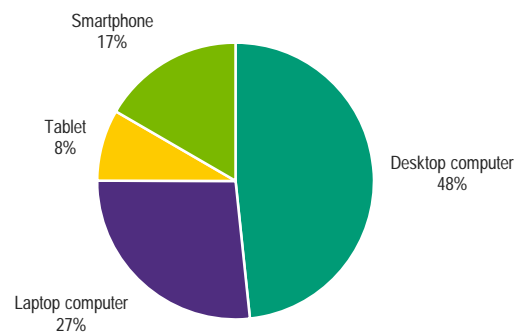


Figure 3ii.66: Percentage of Time Spent on Device to Conduct Business by Danish SMEs

## 7.4 Attitudes Towards Digitalisation

### 7.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Danish businesses believe that online presence is important (89%), are optimistic about future opportunities (85%), and believe that growth is important (82%) (Figure 3ii.67).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

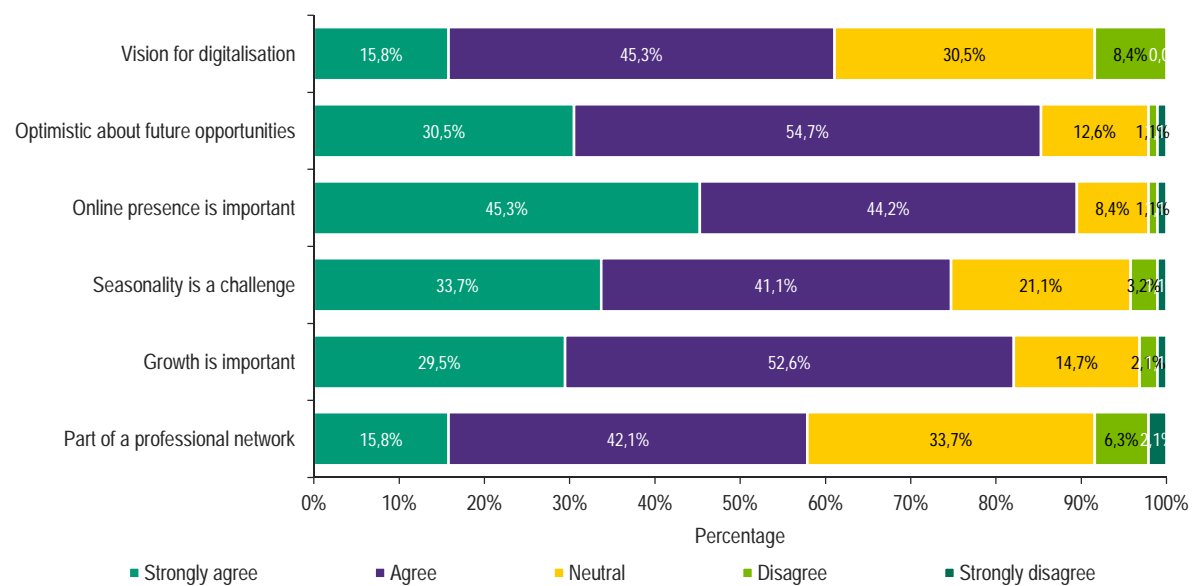


Figure 3ii.67: Danish SMEs' Motivation to Get Digitalised

### 7.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Danish businesses that equally agree that digitalisation allows for growth in the market for products (68%), and enables more effective management of business (68%). Danish businesses also agree that digitalisation improves customer satisfaction (53 %) (Figure 3ii.68). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered the highest percentages of neutral (45%) and disagreement results (22%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

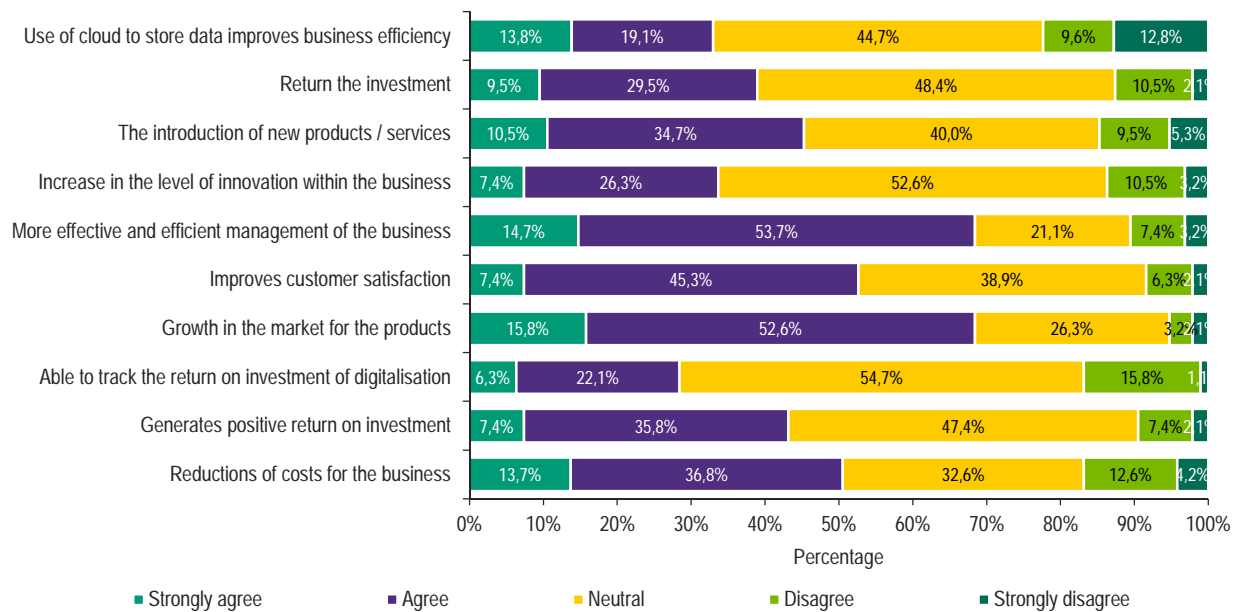


Figure 3ii.68: Advantages Expected/Experienced by Danish SMEs from Digitalisation

## 7.5 Challenges

### 7.5.1 Difficulties in the Implementation of New Digital Technologies

Danish businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following introduction of a new digital technology (45%) (Figure 3ii.69). Other difficulties encountered by businesses include concerns over technology becoming obsolete before they make a return on their investment (32%) and insufficient technical knowledge to make informed choices (35%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

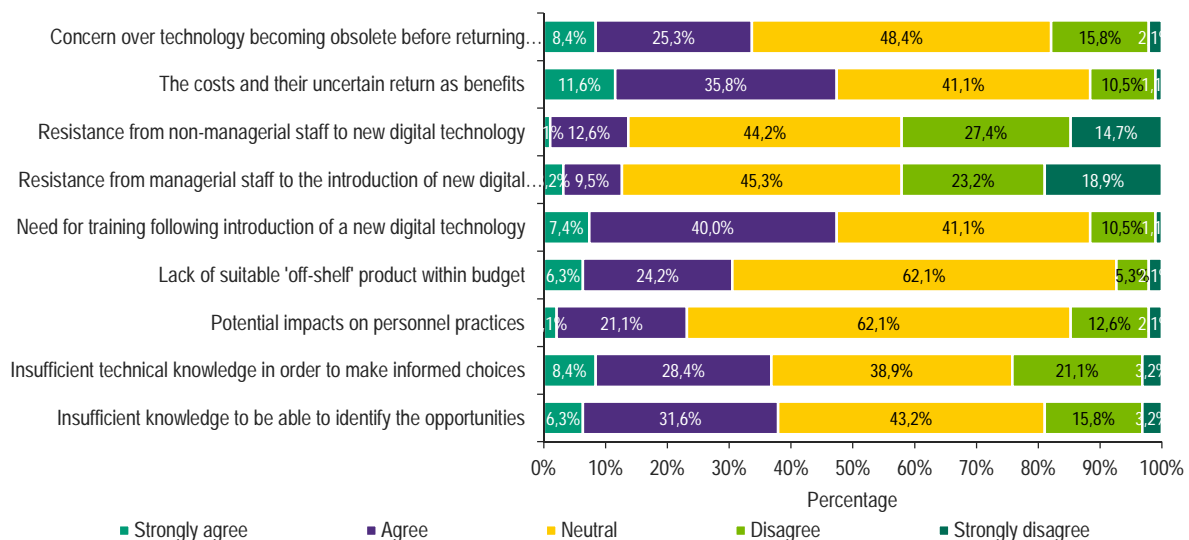


Figure 3ii.69: Danish SMEs' Difficulties to Implement New Technology

### 7.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is the belief that the current technology in use by the business is sufficient to meet their needs (60.1%) (3ii.70). Apart from this, the main issue for businesses that wish to improve digitalisation is rapid technological change (48.4%), and lack of finance (45.3%), as indicated by Danish businesses. The lack of importance of business growth (16.8%), and data security and privacy issues (26.3%), were the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

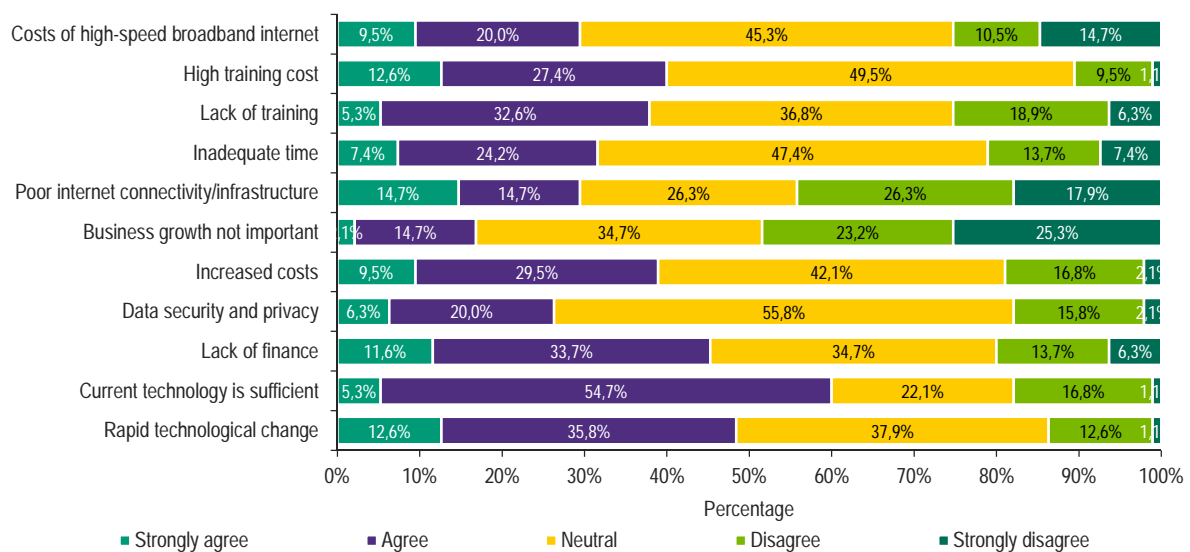


Figure 3ii.70: Danish SMEs' Obstacles Preventing Them from Further Improving Digitalisation



# 8 Estonia

## 8.1 Level of Digitalisation

Findings show that 95.83% of businesses in Estonia use email as a digital technology (Figure 3ii.71). Other technologies that rank high include the use of internet banking (95.83%), basic office software (95.83%), and websites (91.67%). On the other hand, Estonian businesses are least likely to use chat/ instant online advice (2.78%), specialist graphic software (5.56%) and Property Management Systems (PMS) (5.56%) (Figure 3ii.72).

All respondents were asked to answer the following question:

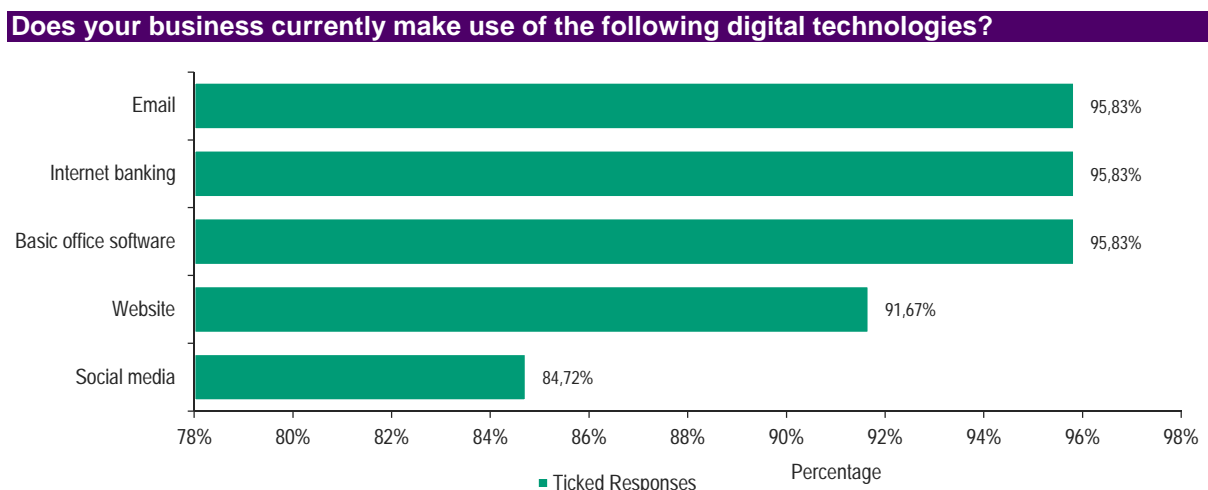


Figure 3ii.71: Digitalisation Adopted by Estonian SMEs

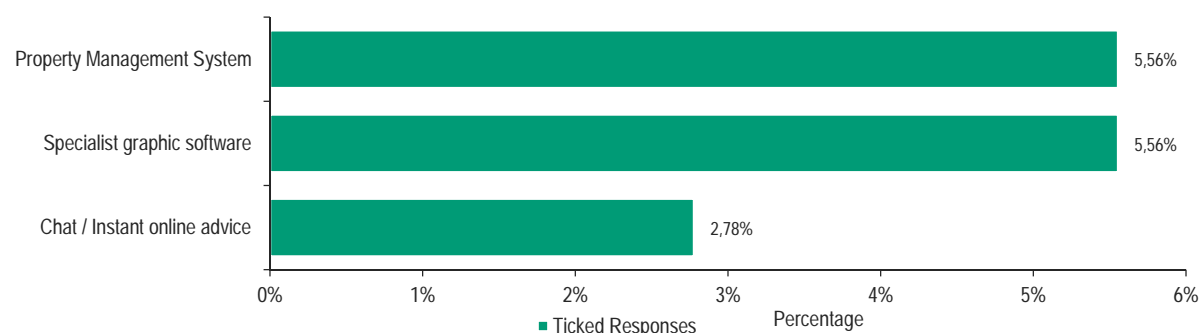


Figure 3ii.72: Digitalisation Least Adopted by Estonian SMEs

## 8.2 Social Media and Websites

### 8.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Estonia at 100% (3ii.8). Businesses in Estonia also use Instagram (16.39%), Twitter (11.48%) and LinkedIn (9.84%). However, Pinterest ranked low at 3.28%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 3.28% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.8: Social Media Used by Estonian SMEs

**Usage of social media platform**

Social media	Percentage
	100%
	16.39%
	3.28%
	11.48%
	9.84%
	3.28%

**8.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 80.30%, whilst the second is sending a reservation request (54.55%), followed by contact by filling a form (53.03%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluation at 31.82%, followed by contact via email (30.3%), and checking availability (25.76%). Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

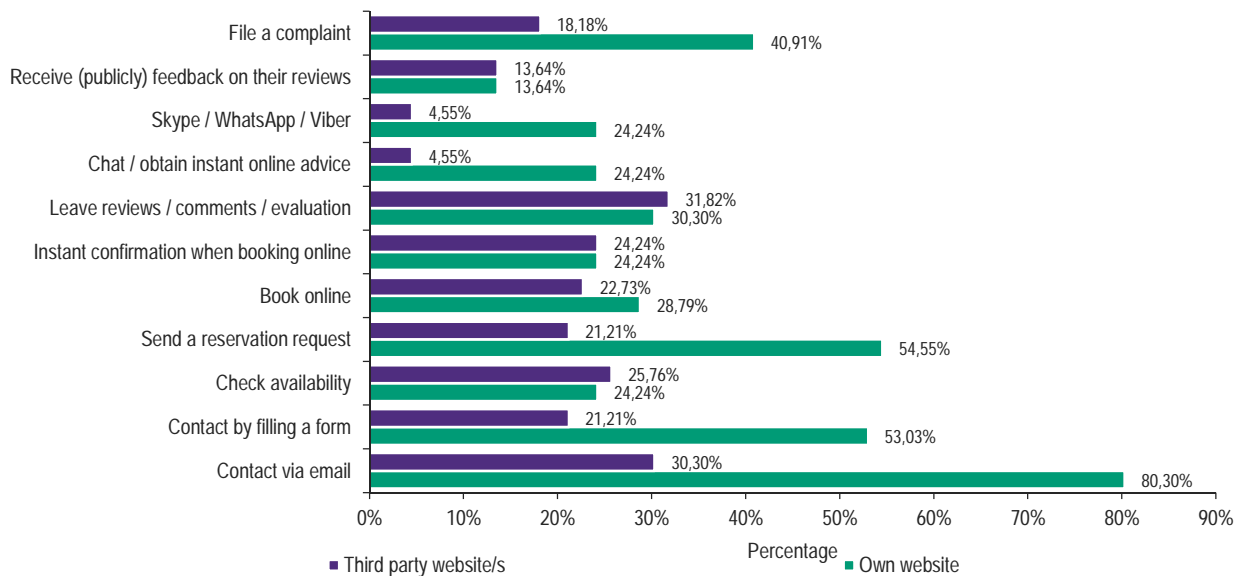


Figure 3ii.73: Usage of Websites by Estonian SMEs

### 8.3 Data Processing

#### 8.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Estonia, information on customers is stored by 76% of businesses (Figure 3ii.74).

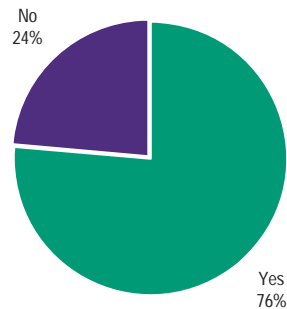


Figure 3ii.74: Estonian SMEs Storing Customer Information

Further analysis (Figure 3ii.75 shows that data storage is mainly done through paper records (41.82%) and Excel spreadsheets (41.82%) which are equally used by Estonian businesses that store customer information. There are high percentages of businesses that make use of Customer Relationship Management (CRM) tools (25.45%) and email (3.64%) to store data.

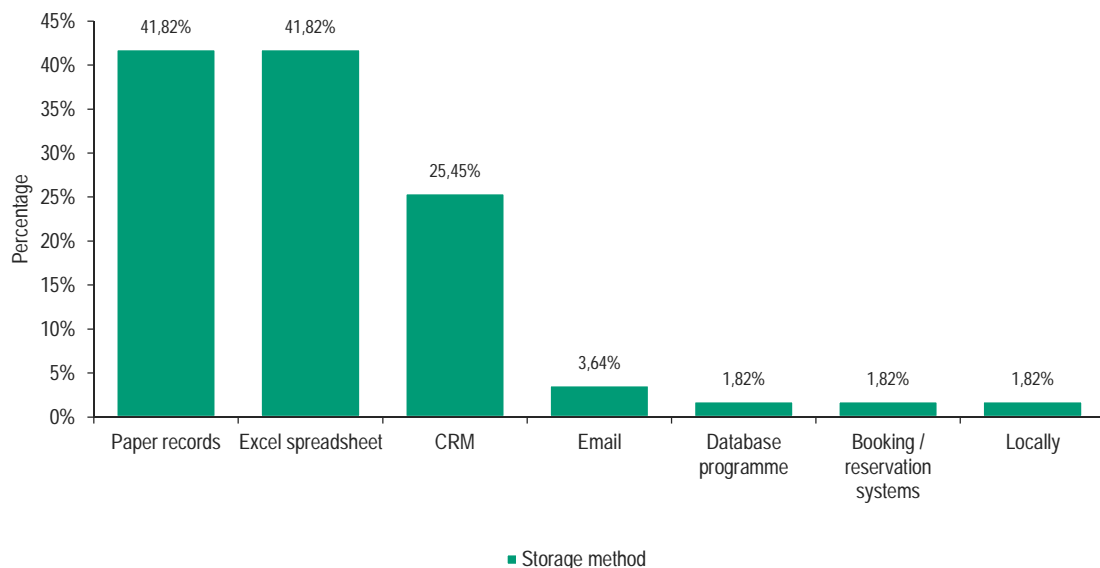


Figure 3ii.75: Methods for Storing Customer Information by Estonian SMEs

### 8.3.2 Time Spent on Each Device

Conclusions show that Estonian businesses spend the highest amount of time on laptop computers (42%) whilst they spend the least time on tablets (6%) (Figure 3ii.76).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

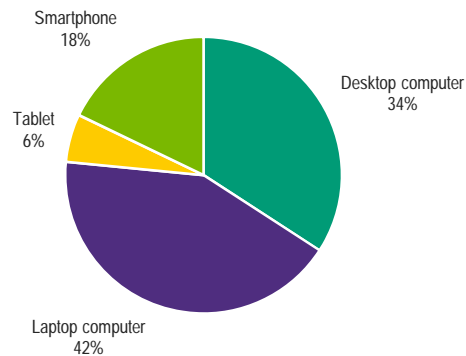


Figure 3ii.76: Percentage of Time Spent on Device to Conduct Business by Estonian SMEs

## 8.4 Attitudes Towards Digitalisation

### 8.4.1 Motivation behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Estonian businesses believe that online presence is important (94%), are optimistic about future opportunities (90%), and agree that seasonality is a challenge (82%) (Figure 3ii.77).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

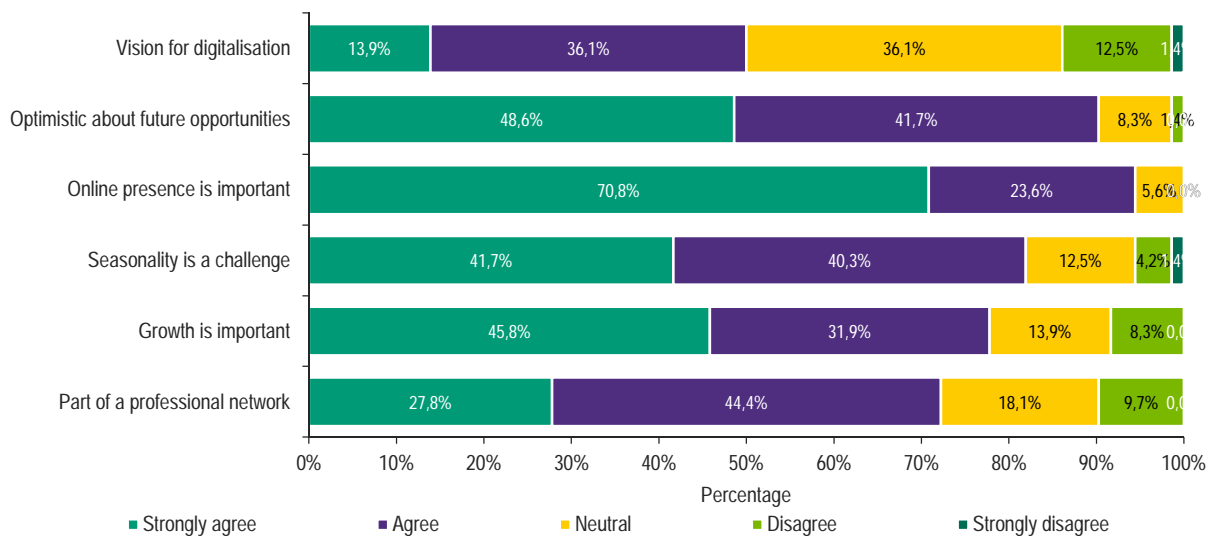


Figure 3ii.77: Estonian SMEs' Motivation to Get Digitalised

### 8.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Estonian businesses that digitalisation enables more effective management of business (89%), allows for growth in the market for products (72%), and provides a return on investment (71%) (Figure 3ii.78). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (49%), whereas the ability to track the return on investment of digitalisation yielded the highest percentage of disagreement results (22.3%).

All respondents were asked to answer the following question

**Please rate your level of agreement/disagreement with each of the following statements.**

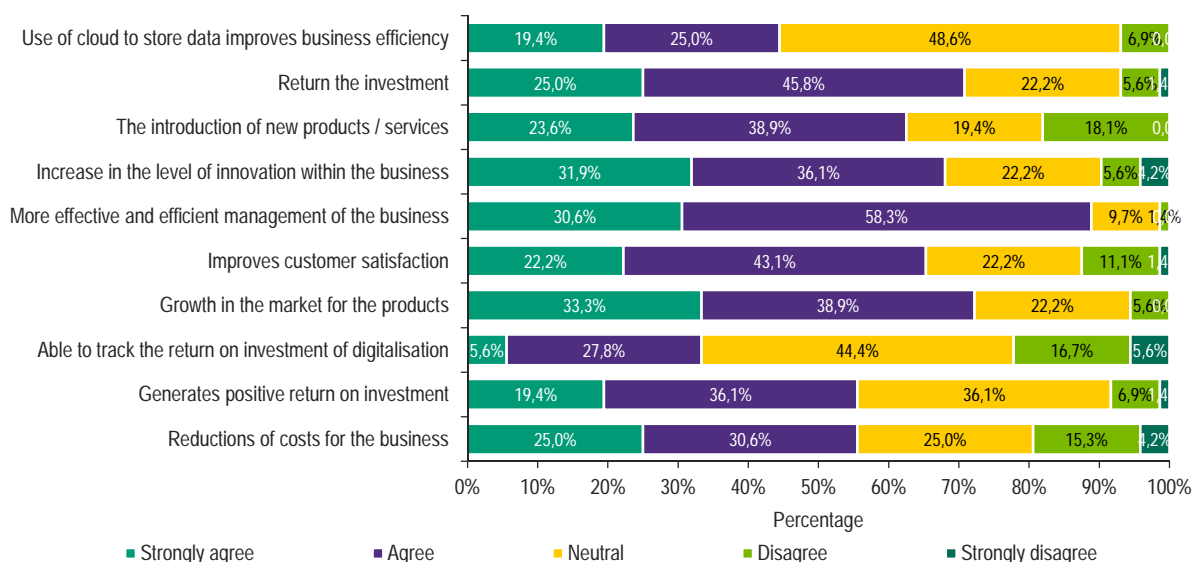


Figure 3ii.78: Advantages Expected/Experienced by Estonian SMEs from Digitalisation

## 8.5 Challenges

### 8.5.1 Difficulties in the Implementation of New Digital Technologies

Estonian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to insufficient technical knowledge which is needed to make informed choices (79%) (Figure 3ii.79). Other difficulties encountered by businesses include insufficient knowledge to be able to identify the opportunities (78%) and the need for training following the introduction of a new digital technology (76%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

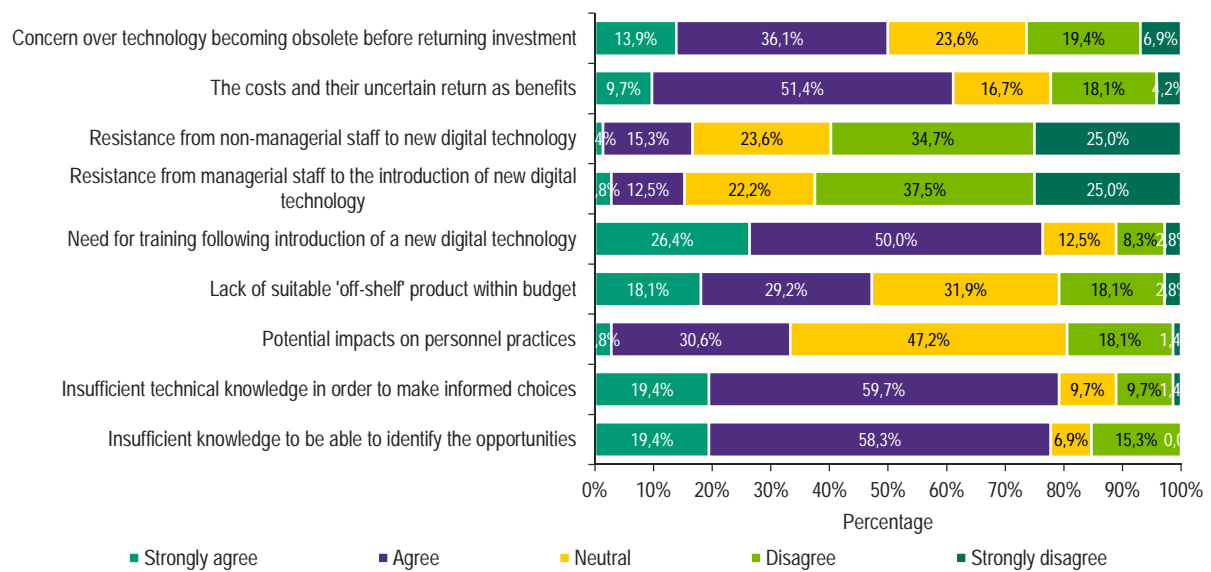


Figure 3ii.79: Estonian SMEs' Difficulties to Implement New Technology

### 8.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is the belief that the current technology in use by the business is sufficient (69.7%) (Figure 3ii.80). Apart from this, the main issue for businesses that wish to improve digitalisation is a lack of finance (56.9%), and inadequate time (54.2%), as indicated by Estonian businesses. The lack of importance of business growth (31.9%), and the costs of high-speed broadband internet (32%), were the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

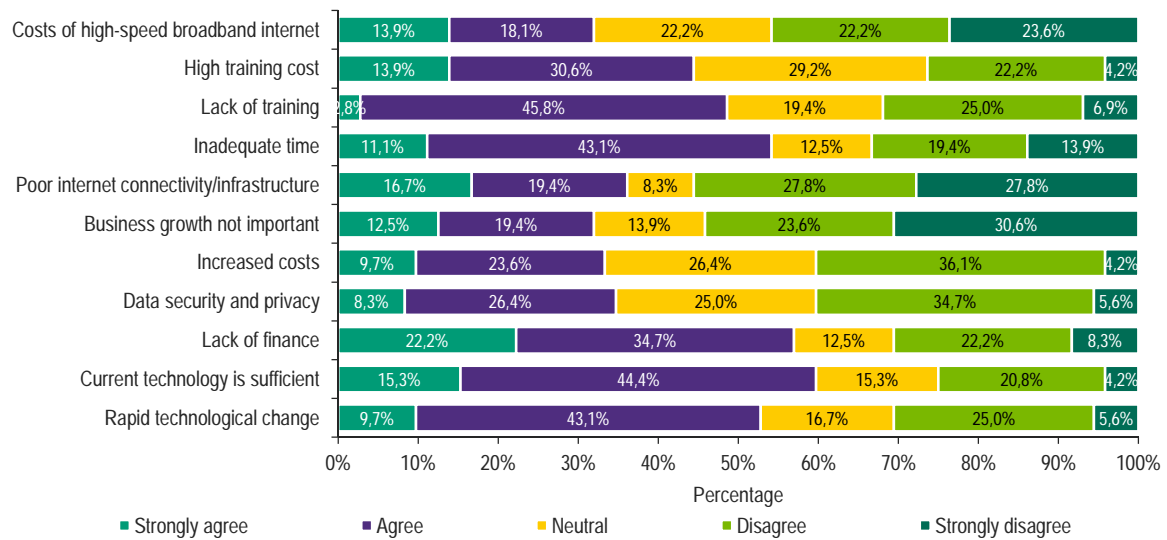


Figure 3ii.80: Estonian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 9 Finland

## 9.1 Level of Digitalisation

Findings show that 98.21% of businesses in Finland use email as a digital technology (Figure 3ii.81). Other technologies that rank high include the use of internet banking (95.83%), basic office software (94.05%), and social media (92.86%). On the other hand, Finnish businesses are least likely to use Property Management Systems (PMS) (4.17%), online professional networks (4.76%), and computerised ticketing systems (6.55%) (Figure 3ii.82).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

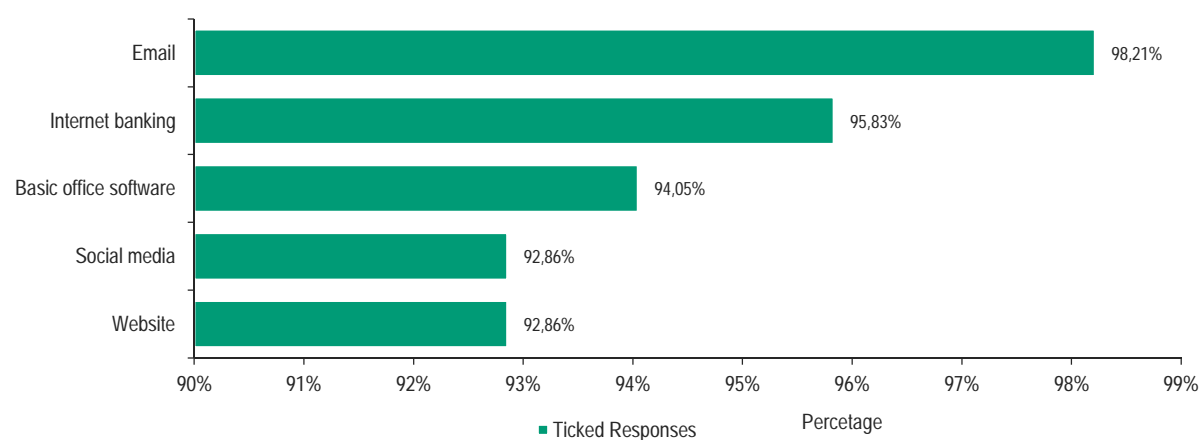


Figure 3ii.81: Digitalisation Adopted by Finnish SMEs

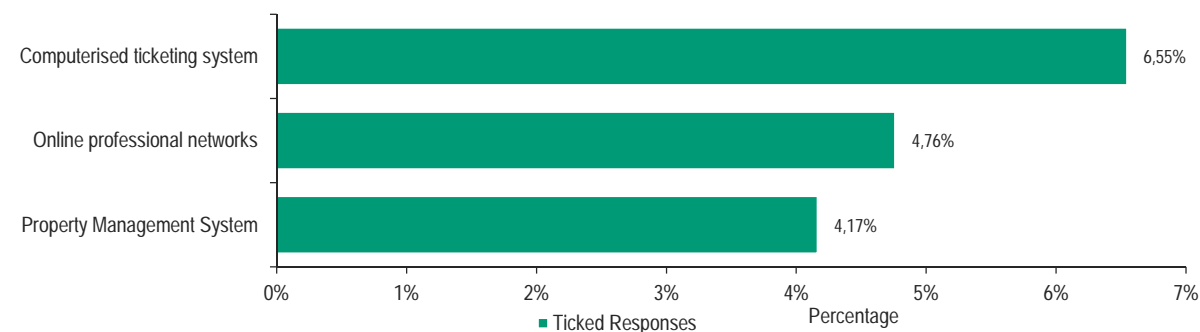


Figure 3ii.82: Digitalisation Least Adopted by Finnish SMEs



## 9.2 Social Media and Websites

### 9.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Finland at 99.36% (Table 3ii.9). Businesses in Finland also use Instagram (49.36%), Twitter (28.85%) and LinkedIn (25%). However, Pinterest ranked at (12.18%) and whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 10.26% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

#### Which social media platform does your business use?

Table 3ii.9: Social Media Used by Finnish SMEs

#### Usage of social media platform

Social media	Percentage
	99.36%
	49.36%
	12.18%
	28.85%
	25.00%
	10.26%

### 9.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 91.03%, whilst the second is sending a reservation request (70.51%), followed by contact by filling a form (67.31%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluation at 30.77%, followed by booking online (24.36%), and checking availability (23.72%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

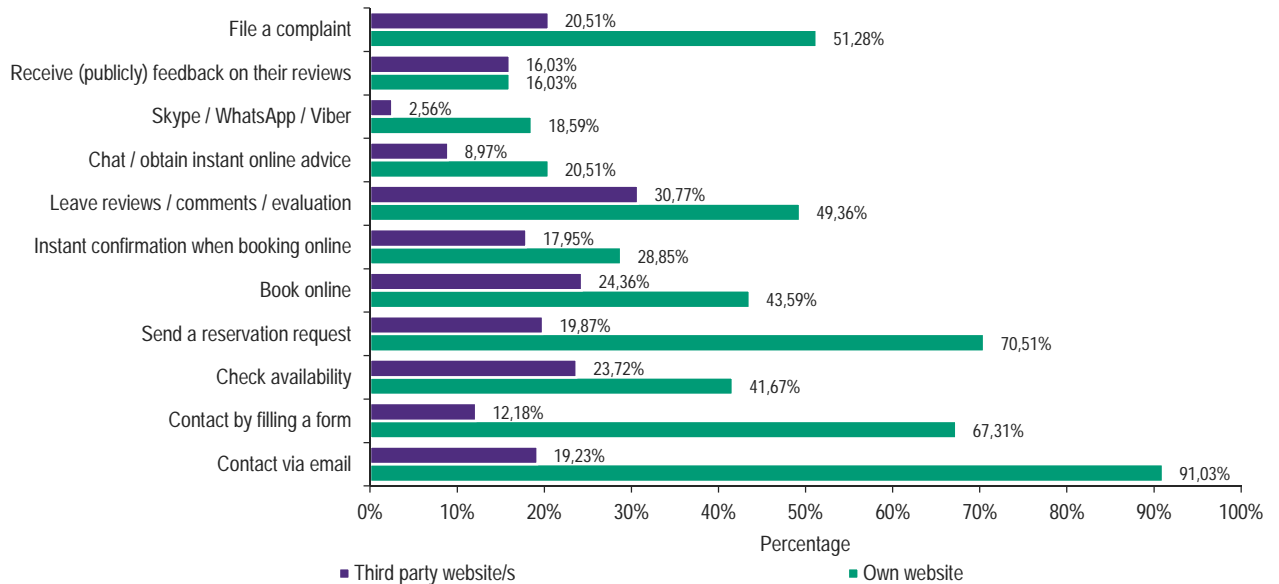


Figure 3ii.83: Usage of Websites by Finnish SMEs

### 9.3 Data Processing

#### 9.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Finland, information on customers is stored by 79% of businesses (Figure 3ii.84).

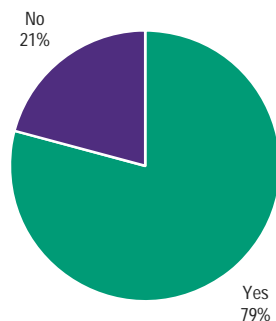


Figure 3ii.84: Finnish SMEs Storing Customer Information

Further analysis (Figure 3ii.85) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 51.88% of the businesses that store customer information. There are high percentages of businesses that make use of Excel spreadsheets (35.34%), and paper records (21.05%), to store data.

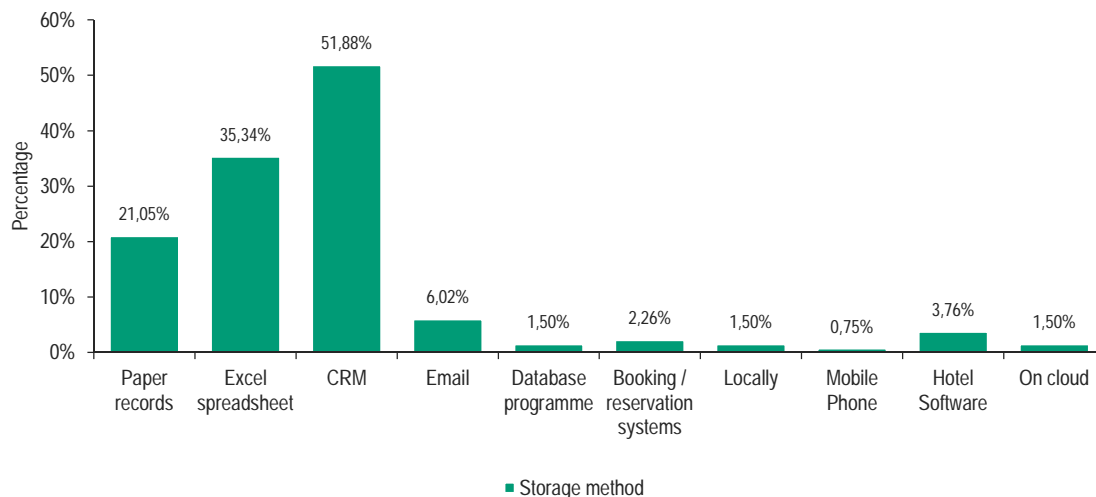


Figure 3ii.85: Methods for Storing Customer Information by Finnish SMEs

### 9.3.2 Time spent on each device

Conclusions show that Finnish businesses spend the highest amount of time on laptop computers (42%), whilst they spend the least time on tablets (8%) (Figure 3ii.86).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

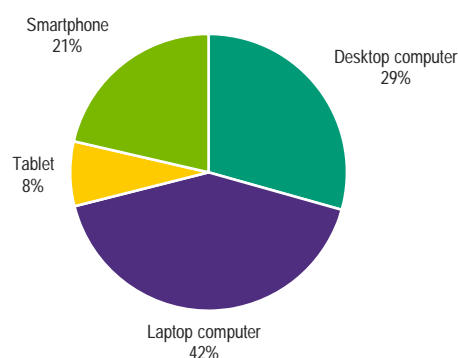


Figure 3ii.86: Percentage of Time Spent on Device to Conduct Business by Finnish SMEs

## 9.4 Attitudes Towards Digitalisation

### 9.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Finnish businesses believe that

online presence is important (95%), are optimistic about future opportunities (89%), and believe that growth is important (82%) (Figure 3ii.87).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

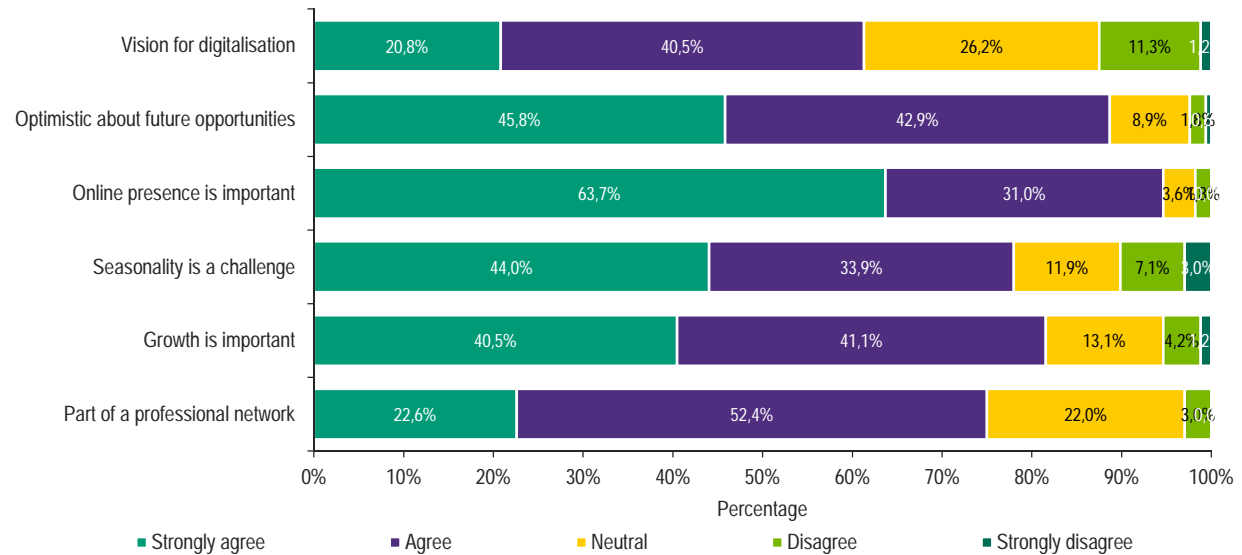


Figure 3ii.87: Finnish SMEs' Motivation to get Digitalised

### 9.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Finnish businesses that digitalisation enables growth in the market for products (87%), improves customer satisfaction (77%), and enhances the introduction of new products/services (77%) (Figure 3ii.88). It is worth noting that the option “able to track the return on investment of digitalisation” registered a high percentage of neutral (50%) and disagreement results (14%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

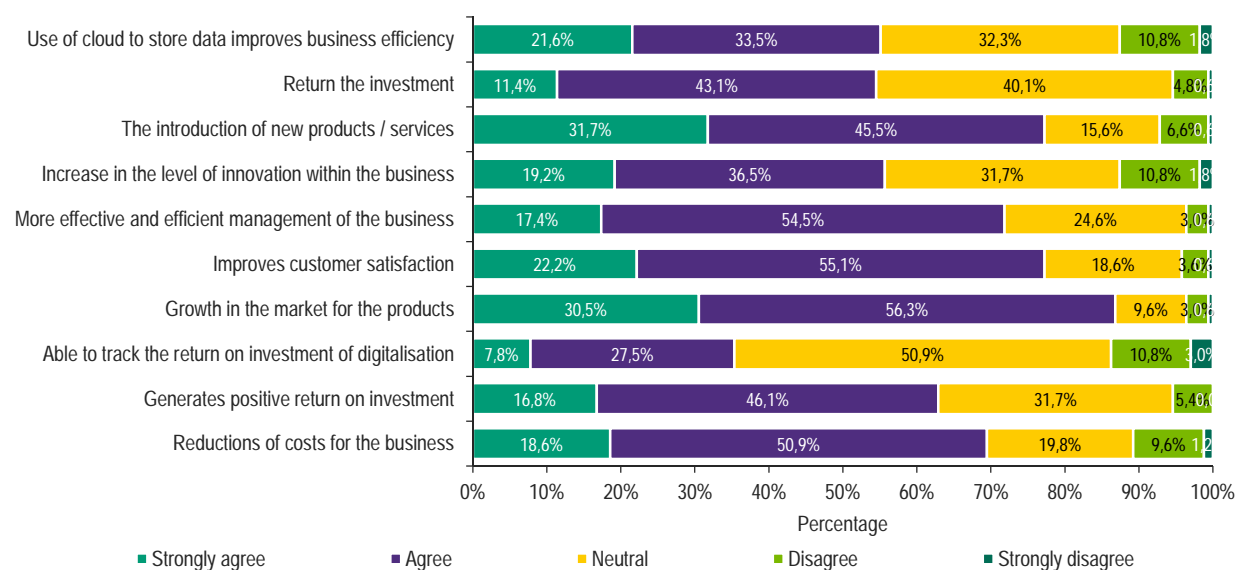


Figure 3ii.88: Advantages Expected/Experienced by Finnish SMEs from Digitalisation

## 9.5 Challenges

### 9.5.1 Difficulties in the Implementation of New Digital Technologies

Finnish businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of that new digital technology (65%) (Figure 3ii.89). Other difficulties encountered by having insufficient knowledge to be able to identify the opportunities (64%) and insufficient technical knowledge in order to make informed choices (63%)

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

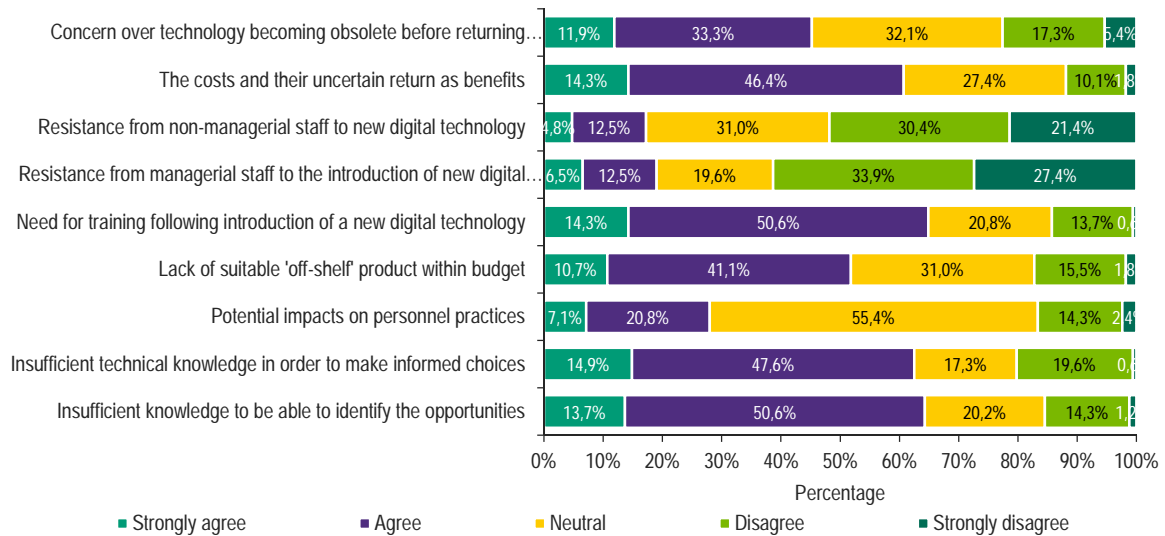


Figure 3ii.89: Finnish SMEs' Difficulty in the Implementation of New Technology

### 9.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is rapid technological change (54.8%) (Figure 3ii.90). Apart from this, the main issue for businesses that wish to improve digitalisation is a lack of finance and inadequate time (both at 49.4%), as indicated by Finish businesses. Poor internet connectivity/infrastructure (27.7%), and the lack of importance of business growth (28.3%), were among the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

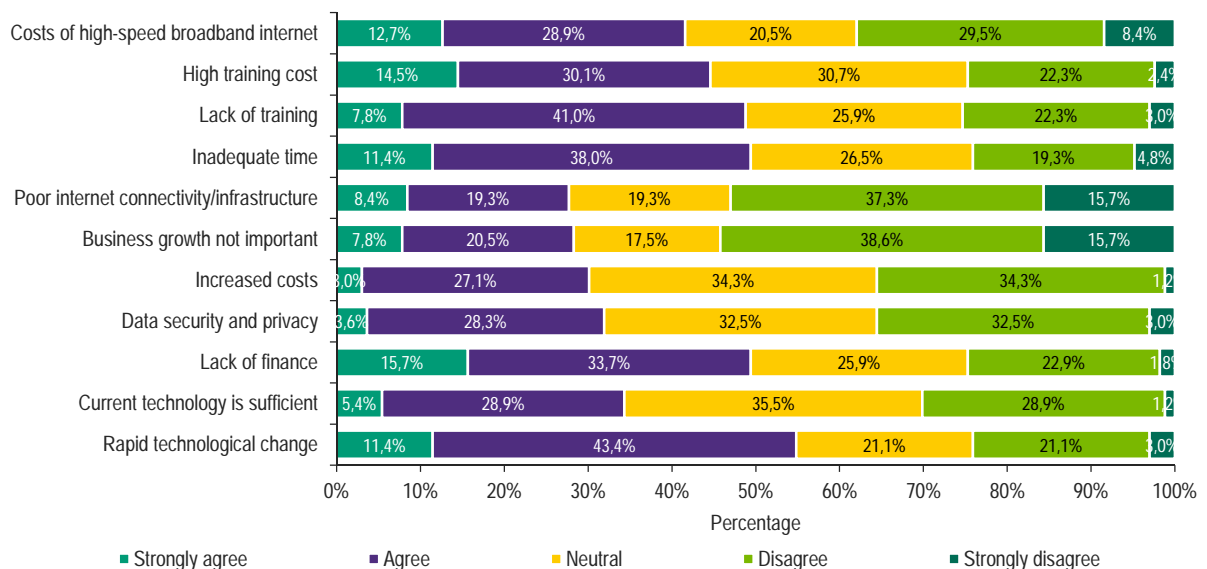


Figure 3ii.90: Finnish SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 10 France

## 10.1 Level of Digitalisation

Findings show that 100% of businesses in France use basic office software as a digital technology (Figure 3ii.91). Other technologies that rank high include the use of websites (96.94%), email (90.82%), and social media (86.73%). On the other hand, French businesses are least likely to use chat/instant online advice (0%), online professional networks (5.10%), and to work from home using the internet (6.12%) (Figure 3ii.92).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

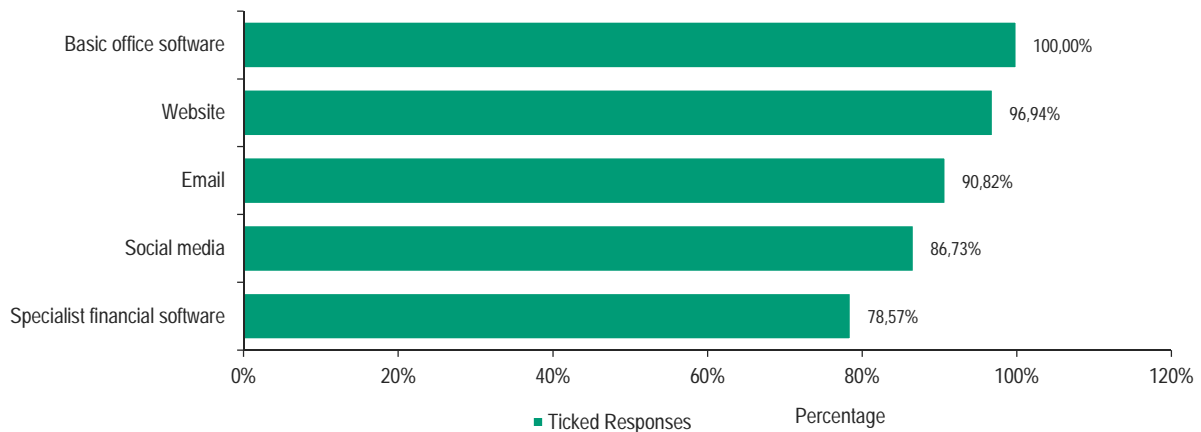


Figure 3ii.91: Digitalisation Adopted by French SMEs

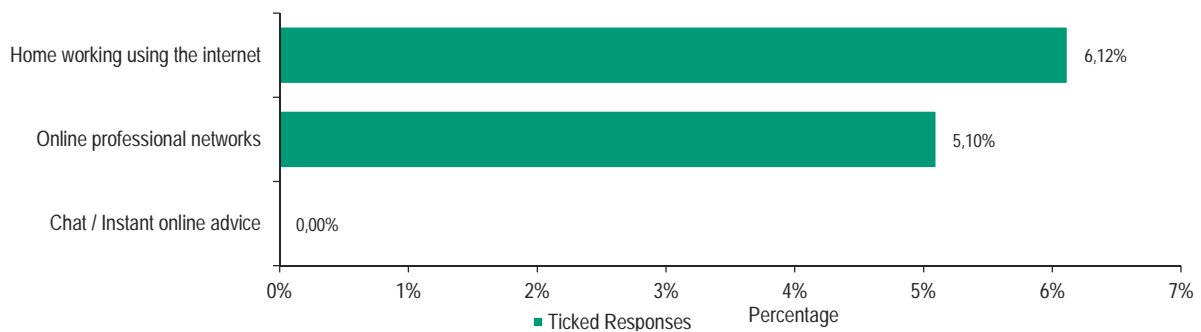


Figure 3ii.92: Digitalisation Least Adopted by French SMEs

## 10.2 Social Media and Websites

### 10.2.1 Social Media Platform


Evidence shows that Facebook is the most used social media platform in France at 100% (Table 3ii.10). Businesses in France also use Instagram (9.41%), Twitter (14.12%) and LinkedIn (7.06 %). However, Pinterest ranked low at 4.71%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 4.71% of usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.10: Social media used by French SMEs

### Usage of social media platform

Social media	Percentage
	100%
	9.41%
	4.71%
	14.12%
	7.06%
	4.71%

### 10.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to both businesses using their own website and third-party websites is the email function standing at 97.86% and 77.89% respectively. In the case of businesses having their own website, the second most common feature available is availability checks (85.26%), followed by filing a complaint (78.95%). Other common functionality features for the businesses using third-party websites include the functionality of checking availability, sending reservation requests and leaving reviews, and online booking which ranked second (55.79%) and third (31.58%) respectively.

Respondents who chose websites in the first question (Section 1.1) were asked:

### Can your customers do the following on your website or via third-party websites you use to provide services?

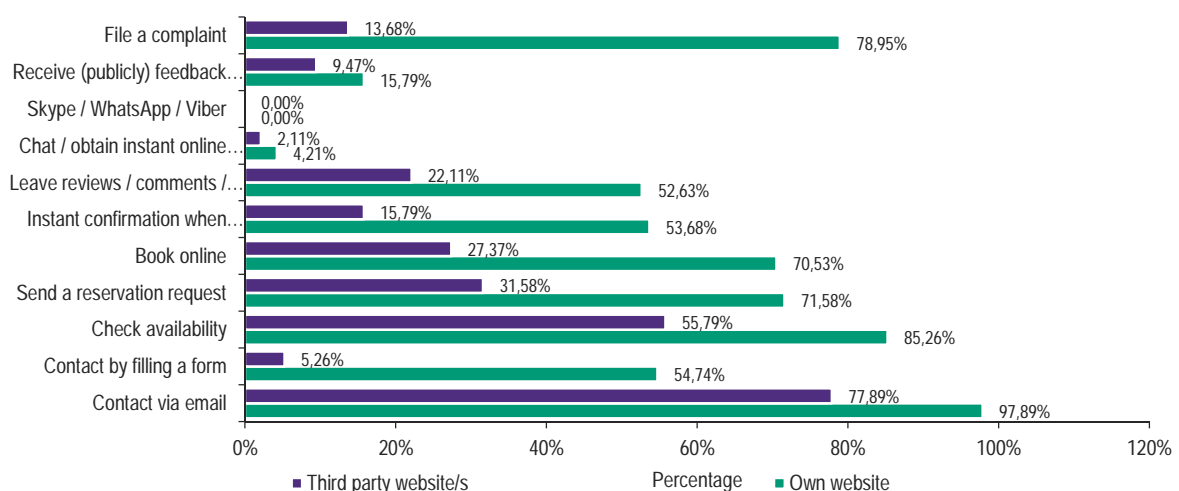


Figure 3ii.93: Usage of Websites by French SMEs



### 10.3 Data Processing

#### 10.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in France, information on customers is stored by 91% of businesses (Figure 3ii.94).

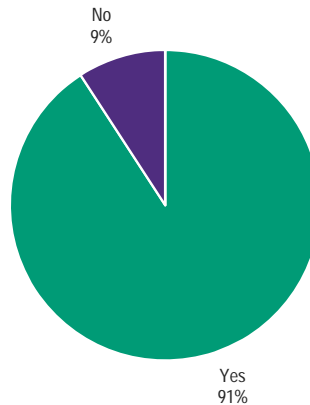


Figure 3ii.94: French SMEs Storing Customer Information

Further analysis (Figure 3ii.95) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 50.56% of the businesses that store customer information. There are high percentages of businesses that make use of paper records (38.20%), and Excel spreadsheets (21.35%), to store data.

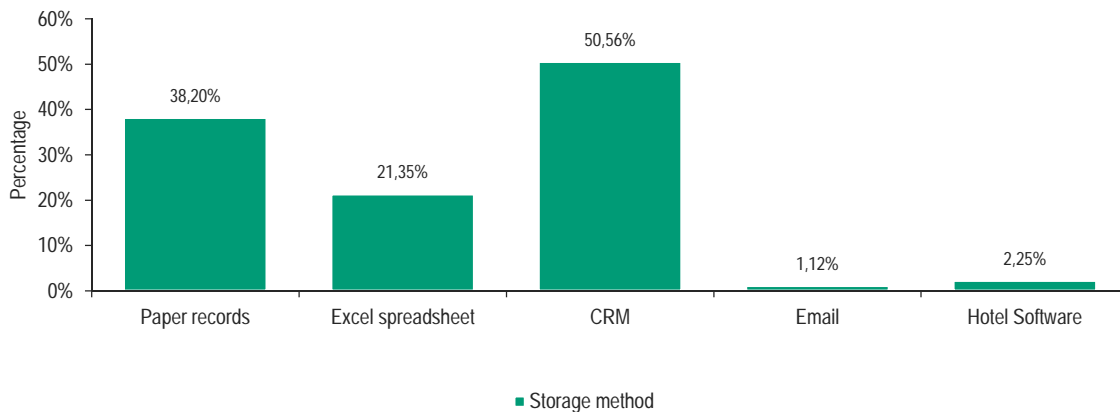


Figure 3ii.95: Methods for Storing Customer Information by French SMEs

#### 10.3.2 Time Spent on Each Device

Conclusions show that French businesses spend the highest amount of time on desktop computers (70%), whilst they spend the least time on tablets (2%) (Figure 3ii.96).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

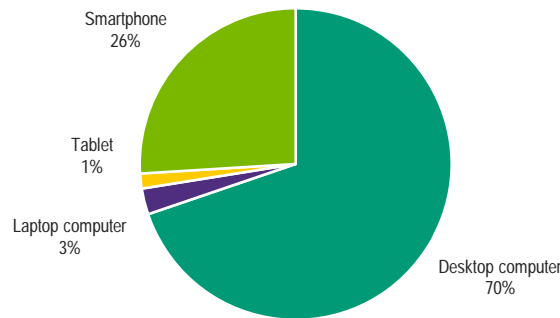


Figure 3ii.96: Percentage of Time Spent On Device to Conduct Business by French SMEs

## 10.4 Attitudes Towards Digitalisation

### 10.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses’ motivation towards the increase in the adoption and use of digitalisation. Data collected shows that French businesses seek to achieve increased growth (97%), believe that online presence is important (90%), and use it as a means to respond to seasonality (83%) (Figure 3ii.97).

All respondents were asked to answer the following question

**Please rate your level of agreement/disagreement with each of the following statements.**

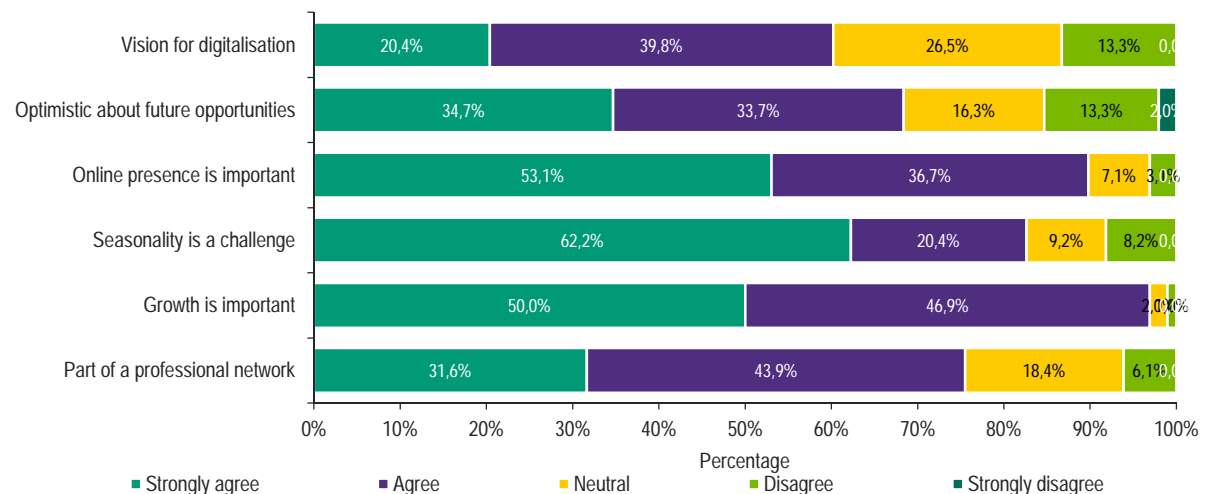


Figure 3ii.97: French SMEs’ Motivation to Get Digitalised

### 10.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among French businesses that digitalisation improves customer satisfaction (86%), enables the more effective management of business (69%), and enables growth in the market for products (63%) (Figure 3ii.98). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (79%) and disagreement results (12%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

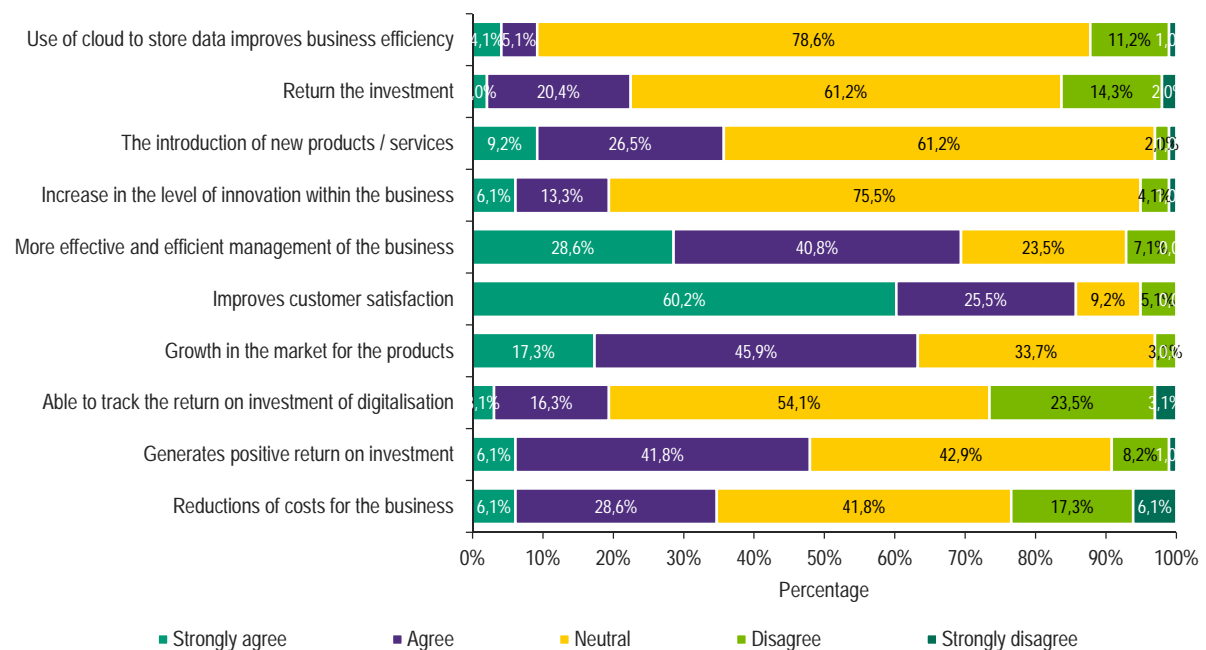


Figure 3ii.98: Advantages Expected/Experienced by French SMEs from Digitalisation

## 10.5 Challenges

### 10.5.1 Difficulties in the Implementation of New Digital Technologies

French businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of that new digital technology (90%) (Figure 3ii.99). Other difficulties encountered by businesses include costs and their uncertain returns as benefits (40%) and concerns over technology becoming obsolete before they make a return on their investment (38%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

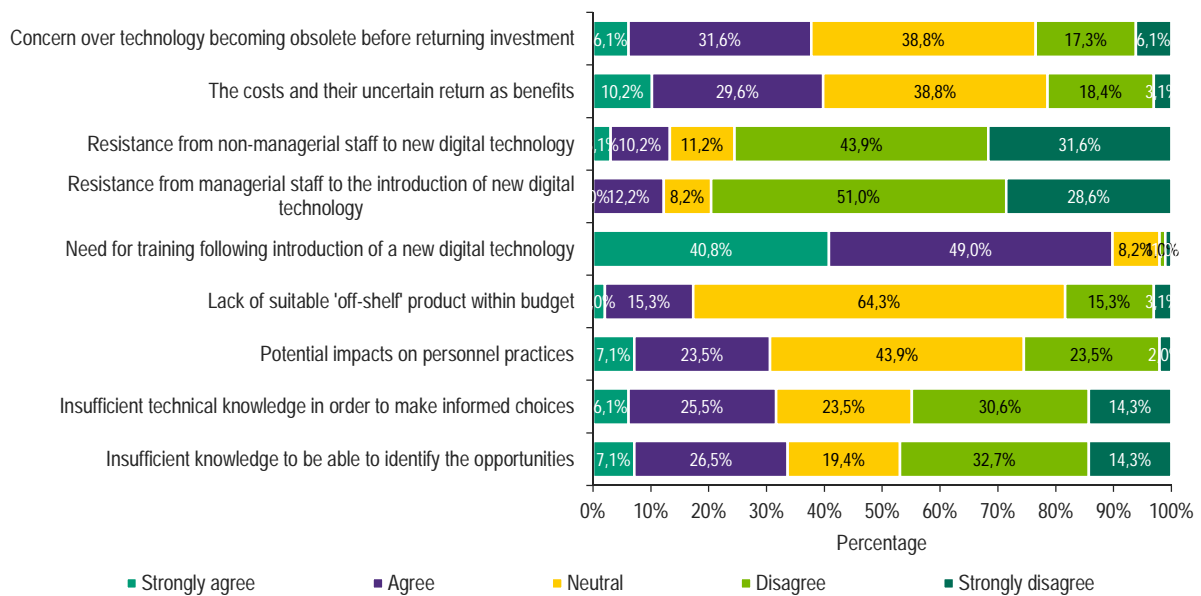


Figure 3ii.99: French SMEs' Difficulty in the Implementation of New Technology

### 10.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is data security and privacy (55.1%) (Figure 3ii.100). Apart from this, the main issue for businesses that wish to improve digitalisation is the belief their current technology is sufficient (48.9%), and a lack finance (39.8%), as indicated by French businesses. The lack of importance of business growth (10.2%), and inadequate time (15.3%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

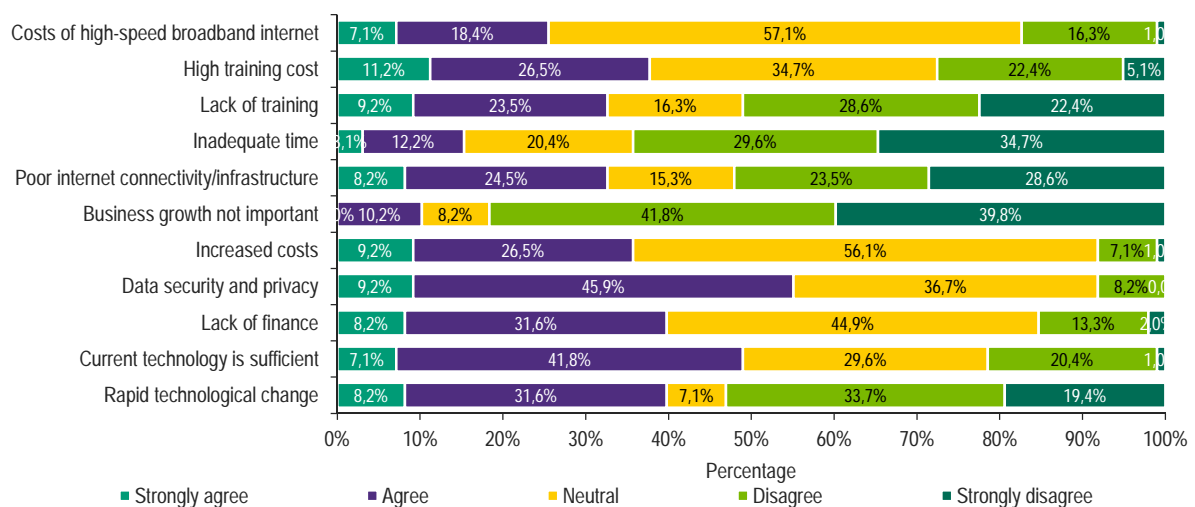


Figure 3ii.100: French SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 11 Germany

## 11.1 Level of Digitalisation

Findings show that 94.7% of businesses in Germany use email as a digital technology (Figure 3ii.101). Other technologies that rank high include the use of websites (94.77%), basic office software (92.16%), and social media (76.47%). On the other hand, German businesses are least likely to use chat/instant online advice (3.92%), online professional networks (6.54%), and video conferencing facilities (14.38%) (Figure 3ii.102).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

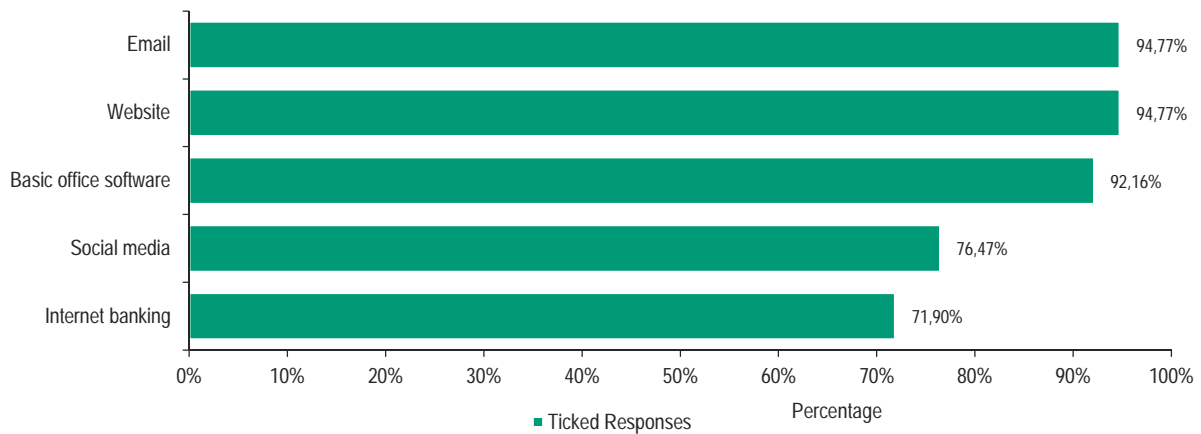


Figure 3ii.101: Digitalisation Adopted by German SMEs

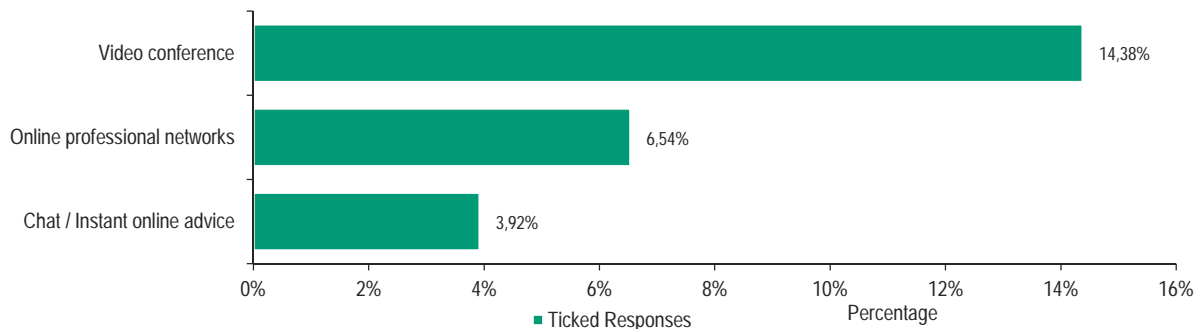


Figure 3ii.102: Digitalisation Least Adopted by German SMEs

## 11.2 Social Media and Websites

### 11.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Germany at 99% (Table 3ii.11). Businesses in Germany also use Instagram (21%) and Twitter (37%). However, LinkedIn and Pinterest ranked low at 9%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 19% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.11: Social Media Used by German SMEs

**Usage of social media platform**

Social media	Percentage
	99%
	21%
	9%
	37%
	9%
	19%

**11.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 98.62%, whilst the second is contact by filling in a form (80.00%), followed by sending a reservation request (73.79%). In the case of businesses using third-party websites, contact via email and leaving reviews/comments/evaluations were the most commonly-used features, both at 35.86%, followed by booking online (29.66%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

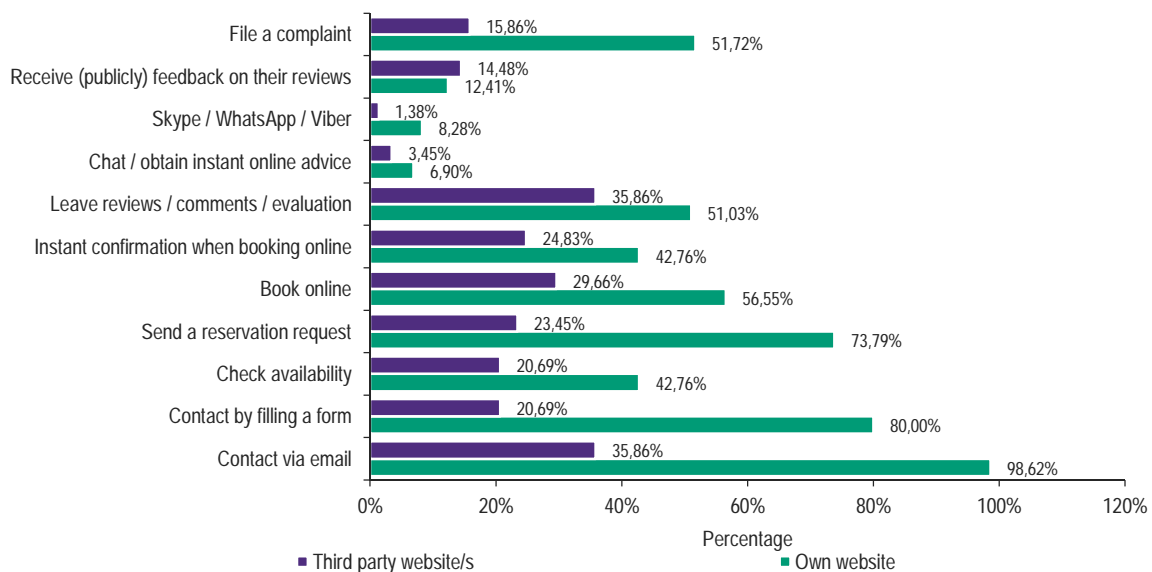


Figure 3ii.103: Usage of Websites by German SMEs

## 11.3 Data Processing

### 11.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Germany, information on customers is stored by 64% of businesses (Figure 3ii.104).

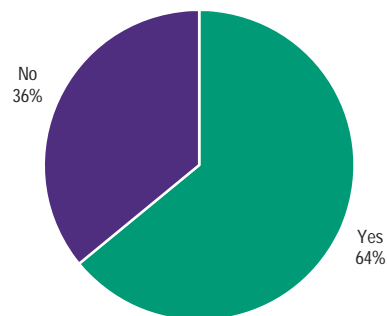


Figure 3ii.104: German SMEs Storing Customer Information

Further analysis (Figure 3ii.105) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 69.39% of the businesses that store customer information. There are high percentages of businesses that make use of Excel spreadsheets (35.71%), and paper records (32.65%) to store data.

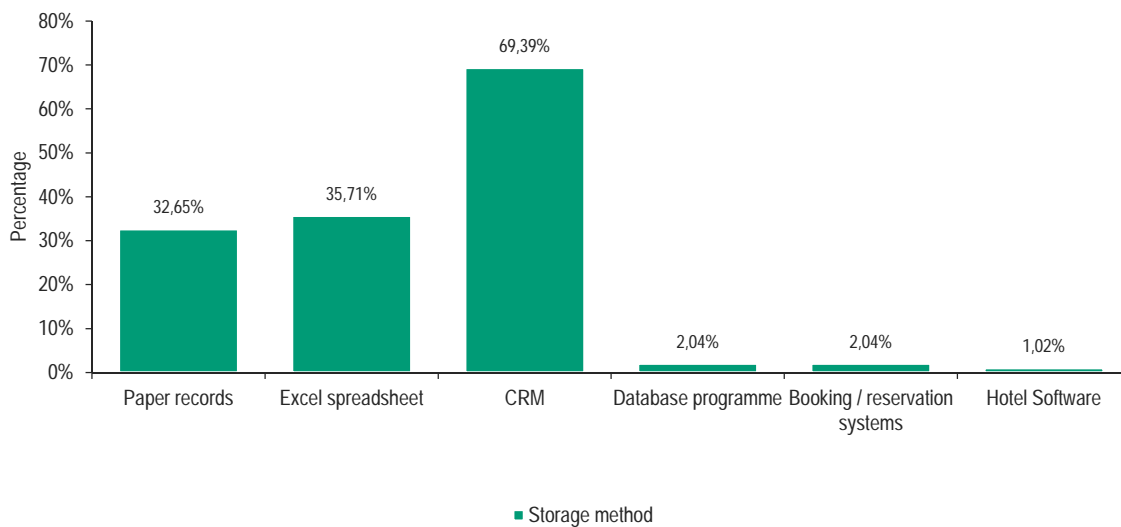


Figure 3ii.105: Methods for Storing Customer Information by German SMEs

### 11.3.2 Time Spent on Each Device

Conclusions show that German businesses spend the highest amount of time on desktop computers (67%), whilst they spend the least time on tablets (4%) (Figure 3ii.106).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

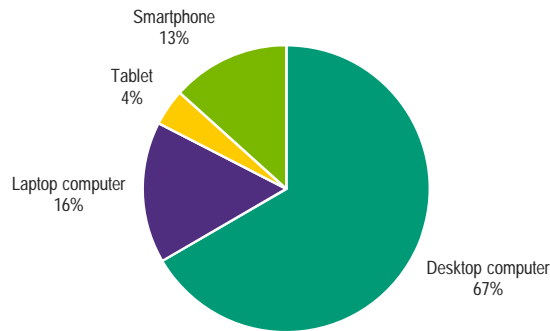


Figure 3ii.106: Percentage of Time Spent On Device to Conduct Business by German SMEs

## 11.4 Attitudes Towards Digitalisation

### 11.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that German businesses seek to achieve a higher online presence (92%), are optimistic about future opportunities (86%), and believe that growth is important (84%) (Figure 3ii.107).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

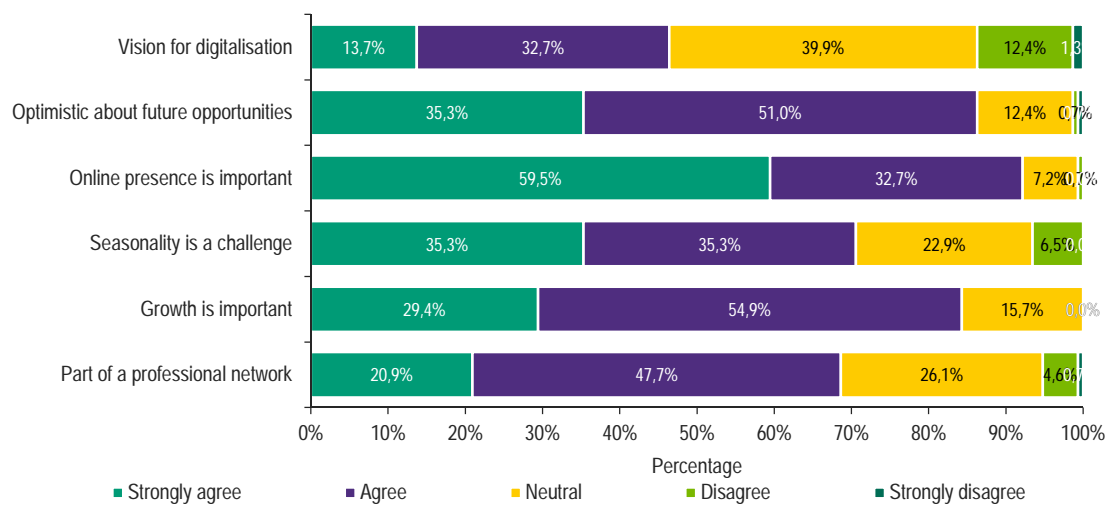


Figure 3ii.107: German SMEs' Motivation to Get Digitalised



### 11.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among German businesses that digitalisation allows for growth in the market for products (70%), improves customer satisfaction (66%), and enables more effective management of business (63%) (Figure 3ii.108). It is worth noting that the option “Able to track the return on investment of digitalisation” and “generates positive return on investment” registered the highest percentages of neutral (53%) whereas “use of cloud to store data improves business efficiency” yielded the highest disagreement results at (27%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

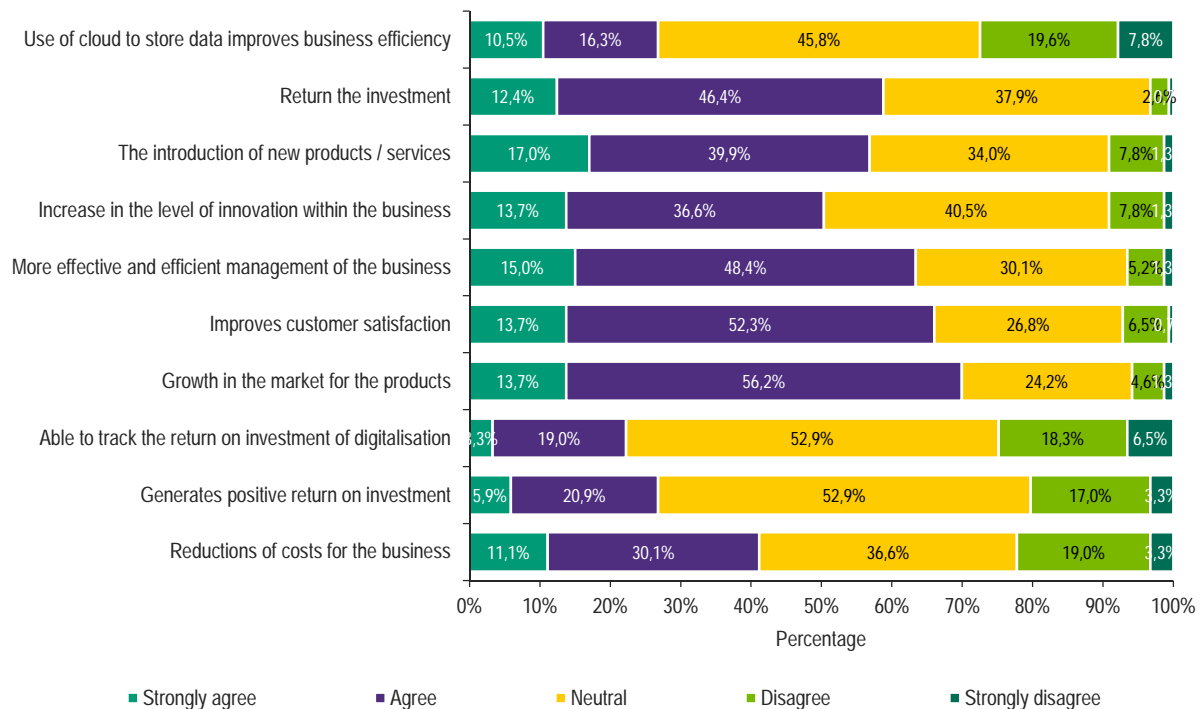


Figure 3ii.108: Advantages Expected/Experienced by German SMEs from Digitalisation

## 11.5 Challenges

### 11.5.1 Difficulties in the Implementation of New Digital Technologies

German businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of a new digital technology (74%) (Figure 3ii.109). Other difficulties encountered by businesses include the costs and their uncertain return as benefits (67%) and insufficient knowledge to be able to identify the opportunities (65%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

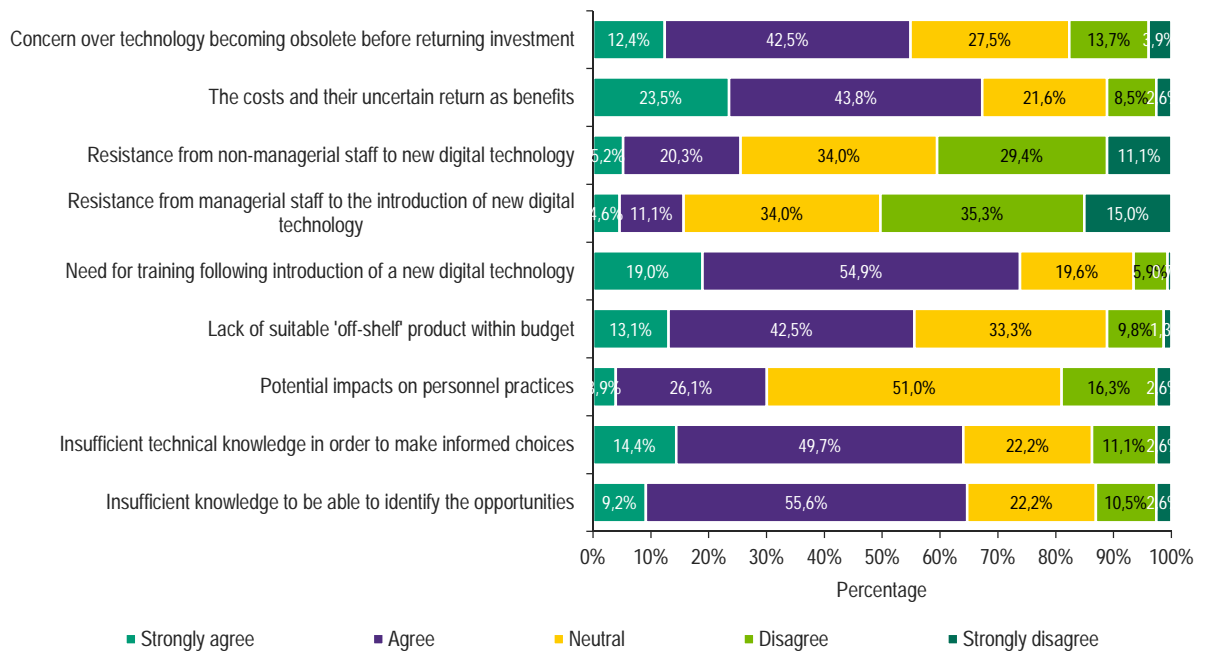


Figure 3ii.109: German SMEs' Difficulty in the Implementation of New Technology

### 11.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering German businesses from improving digitalisation is poor internet connectivity/infrastructure (64.7%) (Figure 3ii.110). Apart from this, the main issue for businesses that wish to improve digitalisation is a lack of finance (64%), and rapid technological change (62.1%), as indicated by German businesses. The lack of importance of business growth (12.4%), and the issue of data security and privacy (37.3%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

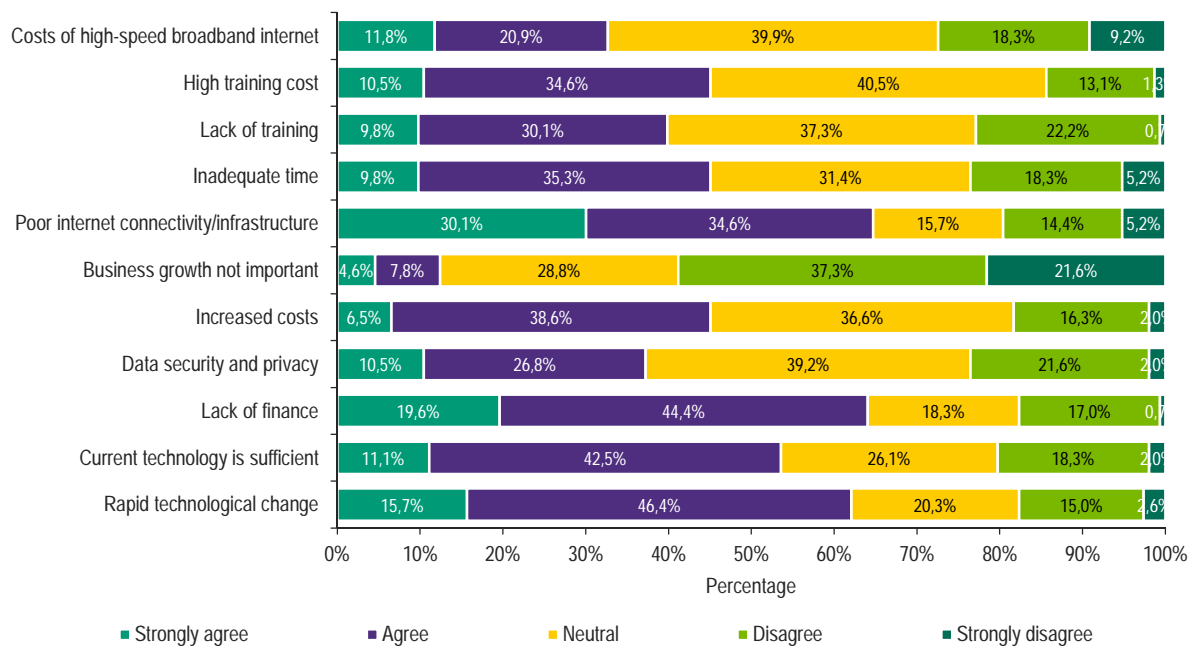


Figure 3ii.110: German SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 12 Greece

## 12.1 Level of Digitalisation

Findings show that 96% of businesses in Greece use websites as a digital technology (Figure 3ii.111). Other technologies that rank high include the use of email (92.16%), social media (90.20%), and internet banking (88.24%). On the other hand, Greek businesses are least likely to use Property Management Systems (PMS) (11.76%), computerised ticketing systems (12.75%), and chat/instant online advice (12.75%) (Figure 3ii.112).

All respondents were asked to answer the following question:

**Does your business currently make use of the following digital technologies?**

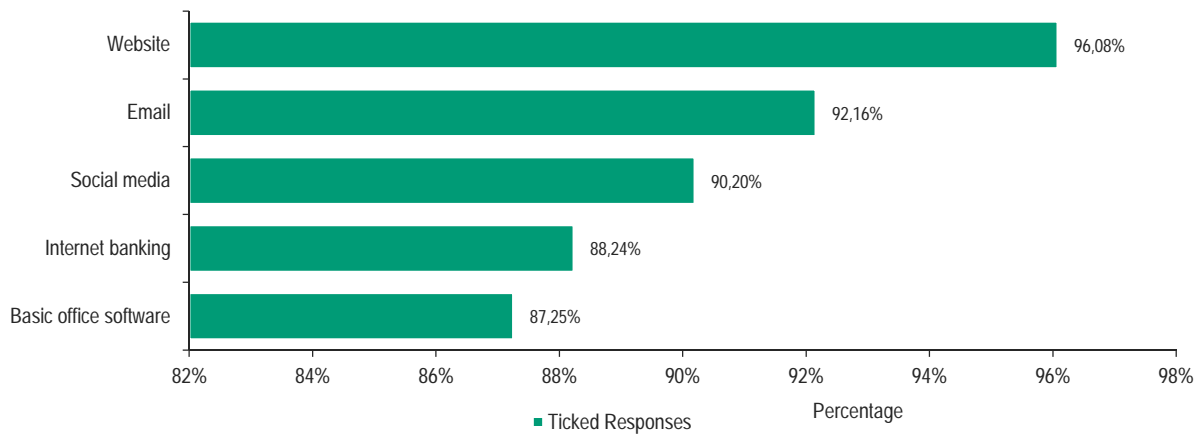


Figure 3ii.111: Digitalisation Adopted by Greek SMEs

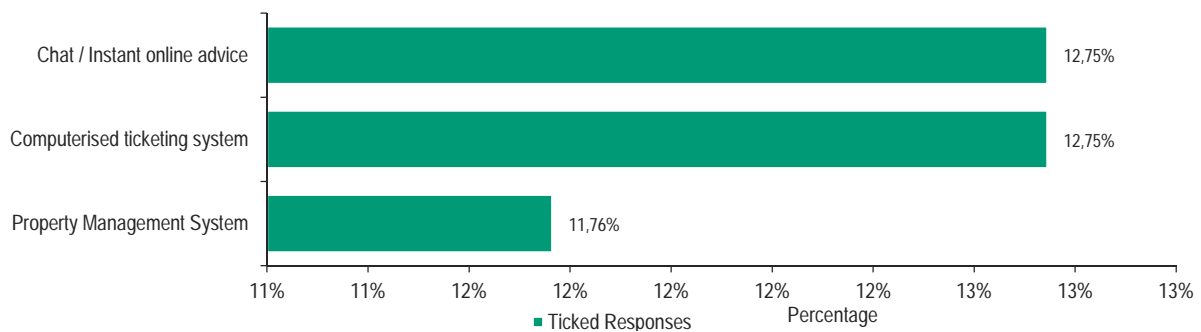


Figure 3ii.112: Digitalisation Least Adopted by Greek SMEs

## 12.2 Social Media and Websites

### 12.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Greece at 98.91% (Table 3ii.12). Businesses in Greece also use and Twitter (51.09%), Instagram (43.48%) and LinkedIn (46.74%). However, Pinterest ranked low at 28.26% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 9.78% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.12: Social Media Used by Greek SMEs

### Usage of social media platform

Social media	Percentage
	98.91%
	43.48%
	28.26%
	51.09%
	46.74%
	9.78%

### 12.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 92.86%, whilst the second is contact by filling a form (76.53%), followed by sending a reservation request (74.49%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluation at 47.96%, followed by booking online (42.86%), and instant confirmation when booking online (40.82%).

Respondents who chose websites in the first question (Section 1.1) were asked:

### Can your customers do the following on your website or via third-party websites you use to provide services?

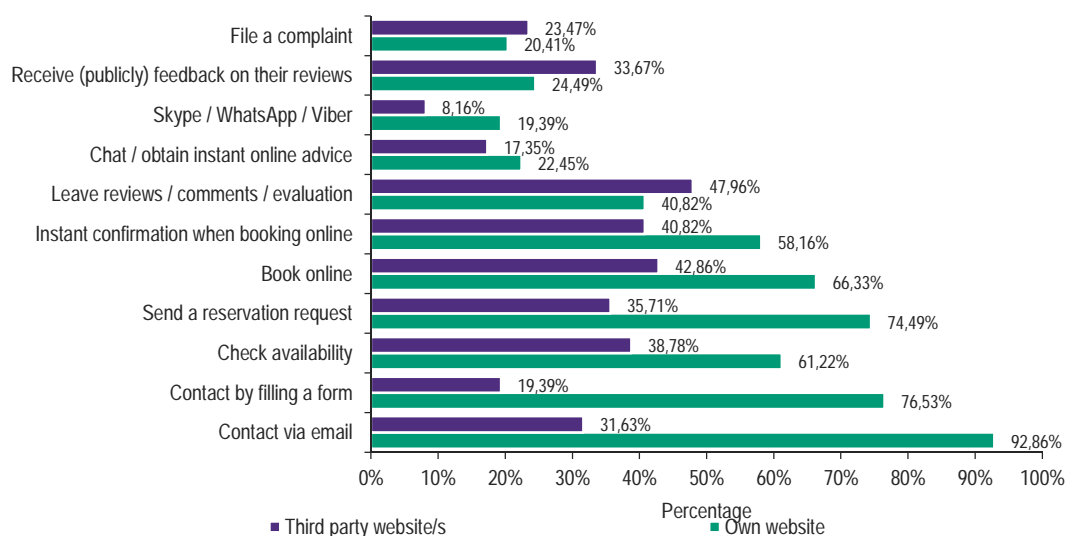


Figure 3ii.113: Usage of Websites by Greek SMEs

## 12.3 Data Processing

### 12.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Greece, information on customers is stored by 80% of businesses (Figure 3ii.114).

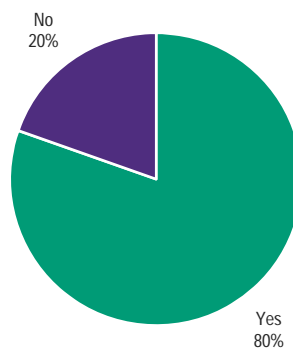


Figure 3ii.114: Greek SMEs Storing Customer Information

Further analysis (Figure 3ii.115) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 69.51% of the businesses that store customer information. There are high percentages of businesses that make use of paper records (37.80%), and Excel spreadsheets (34.15%), to store data.

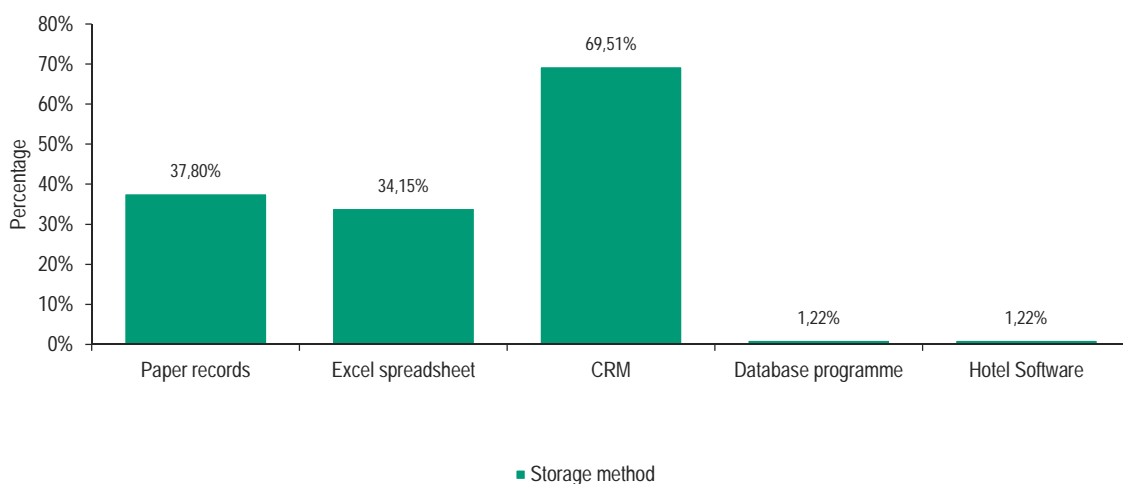


Figure 3ii.115: Methods for Storing Customer Information by Greek SMEs

### 12.3.2 Time Spent on Each Device

Conclusions show that Greek businesses spend the highest amount of time on desktop computers (50%), whilst they spend the least time on tablets (7%) (Figure 3ii.116).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

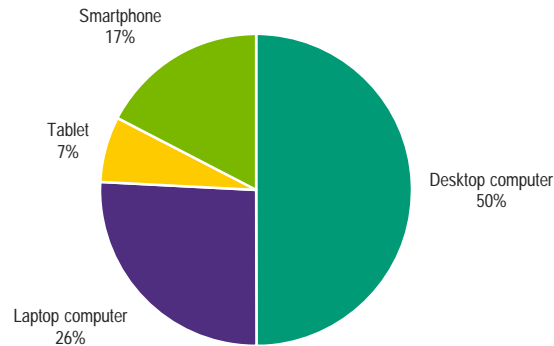


Figure 3ii.116: Percentage of Time Spent on Device to Conduct Business by Greek SMEs

## 12.4 Attitudes Towards Digitalisation

### 12.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Greek businesses believe that growth is important (97%), an online presence is important (96%), and are optimistic about future opportunities (84%) (Figure 3ii.117).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

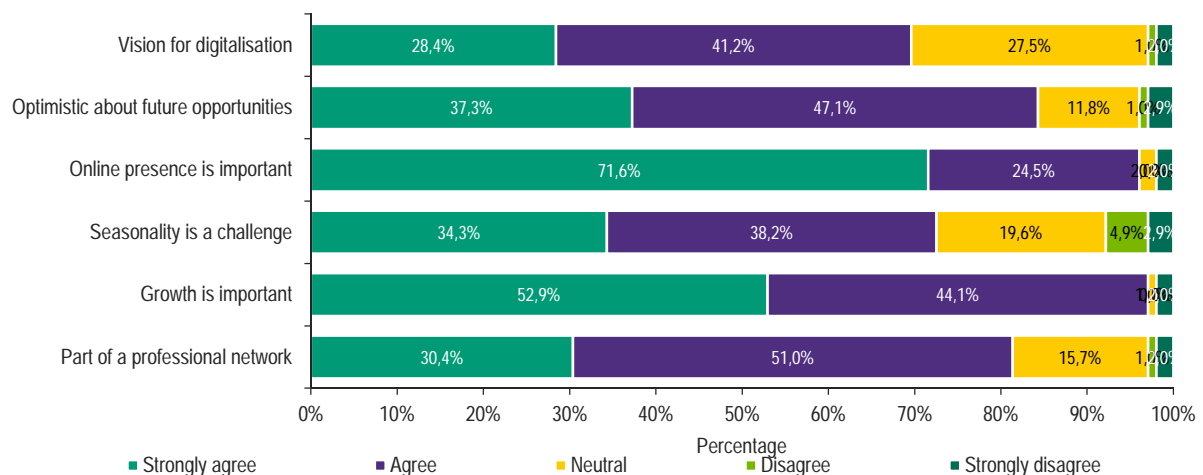


Figure 3ii.117: Greek SMEs' Motivation to Get Digitalised

## 12.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Greek businesses that digitalisation enables more effective management of business (89%), generates a return on investment (89%), and generates a positive return on investment (86%) (Figure 3ii.118). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (43%) and disagreement results (7%). All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

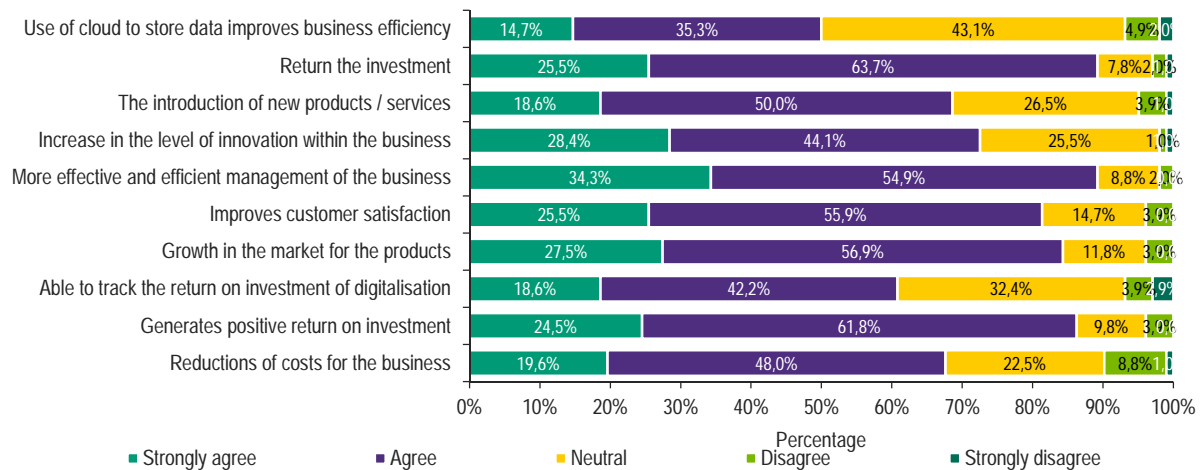


Figure 3ii.118: Advantages Expected/Experienced by Greek SMEs from Digitalisation

## 12.5 Challenges

### 12.5.1 Difficulties in the Implementation of New Digital Technologies

The responding Greek businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of that new digital technology (76%) (Figure 3ii.119). Other difficulties encountered by businesses include concerns over the insufficient technical knowledge to make informed choices (40%) and the insufficient knowledge to be able to identify opportunities (39%)

All respondents were asked to answer the following question:



**Please rate your level of agreement/disagreement with each of the following statements.**

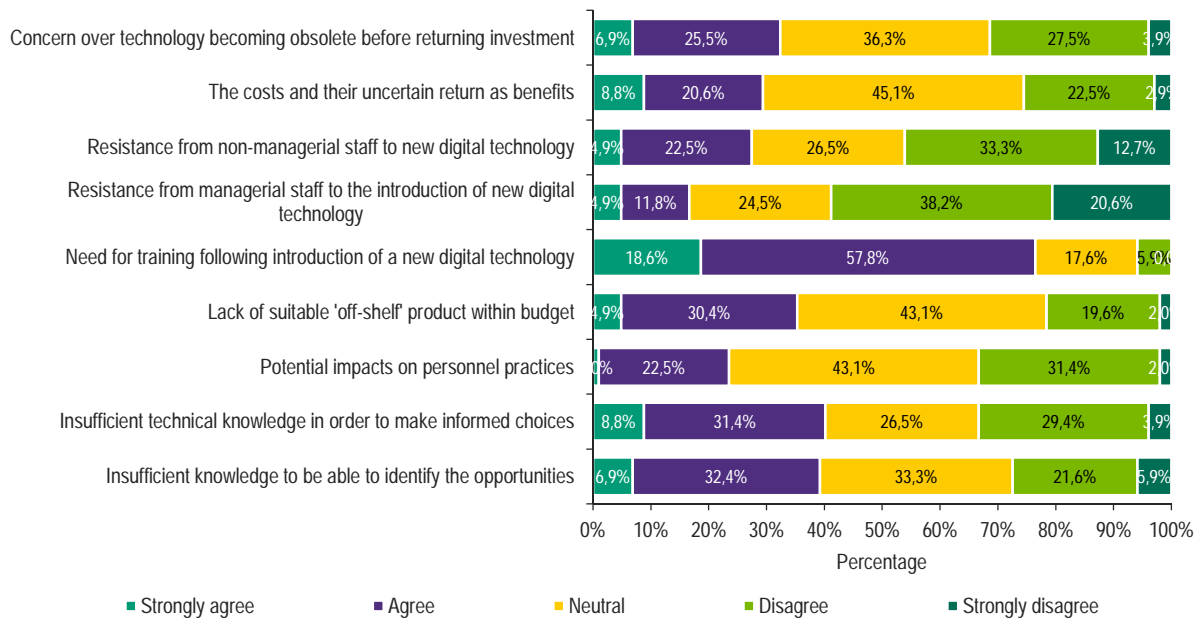


Figure 3ii.119: Greek SMEs' Difficulty in the Implementation of New Technology

### 12.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is the lack of finance (61.7%) (Figure 3ii.120). Apart from this, the main issue is that business believe that current technology is sufficient (53.9%), and that costs of high-speed broadband internet are high (52.9%), as indicated by Greek businesses. Inadequate time (15.6%), and business growth not being of importance (18.7%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

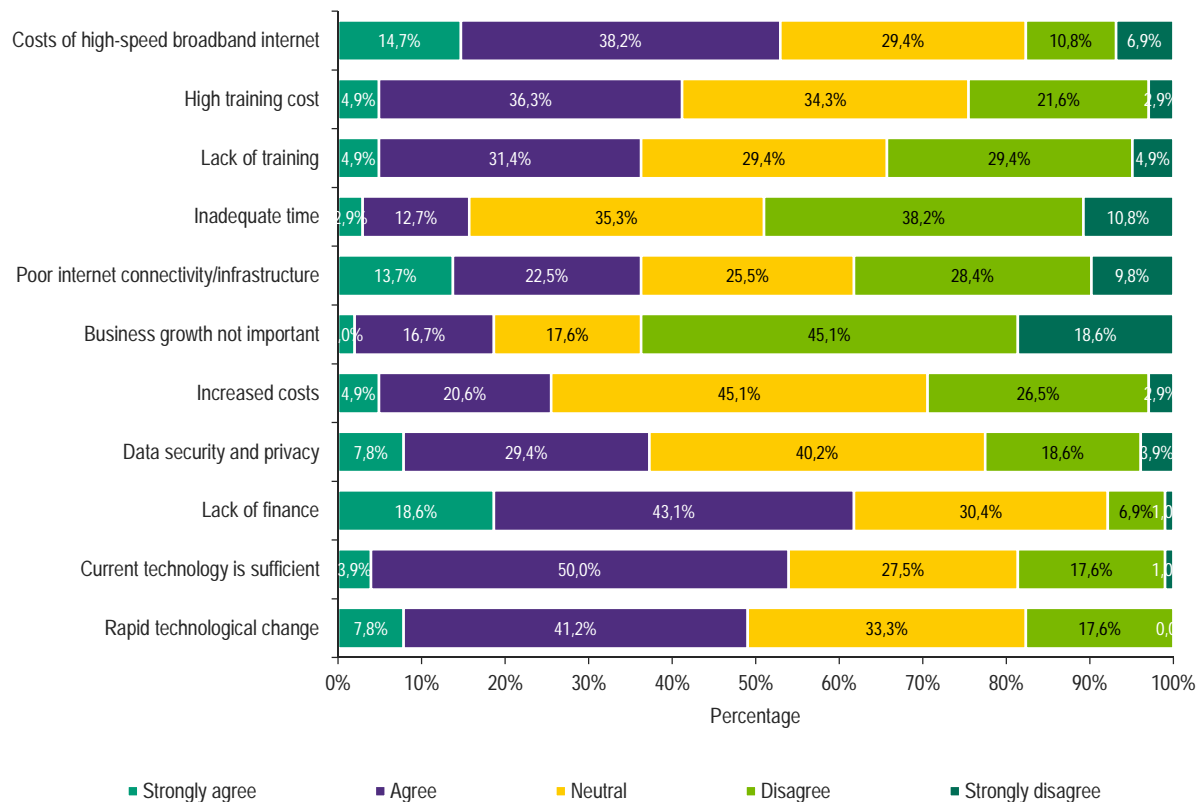


Figure 3ii.120: Greek SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 13 Hungary

## 13.1 Level of Digitalisation

Findings show that 94.58% of businesses in Hungary use basic office software as a digital technology (Figure 3ii.121). Other technologies that rank high include the use of websites (89.16%), email (85.54%), and internet banking (73.49%). On the other hand, Hungarian businesses are least likely to use chat/ instant online advice (6.02%), online professional networks (10.84%) and Property Management Systems (PMS) (11.45%) (Figure 3ii.122).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

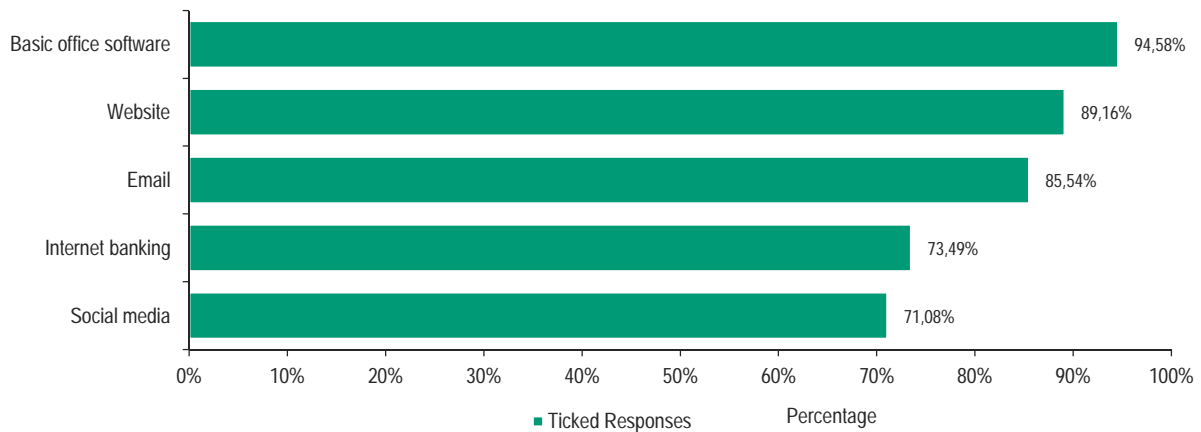


Figure 3ii.121: Digitalisation Adopted by Hungarian SMEs

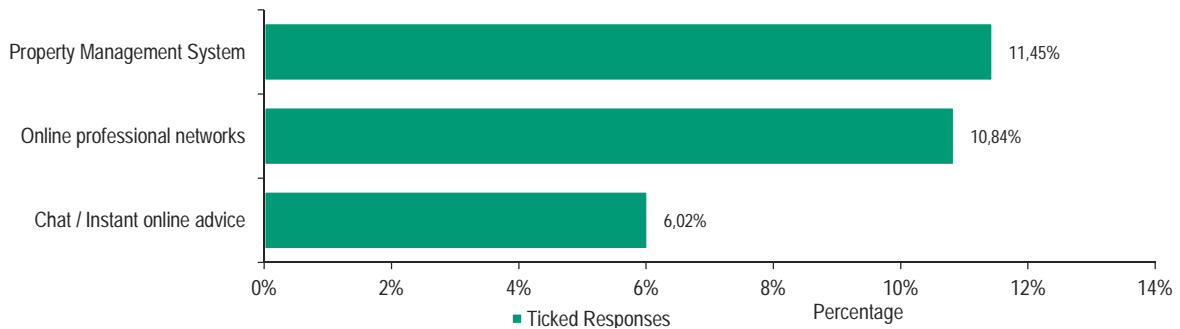


Figure 3ii.122: Digitalisation Least Adopted by Hungarian SMEs

## 13.2 Social Media and Websites

### 13.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Hungary at 96.6% (Table 3ii.13). Businesses in Hungary also use Instagram (11.86%), LinkedIn (10.17%), and Twitter (8.47%). However, Pinterest ranked low at 5.08% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 3.39% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.13: Social Media used by Hungarian SMEs

### Usage of social media platform

Social media	Percentage
	96.61%
	11.86%
	5.08%
	8.47%
	10.17%
	3.39%

### 13.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 89.86%, whilst the second is booking online (75.68%), followed by sending a reservation request (70.27%). In the case of businesses using third-party websites, the most common feature available is filing a complaint at 18.92%, followed by receiving public feedback on their reviews (16.89%), and instant confirmation when booking online (16.22%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

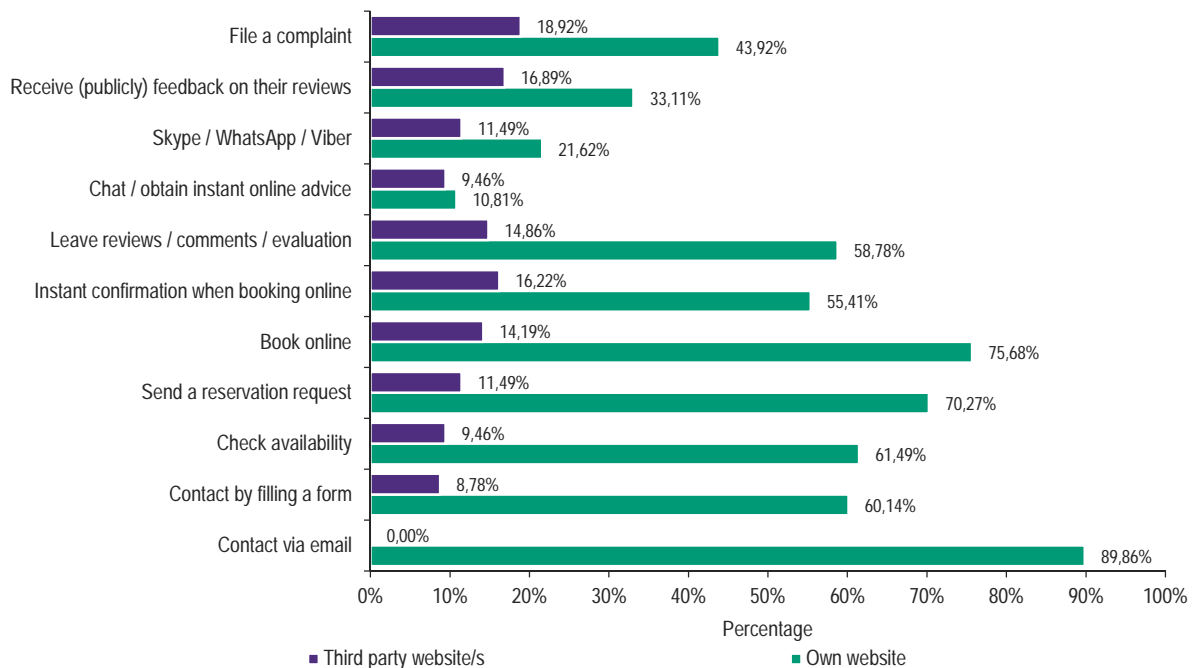


Figure 3ii.123: Usage of Websites by Hungarian SMEs

### 13.3 Data Processing

#### 13.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Hungary, information on customers is stored by 72% of businesses (Figure 3ii.124).

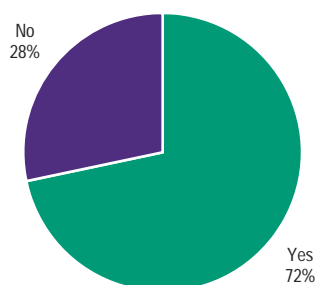


Figure 3ii.124: Hungarian SMEs Storing Customer Information

Further analysis (Figure 3ii.125) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 65.55% of the businesses that store customer information. There are high percentages of businesses that make use of paper records (30.25%), and Excel spreadsheets (28.57%), to store data.

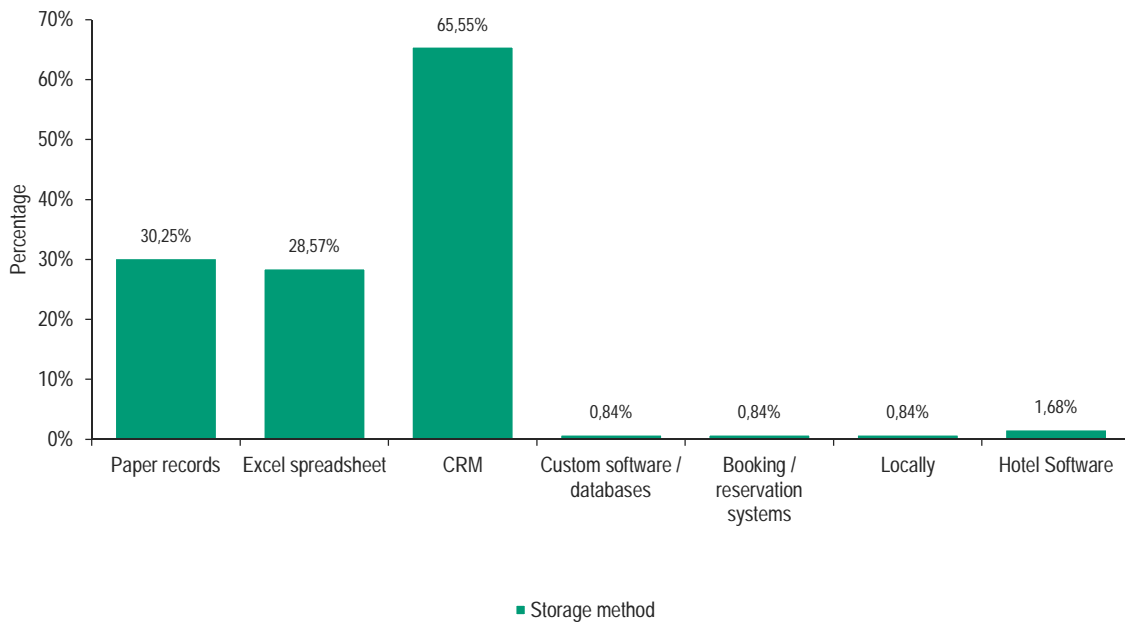


Figure 3ii.125: Methods for Storing Customer Information by Hungarian SMEs

### 13.3.2 Time Spent on Each Device

Conclusions show that Hungarian businesses spend the highest amount of time on desktop computers (47%), whilst they spend the least time on tablets (4%) (Figure 3ii.126).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

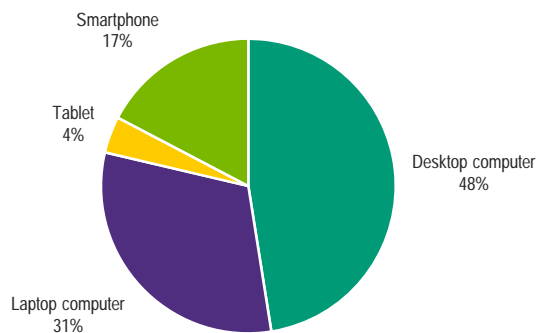


Figure 3ii.126: Percentage of Time Spent on Device to Conduct Business by Hungarian SMEs

## 13.4 Attitudes Towards Digitalisation

### 13.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Hungarian businesses seek to increase growth (87%), achieve a higher online presence (84%), and are optimistic about future opportunities (80%) (Figure 3ii.127).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

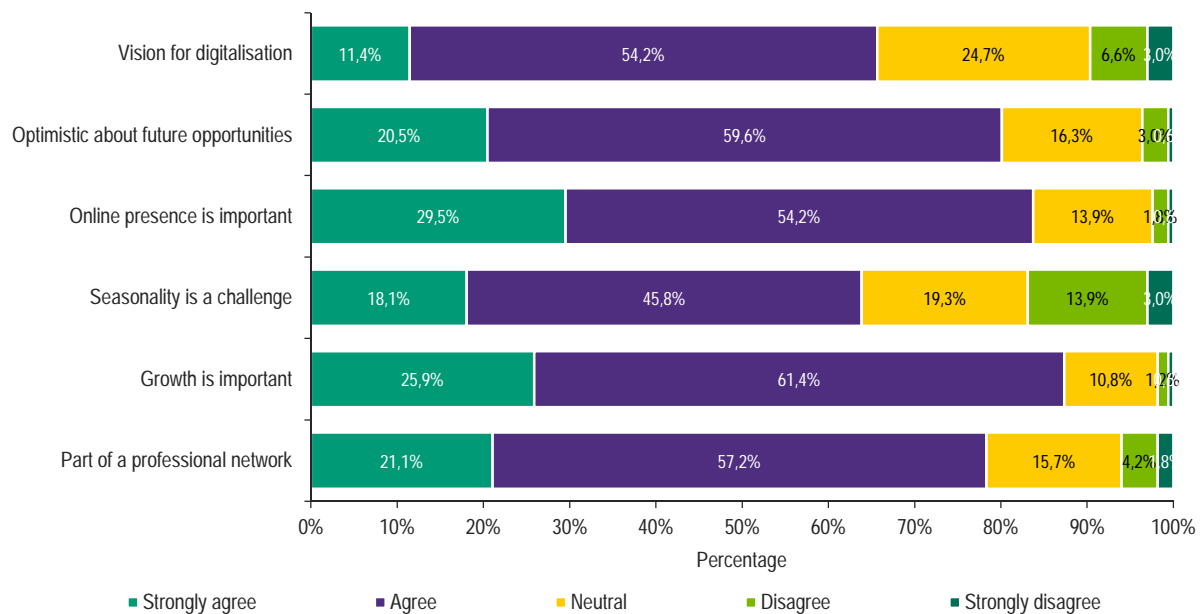


Figure 3ii.127: Hungarian SMEs' Motivation to Get Digitalised

### 13.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Hungarian businesses that digitalisation enables the more effective management of business (72%), allows for growth in the market for products (72%), and improves customer satisfaction (60%) (Figure 3ii.128). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered the highest percentages of neutral (43%) and disagreement results (23%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

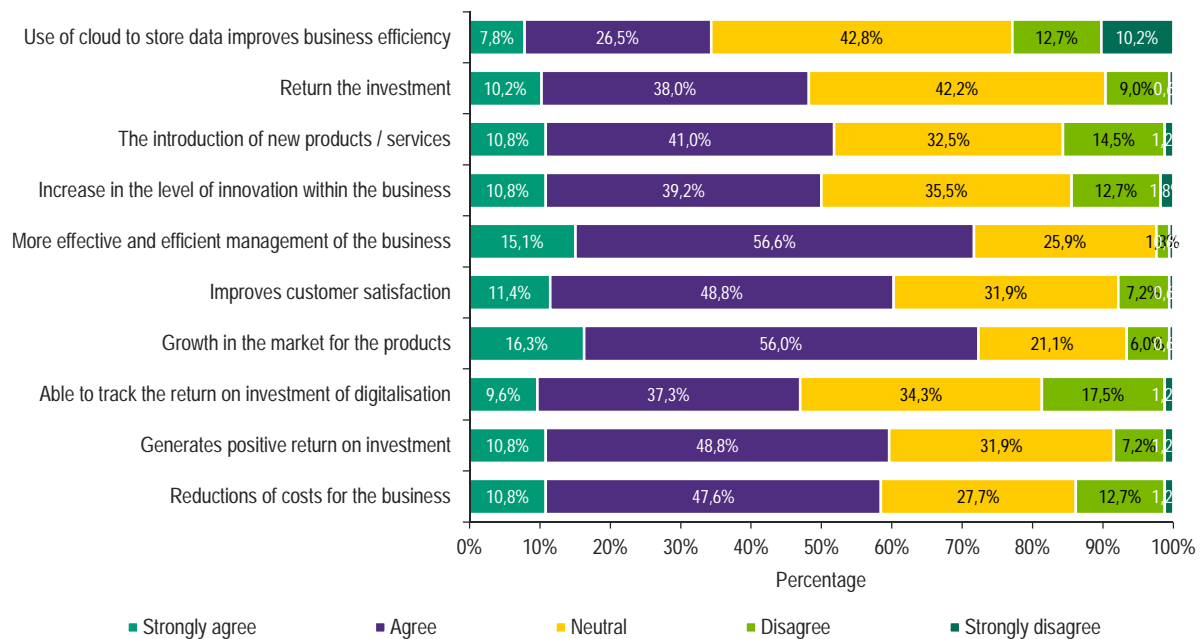


Figure 3ii.128: Advantages Expected/Experienced by Hungarian SMEs from Digitalisation

### 13.5 Challenges

#### 13.5.1 Difficulties in the Implementation of New Digital Technologies

Hungarian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following introduction of that new digital technology (69%) (Figure 3ii.129). Other difficulties encountered by businesses include concerns over the costs and their uncertain return as benefits (45%), and insufficient knowledge to be able to identify the opportunities (45%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

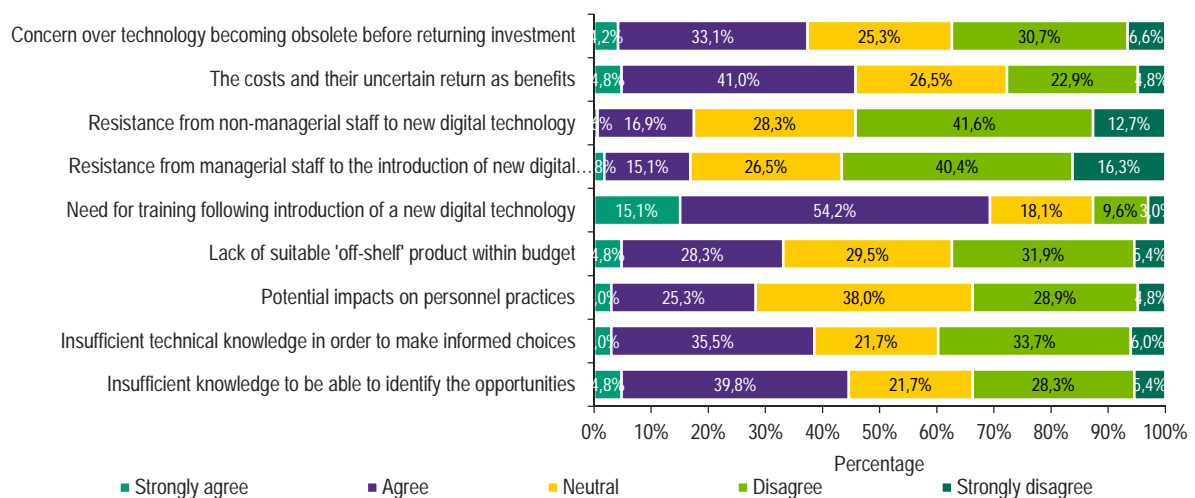


Figure 3ii.129: Hungarian SMEs' Difficulties to Implement New Technology



### 13.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is the belief that the current technology in use by the business is sufficient to meet their needs (57.8%) (Figure 3ii.130). Apart from that, the main issue for businesses that wish to improve digitalisation is the high cost of training (50%), and increased costs (48.8%), as indicated by Hungarian businesses. Data security and privacy issues (31.3%), and inadequate time (33.1%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

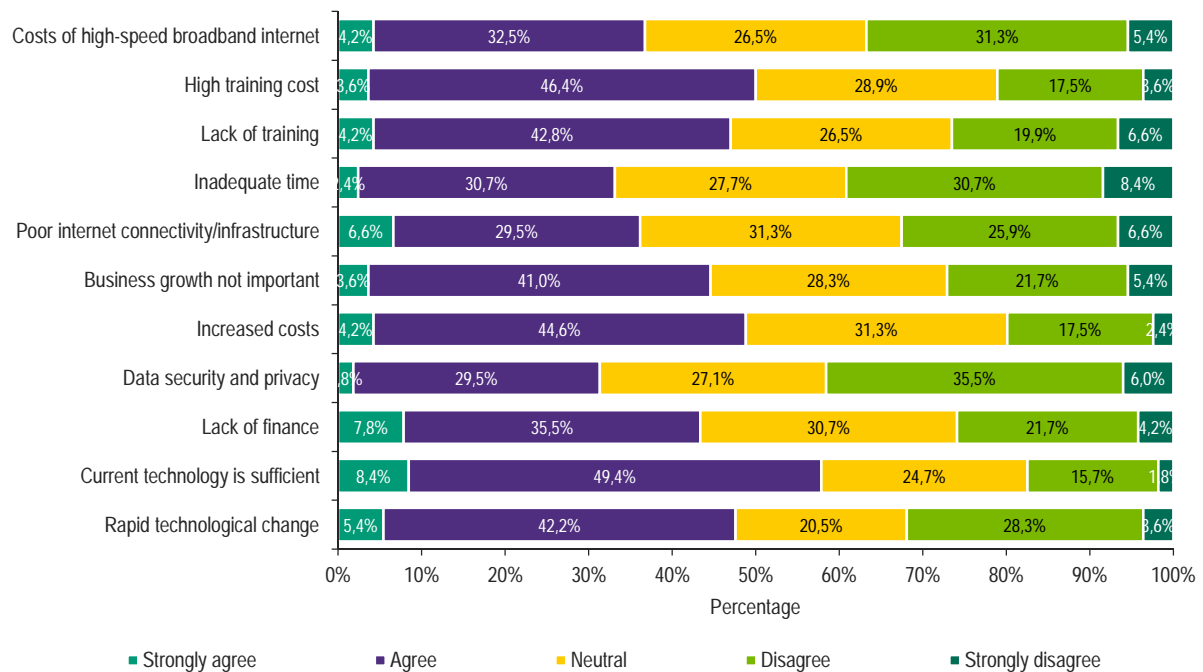


Figure 3ii.130: Hungarian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 14 Ireland

## 14.1 Level of Digitalisation

Findings show that 85.07% of businesses in Ireland use basic office software as a digital technology (Figure 3ii.131). Other technologies that rank high include the use of websites (83.58%), social media (79.10%), and email (77.61%). On the other hand, Irish businesses are least likely to use chat/instant online advice (5.97%), online professional networks (8.96%), and staff intranet (14.93%) (Figure 3ii.132).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

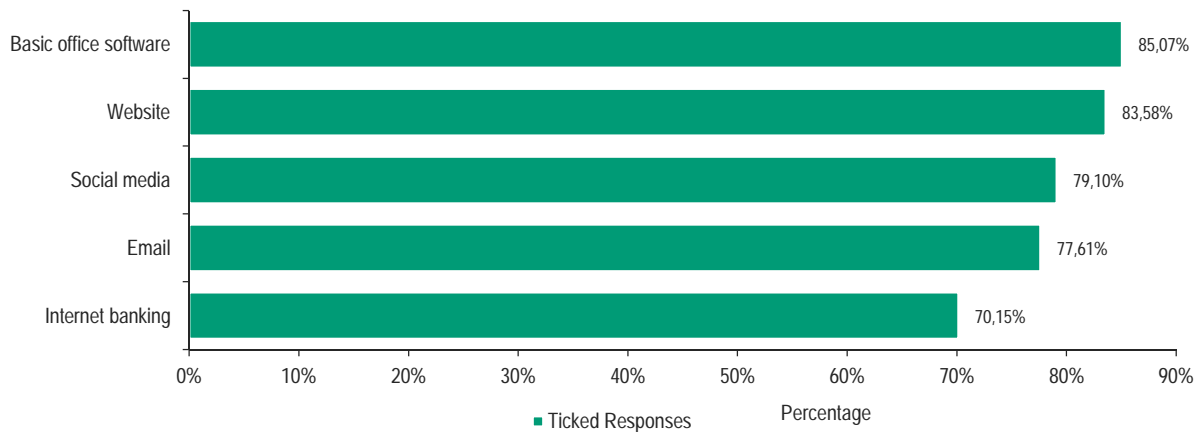


Figure 3ii.131: Digitalisation Adopted by Irish SMEs

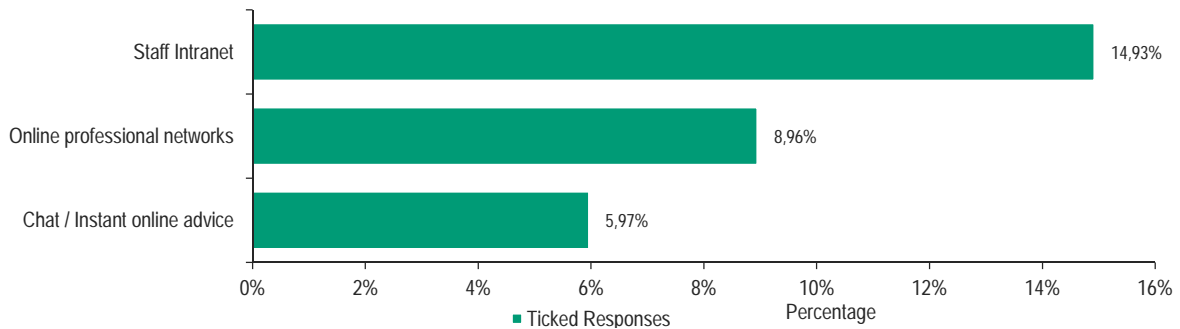


Figure 3ii.132: Digitalisation Least Adopted by Irish SMEs

## 14.2 Social Media and Websites

### 14.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Ireland at 96.23% (Table 3ii.14). Businesses in Ireland also use Instagram (39.62%), LinkedIn (39.62%) and Twitter (58.49%). However, Pinterest ranked at 20.75% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 11.32% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.14: Social Media used by Irish SMEs

### Usage of social media platform

Social media	Percentage
	96.23%
	39.62%
	20.75%
	58.49%
	39.62%
	11.32%

### 14.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 92.86%, whilst the second is sending a reservation request (80.36%), followed by booking online (78.57%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 58.93%, followed by instant communication when booking online (53.57%), and both booking online as well as making contact via email (both at 48.21%)

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

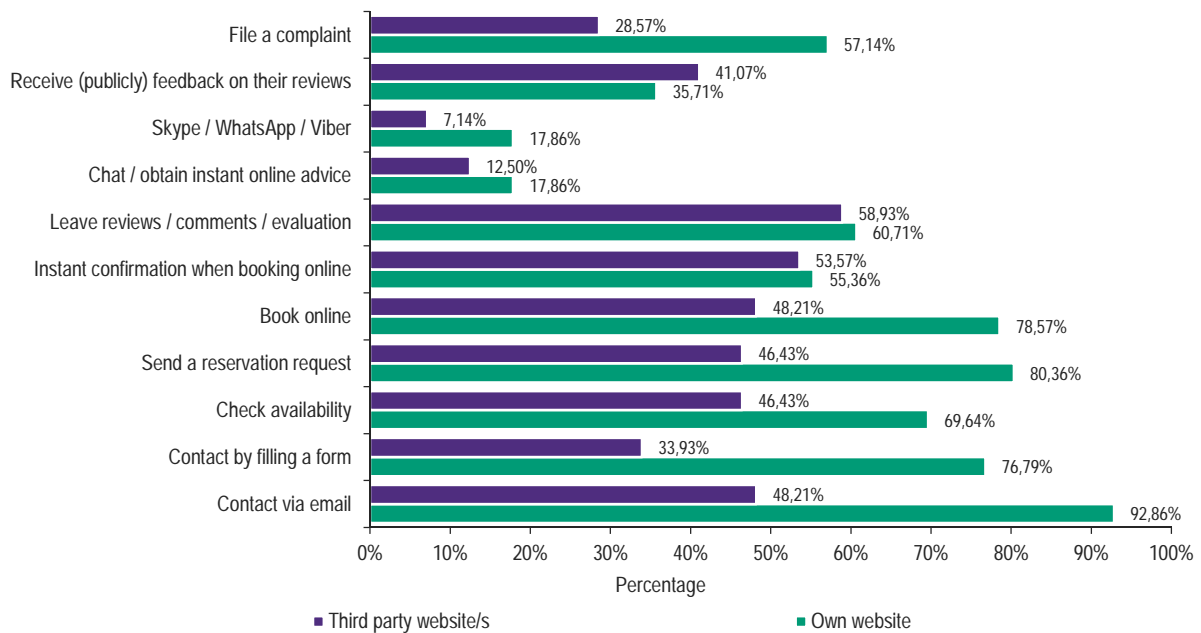


Figure 3ii.133: Usage of Websites by Irish SMEs

### 14.3 Data Processing

#### 14.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Ireland, information on customers is stored by 42% of businesses (Figure 3ii.14).

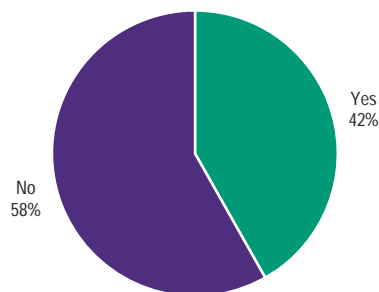


Figure 3ii.134: Irish SMEs Storing Customer Information

Further analysis (Figure 3ii.135) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 67.86% of the businesses that store customer information. There are high percentages of businesses that make use of Excel spreadsheets (46.43%), and paper records (32.14%), to store data.

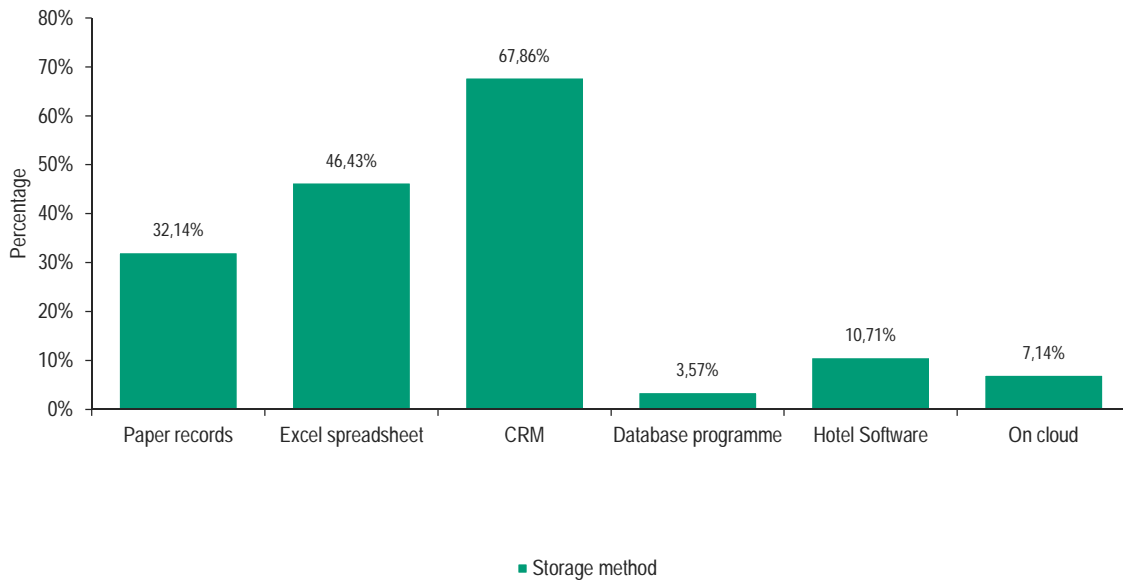


Figure 3ii.135: Methods for Storing Customer Information by Irish SMEs

### 14.3.2 Time Spent on Each Device

Conclusions show that Irish businesses spend the highest amount of time on desktop computers (44%), whilst they spend the least time on tablets (7%) (Figure 3ii.136).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

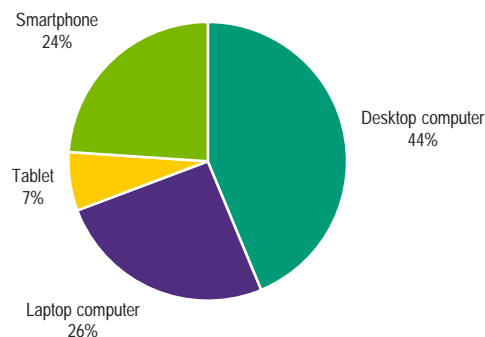


Figure 3ii.136: Percentage of Time Spent on Device to Conduct Business by Irish SMEs

## 14.4 Attitudes Towards Digitalisation

### 14.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Irish businesses are optimistic about future opportunities (87%), increased growth (84%) and believe that an online presence is important (84%) (Figure 3ii.137).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

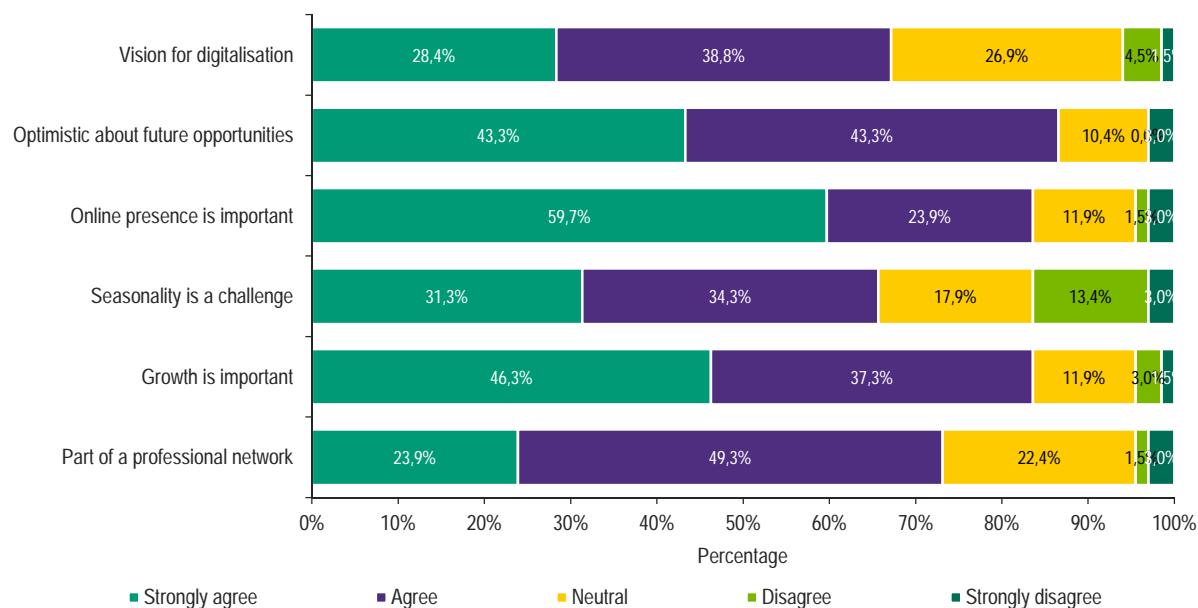


Figure 3ii.137: Irish SMEs' Motivation To Get Digitalised

### 14.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Irish businesses that digitalisation allows for growth in the market for products (84%), improves customer satisfaction (76%), and enables the more effective management of business (75%) (Figure 3ii.138). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered the highest percentages of neutral (39%) and disagreement results (13%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

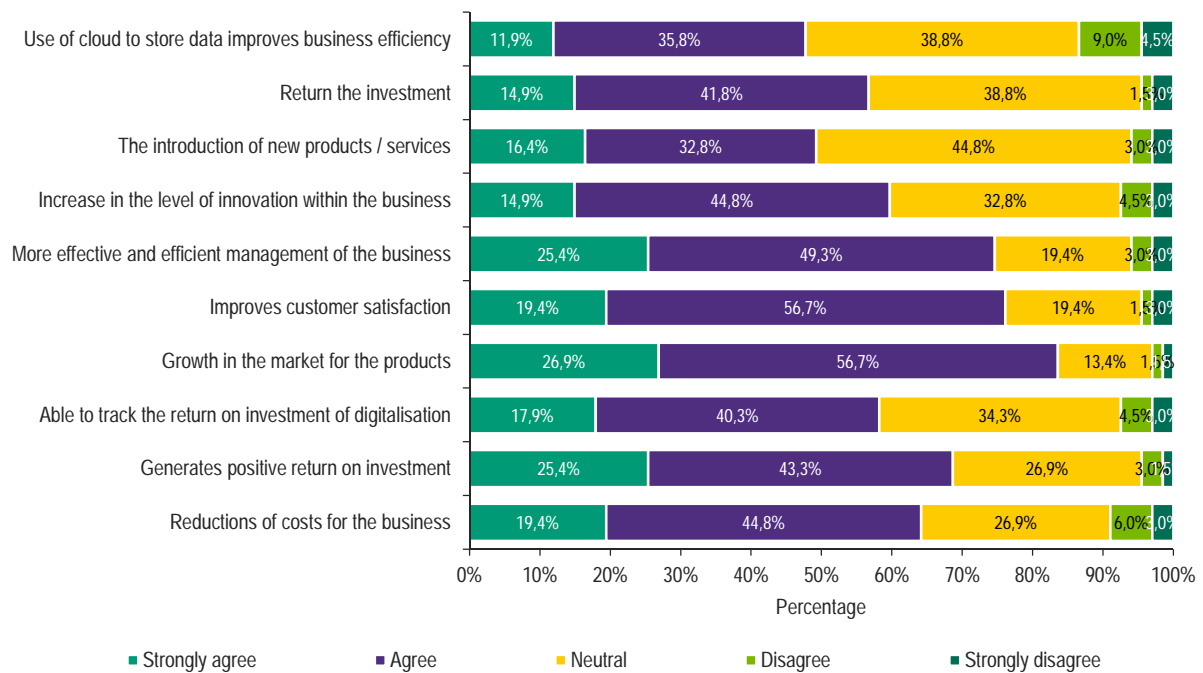


Figure 3ii.138: Advantages Expected/Experienced by Irish SMEs from Digitalisation

## 14.4 Challenges

### 14.4.1 Difficulties in the Implementation of New Digital Technologies

Irish businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of a new digital technology (69%) (Figure 3ii.139). Other difficulties encountered by businesses include concerns over the technology becoming obsolete before they can a return on their investment (36%), and insufficient technical knowledge to make informed choices (46%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

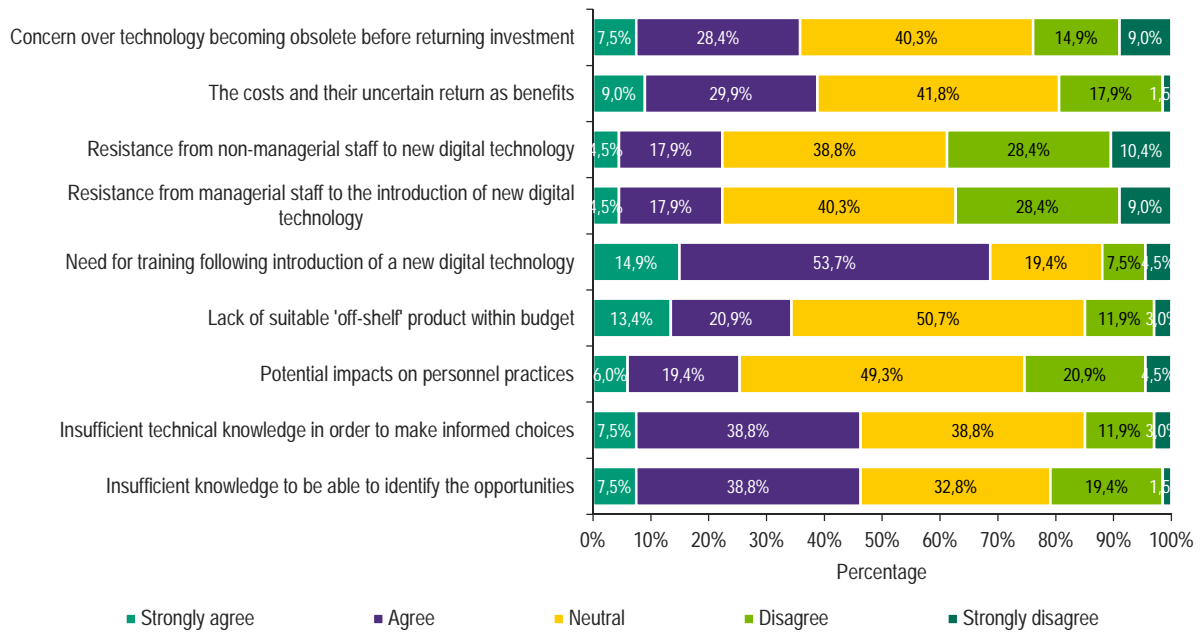


Figure 3ii.139: Irish SMEs' Difficulty in the Implementation of New Technology



### 14.4.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is rapid technological change (51.5%) (Figure 3ii.140). Apart from this, the main issue for businesses that wish to improve digitalisation is that current technology is found to be sufficient (48.5%), and poor internet connectivity/infrastructure creates problems, (47%), as indicated by Irish businesses. The lack of importance of business growth (25.7%), and increased costs (27.2%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

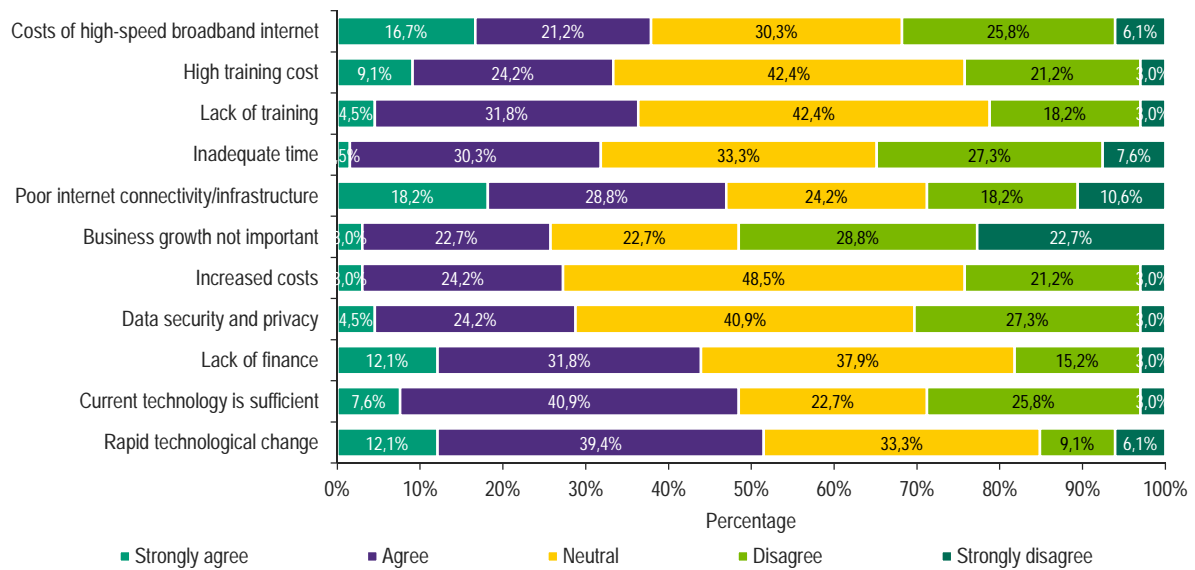


Figure 3ii.140: Irish SMEs' obstacles Preventing Them from Further Improving Digitalisation

# 15 Italy

## 15.1 Level of Digitalisation

Findings show that 91.47% of businesses in Italy use emails as a digital technology (Figure 3ii.141). Other technologies that rank high include the use of websites (86.05%), basic office software (86.05%), and internet banking (75.97%). On the other hand, Italian businesses are least likely to use computerised stock control systems (2.33%), online professional networks (6.20%), and Property Management Systems (PMS) (9.30%) (Figure 3ii.142).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

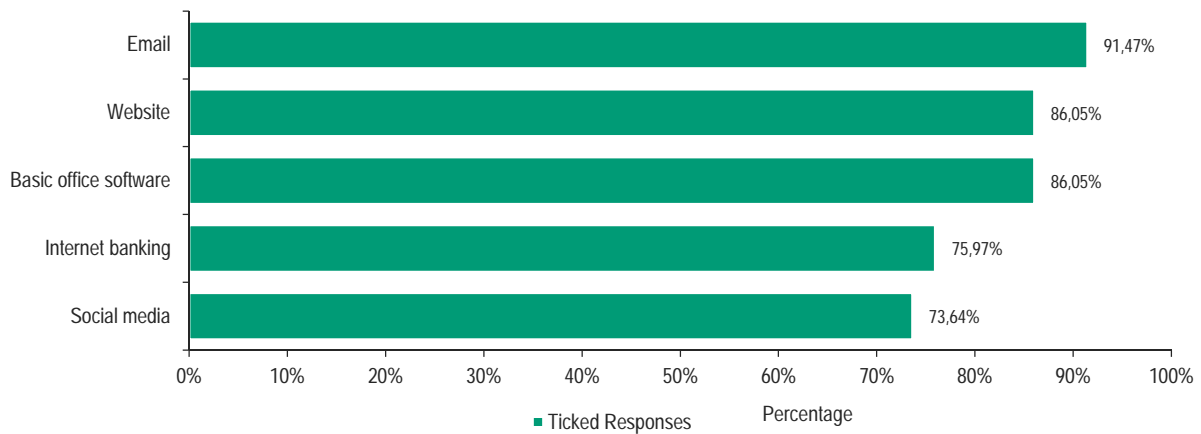


Figure 3ii.141: Digitalisation Adopted by Italian SMEs

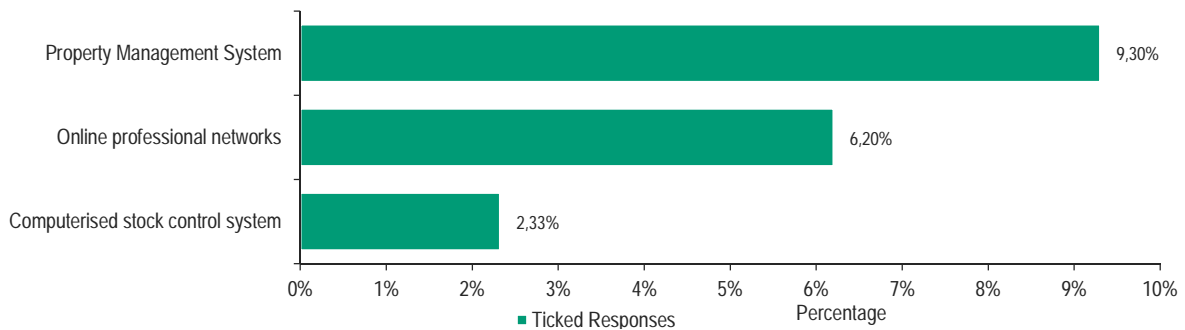


Figure 3ii.142: Digitalisation Least Adopted by Italian SMEs

## 15.2 Social Media and Websites

### 15.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Italy at 100% (Table 3ii.15). Businesses in Italy also use Instagram (31.82%), Pinterest (15.91%) and Twitter (29.55%). However, LinkedIn ranked low at 18.18%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 1.14% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.15: Social Media used by Italian SMEs

**Usage of social media platform**

Social media	Percentage
	100%
	31.82%
	15.91%
	29.55%
	18.18%
	1.14%

**15.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses’ own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 93.60%, whilst the second is sending a reservation request (83.78%), followed by contact by filling in a form (58.56%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 54.05%, followed by instant confirmation when booking online, sending a reservation request and contact via email (all three at 45.05%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

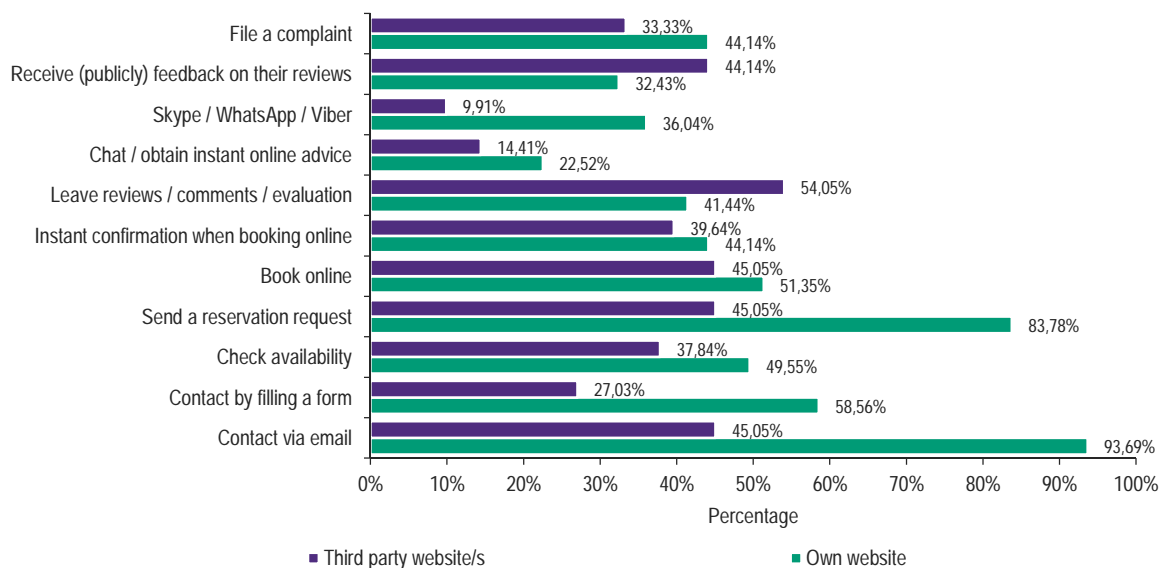


Figure 3ii.143: Usage of Websites by Italian SMEs

## 15.3 Data Processing

### 15.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Italy, information on customers is stored by 65% of businesses (Figure 3ii.144).

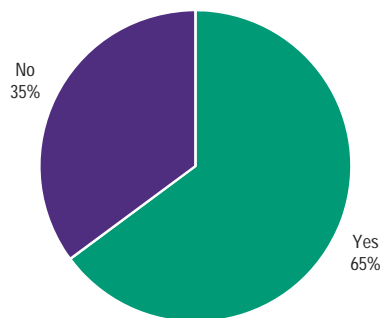


Figure 3ii.144: Italian SMEs Storing Customer Information

Further analysis (Figure 3ii.145) shows that data storage is mainly done through Excel spreadsheets, which are used by 45.78% of the businesses that store customer information. There are high percentages of businesses that make use of paper records (31.33%) and Customer Relationships Management tools (CRM) (25.30%) to store data.

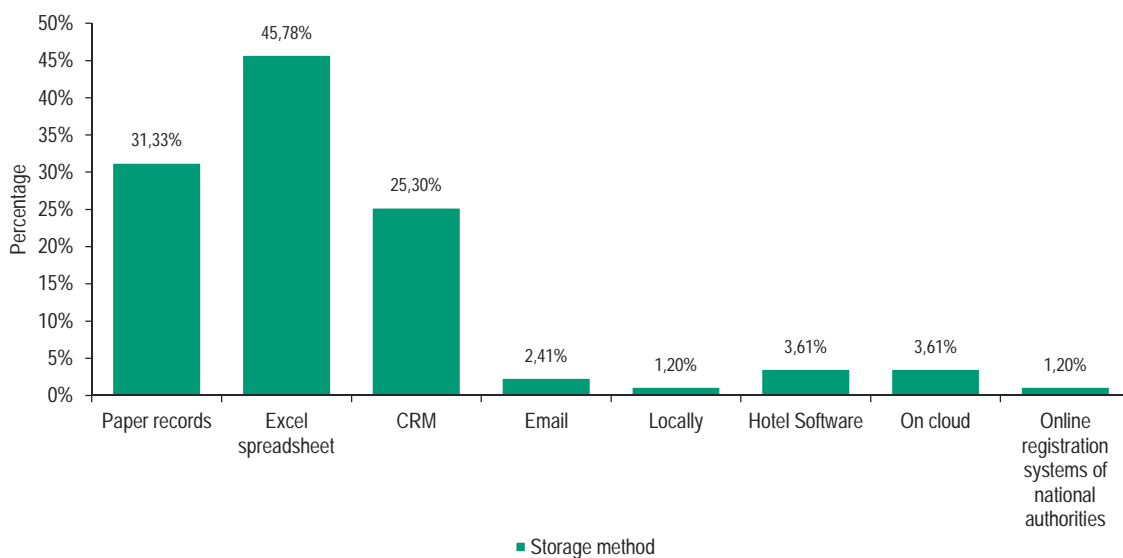


Figure 3ii.145: Methods for Storing Customer Information by Italian SMEs

### 15.3.2 Time Spent on Each Device

Conclusions show that Italian businesses spend the highest amount of time on desktop computers (46%), whilst they spend the least time on tablets (5%) (Figure 3ii.146).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

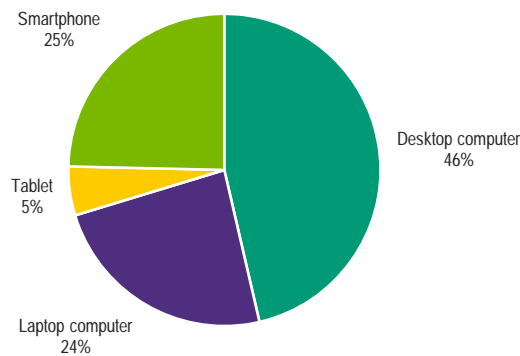


Figure 3ii.146: Percentage of Time Spent on Device to Conduct Business by Italian SMEs

## 15.4 Attitudes Towards Digitalisation

### 15.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Italian businesses seek to achieve a higher online presence (96%), increased growth (91%), and are optimistic about future opportunities (90%) (Figure 3ii.147).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

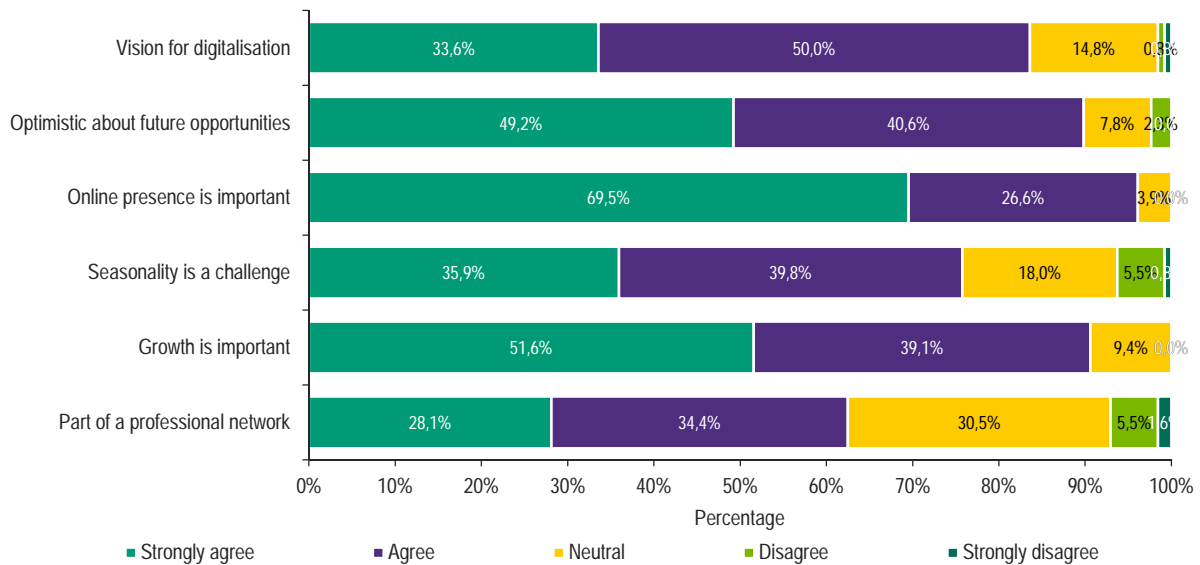


Figure 3ii.147: Italian SMEs' Motivation to Get Digitalised

### 15.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Italian businesses that digitalisation allows for growth in the market for products (82%), enables the more effective management of business (73%), and improves customer satisfaction (69%) (Figure 3ii.148). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (43%) and disagreement results (10%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

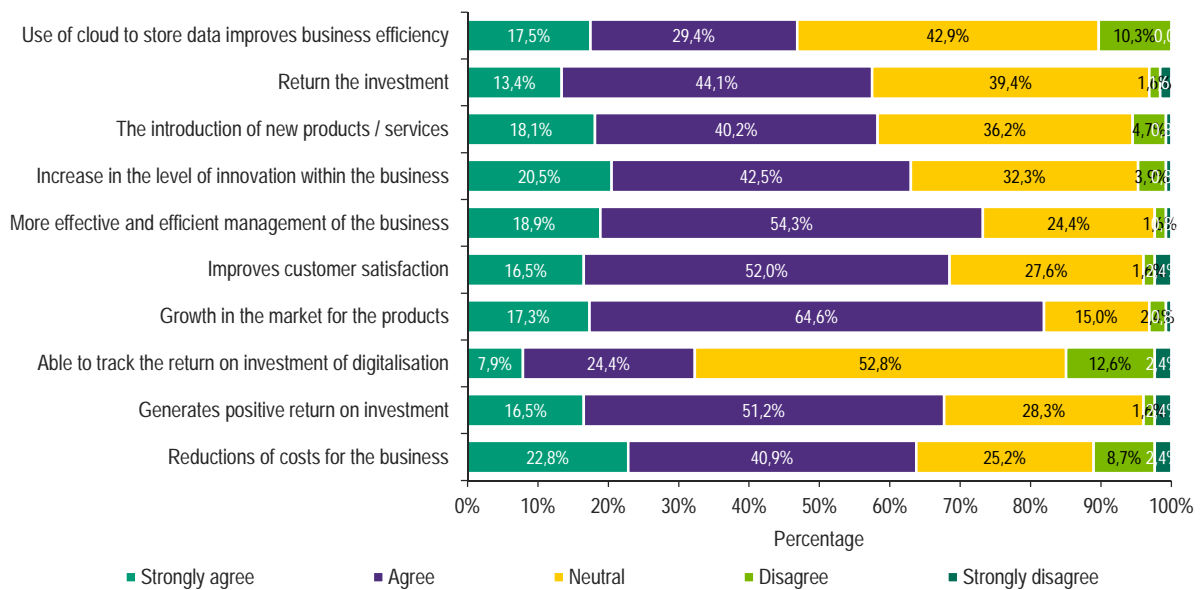


Figure 3ii.148: Advantages Expected/Experienced by Italian SMEs from Digitalisation

## 15.5 Challenges

### 15.5.1 Difficulties in the Implementation of New Digital Technologies

Italian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of a new digital technology (59%) (Figure 3ii.149). Other difficulties encountered by businesses include concerns over the technology becoming obsolete before they make a return on their investment (41%), and having insufficient technical knowledge to make informed choices (41%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

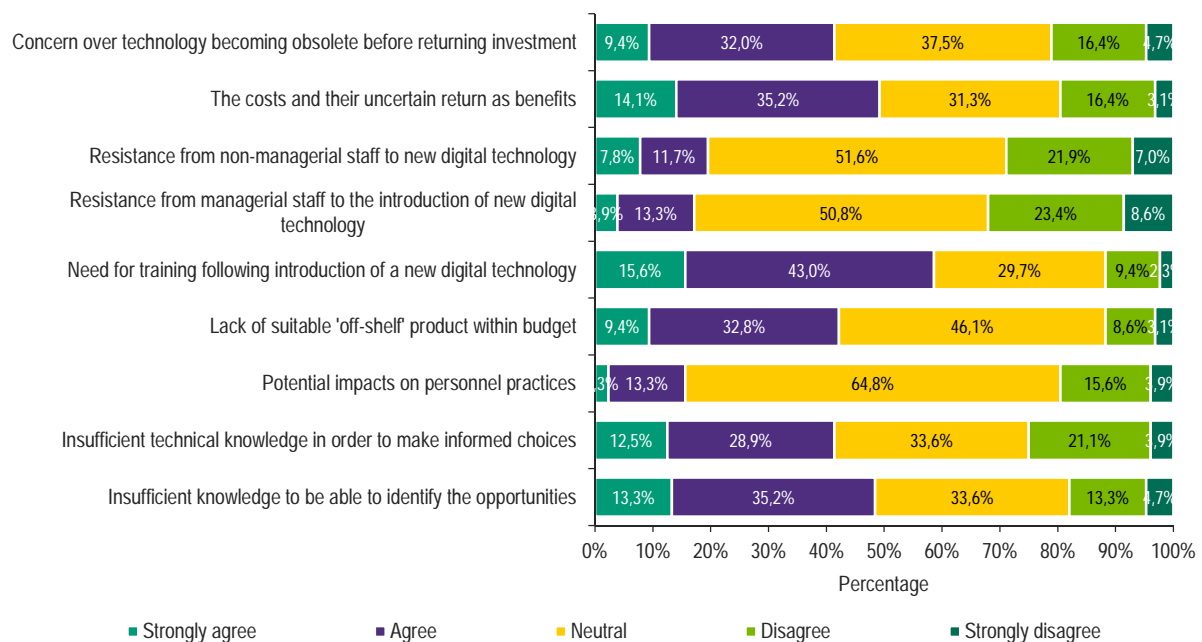


Figure 3ii.149: Italian SMEs' Difficulty in the Implementation of New Technology

### 15.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is inadequate time (75.4%) (Figure 3ii.150). Apart from this, the main issue for businesses that wish to improve digitalisation is data security and privacy issues (63.5%), and a lack of finance (61.1%), as indicated by Italian businesses. The lack of training (14.3%), and poor internet connectivity/infrastructure (15.1%), were the issues least mentioned by firms as major obstacles in the improvement of businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

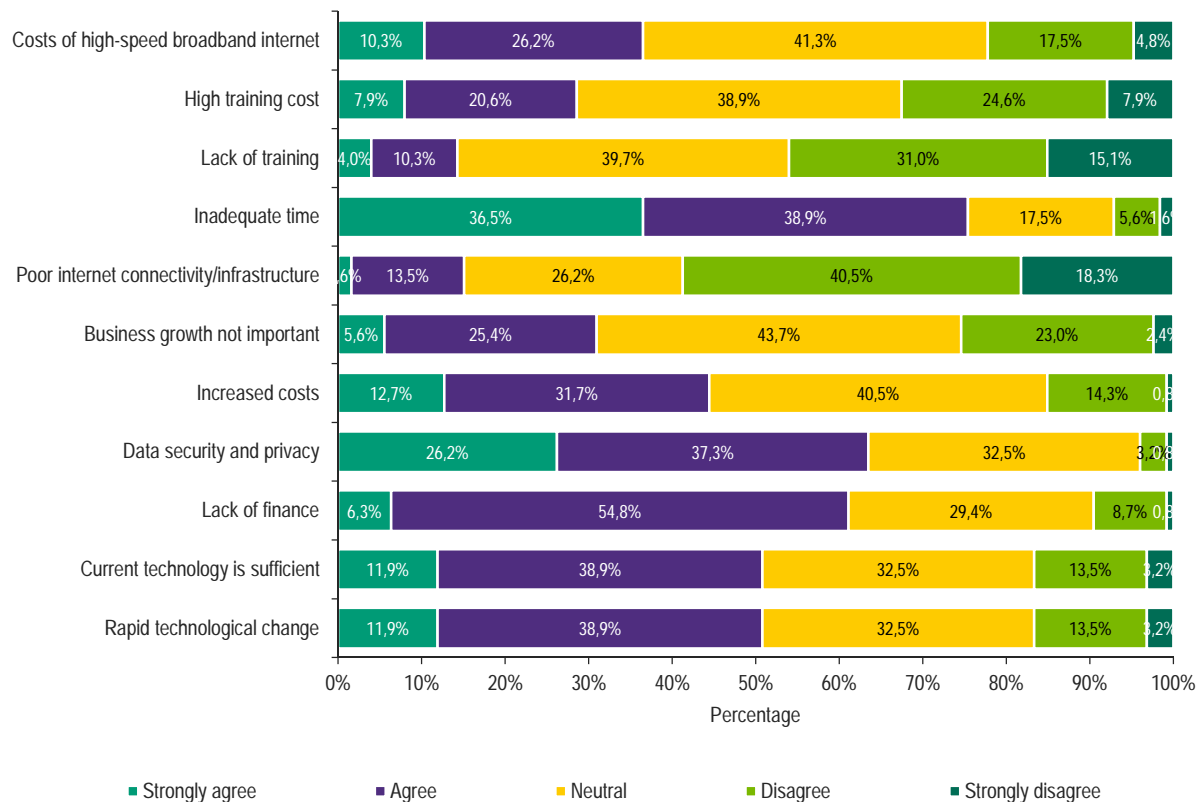


Figure 3ii.150: Italian SMEs' Obstacles Preventing Them from Further Improving Digitalisation



# 16 Latvia

## 16.1 Level of Digitalisation

Findings show that 92.59% of businesses in Latvia use internet banking as a digital technology (Figure 3ii.151). Other technologies that rank high include the use of websites (86.11%), email (85.19%), and social media (75%). On the other hand, Latvian businesses are least likely to use Property Management Systems (PMS) (0.93%), computerised customer satisfaction surveys (3.7%), and video conferencing facilities (6.48%) (Figure 3ii.152).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

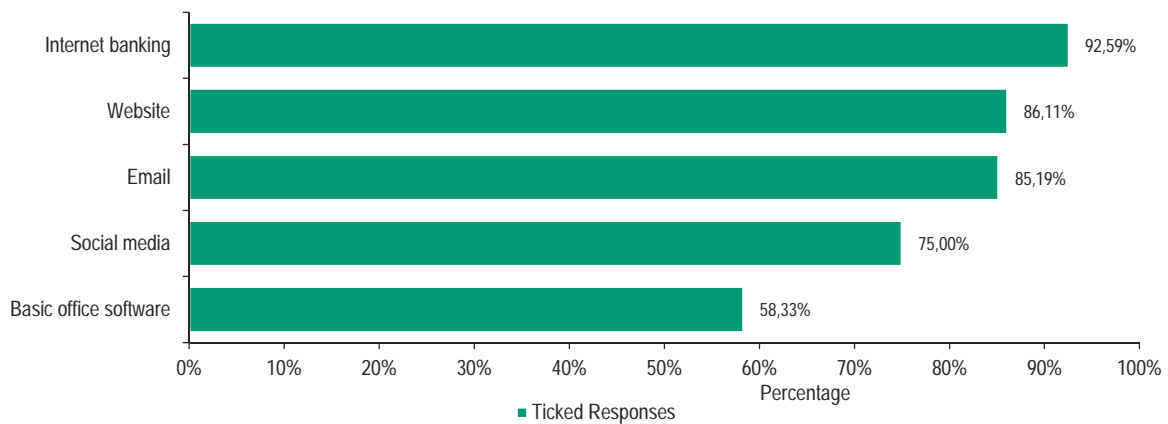


Figure 3ii.151: Digitalisation Adopted by Latvian SMEs

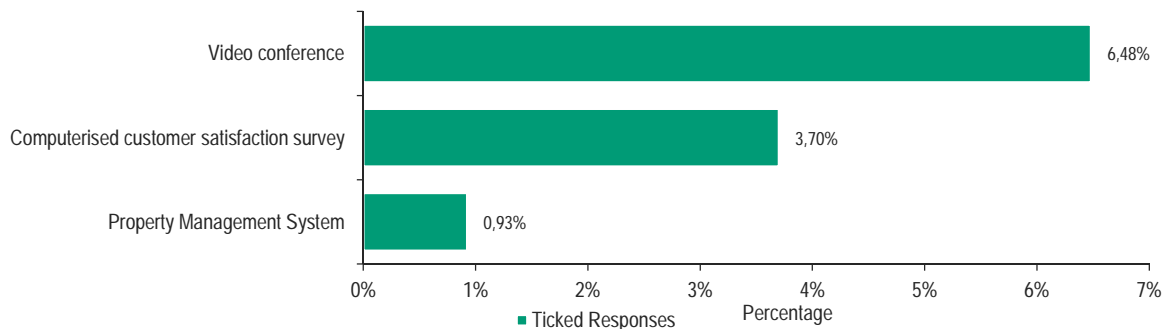


Figure 3ii.152: Digitalisation Least Adopted by Latvian SMEs

## 16.2 Social Media and Websites

### 16.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Latvia at 93.83% (Table 3ii.16). Businesses in Latvia also use Instagram (34.57%), Pinterest (8.64%) and Twitter (48.15%). However, LinkedIn ranked low at 9.8%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 22.2% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.16: Social Media used by Latvian SMEs

### Usage of social media platform

Social media	Percentage
	93.83%
	34.57%
	8.64%
	48.15%
	9.88%
	22.22%

### 16.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 87.10%, whilst the second is contact by filling a form (59.14%), followed by sending a reservation request at 55.91%. In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 37.63%, followed by receiving public feedback on their reviews (29.03%), and booking online and sending a reservation request (both at 27.96%).

Respondents who chose websites in the first question (Section 1.1) were asked:

### Can your customers do the following on your website or via third-party websites you use to provide services?

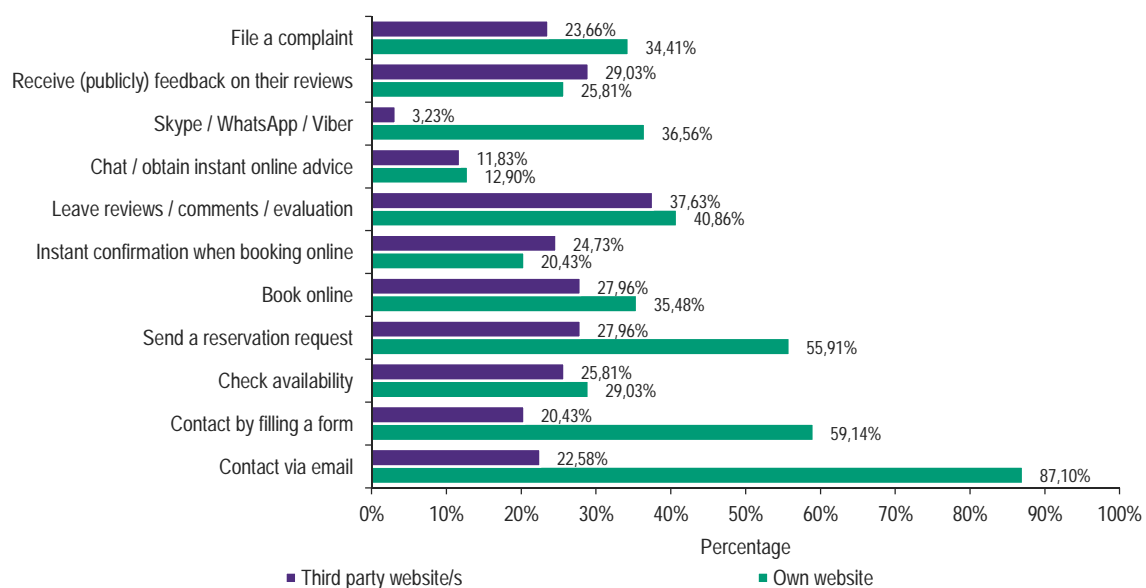


Figure 3ii.153: Usage of Websites by Latvian SMEs

## 16.3 Data Processing

### 16.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question

#### Where do you store the information?

Research shows that, in Latvia, information on customers is stored by 65% of businesses (Figure 3ii.154).

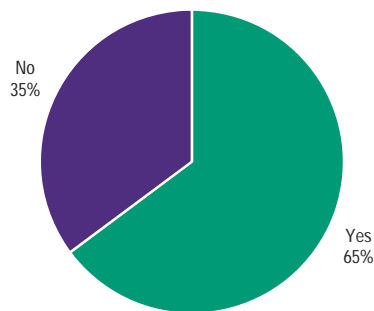


Figure 3ii.154: Latvian SMEs Storing Customer Information

Further analysis (Figure 3ii.155) shows that data storage is mainly done through paper records; this is used by 47.14% of the businesses that store customer information. There are high percentages of businesses that make use of Excel spreadsheets (44.29%), and Customer Relationship Management tools (CRM) (24.29%) to store data.

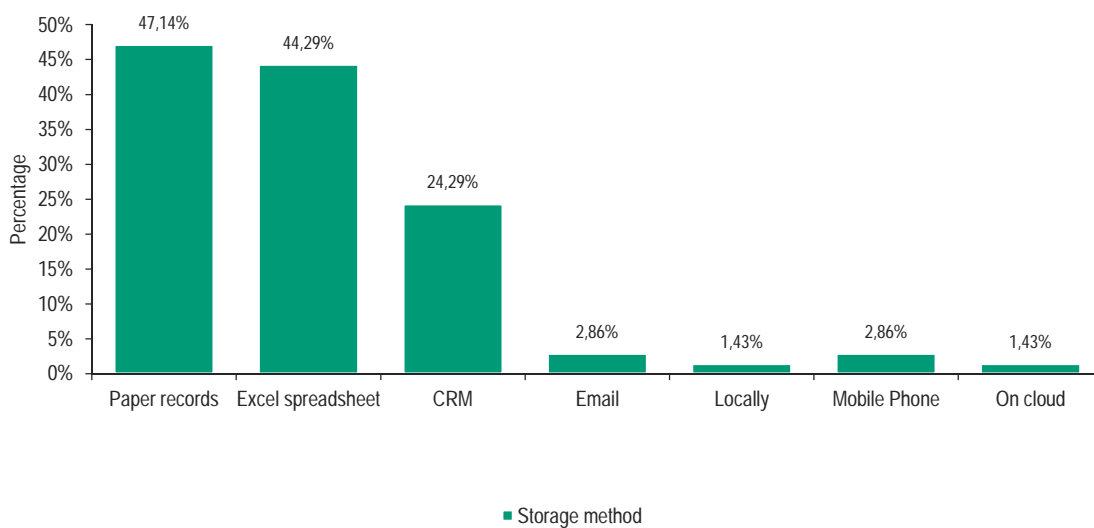


Figure 3ii.155: Methods for Storing Customer Information by Latvian SMEs

### 16.3.2 Time Spent on Each Device

Conclusions show that Latvian businesses spend the highest amount of time on desktop computers (37%), whilst they spend the least time on tablets (3%) (Figure 3ii.156).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

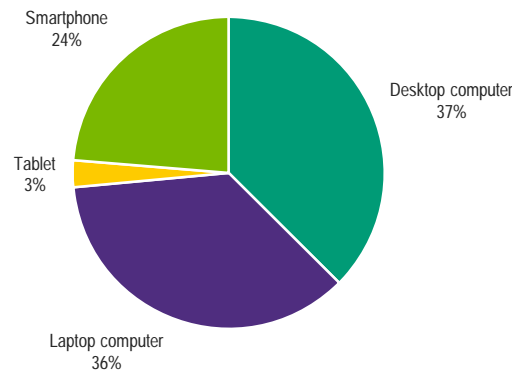


Figure 3ii.156: Percentage of Time Spent on Device to Conduct Business by Latvian SMEs

## 16.4 Attitudes Towards Digitalisation

### 16.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Latvian businesses seek to achieve higher online presence (94%), increase growth (93%), and are optimistic about future opportunities (83%) (Figure 3ii.157).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

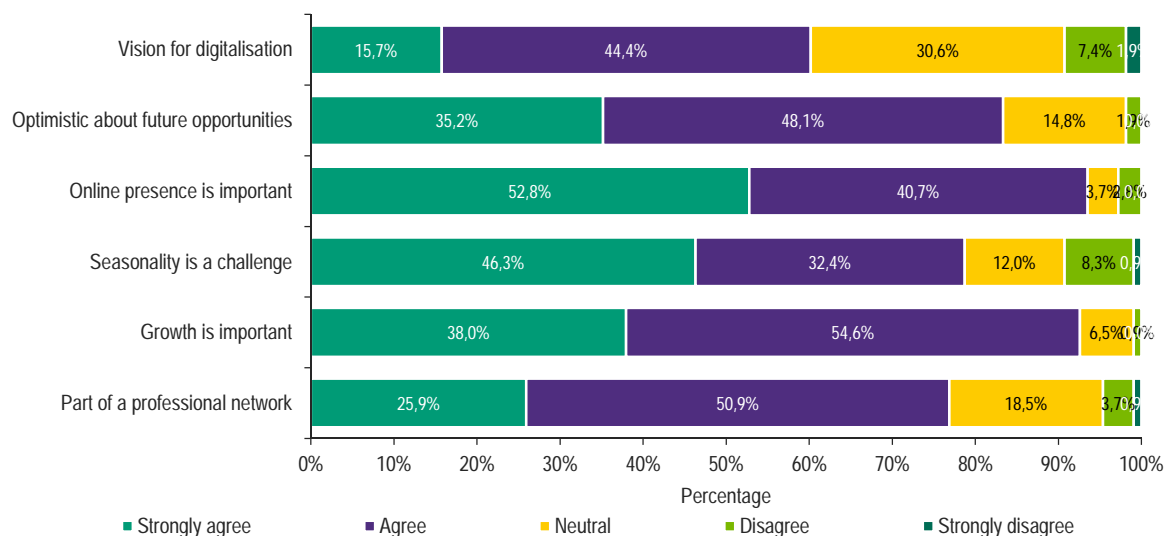


Figure 3ii.157: Latvian SMEs' Motivation to Get Digitalised

## 16.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Latvian businesses that digitalisation enables more effective management of business (71%), enables growth in the market for products (72%), and generates a positive return on investment (60%) (Figure 3ii.158). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered high percentages of neutral (43%) and disagreement results (20%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

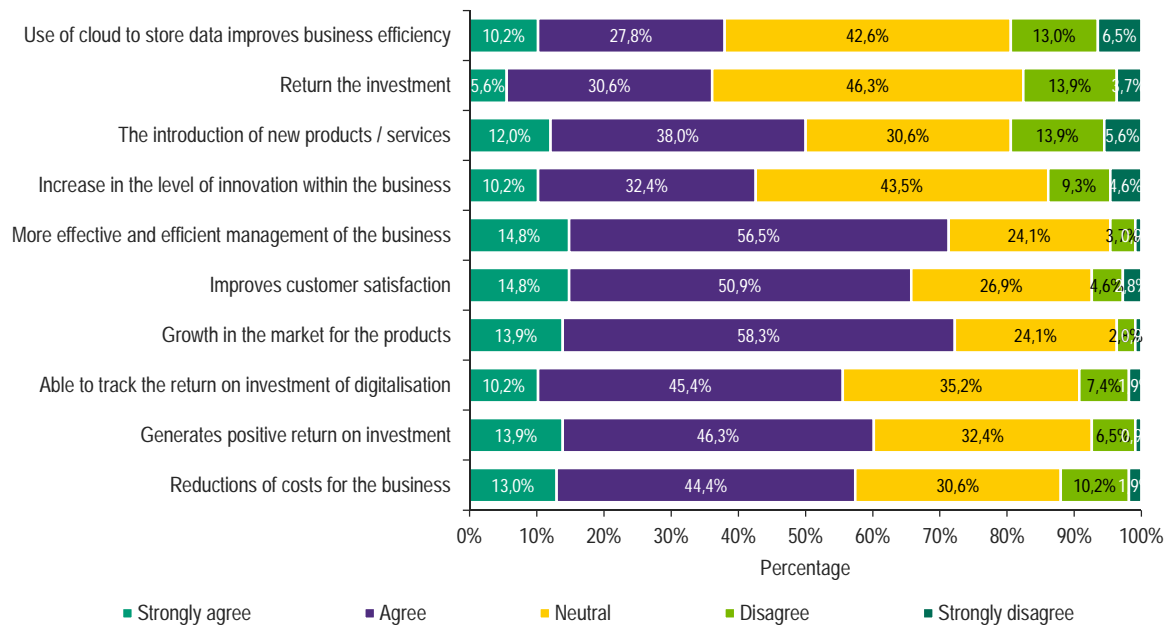


Figure 3ii.158: Advantages Expected/Experienced by Latvian SMEs from Digitalisation

## 16.5 Challenges

### 16.5.1 Difficulties in the Implementation of New Digital Technologies

Latvian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of that new digital technology (70%) (Figure 3ii.159). Other difficulties encountered by businesses include concerns over the technology becoming obsolete before they make a return on their investment (49%), and the insufficient technical knowledge to make informed choices (69%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

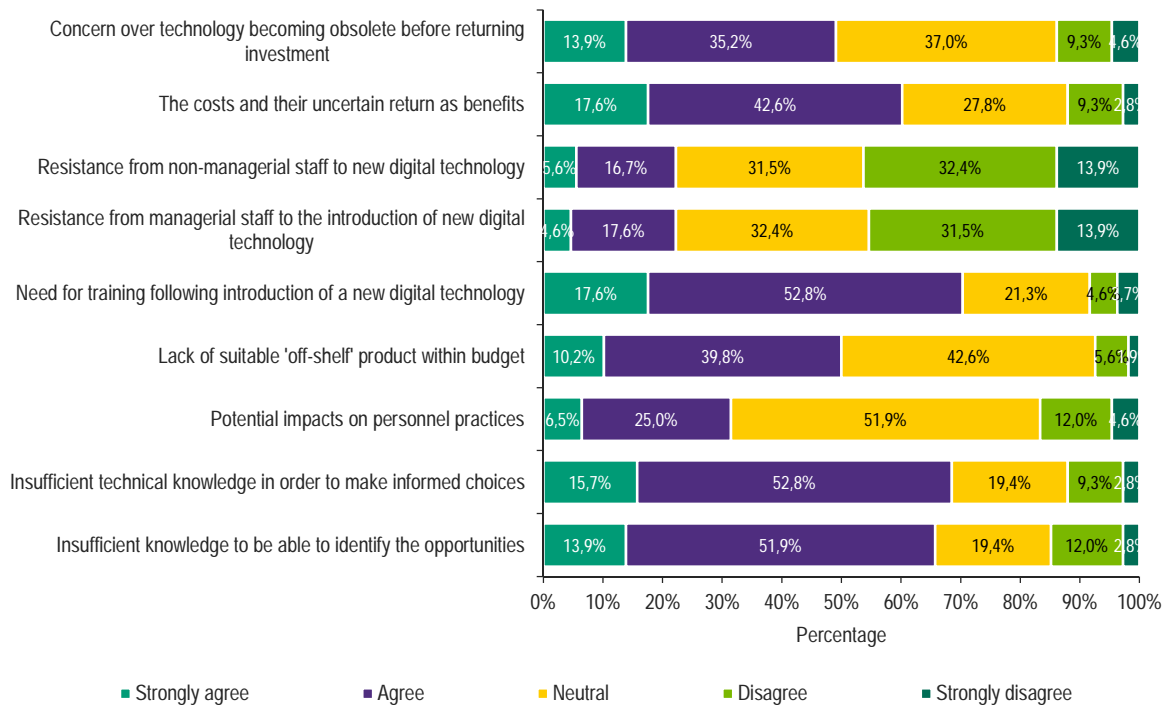


Figure 3ii.159: Latvian SMEs' Difficulty in the Implementation of New Technology

### 16.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is the belief that the current technology in use by the business is sufficient to meet their needs (61.1%) (Figure 3ii.160). Apart from this, the main issue for businesses that wish to improve digitalisation is a lack of finance (60.2%) and rapid technological change (53.7%), as indicated by Latvian businesses. Inadequate time (26.8%), the lack of importance of business growth, and increased costs (both at 35.2%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

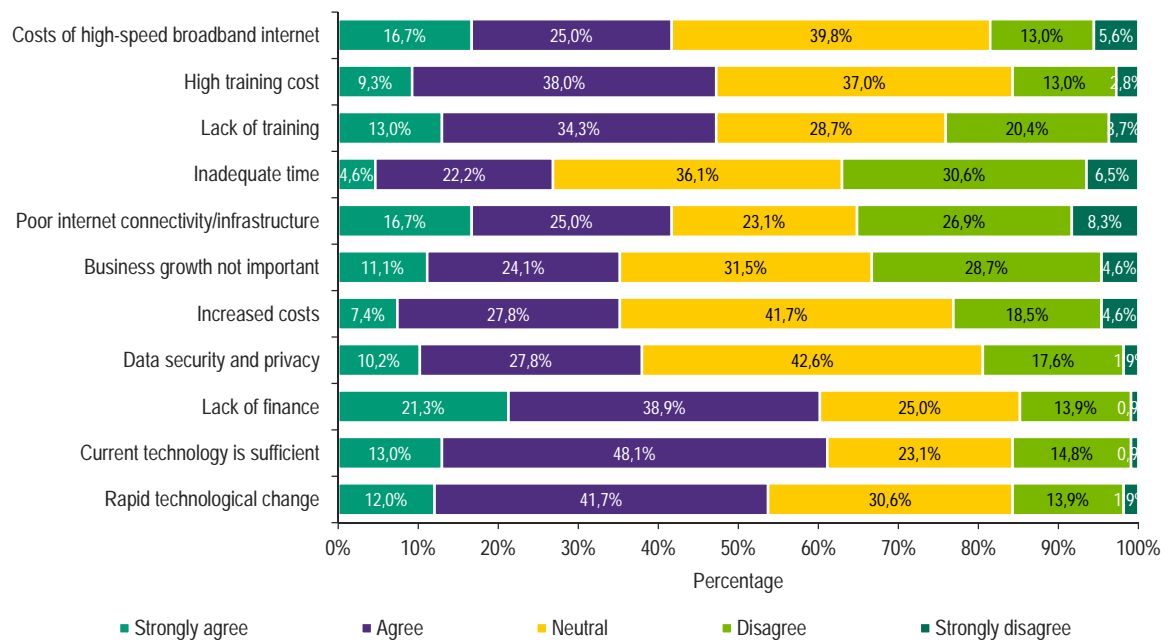


Figure 3ii.160: Latvian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 17 Lithuania

## 17.1 Level of Digitalisation

Findings show that 92.91% of businesses in Lithuania use email as a digital technology (Figure 3ii.161). Other technologies that rank high include the use of internet banking (85.82%), basic office software (84.40%), and websites (79.43%). On the other hand, Lithuanian businesses are least likely to use computerised stock control systems (2.84%), online professional networks (7.09%), and computerised ticketing systems (7.80%) (Figure 3ii.162).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

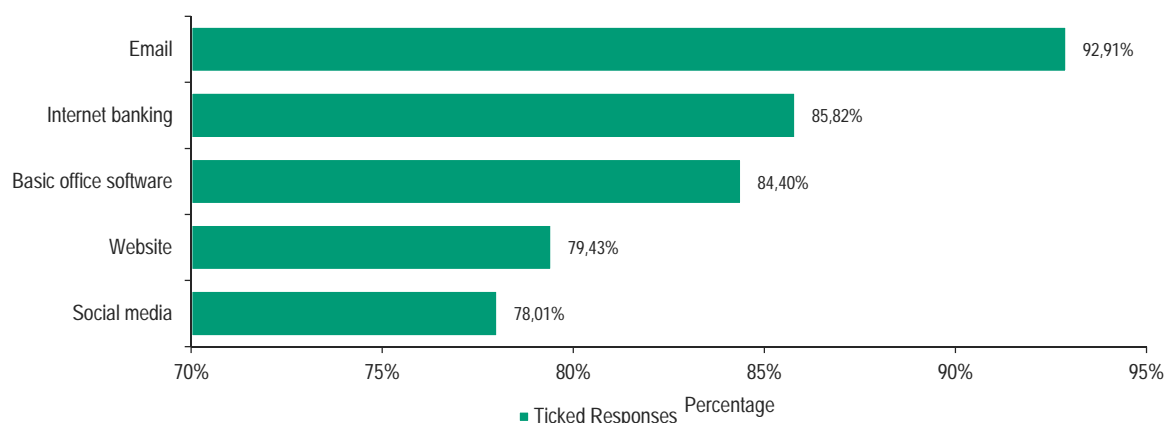


Figure 3ii.161: Digitalisation Adopted by Lithuanian SMEs

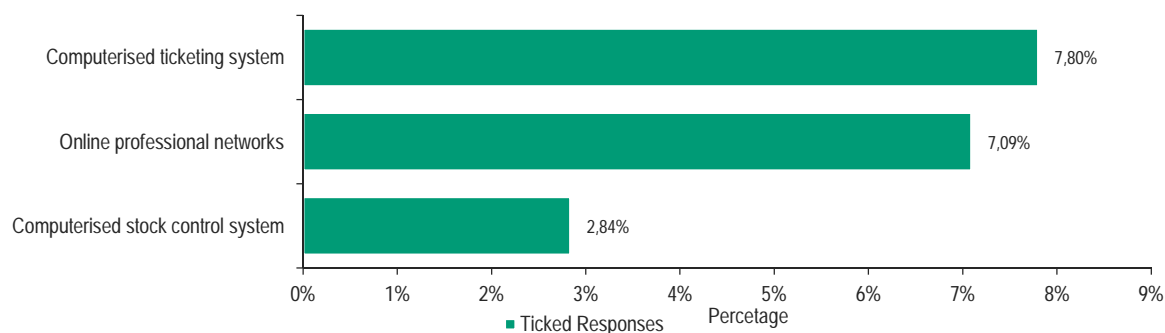


Figure 3ii.162: Digitalisation Least Adopted by Lithuanian SMEs

## 17.2 Social Media and Websites

### 17.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Lithuania at 100% (Table 3ii.17). Businesses in Lithuania also use Instagram (19.09%), Pinterest (3.64%) and Twitter (17.27%). However, LinkedIn ranked low at 10%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 1.82% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:



## Which social media platform does your business use?

Table 3ii.17: Social media Used by Lithuanian SMEs

### Usage of social media platform

Social media	Percentage
	100%
	19.09%
	3.64%
	17.27%
	10.00%
	1.82%

### 17.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 87.50%, followed by sending a reservation request and leaving reviews, comments and evaluations (59.82%). In the case of businesses using third-party websites, the most common feature available is to leave reviews, comments and evaluation at 32.14%, followed by contact through email (28.57%), and filing a complaint (27.68%).

Respondents who chose websites in the first question (Section 1.1) were asked:

### Can your customers do the following on your website or via third-party websites you use to provide services?

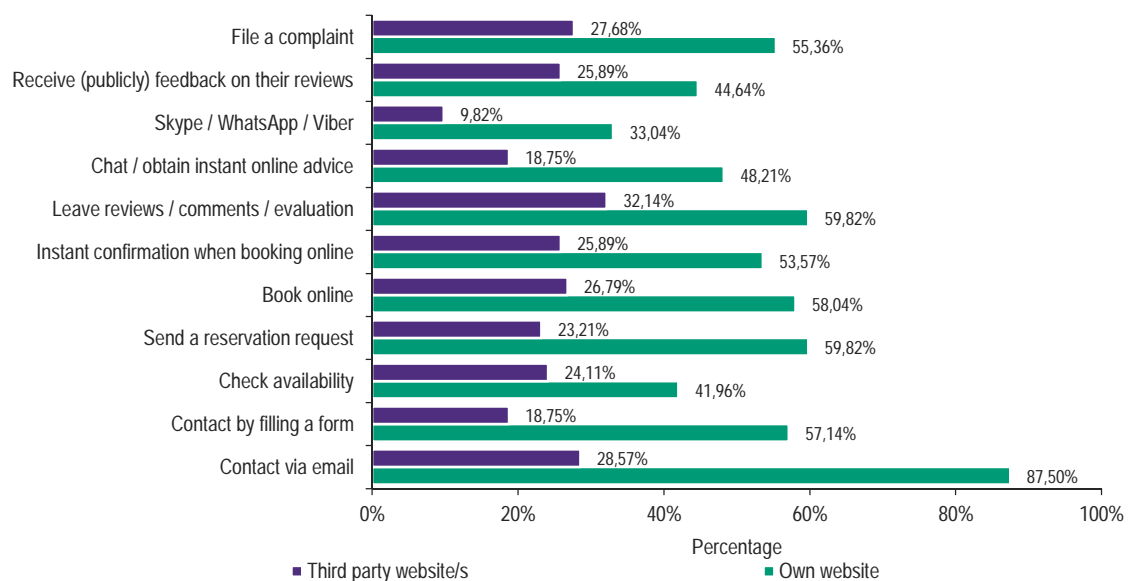


Figure 3ii.163: Usage of Websites by Lithuanian SMEs

## 17.3 Data Processing

### 17.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Lithuania, information on customers is stored by 71% of businesses (Figure 3ii.164).

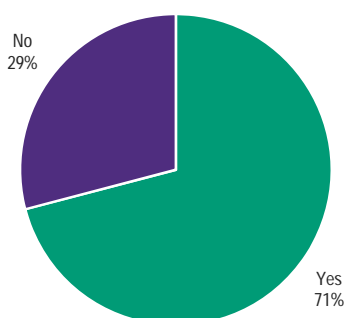


Figure 3ii.164: Lithuanian SMEs Storing Customer Information

Further analysis (Figure 3ii.165) shows that data storage is mainly carried out through email, which is used by 90% of the businesses that store customer information. This is followed by the use of paper records (50%), and Excel spreadsheets (47%), to store data.

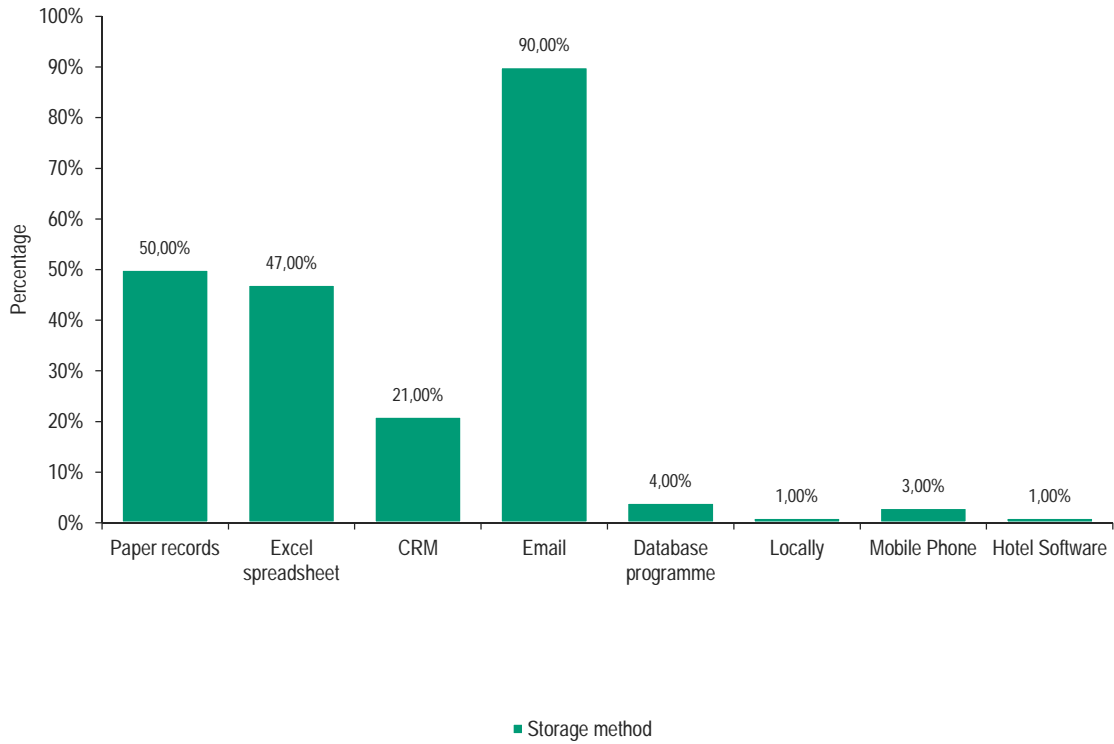


Figure 3ii.165: Methods for Storing Customer Information by Lithuanian SMEs

### 17.3.2 Time Spent on Each Device

Conclusions show that Lithuanian businesses spend the highest amount of time on desktop computers (46%), whilst they spend the least time on tablets (5%) (Figure 3ii.166).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

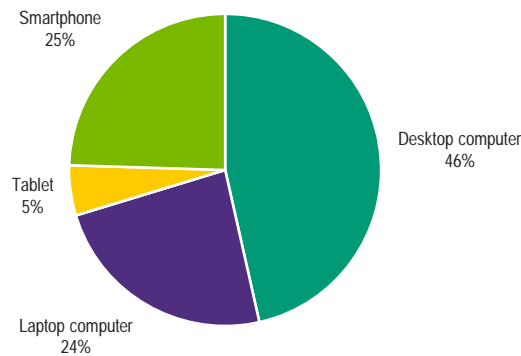


Figure 3ii.166: Percentage of Time Spent on Device to Conduct Business by Lithuanian SMEs

## 17.4 Attitudes Towards Digitalisation

### 17.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Lithuanian businesses seek to increase growth (87%), achieve a higher online presence (86%), and have a vision for digitalisation (84%) (Figure 3ii.167).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

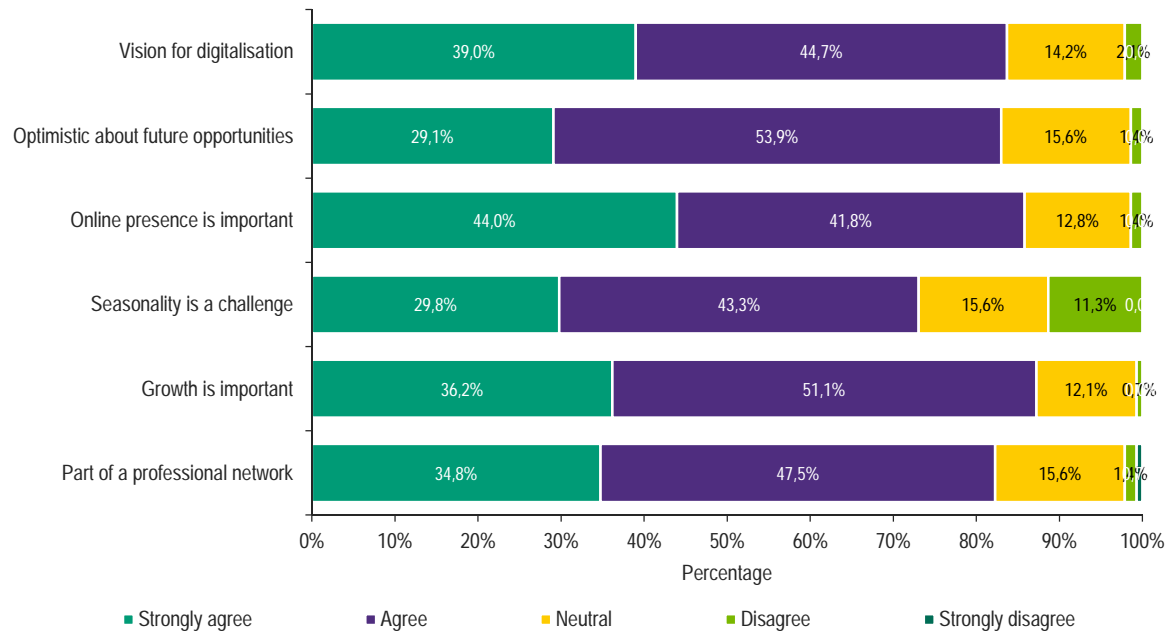


Figure 3ii.167: Lithuanian SMEs' Motivation to Get Digitalised

### 17.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Lithuanian businesses that digitalisation enables the introduction of new products/services (87%), allows for growth in the market for products (84%), and ensures the more effective and efficient management of business (82%) (Figure 3ii.168). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered the highest percentages of neutral (50%) and high disagreement results (14%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

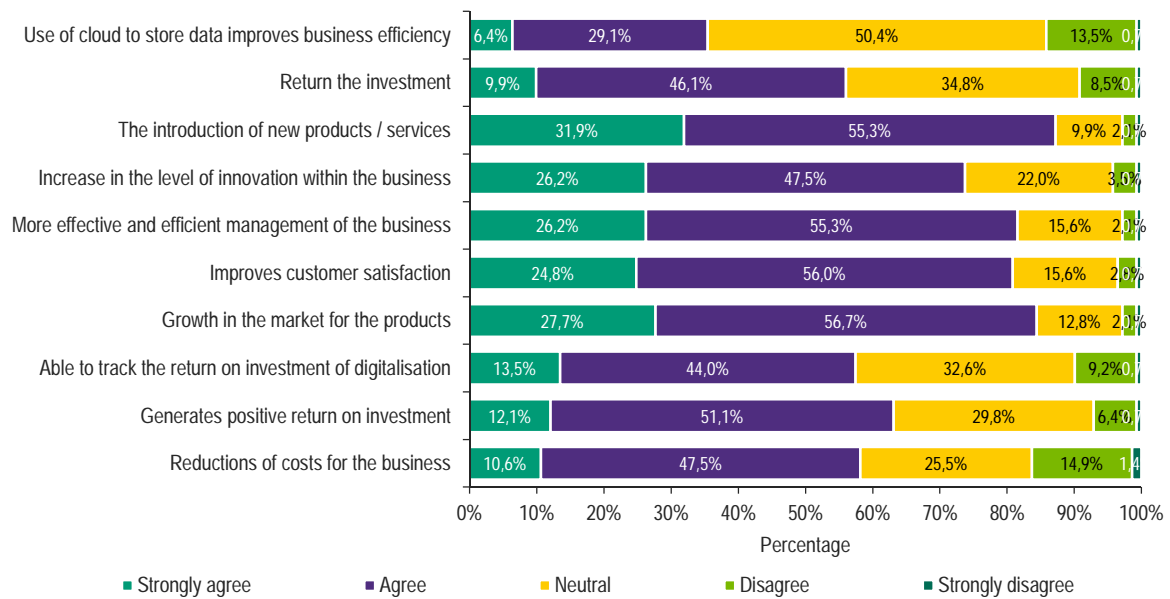


Figure 3ii.168: Advantages Expected/Experienced by Lithuanian SMEs from Digitalisation

## 17.5 Challenges

### 17.5.1 Difficulties in the Implementation of New Digital Technologies

Lithuanian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to having insufficient knowledge to be able to identify the opportunities (65%) (Figure 3ii.169). Other difficulties encountered by businesses include concerns over technology becoming obsolete before they can make a return on their investment (36%), and the insufficient technical knowledge to make informed choices (60%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

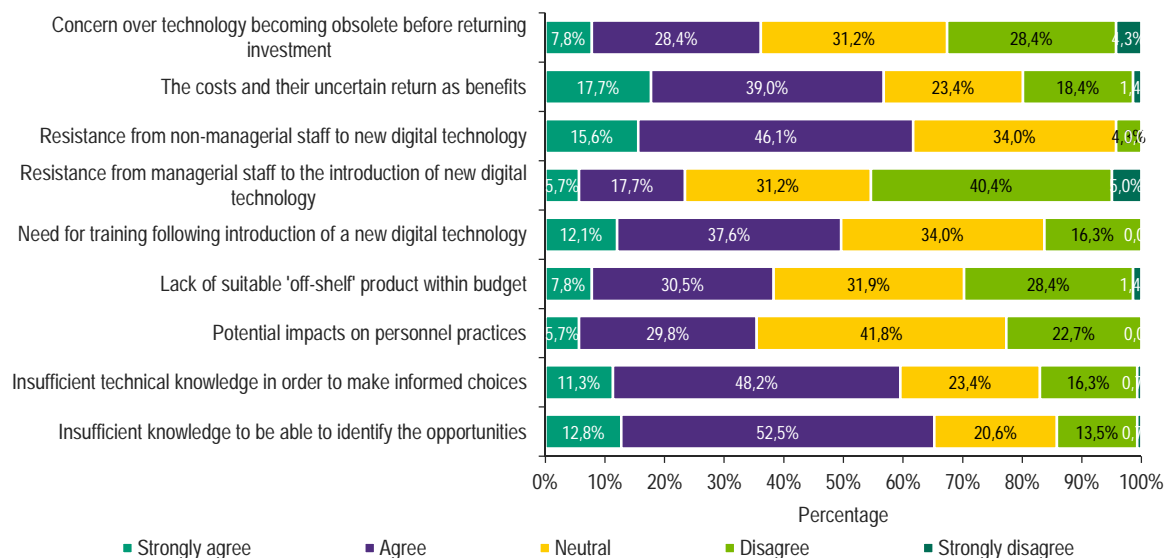


Figure 3ii.169: Lithuanian SMEs' Difficulty in the Implementation of New Technology

### 17.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is a lack of finance (80.9%) (Figure 3ii.170). Apart from this, the main issue for businesses that wish to improve digitalisation is rapid technological change (75.9%) and their current technology being sufficient (63.1%), as indicated by Lithuanian businesses. The lack of importance of business growth (26.9%), and poor internet connectivity/infrastructure (41.2%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

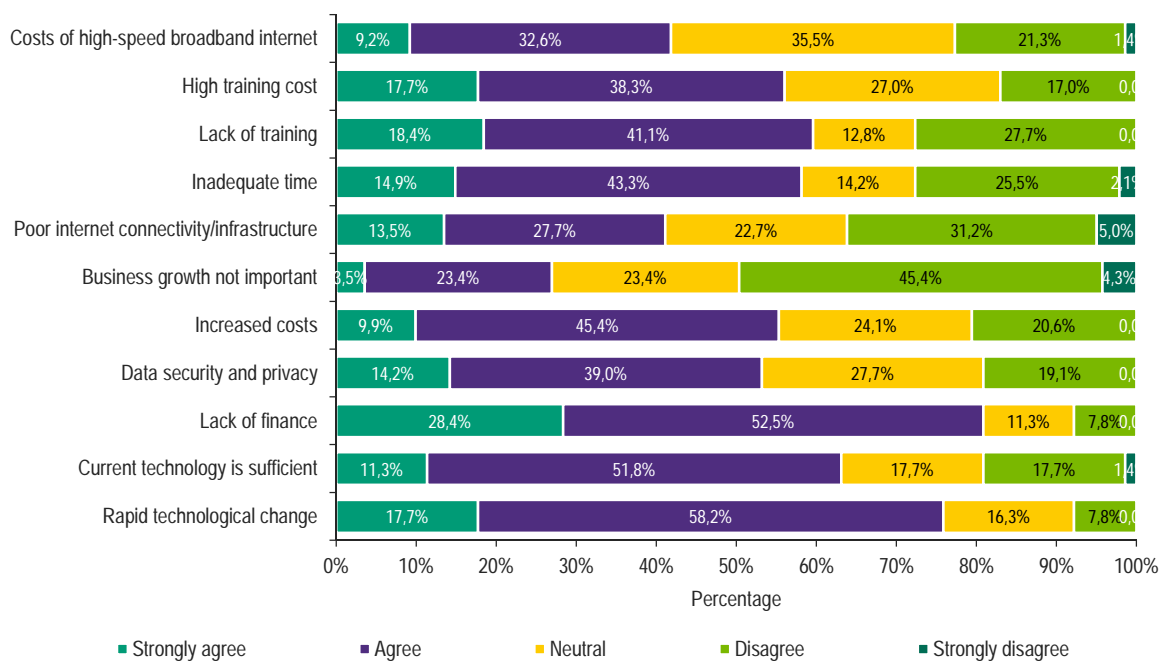


Figure 3ii.170: Lithuanian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 18 Luxembourg

## 18.1 Level of Digitalisation

Findings show that 95.83% of businesses in Luxembourg use website as a digital technology (Figure 3ii.171). Other technologies that rank high include the use of basic office software (89.58%), email (83.33%) and social media (68.75%). On the other hand, businesses in Luxembourg are least likely to use chat/instant online advice (2.08%), Property Management Systems (PMS) (4.17%), and mobile apps (6.25%) (Figure 3ii.172).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

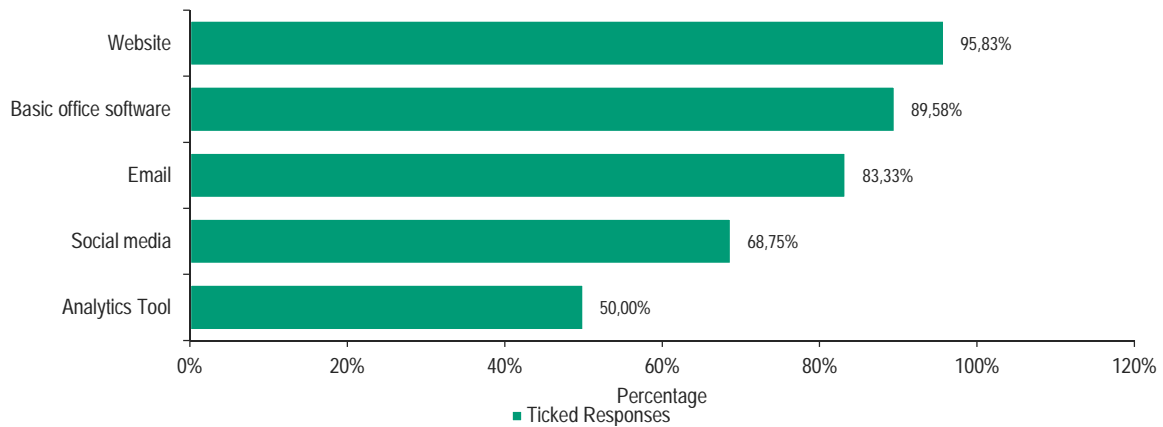


Figure 3ii.171: Digitalisation Adopted by SMEs in Luxembourg

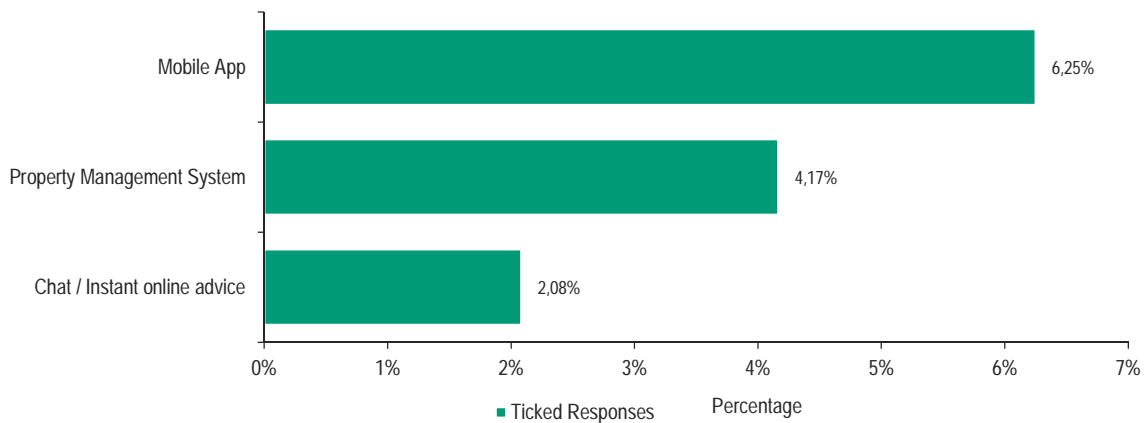


Figure 3ii.172: Digitalisation Least Adopted by SMEs in Luxembourg

## 18.2 Social Media and Websites

### 18.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Luxembourg at 100% (Table 3ii.18). Businesses in Luxembourg also use Instagram (6.06%), Pinterest (6.06%) and Twitter (42.42%). However, LinkedIn ranked at 15.15%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 3.03% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.18: Social Media used by SMEs in Luxembourg

### Usage of social media platform

Social media	Percentage
	100%
	6.06%
	6.06%
	42.42%
	15.15%
	3.03%

### 18.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website as well, as on third-party websites that the businesses use. The most common feature available to both businesses using their own website and third-party websites is the email function standing at 89.13% and 82.61% respectively. In the case of businesses having their own website, the second most common feature available is sending a reservation request (58.70%), followed by filing a complaint (56.52%). Other common functionality features for the businesses using third-party websites include the functionality of leaving reviews and availability checks, which ranked second (50%) and third (28.26%) respectively.

Respondents who chose websites in the first question (Section 1.1) were asked:



**Can your customers do the following on your website or via third-party websites you use to provide services?**

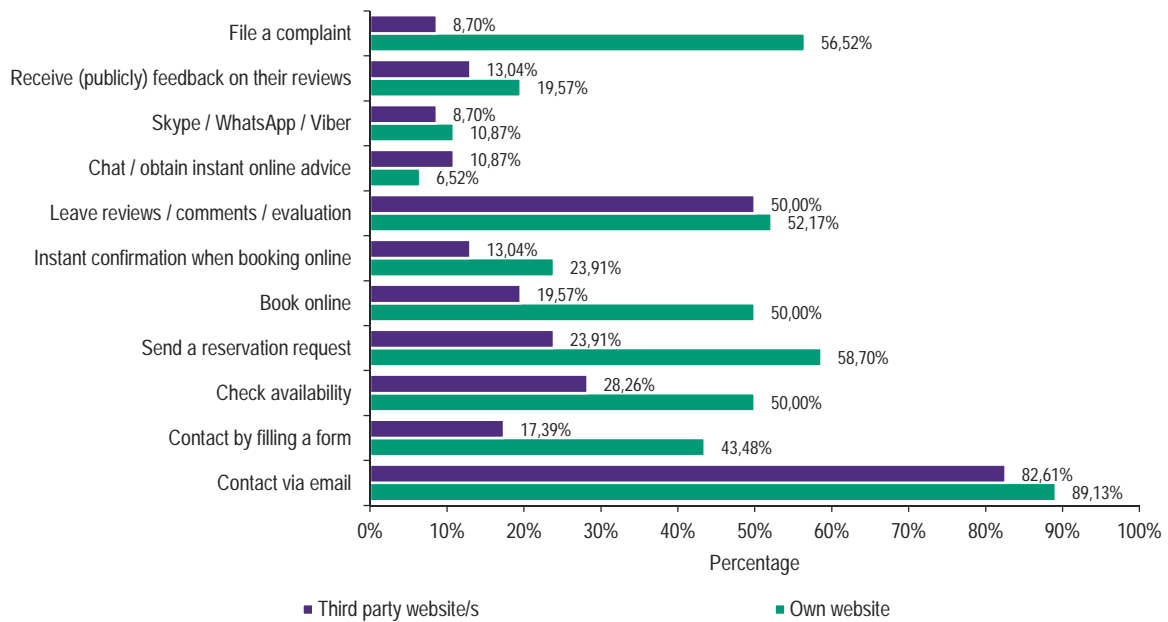


Figure 3ii.173: Usage of Websites by SMEs in Luxembourg

**18.3 Data Processing**  
**18.3.1 Storage of Information**

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Luxembourg, information on customers is stored by 90% of businesses (Figure 3ii.174).

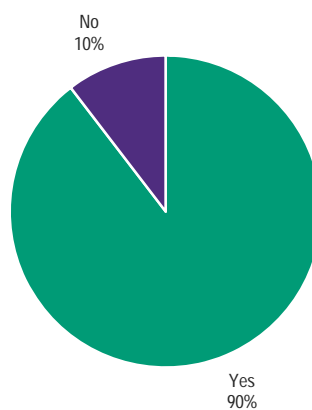


Figure 3ii.174: SMEs in Luxembourg - Storing Customer Information

Further analysis (Figure 3ii.175) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 60.47% of the businesses that

store customer information. There are high percentages of businesses that make use of paper records (23.26%), and Excel spreadsheets (18.60%), to store data.

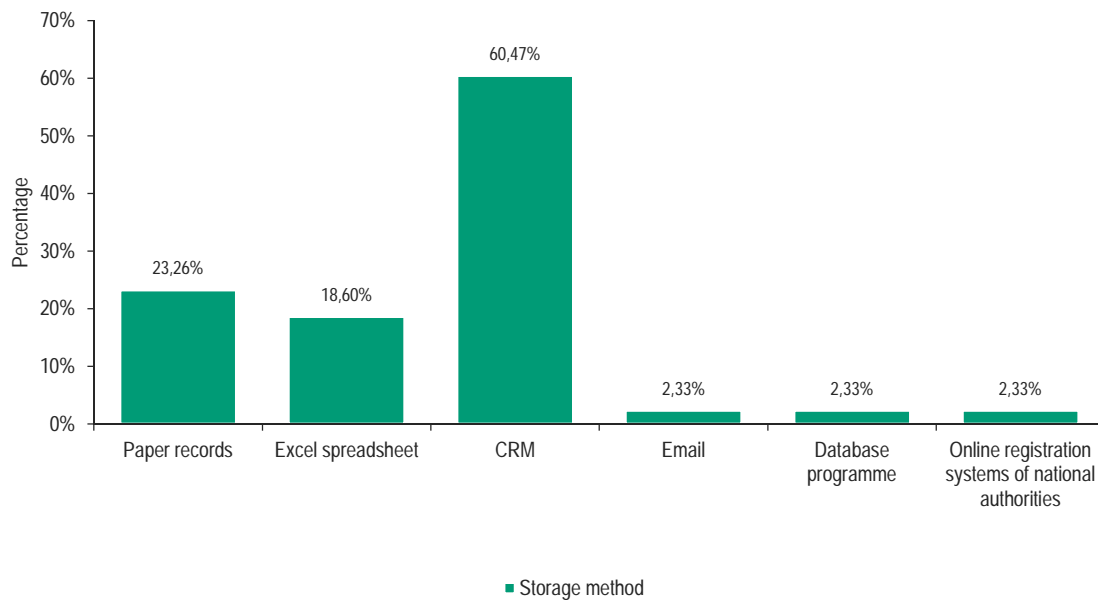


Figure 3ii.175: Methods for Storing Customer Information by SMEs in Luxembourg

### 18.3.2 Time Spent on Each Device

Conclusions show that businesses in Luxembourg spend the highest amount of time on desktop computers (73%), whilst they spend the least time on tablets (5%) (Figure 3ii.176).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

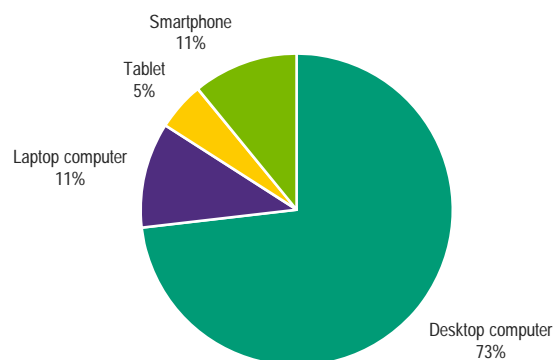


Figure 3ii.176: Percentage of Time Spent on Device to Conduct Business by SMEs in Luxembourg

## 18.4 Attitudes Towards Digitalisation

### 18.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that businesses in Luxembourg seek to achieve a higher online presence (81%), increased growth (81%), and as a means to respond to seasonality (75%) (Figure 3ii.177).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

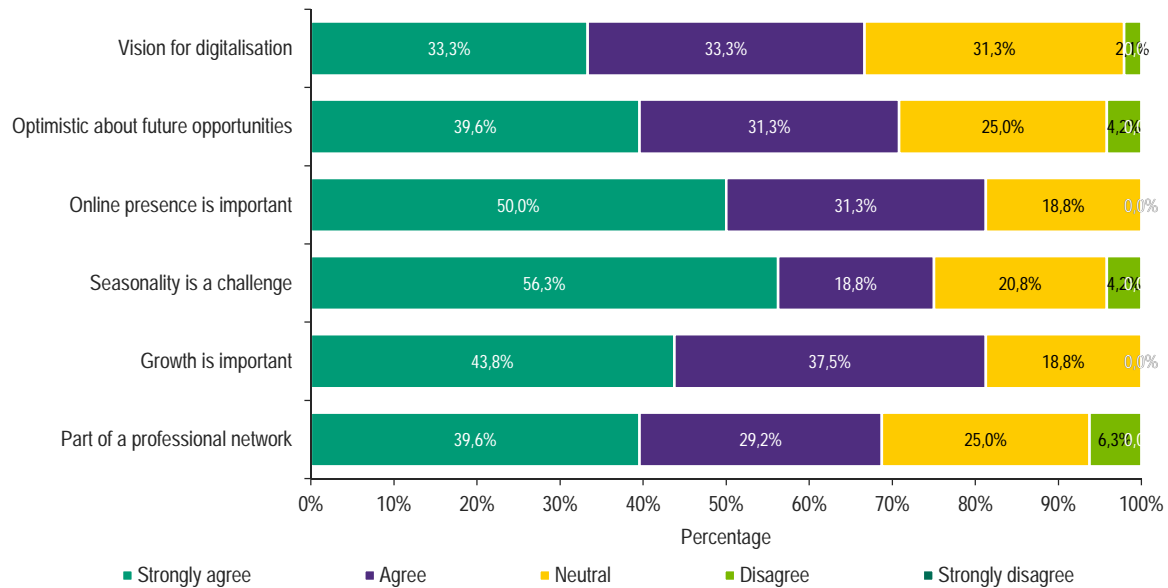


Figure 3ii.177: SMEs in Luxembourg - Motivation to Get Digitalised

### 18.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among businesses in Luxembourg that digitalisation improves customer satisfaction (79%), allows for growth in the market for products (58%), and enables the more effective management of business (50%) (Figure 3ii.178). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (67%) and disagreement results (13%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

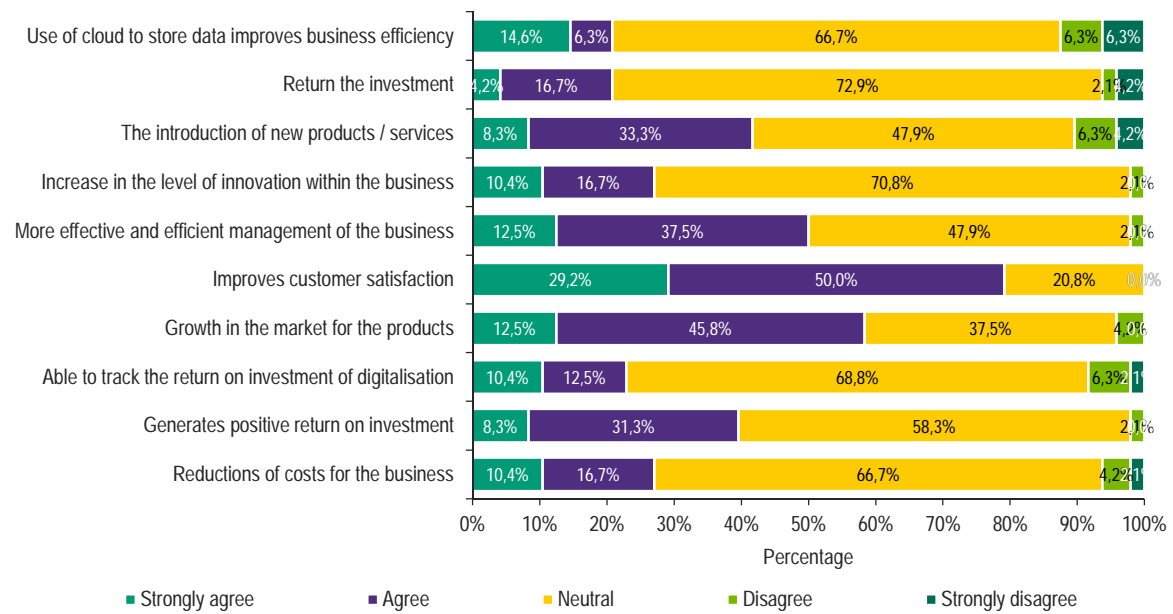


Figure 3ii.178 Advantages Expected/Experienced by SMEs in Luxembourg from Digitalisation

## 18.5 Challenges

### 18.5.1 Difficulties in the Implementation of New Digital Technologies

Businesses in Luxembourg agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following its introduction (77%) (Figure 3ii.179). Other difficulties encountered by businesses include concerns over technology becoming obsolete before they can make a return on their investment (63%), and having insufficient technical knowledge to make informed choices (58%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

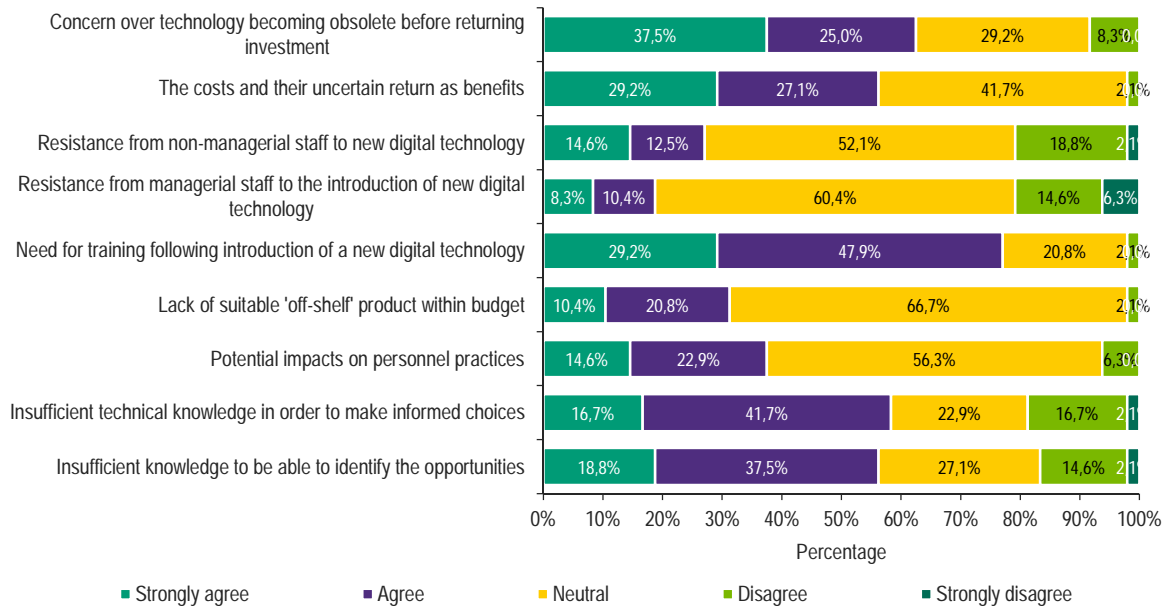


Figure 3ii.179: SMEs in Luxembourg - Difficulty in the Implementation of New Technology

### 18.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacles hindering businesses from improving digitalisation is the belief that the current technology in use by the business is sufficient to meet their needs, and rapid technological change (both at 75%) (Figure 3ii.180). Apart from this, the main issue for businesses that wish to improve digitalisation is a lack of finance (66.7%). The lack of importance of business growth (16.6%), and the costs of high-speed broadband internet (23%), were the issues least mentioned by firms as major obstacles to the further improvement of businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement / disagreement with each of the following statements.**

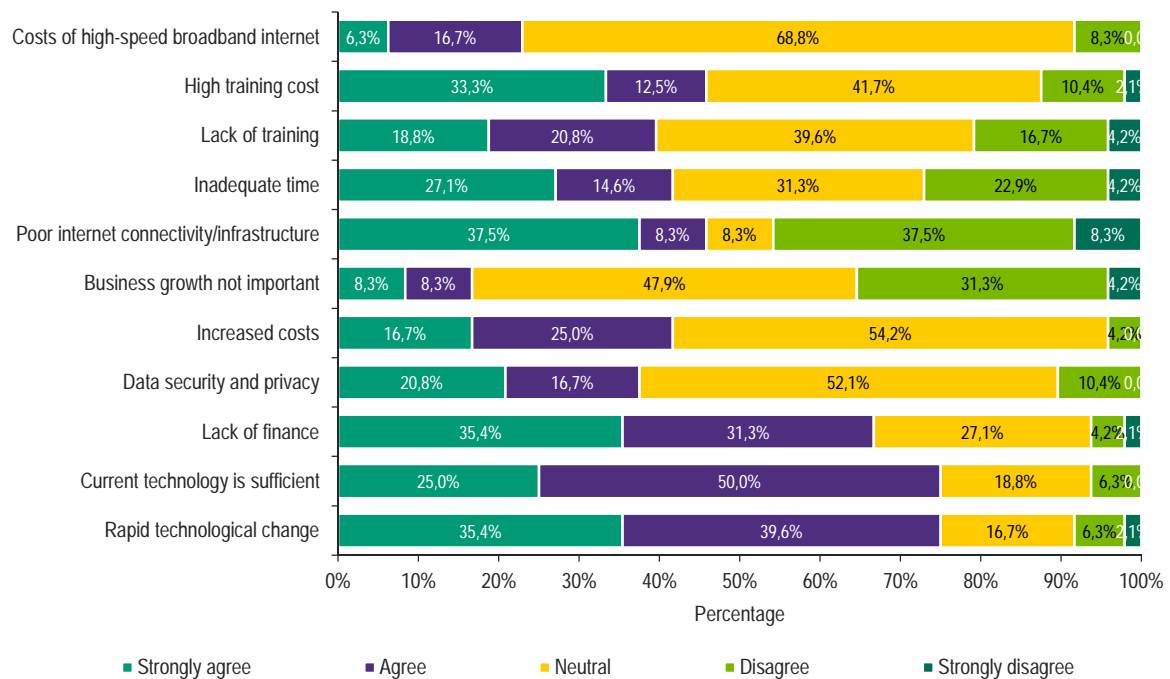


Figure 3ii.180: SMEs in Luxembourg - Obstacles Preventing Them from Further Improving Digitalisation

# 19 Malta

## 19.1 Level of Digitalisation

Findings show that 94.87% of businesses in Malta use basic office software as a digital technology (Figure 3ii.181). Other technologies that rank high, include the use of social media (88.46%), email (85.90%), and website (84.62%). On the other hand, Maltese businesses are least likely to use online professional networks (24.36%), a staff intranet (25.64%), and chat/instant online advice (26.92%) (Figure 3ii.182).

All respondents were asked to answer the following question:

**Does your business currently make use of the following digital technologies?**

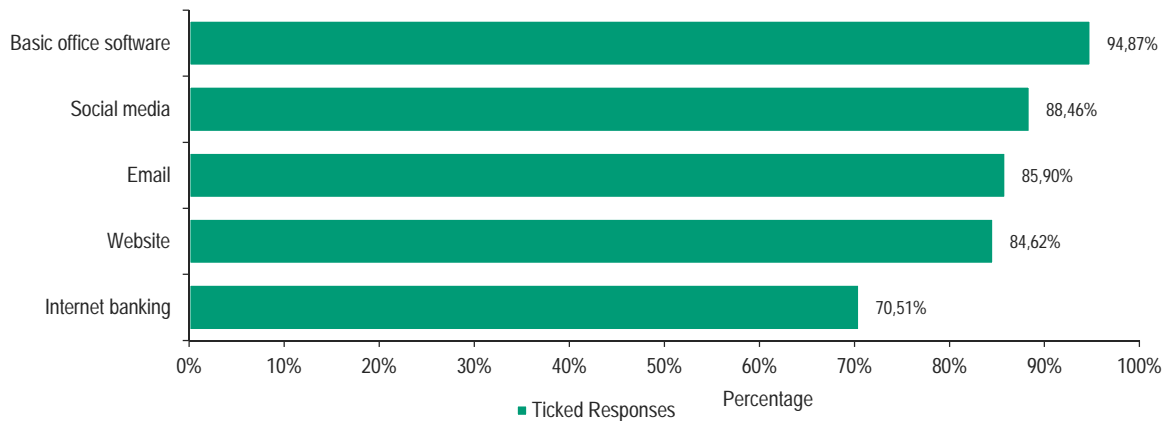


Figure 3ii.181: Digitalisation Adopted by Maltese SMEs

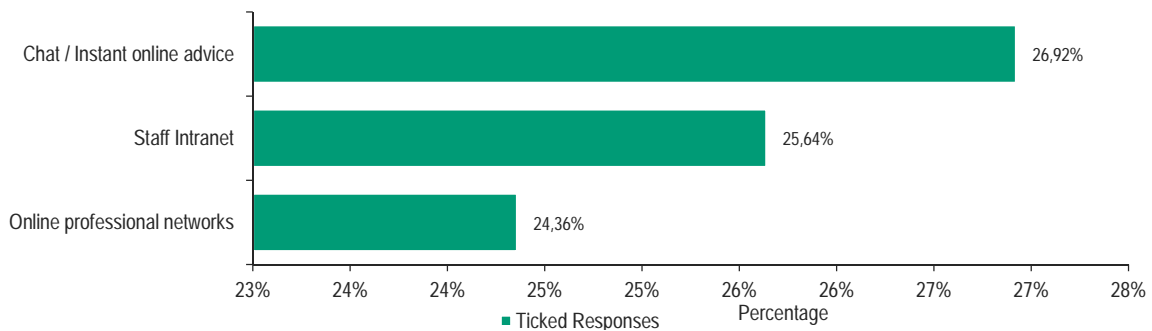


Figure 3ii.182: Digitalisation Least Adopted by Maltese SMEs

## 19.2 Social Media and Websites

### 19.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Malta at 98.55% (Table 3ii.19). Businesses in Malta also use Instagram (30.43%), Pinterest (21.74%) and Twitter (36.23%). However, LinkedIn ranked at 40.58%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 5.8% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.19: Social Media used by Maltese SMEs

### Usage of social media platform

Social media	Percentage
	98.55%
	30.43%
	21.74%
	36.23%
	40.58%
	5.80%

### 19.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 74.24%, whilst the second is sending a reservation request (63.64%), followed by contact by filling in a form (54.55%). In the case of businesses using third-party websites, the most common features available are filing a complaint, leaving reviews/comments/evaluations, booking online, and availability checks (all of which received a 22.73% usage rate)

Respondents who chose websites in the first question (Section 1.1) were asked:

### Can your customers do the following on your website or via third-party websites you use to provide services?

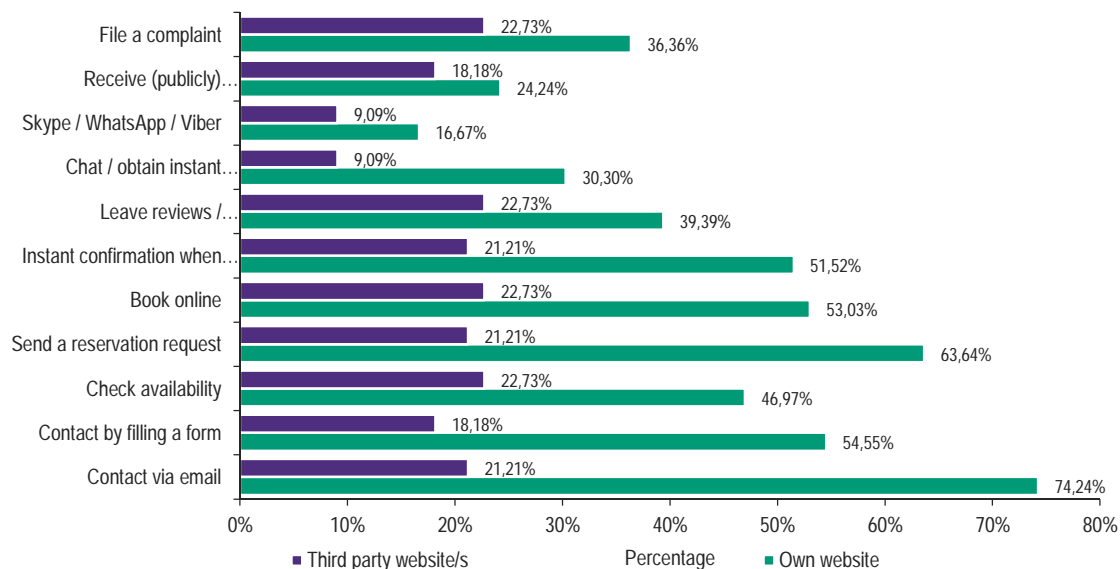


Figure 3ii.183: Usage of Websites by Maltese SMEs



## 19.3 Data Processing

### 19.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Malta, information on customers is stored by 67% of businesses (Figure 3ii.184).

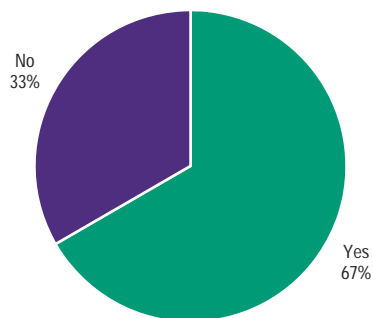


Figure 3ii.184: Maltese SMEs Storing Customer Information

Further analysis (Figure 3ii.185) shows that data storage is mainly done through Excel spreadsheets which is used by 48.08% of the businesses that store customer information. There are high percentages of businesses that make use of Customer Relations Management (CRM) tools, (44.23%) and paper records (34.62%), to store data

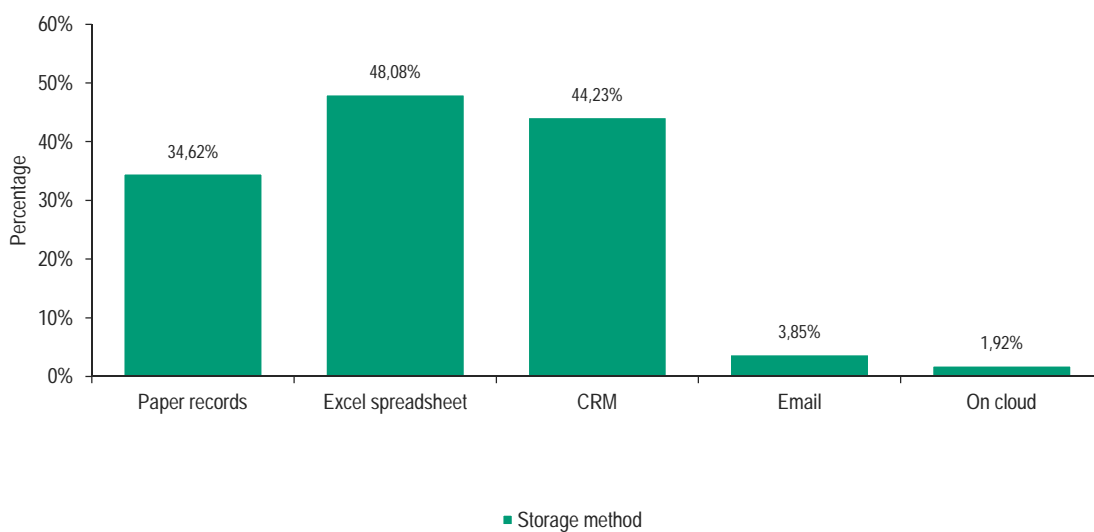


Figure 3ii.185: Methods for Storing Customer Information by Maltese SMEs

### 19.3.2 Time Spent On Each Device

Conclusions show that Maltese businesses spend the highest amount of time on desktop computers (53%), whilst they spend the least time on tablets (5%) (Figure 3ii.186).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

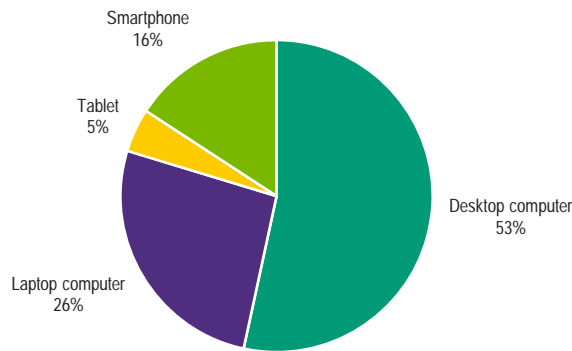


Figure 3ii.186: Percentage of Time Spent on Device to Conduct Business by Maltese SMEs

## 19.4 Attitudes Towards Digitalisation

### 19.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Maltese businesses seek to achieve a higher online presence (94%), increased growth (94%), and are optimistic about future opportunities (92%) (Figure 3ii.187).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

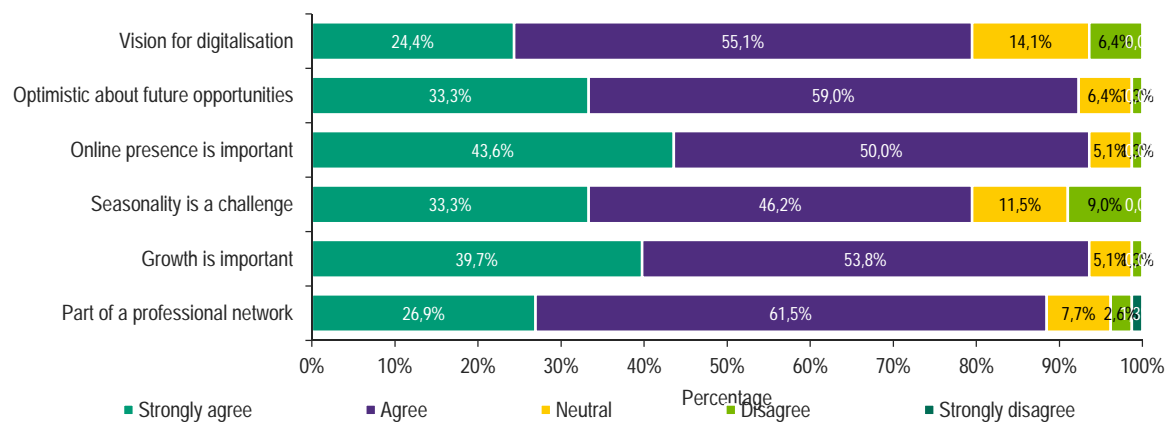


Figure 3ii.187: Maltese SMEs' Motivation To Get Digitalised

## 19.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Maltese businesses that digitalisation enables the more effective management of business (88%), allows for growth in the market for products (82%), and enables the introduction of new products/services (77%) (Figure 3ii.188). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (36%) and disagreement (14%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

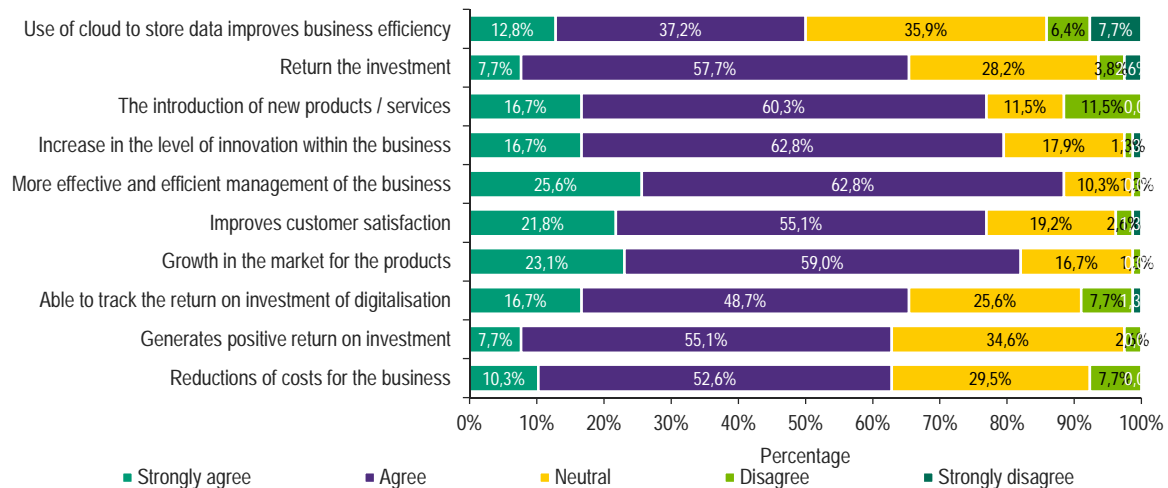


Figure 3ii.188: Advantages Expected/Experienced by Maltese SMEs from Digitalisation

## 19.5 Challenges

### 19.5.1 Difficulties in the Implementation of New Digital Technologies

Maltese businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following its introduction (71%) (Figure 3ii.189). Other difficulties encountered by businesses include concerns over technology becoming obsolete before they can make a return on their investment (59%), and insufficient technical knowledge to make informed choices (62%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

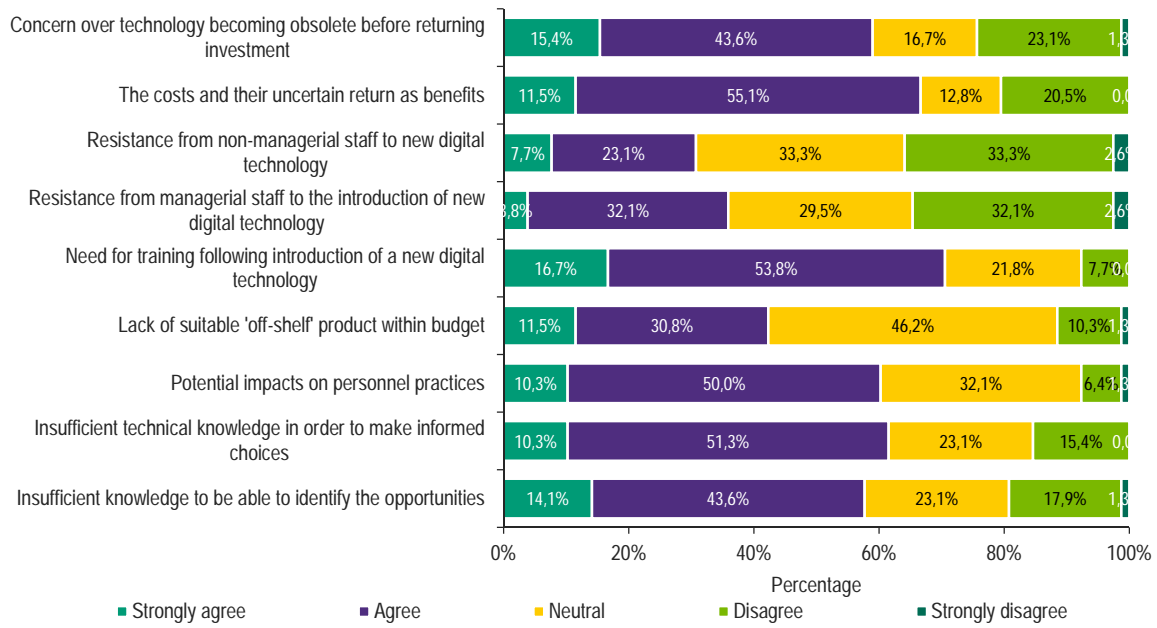


Figure 3ii.189: Maltese SMEs' difficulties to implement new technology

### 19.5.2 Obstacles preventing firms from further improving digitalisation

The main obstacle hindering businesses from improving digitalisation is lack of finance (68.9%) (Figure 3ii.190). Apart from this, the main issue for businesses that wish to improve digitalisation is high training cost (67.5%) and current technology is sufficient (66.2%) as indicated by Maltese businesses. The lack of importance of business growth (37.7%) and poor internet connectivity/infrastructure (41.6%) were the issues least mentioned by firms as major obstacles to further improve businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement / disagreement with each of the following statements.**

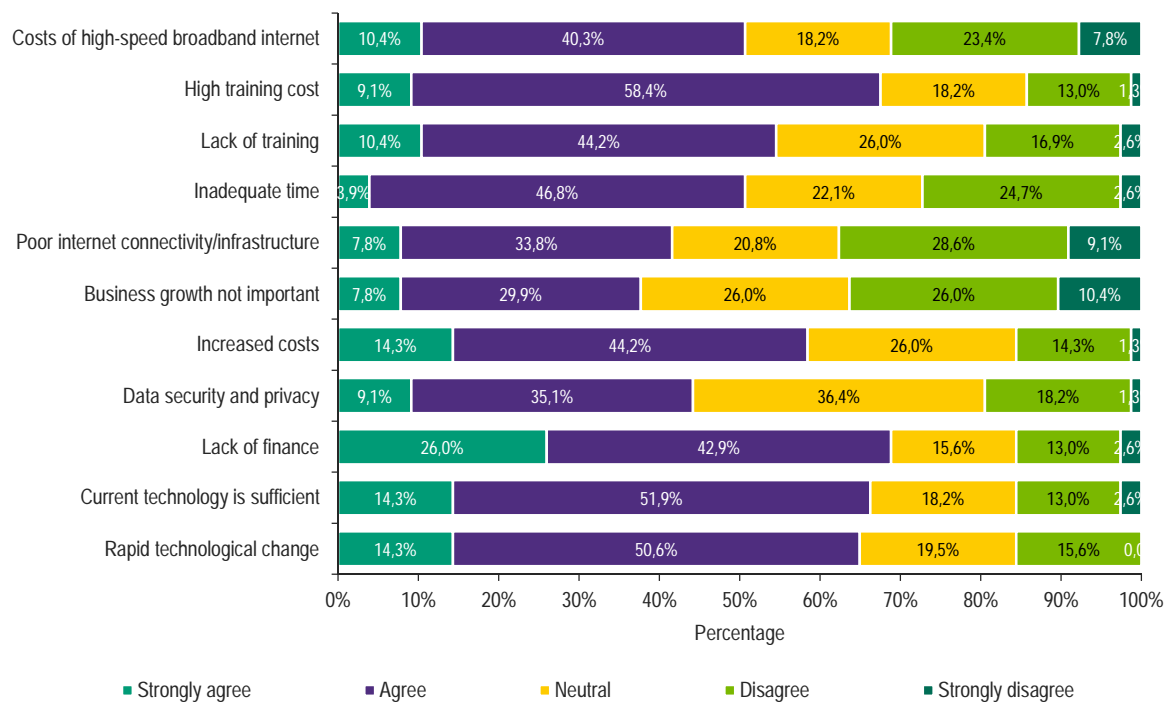


Figure 3ii.190: Maltese SMEs' Obstacles Preventing Them from Further Improving Digitalisation

## 20 Netherlands

### 20.1 Level of Digitalisation

Findings show that 95.35% of businesses in the Netherlands use email as a digital technology (Figure 3ii.191). Other technologies that rank high include the use of internet banking (95.35%), a website (91.86%), and social media (88.37%). On the other hand, Dutch businesses are least likely to use Property Management Systems (PMS) (2.33%), computerised ticketing systems (4.65%), and computerised stock control systems (6.96%) (Figure 3ii.192).

All respondents were asked to answer the following question:

**Does your business currently make use of the following digital technologies?**

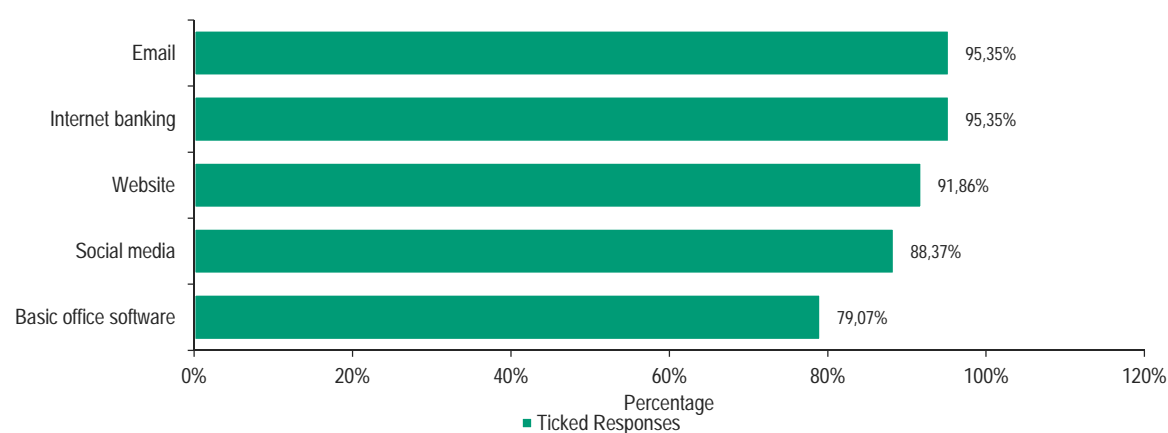


Figure 3ii.191: Digitalisation Adopted by Dutch SMEs

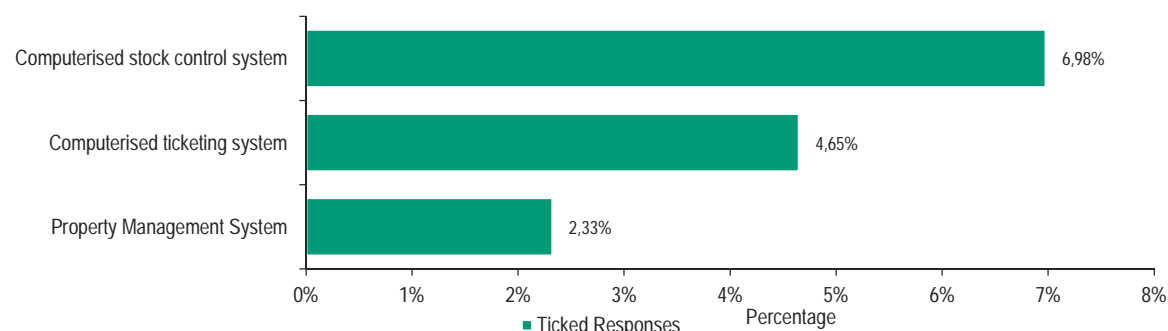


Figure 3ii.192: Digitalisation Least Adopted by Dutch SMEs

## 20.2 Social Media and Websites

### 20.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in the Netherlands at 98.68% (Figure 3ii.193). Businesses in the Netherlands also use Instagram (25%), Pinterest (6.58%) and Twitter (38.16%). However, LinkedIn ranked at 43.42%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 1.32% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.20: Social Media used by Dutch SMEs

**Usage of social media platform**

Social media	Percentage
	98.68%
	25.00%
	6.58%
	38.16%
	43.42%
	1.32%

**20.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses’ own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 94.94%, whilst the second is contact by filling in a form (72.15%), followed by sending a reservation request (68.35%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 30.38%, followed by contact via email (24.05%), and sending a reservation request and availability checks (both at 20.25%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

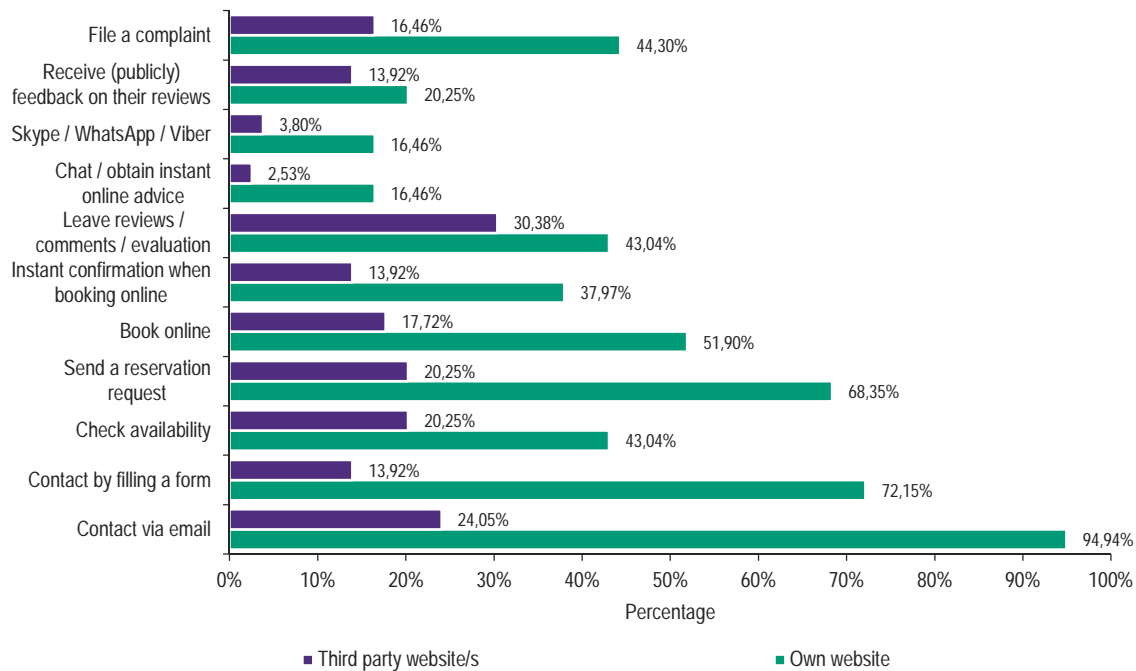


Figure 3ii.193: Usage of Websites by Dutch SMEs

## 20.3 Data Processing

### 20.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in the Netherlands, information on customers is stored by 64% of businesses (Figure 3ii.194).

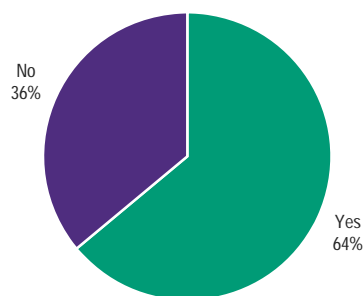


Figure 3ii.194: Dutch SMEs Storing Customer Information



Further analysis (Figure 3ii.195) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 49.09% of the businesses that store customer information. There are high percentages of businesses that make use of paper records (40%), and Excel spreadsheets (27.27%), to store data.

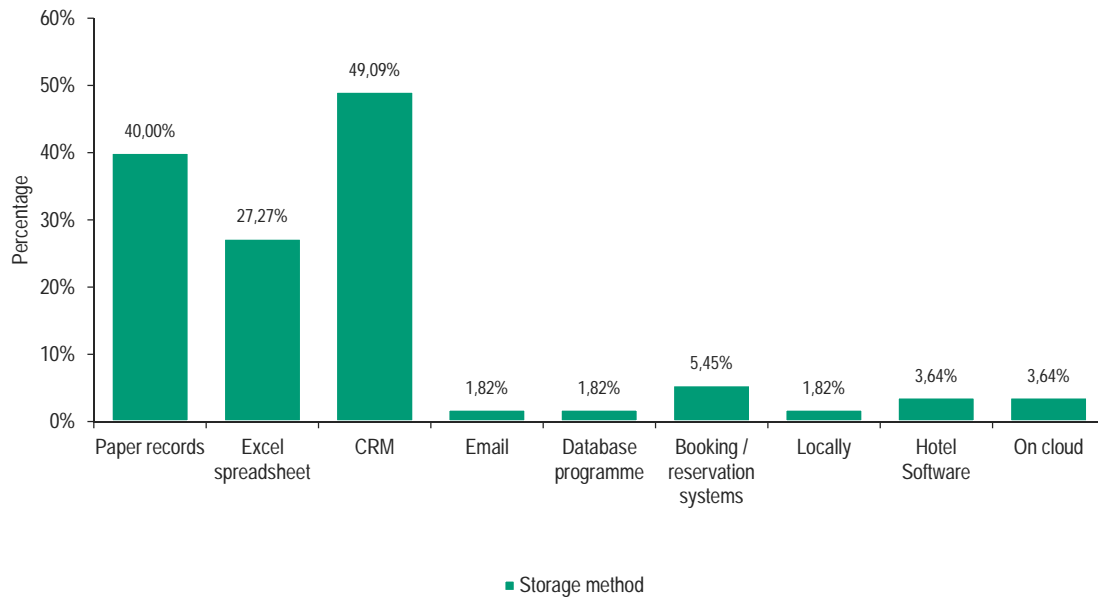


Figure 3ii.195: Methods for Storing Customer Information by Dutch SMEs

### 20.3.2 Time Spent on Each Device

Conclusions show that Dutch businesses spend the highest amount of time on desktop computers (43%), whilst they spend the least time on tablets (7%) (Figure 3ii.196).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

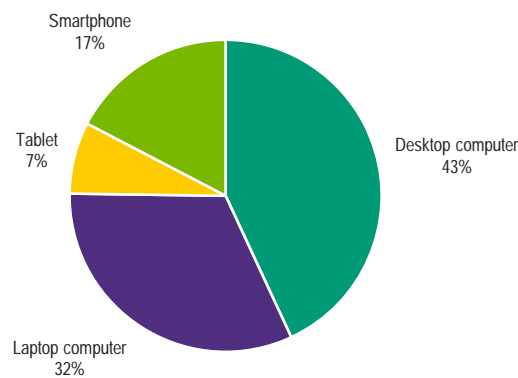


Figure 3ii.196: Percentage of Time Spent on Device to Conduct Business by Dutch SMEs

## 20.4 Attitudes Towards Digitalisation

### 20.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Dutch businesses seek to increase growth (86%), achieve a higher online presence (85%), and are optimistic about future opportunities (74%) (Figure 3ii.197).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

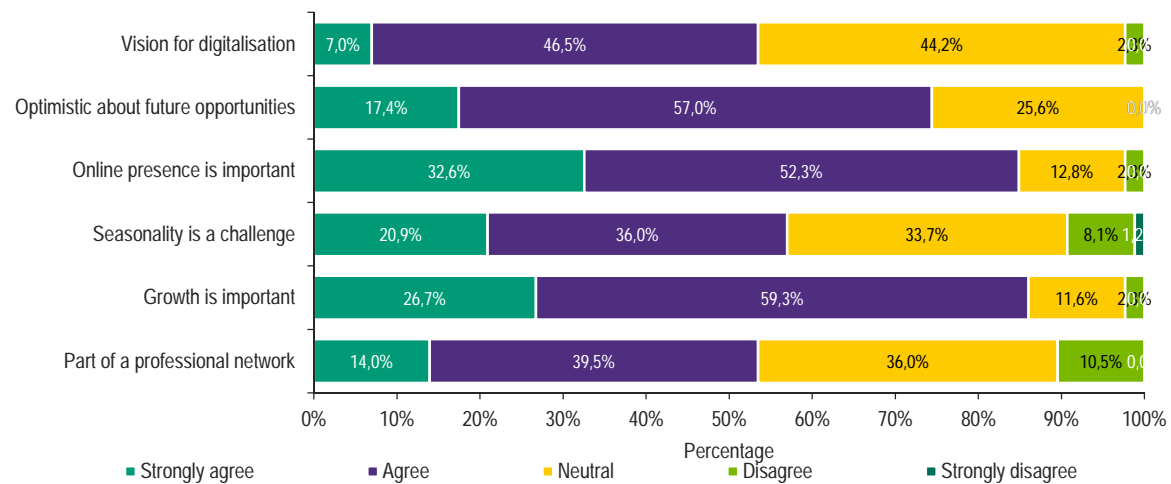


Figure 3ii.197: Dutch SMEs' Motivation to Get Digitalised

### 20.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Dutch businesses that digitalisation enables the more effective management of business (67%), improves customer satisfaction (61%), and enhances growth in the market for products (56%) (Figure 3ii.198). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered the high percentages of neutral (41%) and disagreement (14%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

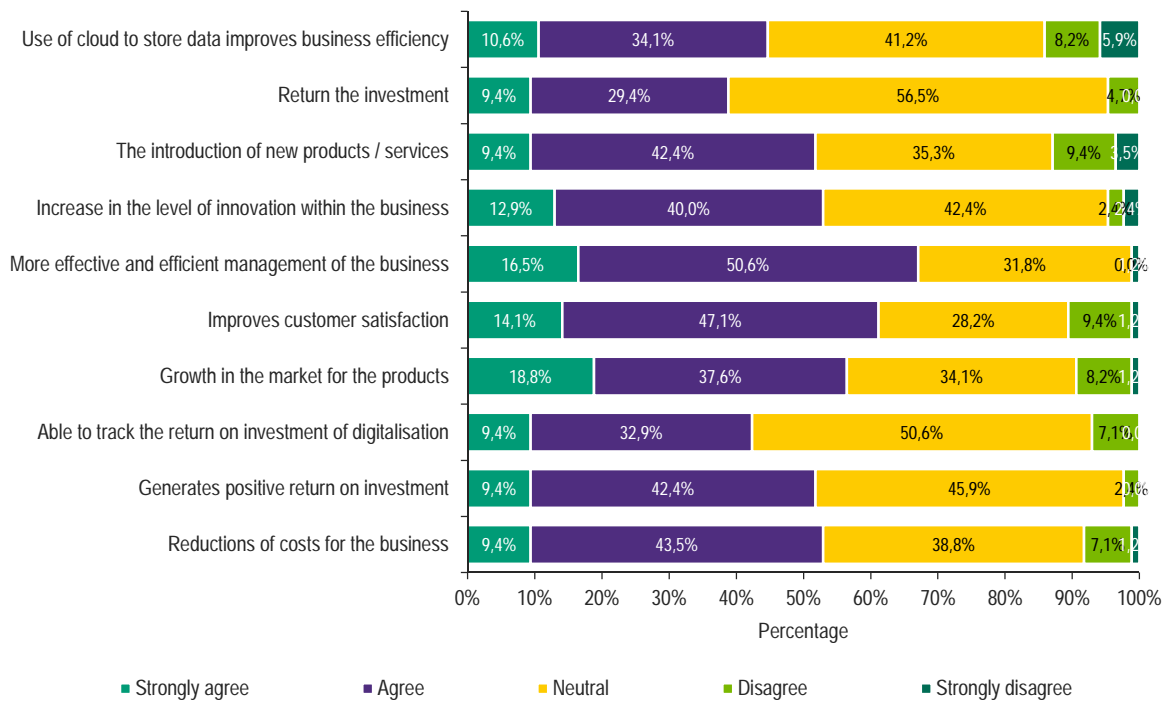


Figure 3ii.198: Advantages Expected/Experienced by Dutch SMEs from Digitalisation

## 20.5 Challenges

### 20.5.1 Difficulties in the Implementation of New Digital Technologies

Dutch businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to costs and their uncertain return as benefits (52%) (Figure 3ii.199). Other difficulties encountered by businesses include concerns over technology becoming obsolete before they can make a return on investment (29%), and insufficient technical knowledge when it comes to making informed choices (45%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

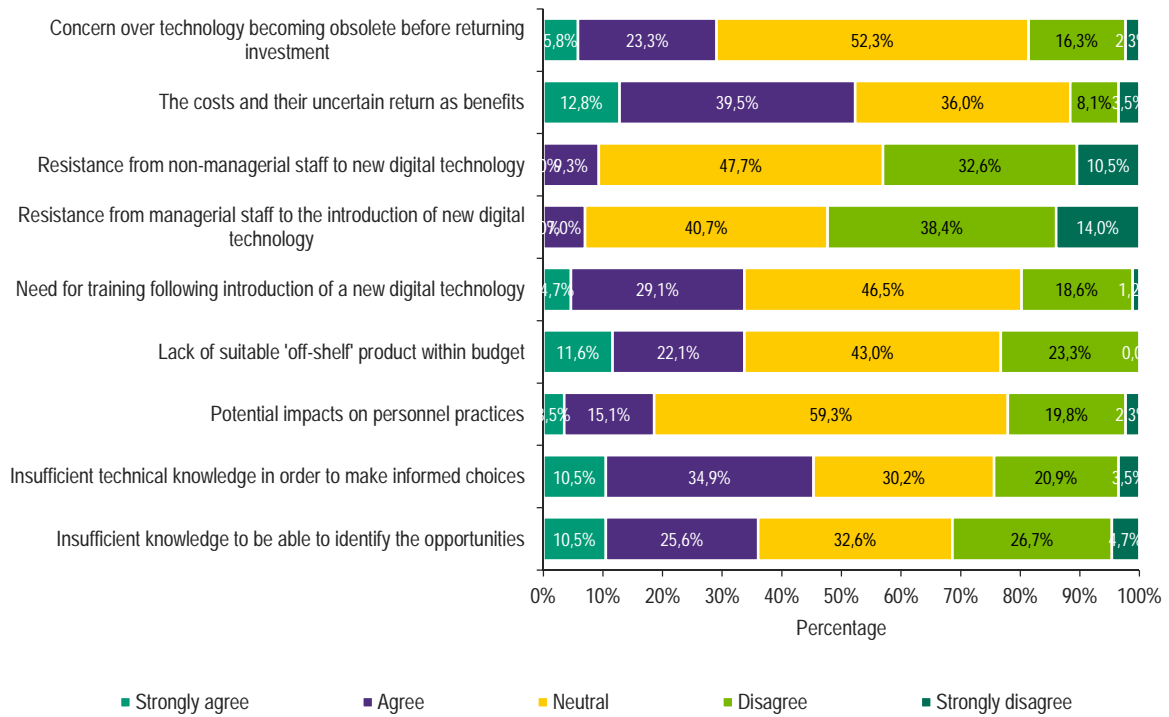


Figure 3ii.199: Dutch SMEs' Difficulty in the Implementation of New Technology

## 20.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is lack of finance (48.2%) (Figure 3ii.20). Apart from this, the main issue for businesses that wish to improve digitalisation is that they believe current technology is sufficient (47%), and rapid technological change (44.7%), as indicated by Dutch businesses. Data security and privacy (18.8%), and the costs of high-speed broadband internet (18.8%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

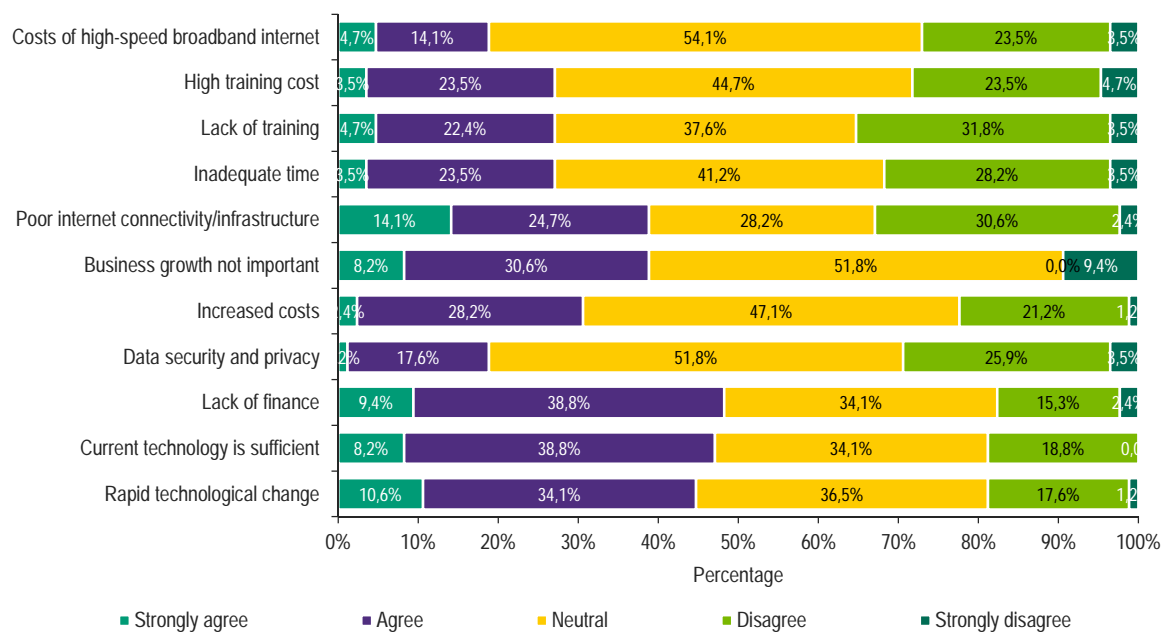


Figure 3ii.200: Dutch SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 21 Poland

## 21.1 Level of Digitalisation

Findings show that 96.11% of businesses in Poland use basic office software as a digital technology (Figure 3ii.201). Other technologies that rank high include the use of internet banking (87.22%), a website (86.67%), and a cash register (71.67%). On the other hand, Polish businesses are least likely to use Property Management Systems (PMS) (0%), online professional networks (1.1%) and computerised customer satisfaction surveys (1.67%) (Figure 3ii.202).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

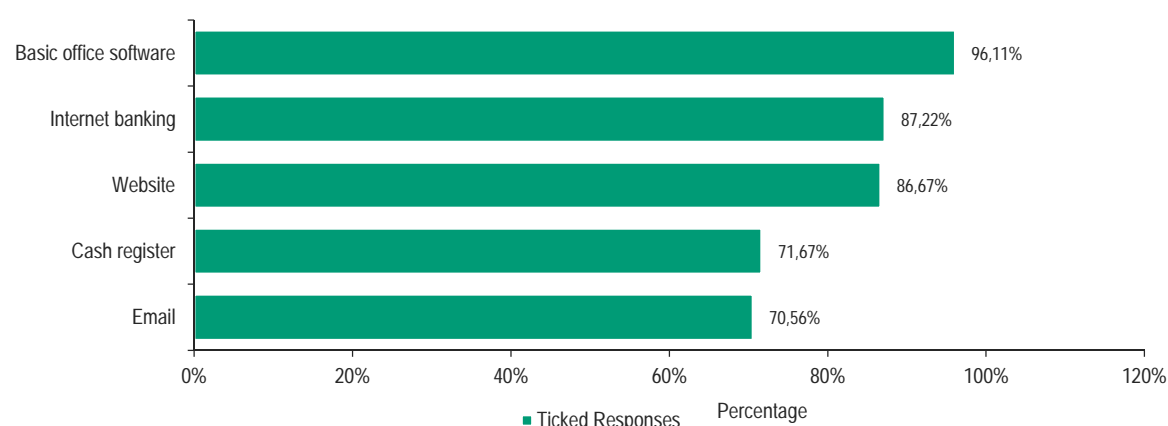


Figure 3ii.201: Digitalisation Adopted by Polish SMEs

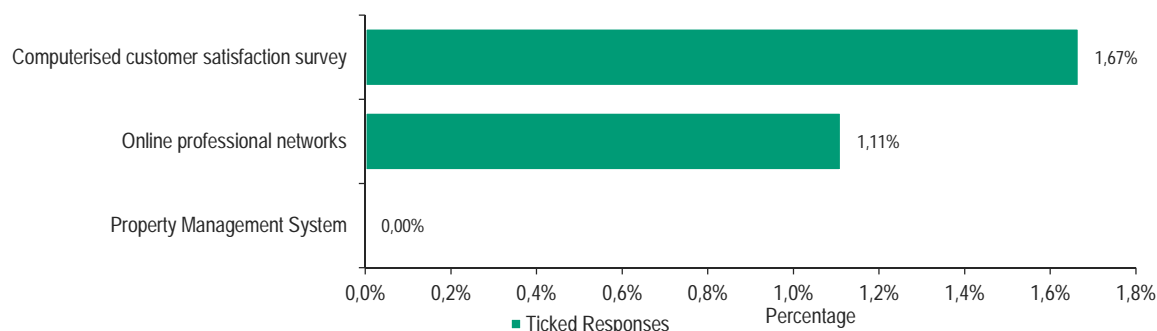


Figure 3ii.202: Digitalisation Least Adopted by Polish SMEs

## 21.2 Social Media and Websites

### 21.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Poland at 100% (Table 3ii.21). Businesses in Poland also use Instagram (11.11%), Pinterest (4.04%) and Twitter (16.16%). However, LinkedIn ranked low at 11.11%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 7.07% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.21: Social Media used by Polish SMEs

### Usage of social media platform

Social media	Percentage
	100.00%
	11.11%
	4.04%
	16.16%
	11.11%
	7.07%

### 21.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to both businesses using their own website and third-party website is the email function, standing at 90.38% and 39.74% respectively. In the case of businesses having their own website, the second most common feature available is the contact form (61.54%), followed by sending a reservation request (53.85%). Other common functionality features for the businesses using third-party websites include the functionality contact by filling a form, and sending a reservation request, which ranked second (14.10%) and third (10.90%) respectively.

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

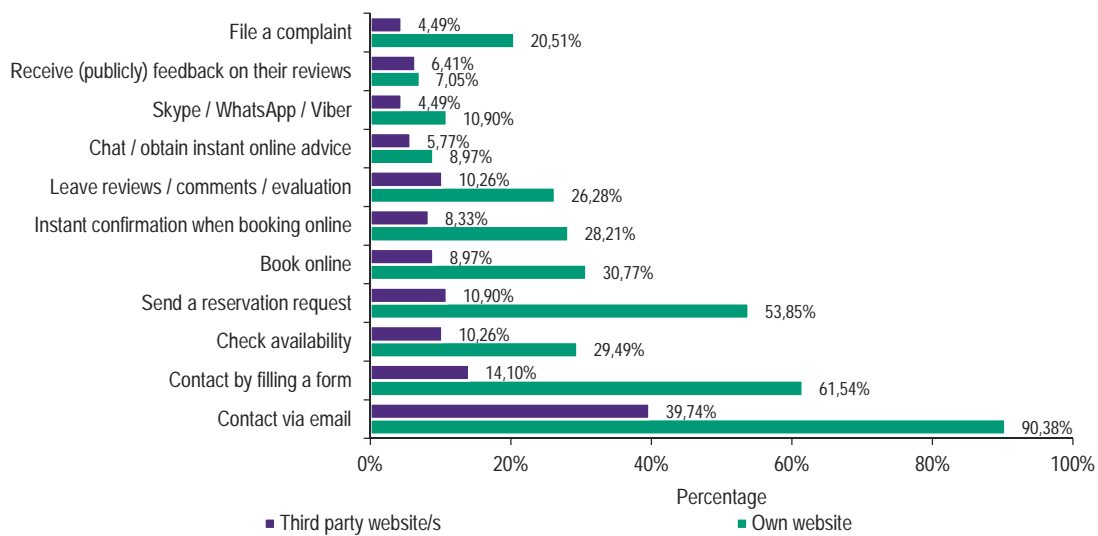


Figure 3ii.203: Usage of Websites by Polish SMEs

**21.3 Data Processing**  
**21.3.1 Storage of Information**

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Poland, information on customers is stored by 76% of businesses (Figure 3ii.204).

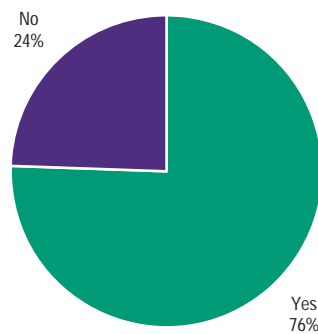


Figure 3ii.204: Polish SMEs Storing Customer Information

Further analysis (Figure 3ii.205) shows that data storage is mainly done through paper records, which is used by 83.82% of the businesses that store customer information. There are high percentages of businesses that make use of Excel spreadsheets (63.97%), and Customer Relations Management (CRM) tools (33.09%), to store data.



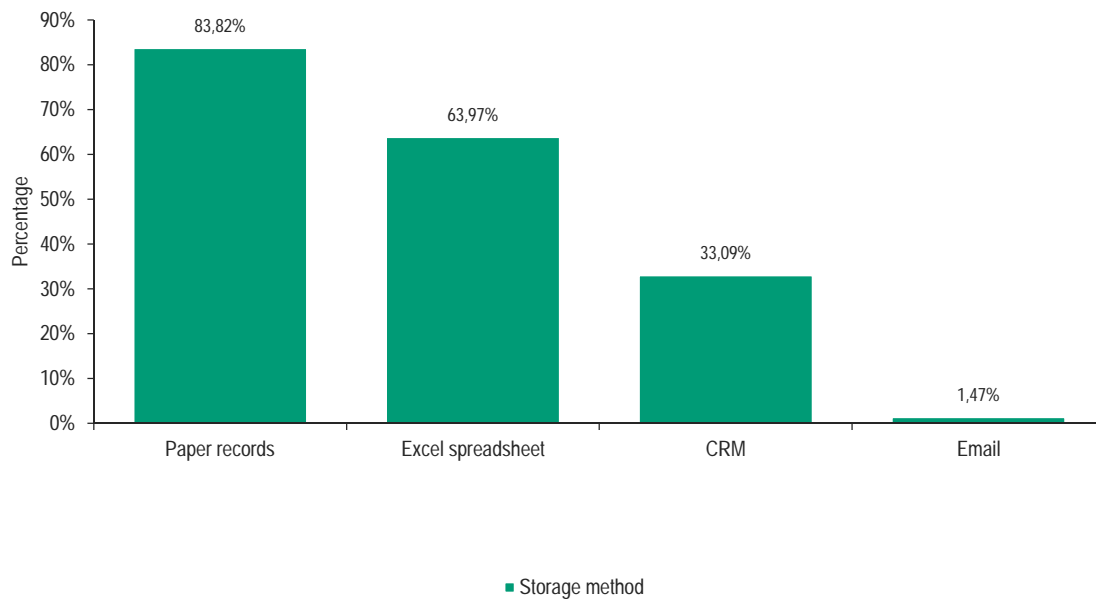


Figure 3ii.205: Methods for Storing Customer Information by Polish SMEs

### 21.3.2 Time Spent on Each Device

Conclusions show that Polish businesses spend the highest amount of time on laptop computers (44%), whilst they spend the least time on tablets (6%) (Figure 3ii.206).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

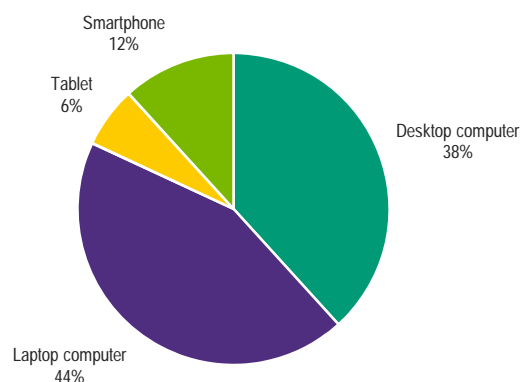


Figure 3ii.206: Percentage of Time Spent on Device to Conduct Business by Polish SMEs

## 21.4 Attitudes Towards Digitalisation

### 21.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Polish businesses seek to increase growth (83%), achieve a higher online presence (76%), and to form part of a professional network (73%) (Figure 3ii.207).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

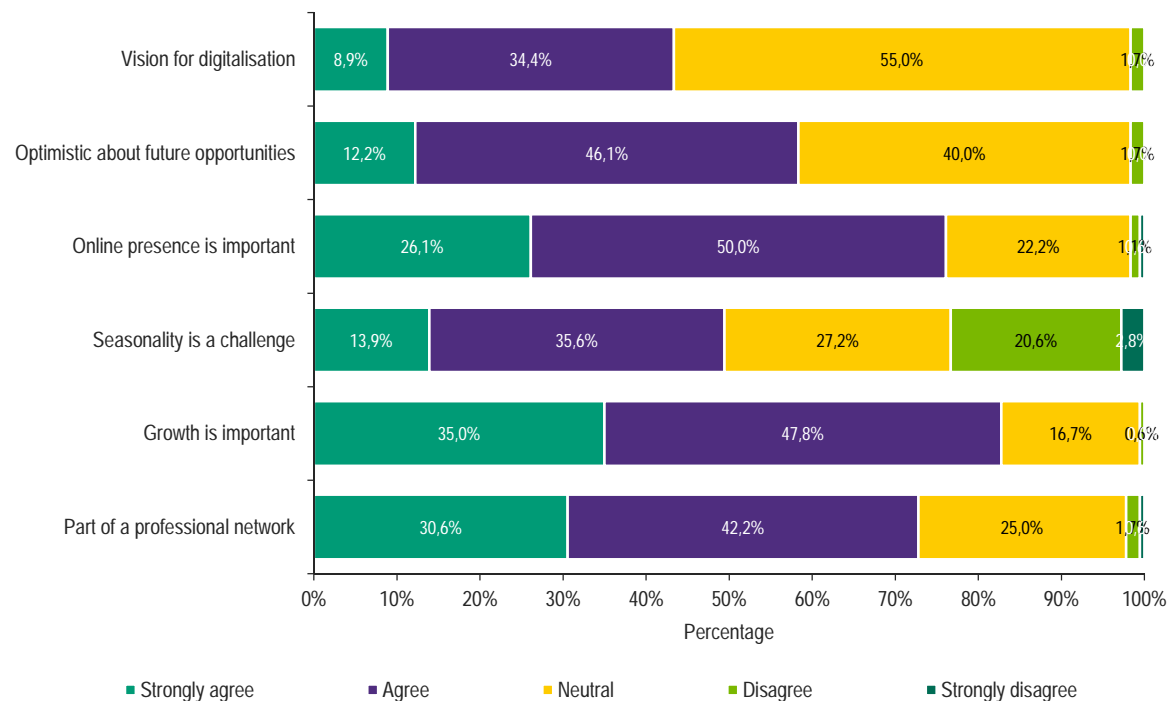


Figure 3ii.207: Polish SMEs' Motivation to Get Digitalised

### 21.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Polish businesses that digitalisation enables growth in the market for products (71%), improves customer satisfaction (69%), and enables the more effective management of business (69%) (Figure 3ii.208). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (62%) and “the introduction of new products/services” had the highest percentages of disagreement (17.8%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

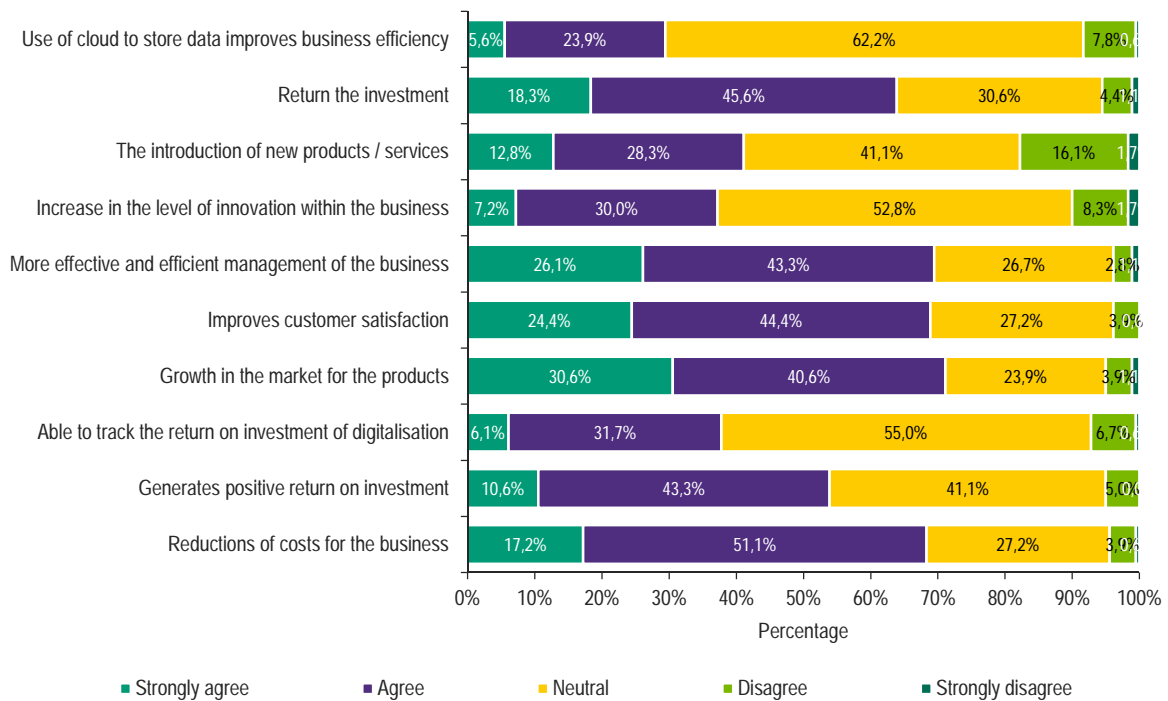


Figure 3ii.208: Advantages Expected/Experienced by Polish SMEs from Digitalisation

## 21.5 Challenges

### 21.5.1 Difficulties in the Implementation of New Digital Technologies

Polish businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to costs and their uncertain return as benefits (71%) (Figure 3ii.209). Other difficulties encountered by businesses include concerns over technology becoming obsolete before they can make return on their investment (43%), and insufficient technical knowledge when it comes to make informed choices (54%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

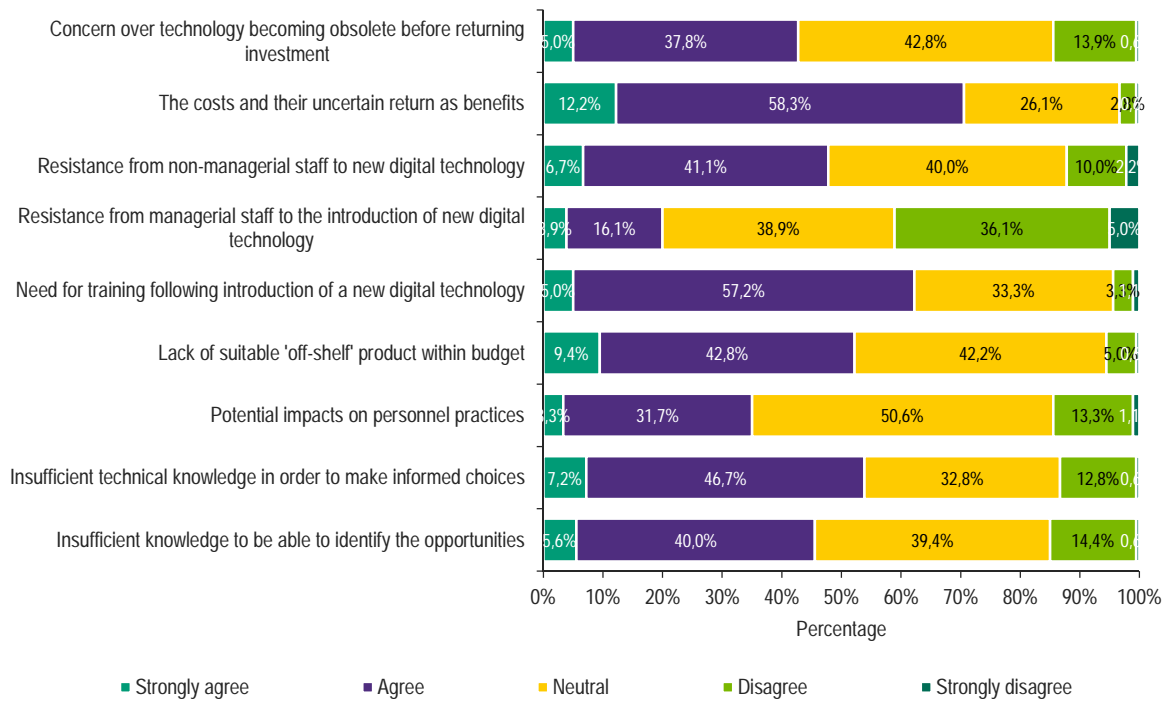


Figure 3ii.209: Polish SMEs' Difficulty in the Implementation of New Technology

### 21.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is the high cost of training (64.5%) (Figure 3ii.210). Apart from this, the main issue for businesses that wish to improve digitalisation is the belief that the current technology in use by the business is sufficient to meet their needs (63.9%), and inadequate time (53.9%), as indicated by Polish businesses. The lack of importance of business growth (21.7%), and a lack of training (23.4%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

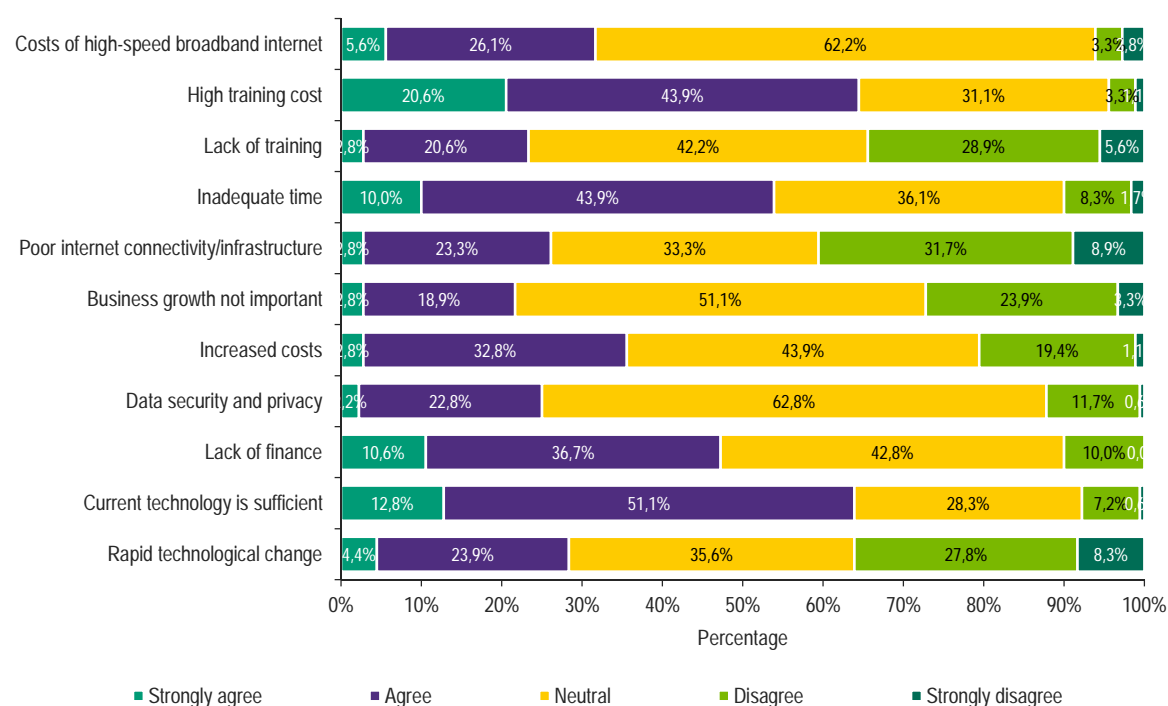


Figure 3ii.210: Polish SMEs' Obstacles Preventing Them from Further Improving Digitalisation

## 22 Portugal

### 22.1 Level of Digitalisation

Findings show that 85.71% of businesses in Portugal use emails as a digital technology (Figure 3ii.211). Other technologies that rank high include the use of basic office software (80.95%), social media (79.05%), and a website (64.76%). On the other hand, Portuguese businesses are least likely to use Property Management Systems (PMS) (3.81%), Customer Relationship Management Systems (4.76%) and computerised ticketing systems (5.71%) (Figure 3ii.212).

All respondents were asked to answer the following question:

#### Does your business currently make use of the following digital technologies?

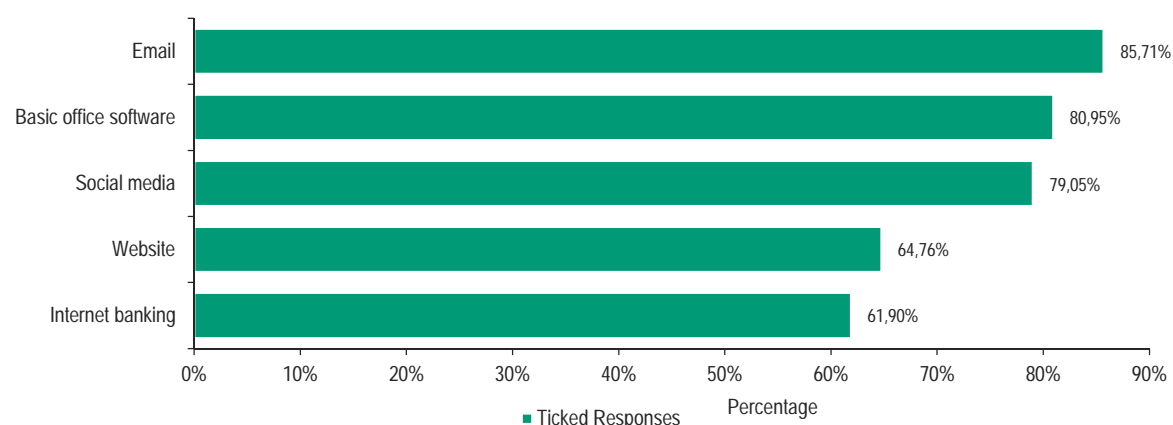


Figure 3ii.211: Digitalisation Adopted by Portuguese SMEs

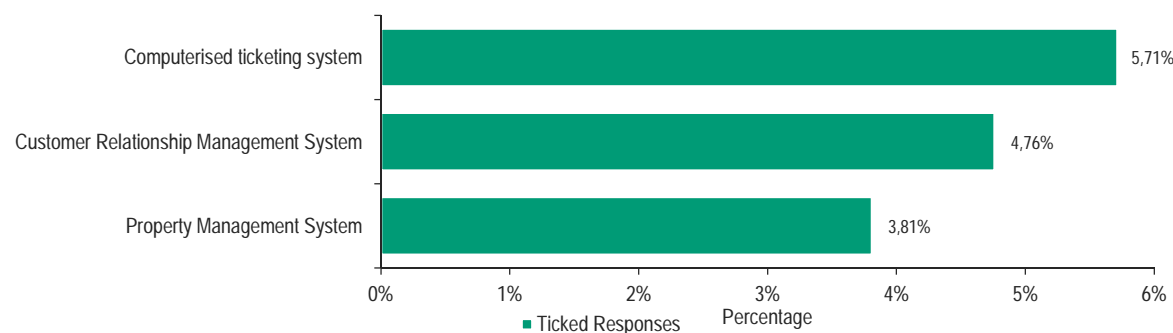


Figure 3ii.212: Digitalisation Least Adopted by Portuguese SMEs

### 22.2 Social Media and Websites

#### 22.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Portugal at 100% of the respondents (Table 3ii.22). Businesses in Portugal also use LinkedIn (30.12%), Instagram (26.51%) and Twitter (20.48%). However, Pinterest ranked low at 8.43% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 3.61% usage of those responding to the consultation.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.22: Social Media used by Portuguese SMEs

### Usage of social media platform

Social media	Percentage
	100.00%
	26.51%
	8.43%
	20.48%
	30.12%
	3.61%

### 22.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 98.53%, whilst the second is sending a reservation request (88.24%), followed by availability checks and contact by filling in a form (both at 72.06%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 38.24%, followed by receiving feedback publically, booking online and sending reservation requests (all at 32.35%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

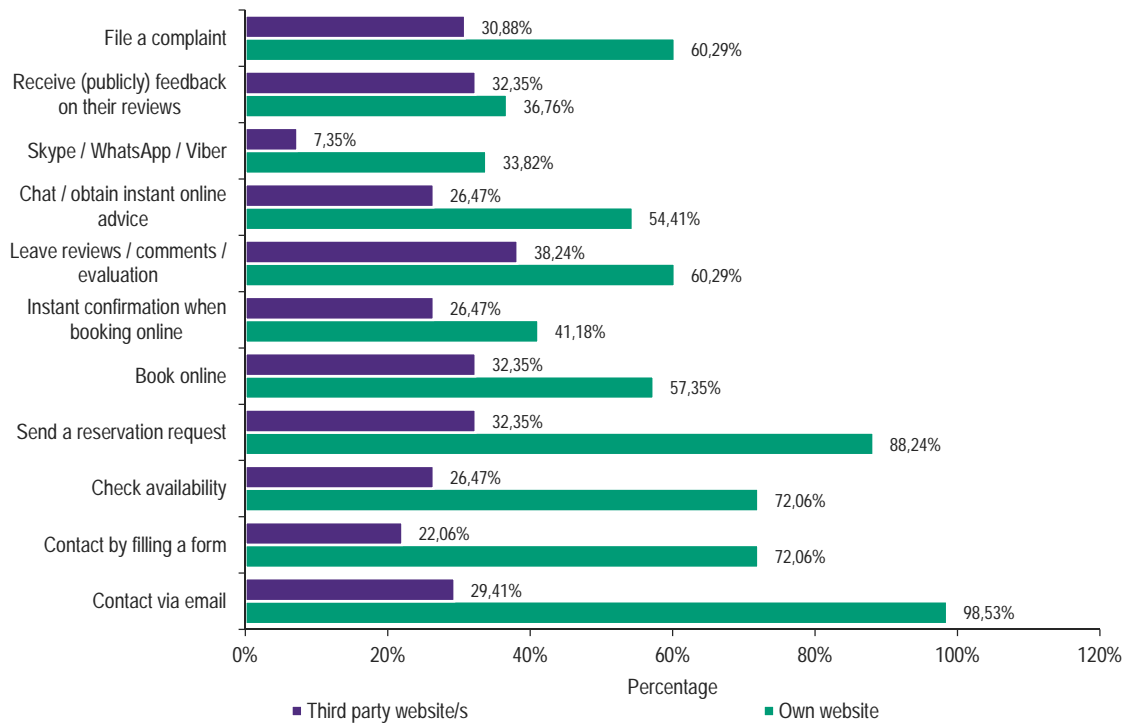


Figure 3ii.213: Usage of Websites by Portuguese SMEs

## 22.3 Data Processing

### 22.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Portugal, information on customers is stored by 77% of businesses (Figure 3ii.214).

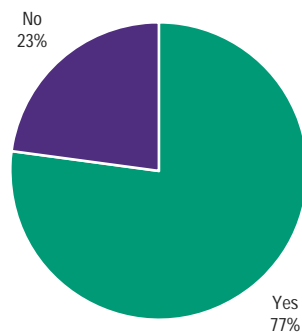


Figure 3ii.214: Portuguese SMEs Storing Customer Information



Further analysis (Figure 3ii.215) shows that data storage is mainly done through Excel spreadsheets, which are used by 54.32% of the businesses that store customer information. There are high percentages of businesses that make use of paper records (43.21%), and Customer Relations Management (CRM) tools (28.40%), to store data.

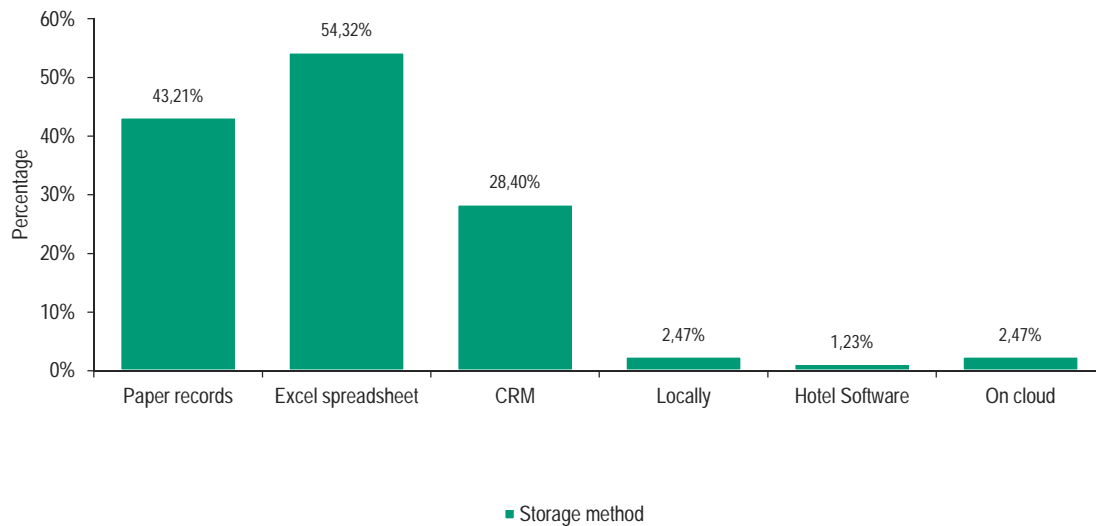


Figure 3ii.215: Methods for Storing Customer Information by Portuguese SMEs

### 22.3.2 Time Spent on Each Device

Conclusions show that Portuguese businesses spend the highest amount of time on laptop computers (37%), whilst they spend the least time on tablets (6%) (Figure 3ii.216).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

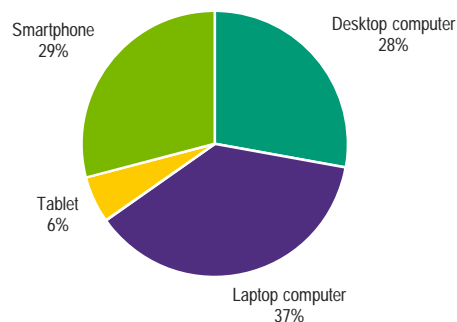


Figure 3ii.216: Percentage of Time Spent on Device to Conduct Business by Portuguese SMEs

## 22.4 Attitudes Towards Digitalisation

### 22.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Portuguese businesses seek to increase growth (91%), achieve a higher online presence (90%), use it as a means to respond to seasonality and show optimism about future opportunities (both 80%) (Figure 3ii.217).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

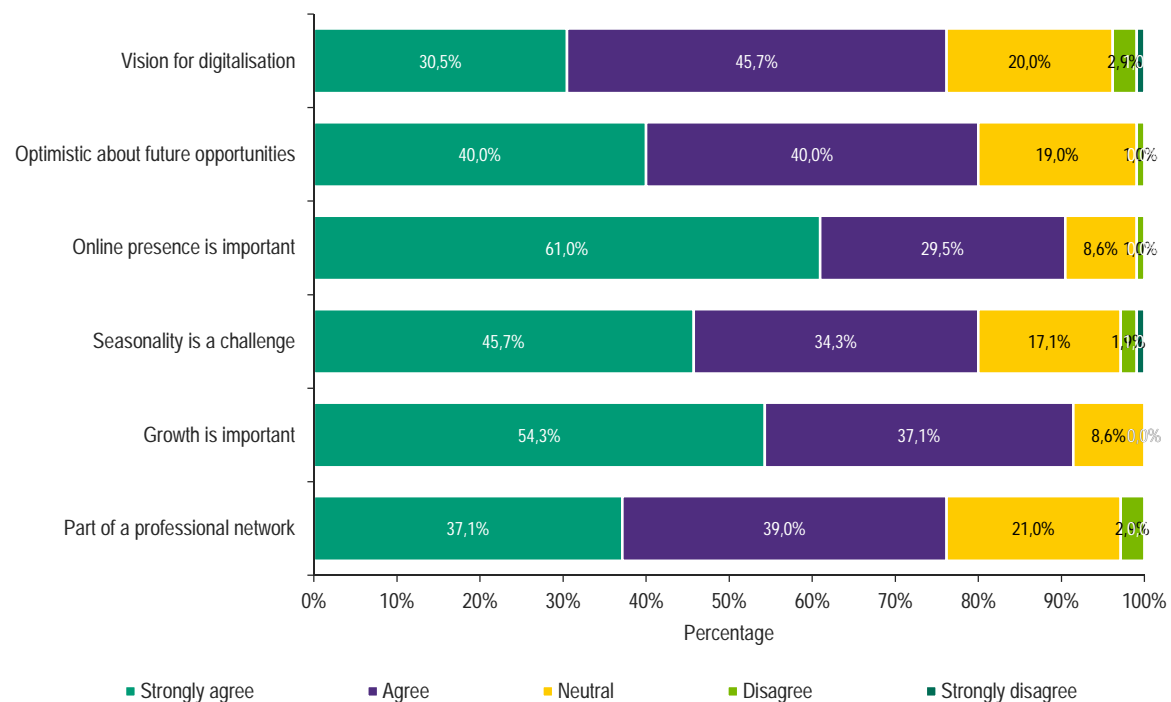


Figure 3ii.217: Portuguese SMEs' Motivation to Get Digitalised

### 22.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Portuguese businesses that digitalisation enables the more effective management of business (84%), allows for growth in the market for products (77%), and enhances the introduction of new products/services (74%) (Figure 3ii.218). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered the highest percentages of neutral (45%) and high disagreement (2%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

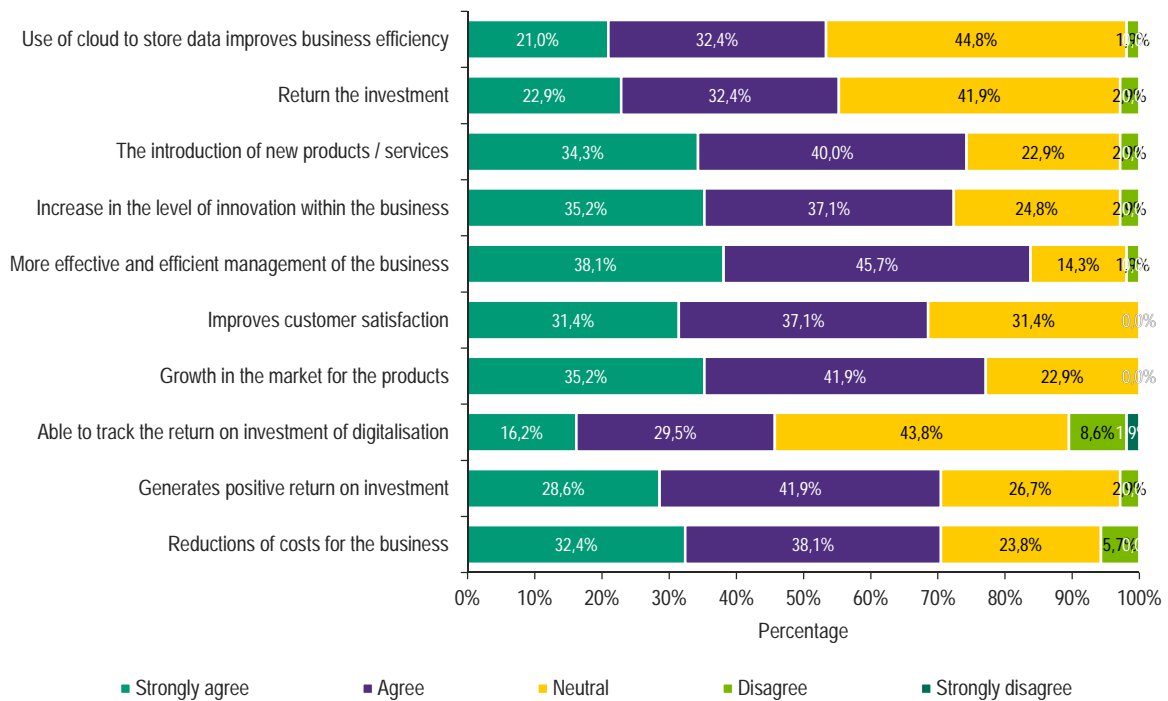


Figure 3ii.218: Advantages Expected/Experienced by Portuguese SMEs from Digitalisation

## 22.5 Challenges

### 22.5.1 Difficulties in the Implementation of New Digital Technologies

Portuguese businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following its introduction (62%) (Figure 3ii.219). Other difficulties encountered by businesses include concerns over the technology becoming obsolete before they can make a return on their investment (38%), and having insufficient technical knowledge to make informed choices (45%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

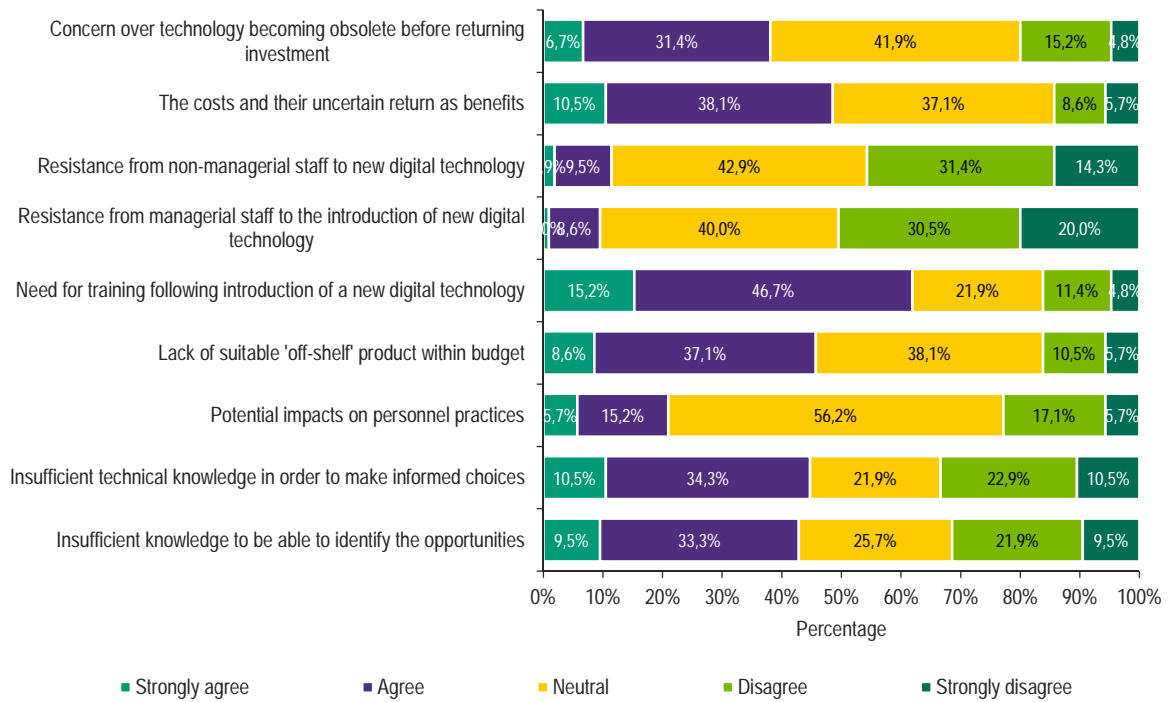


Figure 3ii.219: Portuguese SMEs' Difficulties to Implement New Technology

## 22.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is lack of finance (62.9%) (Figure 3ii.220). Apart from this, the main issue for businesses that wish to improve digitalisation is the high cost of training (46.7%), the belief that current technology is sufficient, and costs of high-speed broadband internet (both at 41%), as indicated by Portuguese businesses. The lack of importance of business growth (8.6%), and increased costs (22.8%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

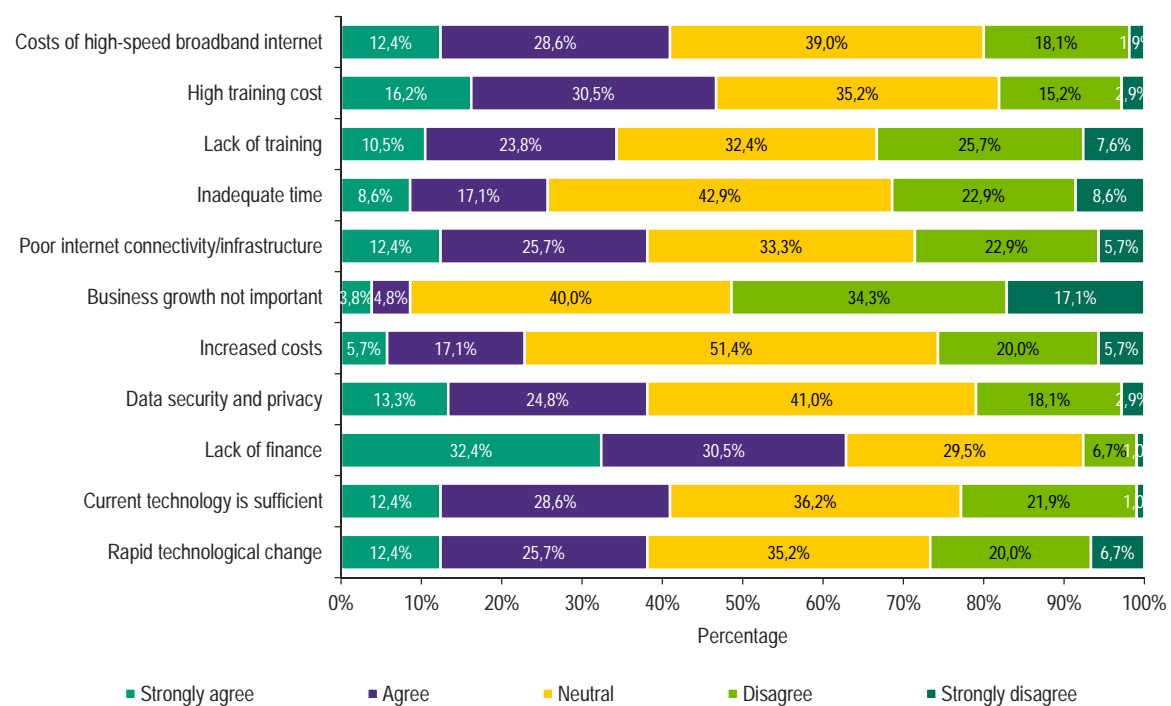


Figure 3ii.220: Portuguese SMEs' Obstacles Preventing Them from Further Improving Digitalisation

## 23 Romania

### 23.1 Level of Digitalisation

Findings show that 78.57% of businesses in Romania use basic office software as a digital technology (Figure 3ii.221). Other technologies that rank high include the use of cash registers (66.33%), email (48.98%), and working from home using the internet (43.88%). On the other hand, Romanian businesses are least likely to use professional online networks (1.02%), a staff intranet (3.06%) and chat/instant online advice (4.08%) (Figure 3ii.222).

All respondents were asked to answer the following question:

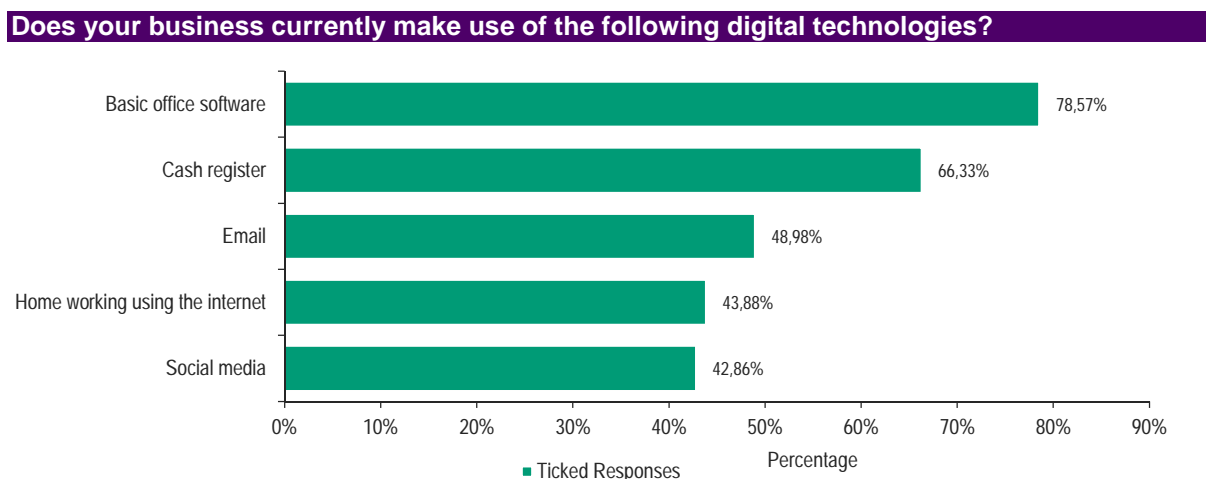


Figure 3ii.221: Digitalisation Adopted by Romanian SMEs

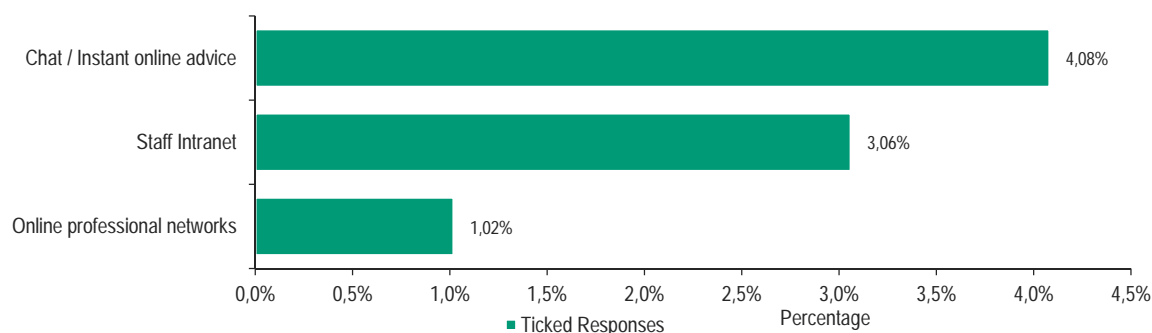


Figure 3ii.222: Digitalisation Least Adopted by Romanian SMEs

### 23.2 Social Media and Websites

#### 23.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Romania at 100% (Table 3ii.23). Businesses in Romania also use Instagram (100%). However, LinkedIn, Pinterest and Twitter ranked low at 2.38% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 0% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.23: Social Media used by Romanian SMEs

**Usage of social media platform**

Social media	Percentage
	100.00%
	2.38%
	2.38%
	2.38%
	2.38%
	0.00%

**23.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 70.00%, whilst the second is leaving reviews/comments/evaluations (46.67%), followed by filing a complaint, and contact by filling in a form (both at 40.00%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 16.67%, followed by availability checks (13.33%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

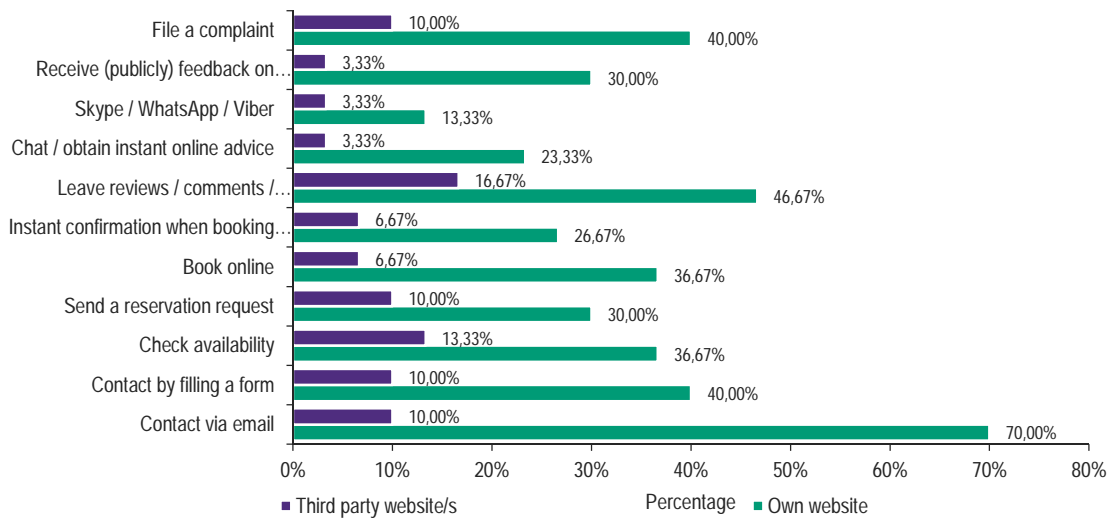


Figure 3ii.223: Usage of websites by Romanian SMEs

**23.3 Data processing**  
**23.3.1 Storage of information**

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Romania, information on customers is stored by 69% of businesses (Figure 3ii.224).

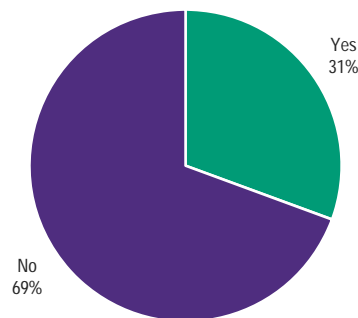


Figure 3ii.224: Romanian SMEs Storing Customer Information

Further analysis (Figure 3ii.225) shows that data storage is mainly done through Excel spreadsheets, which are used by 70% of the businesses that store customer information. There are high percentages of businesses that make use of Customer Relationship Management (CRM) tools (50%), and paper records (10%), to store data.



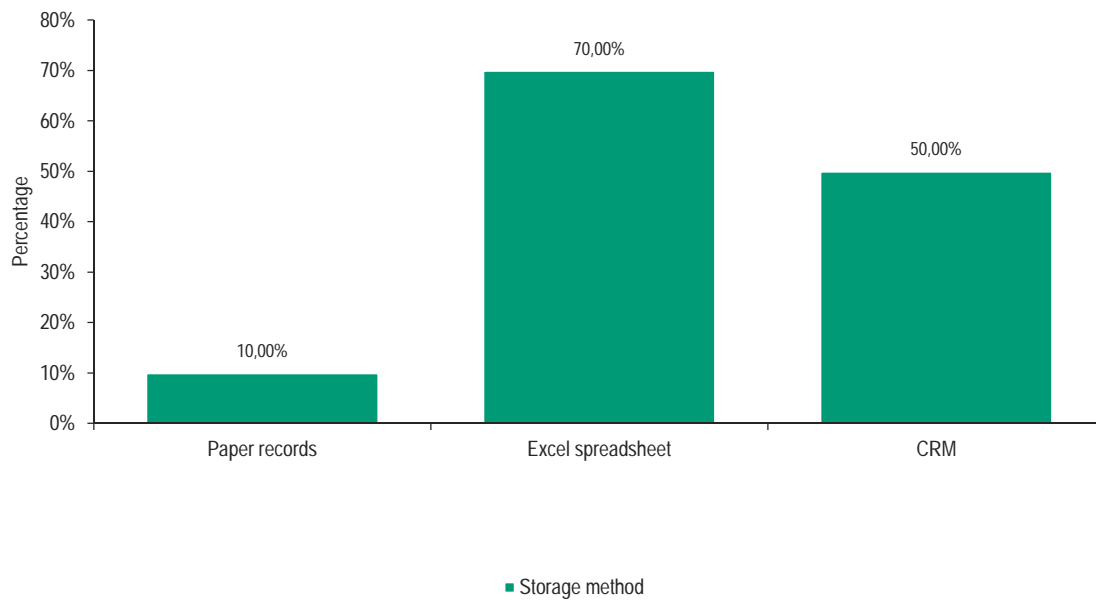


Figure 3ii.225: Methods for Storing Customer Information by Romanian SMEs

### 23.2.2 Time Spent on Each Device

Conclusions show that Romanian businesses spend the highest amount of time on desktop computers (66%), whilst no time is spent using tablets (0%) (Figure 3ii.226).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

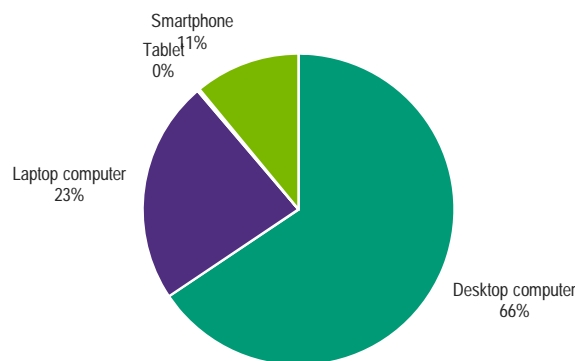


Figure 3ii.226: Percentage of Time Spent on Device to Conduct Business by Romanian SMEs

## 23.4 Attitudes Towards Digitalisation

### 23.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Romanian businesses seek to

increase growth (97%), form part of a professional network (92%), and are optimistic about future opportunities (90%) (Figure 3ii.227).

All respondents were asked to answer the following question:

**Please rate your level of agreement /disagreement with each of the following statements.**

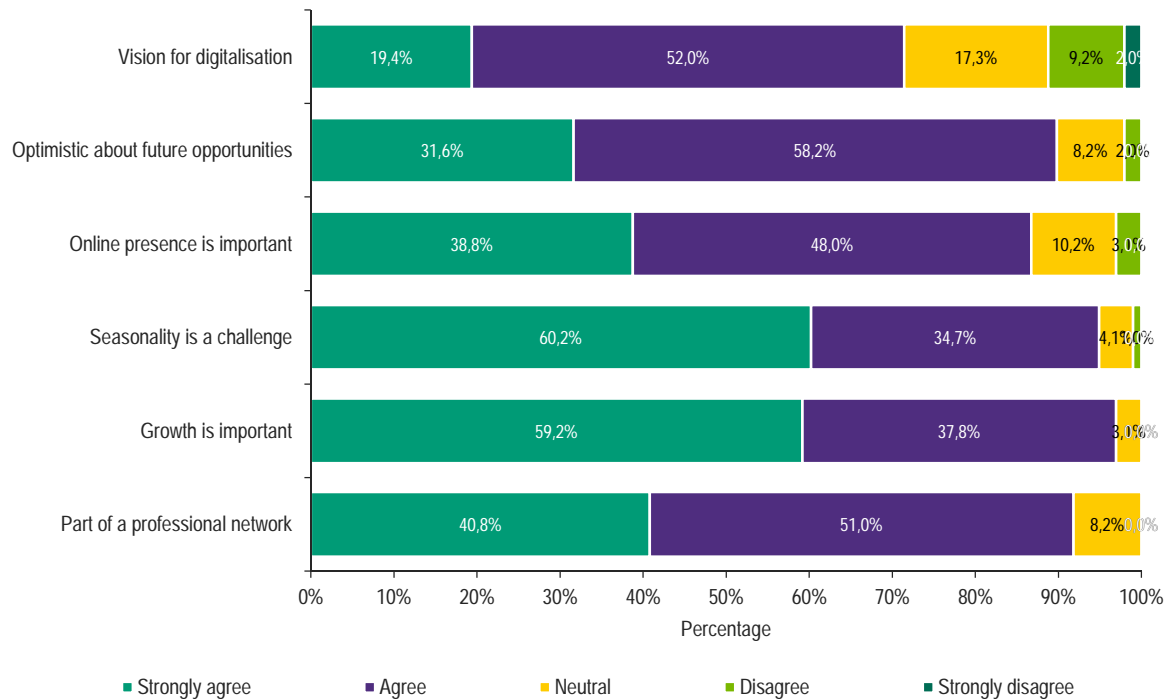


Figure 3ii.227: Romanian SMEs' Motivation to Get Digitalised

### 23.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Romanian businesses that digitalisation enables the more effective management of business (86%), enables businesses to track the return on their investment in the digitalisation (84%) and generate a positive return the investment (80%) (Figure 3ii.228). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (11%) and disagreement (53%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

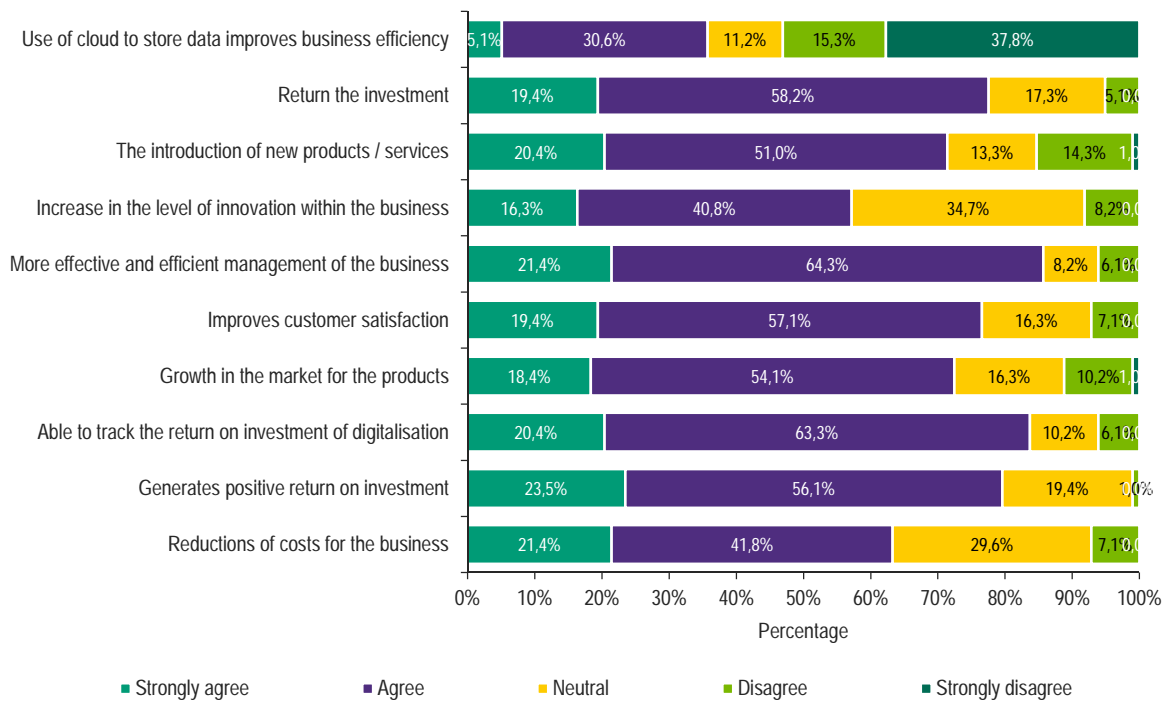


Figure 3ii.228: Advantages Expected/Experienced by Romanian SMEs from Digitalisation

## 23.5 Challenges

### 23.5.1 Difficulties in the Implementation of New Digital Technologies

Romanian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following the introduction of a new digital technology (73 %) (Figure 3ii.229). Other difficulties encountered by businesses include concerns over the technology becoming obsolete investment (66%) and uncertainty in costs returning a benefit (66%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

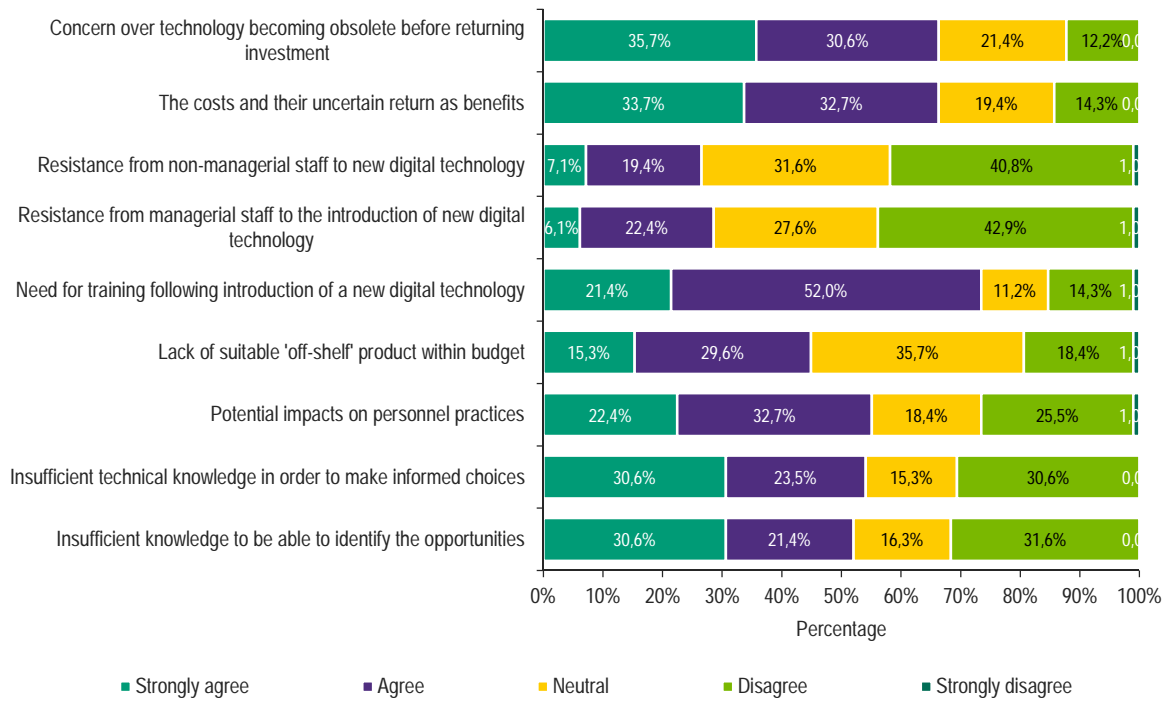


Figure 3ii.229: Romanian SMEs' Difficulties in the Implementation of New Technology

### 23.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is the belief that the current technology in use is sufficient to meet their needs (76.3%) (Figure 3ii.230). Apart from this, the main issue for businesses that wish to improve digitalisation is a lack of finance (67%), and a lack of training (64.9%), as indicated by Romanian businesses. The costs of high-speed broadband internet (39.1%), and increased costs (39.2%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

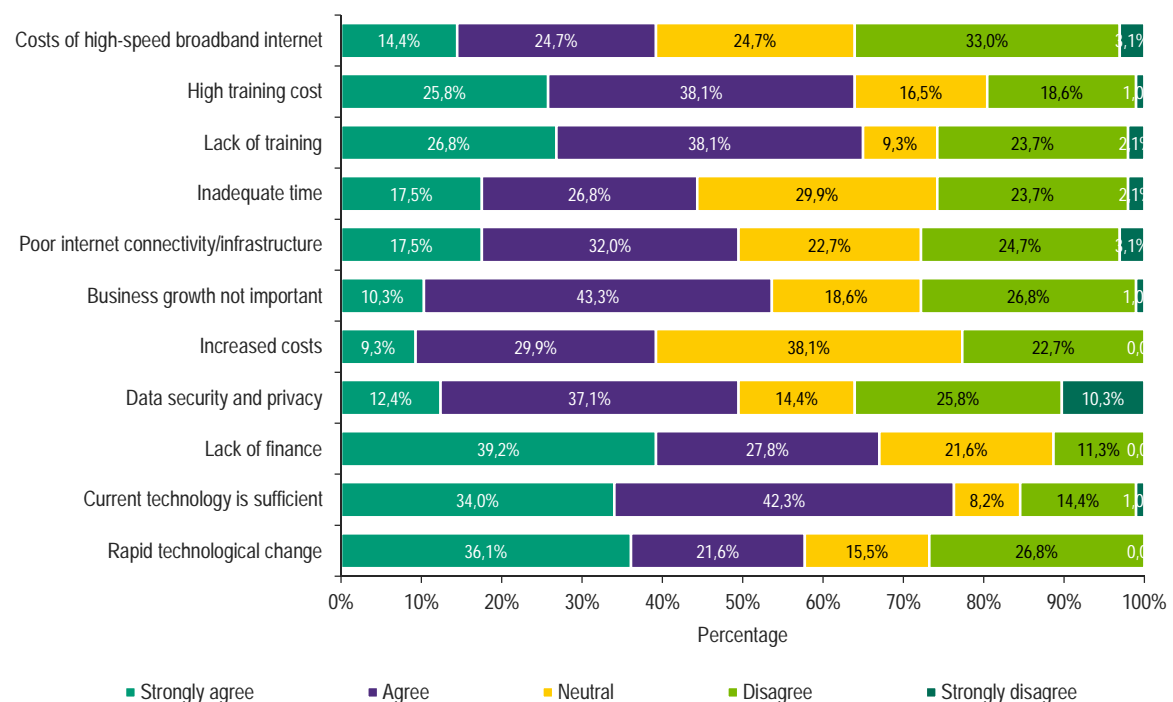


Figure 3ii.230: Romanian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

## 24 Slovakia

### 24.1 Level of Digitalisation

Findings show that 96.67% of businesses in Slovakia use basic office software as a digital technology (Figure 3ii.231). Other technologies that rank high include the use of websites (91.67%), email (80%), and social media (76.67%). On the other hand, Slovakian businesses are least likely to use Property Management Systems (6.67%), online professional networks (11.67%), and specialist graphic software (13.3%) (Figure 3ii.232).

All respondents were asked to answer the following question:

#### Does your business currently make use of the following digital technologies?

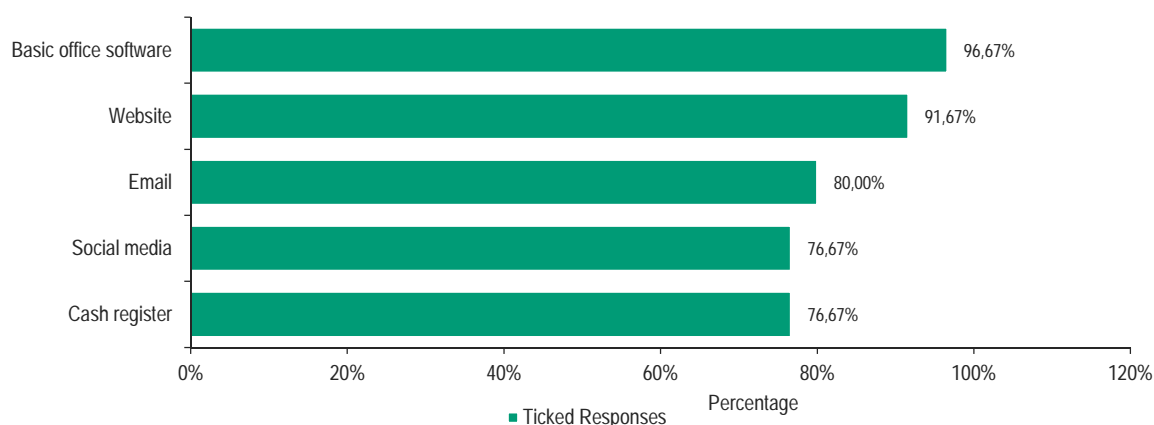


Figure 3ii.231: Digitalisation Adopted by Slovakian SMEs

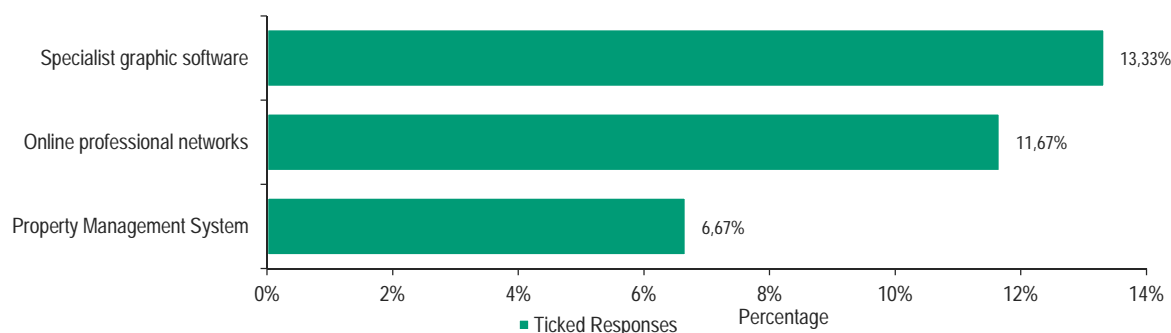


Figure 3ii.232: Digitalisation Least Adopted by Slovakian SMEs

### 24.2 Social Media and Websites

#### 24.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Slovakia at 100% (Table 3ii.24). Businesses in Slovakia also use Instagram (15.2%) and LinkedIn (13.04). However, Pinterest and Twitter ranked at 2.17%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 4.35% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.24: Social Media used by Slovakian SMEs

**Usage of social media platform**

Social media	Percentage
	100.00%
	15.22%
	2.17%
	2.17%
	13.04%
	4.35%

**24.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to both businesses using their own website and third-party websites is the email function, standing at 96.36% and 38.18% respectively. In the case of businesses having their own website, the second most common feature available was sending a reservation request (74.55%), followed by filing a complaint (50.91%). Other common functionality features for the businesses using third-party websites include the functionality of leaving reviews, and sending a reservation request, which ranked equally at 32.73%.

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

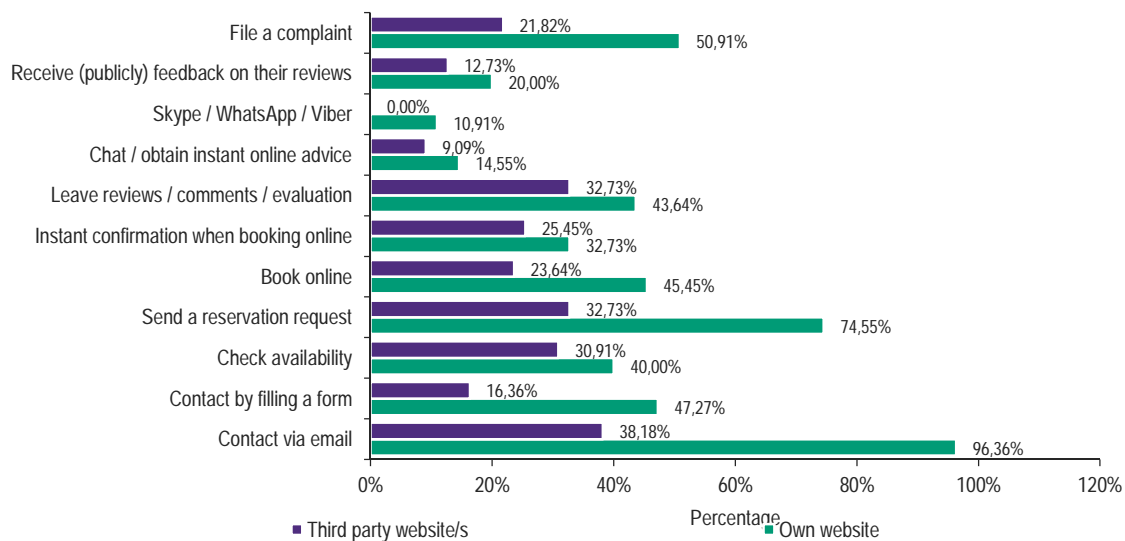


Figure 3ii.233: Usage of Websites by Slovakian SMEs

## 24.3 Data Processing

### 24.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Slovakia information on customers is stored by 57% of businesses (Figure 3ii.234).

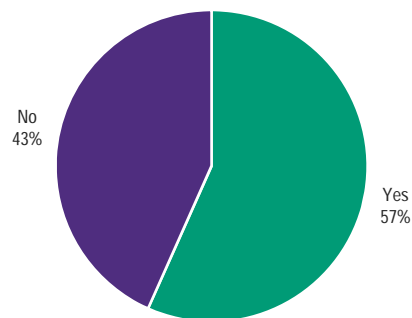


Figure 3ii.234: Slovakian SMEs Storing Customer Information

Further analysis (Figure 3ii.235) shows that data storage is equally done through the Customer Relations Management (CRM) tool that is used by 47.06% of the businesses that store customer information, and Excel spreadsheets, as used by 47.06% of businesses. There is a high percentage of businesses that make use of paper records (41.18%) to store data.

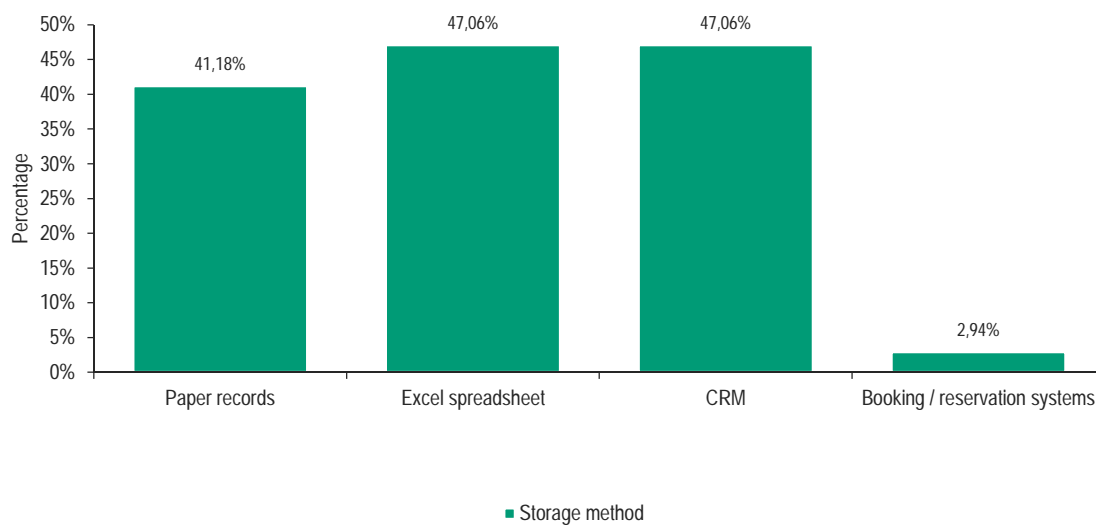


Figure 3ii.235: Methods for Storing Customer Information by Slovakian SMEs



### 24.3.2 Time Spent on Each Device

Conclusions show that Slovakian businesses spend the highest amount of time on desktop computers (49%), whilst they spend the least time on tablets (3%) (Figure 3ii.236).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

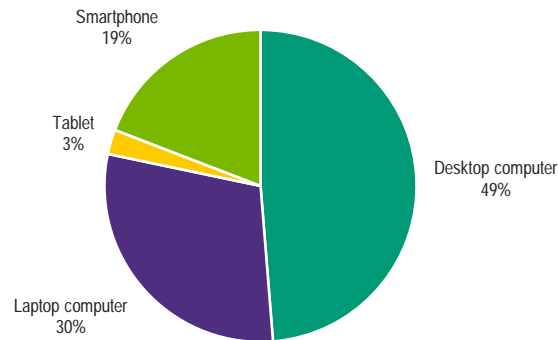


Figure 3ii.236: Percentage of Time Spent on Device to Conduct Business by Slovakian SMEs

## 24.4 Attitudes Towards Digitalisation

### 24.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Slovakian businesses seek to achieve a higher online presence (90%), increased growth (87%), and are optimistic about future opportunities (82%) (Figure 3ii.237).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

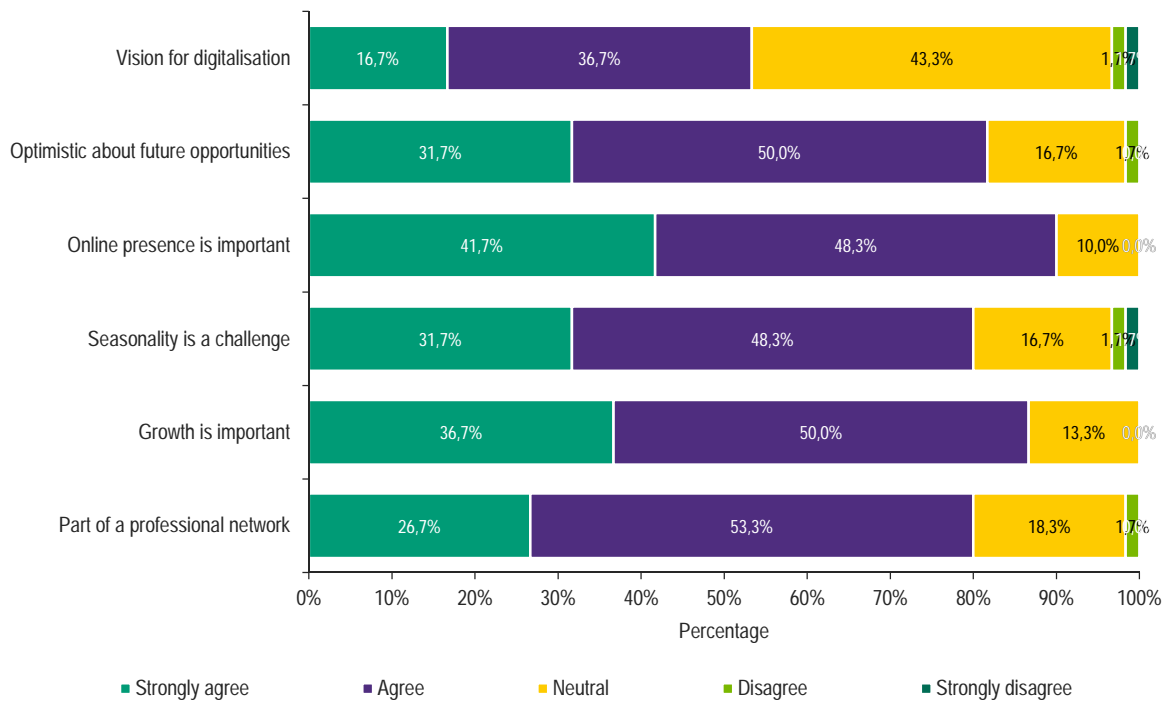


Figure 3ii.237: Slovakian SMEs' Motivation to Get Digitalised

### 24.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Slovakian businesses that digitalisation improves customer satisfaction (75%), enables the more effective management of business (75%), and reduces costs (75%) (Figure 3ii.238). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (60%) and disagreement (7%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

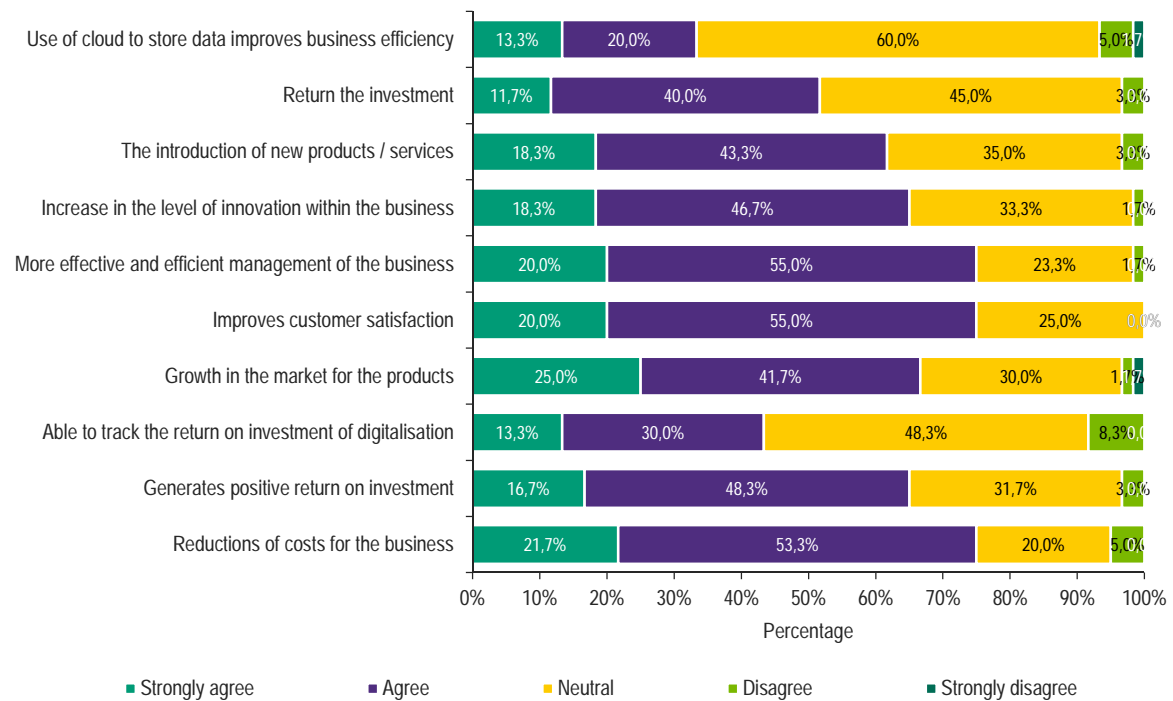


Figure 3ii.238: Advantages Expected/Experienced by Slovakian SMEs from Digitalisation

## 24.5 Challenges

### 24.5.1 Difficulties in the Implementation of New Digital Technologies

Slovakian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following its introduction (62%) and the insufficient knowledge to identify opportunities (62%) (Figure 3ii.239). Other difficulties encountered by businesses include concerns over the technology becoming obsolete before they can make a return on their investment (47%), and having insufficient technical knowledge to make informed choices (53%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

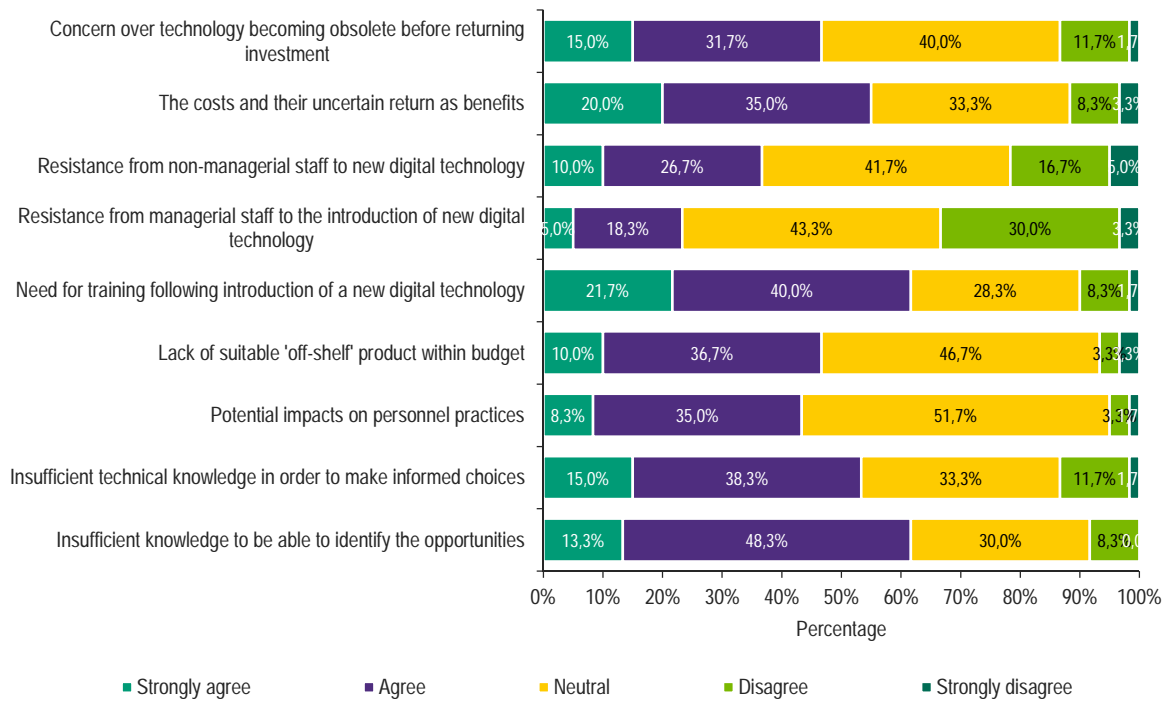


Figure 3ii.239: Slovakian SMEs' difficulties to Implement New Technology

## 24.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is a lack of finance (61.6%) (Figure 3ii.239). Apart from this, the main issue for businesses that wish to improve digitalisation is rapid technology change (56.7%), and increased costs (55%), as indicated by Slovakian businesses. Inadequate time (25%), and the lack of importance of business growth (26.7%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

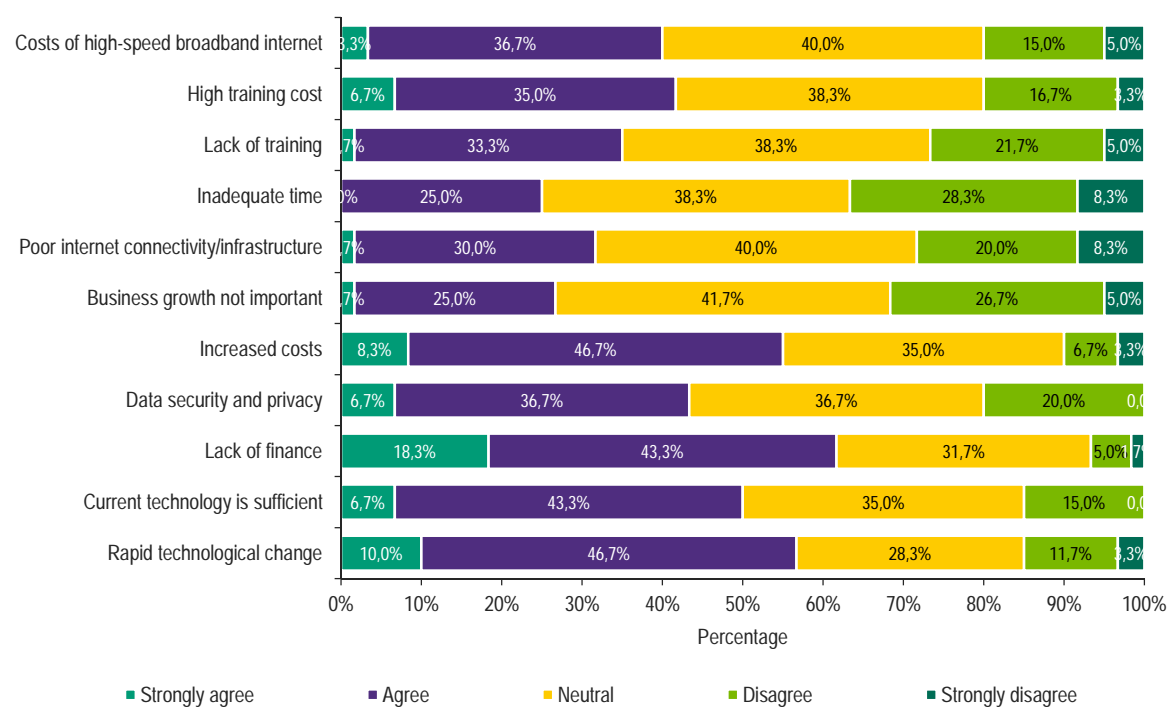


Figure 3ii.240: Slovakian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 25 Slovenia

## 25.1 Level of Digitalisation

Findings show that 90.91% of businesses in Slovenia use email and basic office software as digital technology (Figure 3ii.241). Other technologies that rank high include the use of websites (80.99%), social media (76.86%), and internet banking (64.46%). On the other hand, Slovenian businesses are least likely to use Property Management Systems (PMS) (1.65%), specialist graphic software (5.79%), and professional online networks (5.79%) (Figure 3ii.242).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

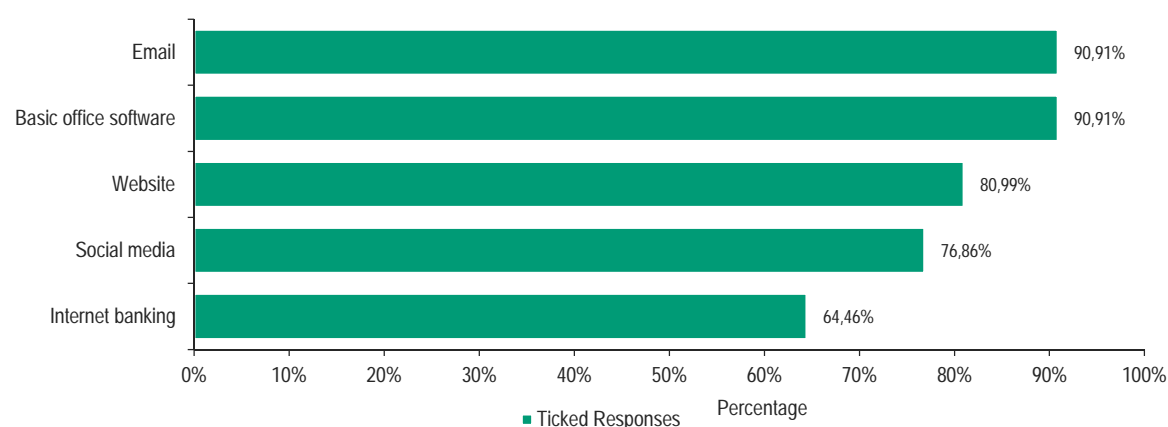


Figure 3ii.241: Digitalisation Adopted by Slovenian SMEs

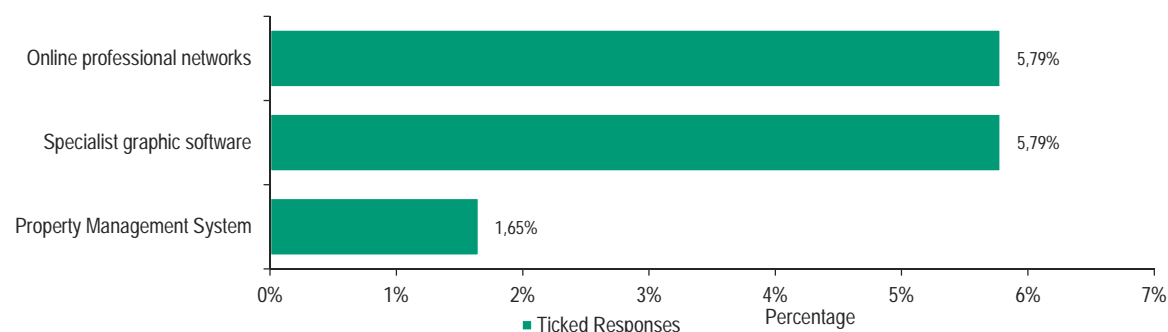


Figure 3ii.242: Digitalisation Least Adopted by Slovenian SMEs

## 25.2 Social Media and Websites

### 25.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Slovenia at 94.6% (Table 3ii.25). Businesses in Slovenia also use Twitter (27.96%), Instagram (26.88%) and LinkedIn (19.35%). However, Pinterest ranked at 13.98% whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 0% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

## Which social media platform does your business use?

Table 3ii.25: Social Media used by Slovenian SMEs

### Usage of social media platform

Social media	Percentage
	94.62%
	26.88%
	13.98%
	27.96%
	19.35%
	0.00%

### 25.2.2 Functionality of Site

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function, standing at 94.90%, whilst the second is sending a reservation request (72.45%), followed by contact by filling in a form (67.35%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 35.71%, followed by instant confirmation when booking online and making online bookings (both at 30.61%).

Respondents who chose websites in the first question (Section 1.1) were asked:

### Can your customers do the following on your website or via third-party websites you use to provide services?

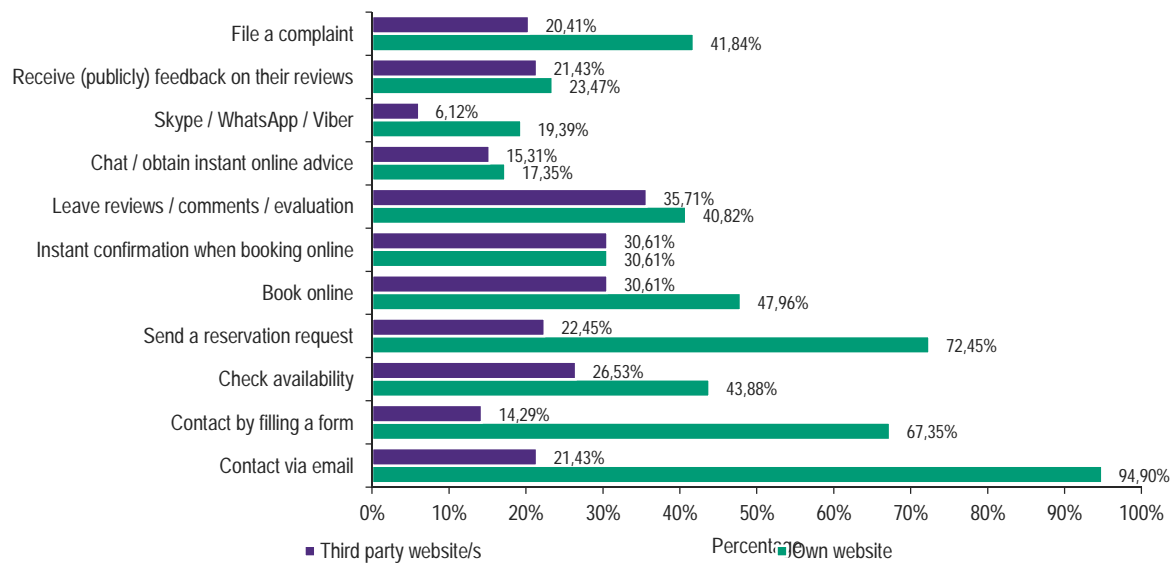


Figure 3ii.243: Usage of Websites by Slovenian SMEs

## 25.3 Data Processing

### 25.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Slovenia, information on customers is stored by 74% of businesses (Figure 3ii.244).

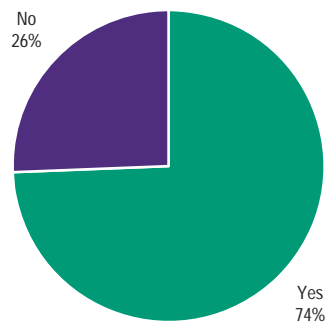


Figure 3ii.244: Slovenian SMEs Storing Customer Information

Further analysis (Figure 3ii.245) shows that data storage is mainly done through Excel spreadsheets, which are used by 46.67% of the businesses that store customer information. There are high percentages of businesses that make use of paper records (43.3%), and Customer Relations Management (CRM) tools (35.56%), to store data.



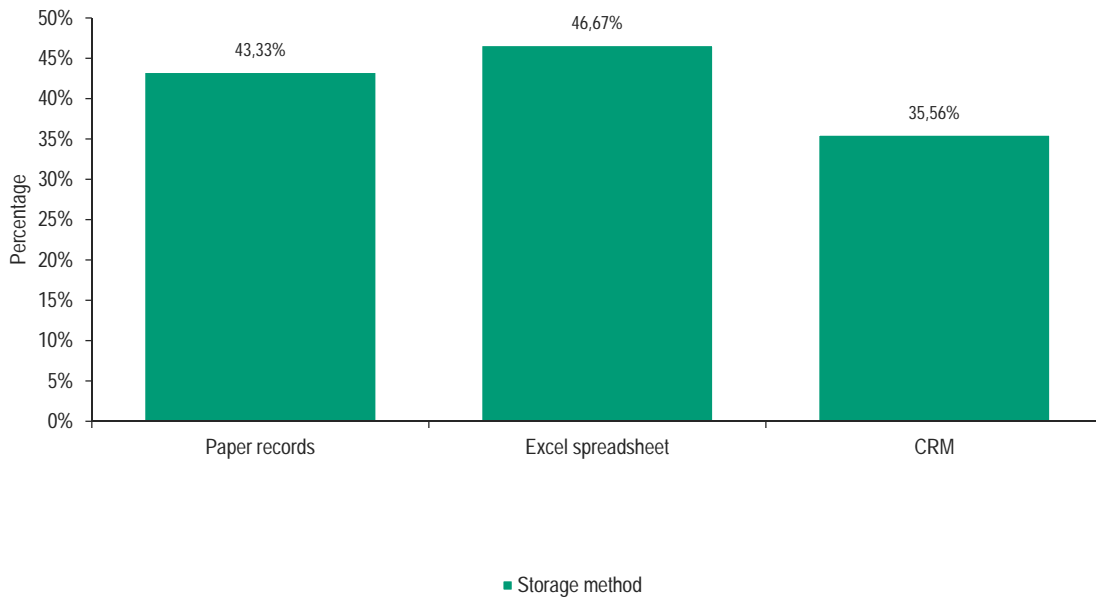


Figure 3ii.245: Methods for Storing Customer Information by Slovenian SMEs

### 25.3.2 Time Spent on Each Device

Conclusions show that Slovenian businesses spend the highest amount of time on desktop computers (56%), whilst they spend the least time on tablets (4%) (Figure 3ii.246).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

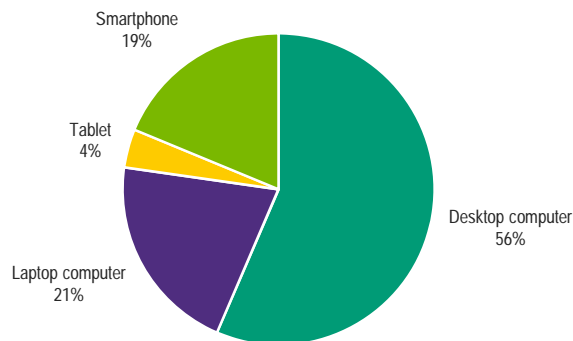


Figure 3ii.246: Percentage of Time Spent on Device to Conduct Business by Slovenian SMEs

## 25.4 Attitudes Towards Digitalisation

### 25.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Slovenian businesses seek to achieve a higher online presence (94%), increased growth (85%), and are optimistic about future opportunities (80%) (Figure 3ii.247).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

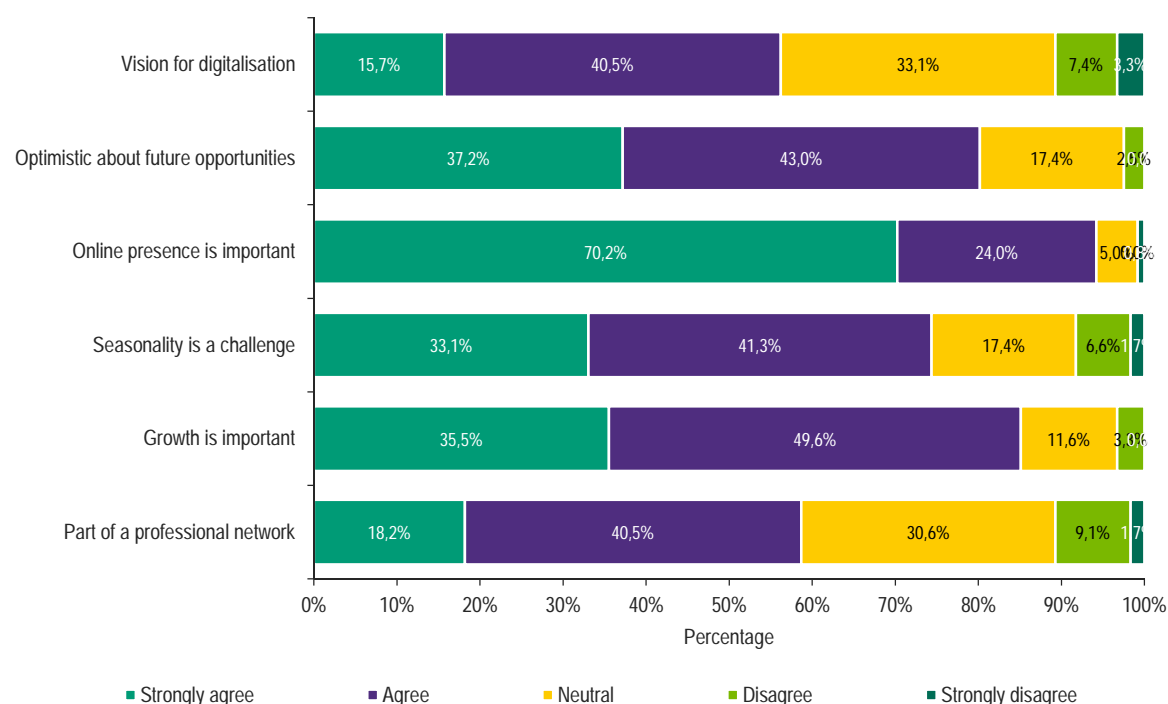


Figure 3ii.247: Slovenian SMEs' Motivation to Get Digitalised

### 25.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Slovenian businesses that digitalisation increases growth in the market for products (84%), enables the more effective management of business (83%), and improves customer satisfaction (75%) (Figure 3ii.248). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered the highest percentages of neutral (50%) and disagreement (11%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

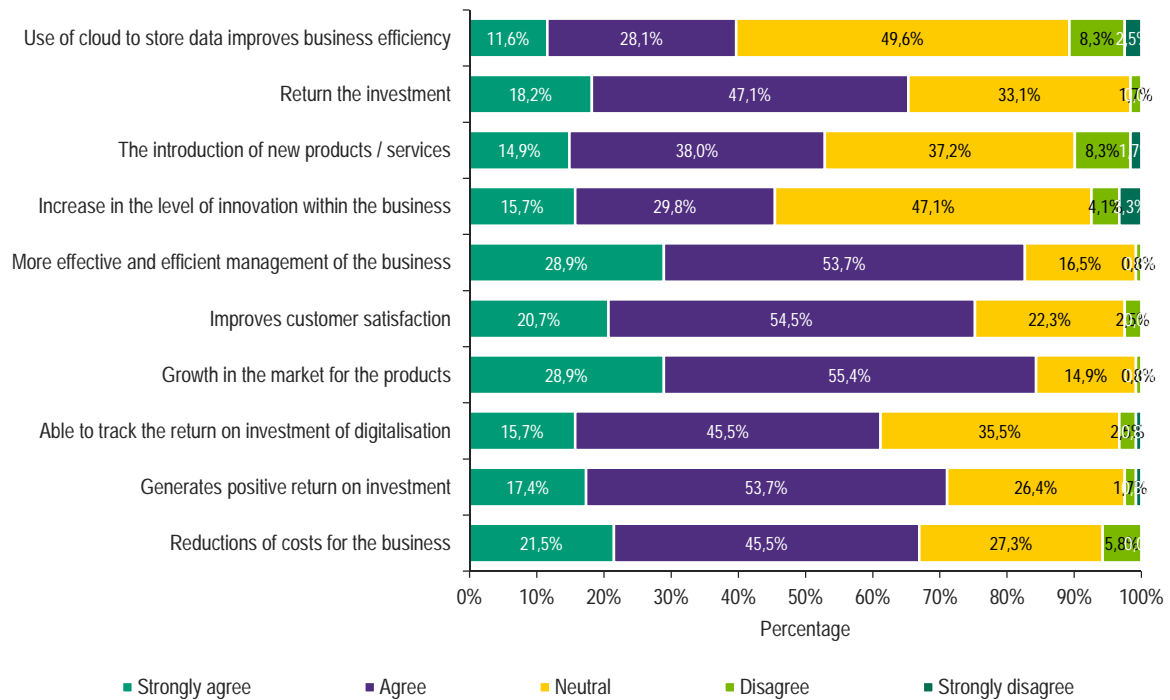


Figure 3ii.248: Advantages Expected/Experienced by Slovenian SMEs from Digitalisation

## 25.5 Challenges

### 25.5.1 Difficulties in the Implementation of New Digital Technologies

Slovenian businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to having insufficient technical knowledge in order for them to make informed choices (70%) (Figure 3ii.249). Other difficulties encountered by businesses include concerns over insufficient knowledge to be able to identify the opportunities (68%) and the need for training following the introduction of a new digital technology (66%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

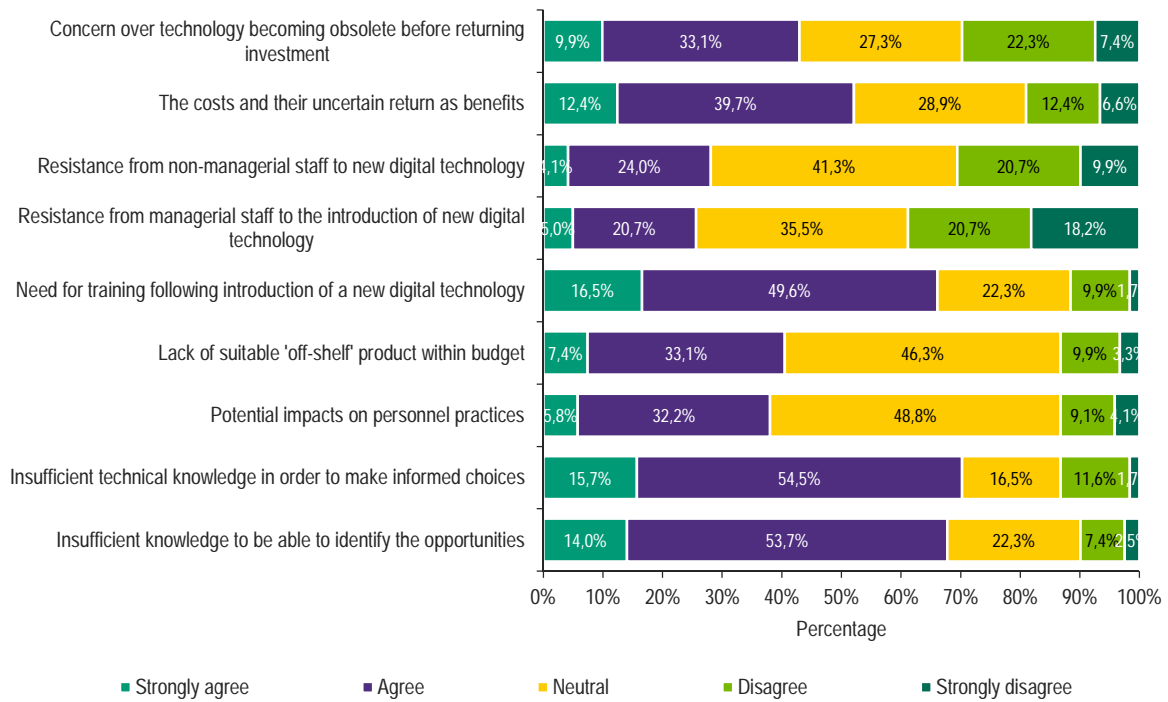


Figure 3ii.249: Slovenian SMEs' Difficulty in the Implementation of New Technology

## 25.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is a lack of finance (67.8%) (Figure 3ii.250). Apart from that, the main issue for businesses that wish to improve digitalisation is rapid technological change (57.8%), and the belief that their current technology is sufficient (57%), as indicated by Slovenian businesses. The lack of importance of business growth (21.5%), and the costs of high-speed broadband internet (29.7%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

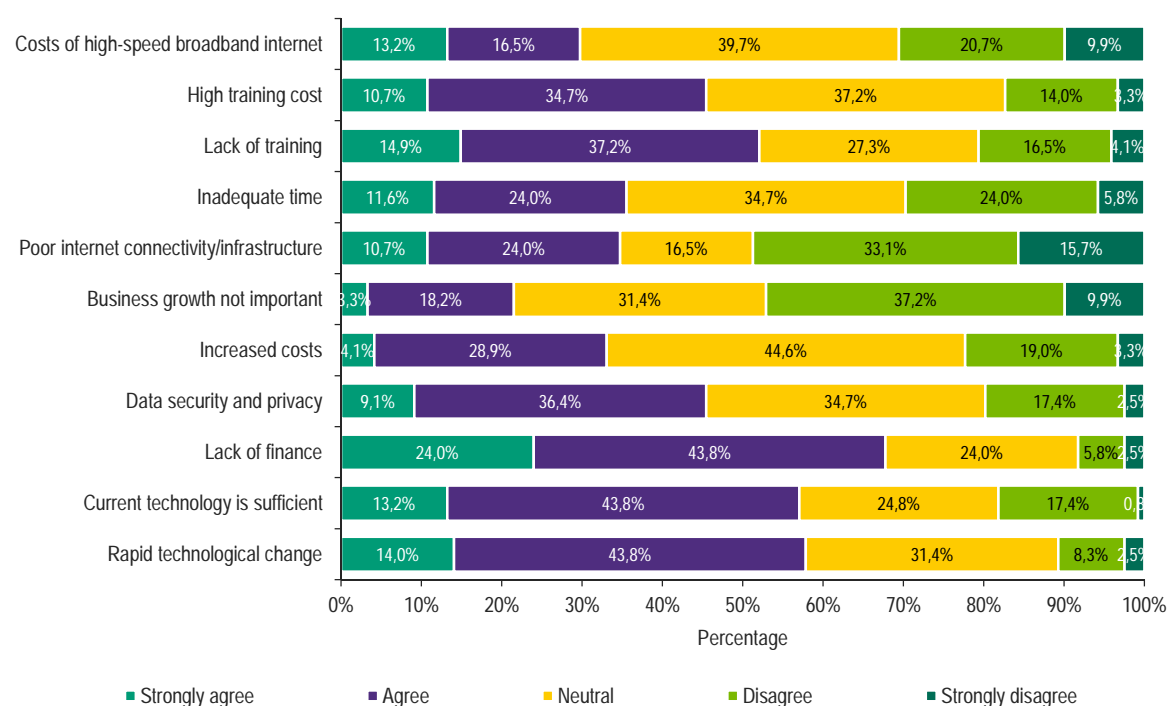


Figure 3ii.250: Slovenian SMEs' Obstacles Preventing Them from Further Improving Digitalisation

## 26 Spain

### 26.1 Level of digitalisation

Findings show that 94.23% of businesses in Spain use email as a digital technology (Figure 3ii.251). Other technologies that rank high include the use of websites (89.10%), basic office software (88.46%), and social media (85.26%). On the other hand, Spanish businesses are least likely to use computerised ticketing systems (9.62%), chat/instant online advice (12.18%), and video conferencing facilities (14.10%) (Figure 3ii.252).

All respondents were asked to answer the following question:

#### Does your business currently make use of the following digital technologies?

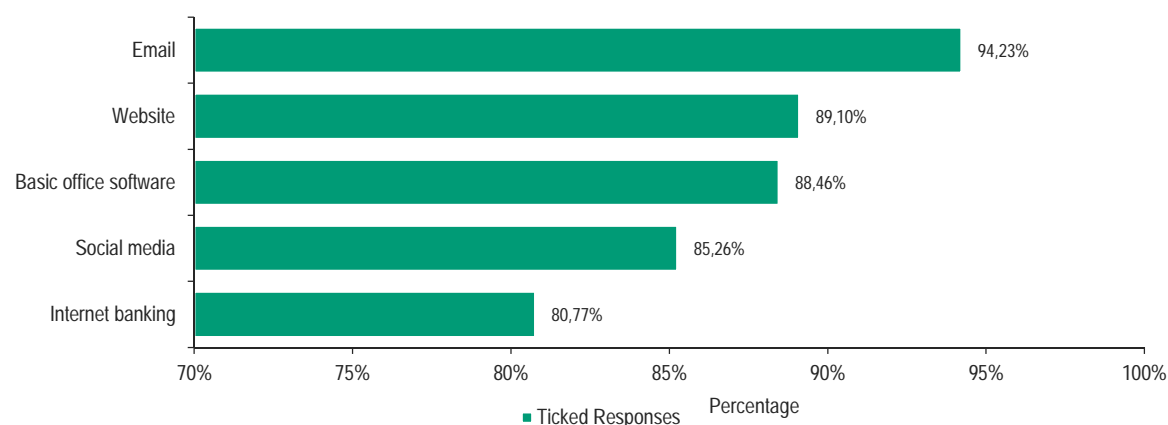


Figure 3ii.251: Digitalisation Adopted by Spanish SMEs

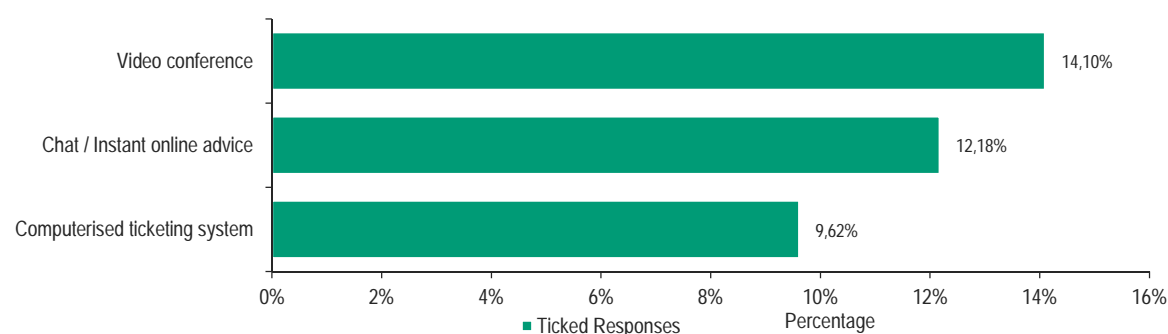


Figure 3ii.252: Digitalisation Least Adopted by Spanish SMEs

### 26.2 Social Media and Websites

#### 26.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Spain at 96.99% (Table 3ii.26). Businesses in Spain also use Twitter (51.88%), Instagram (31.58%) and LinkedIn (27.07%). However, Pinterest ranked at 10.53%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 12.78% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

Which social media platform does your business use?

Table 3ii.26: Social Media used by Spanish SMEs

**Usage of social media platform**

Social media	Percentage
	96.99%
	31.58%
	10.53%
	51.88%
	27.07%
	12.78%

**26.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function, standing at 98.56%, whilst the second is sending a reservation request (83.45%), and the third is contact by filling in a form (71.94%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 51.80%, followed by booking online, sending a reservation request and making contact via email (all at 46.04%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

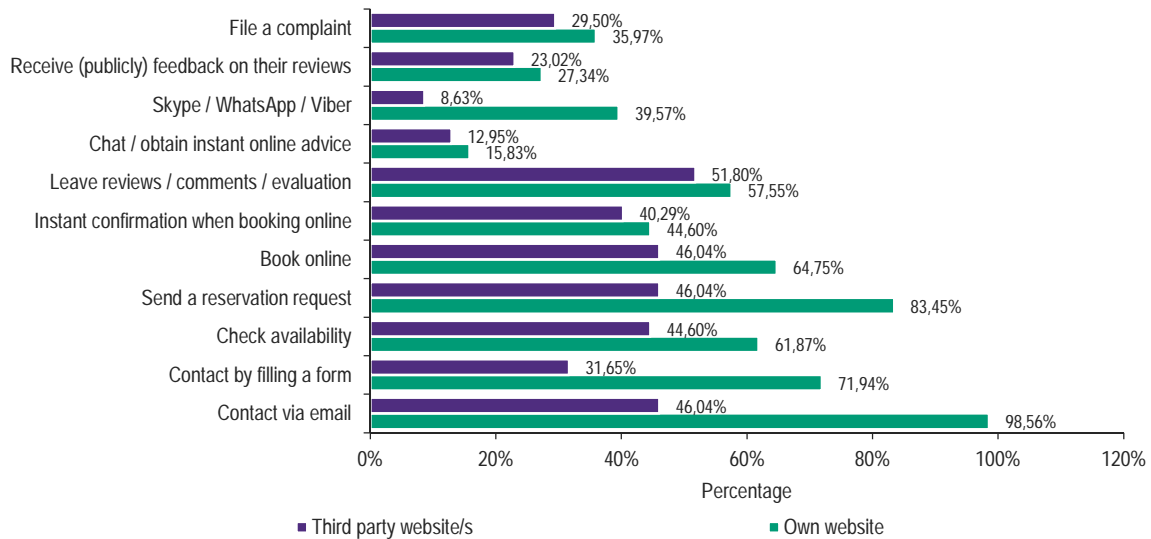


Figure 3ii.253: Usage of Websites by Spanish SMEs

## 26.3 Data Processing

### 26.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that in Spain, information on customers is stored by 69% of businesses (Figure 3ii.254).

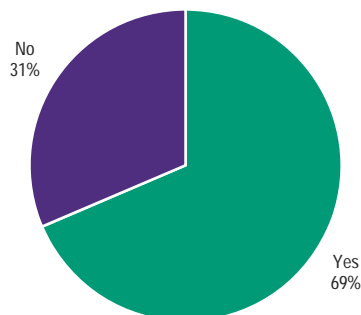


Figure 3ii.254: Spanish SMEs Storing Customer Information

Further analysis (Figure 3ii.255) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 52.34% of the businesses that store customer information. There are high percentages of businesses that make use of paper records (40.19%), and Excel spreadsheets (29.91%), to store data.



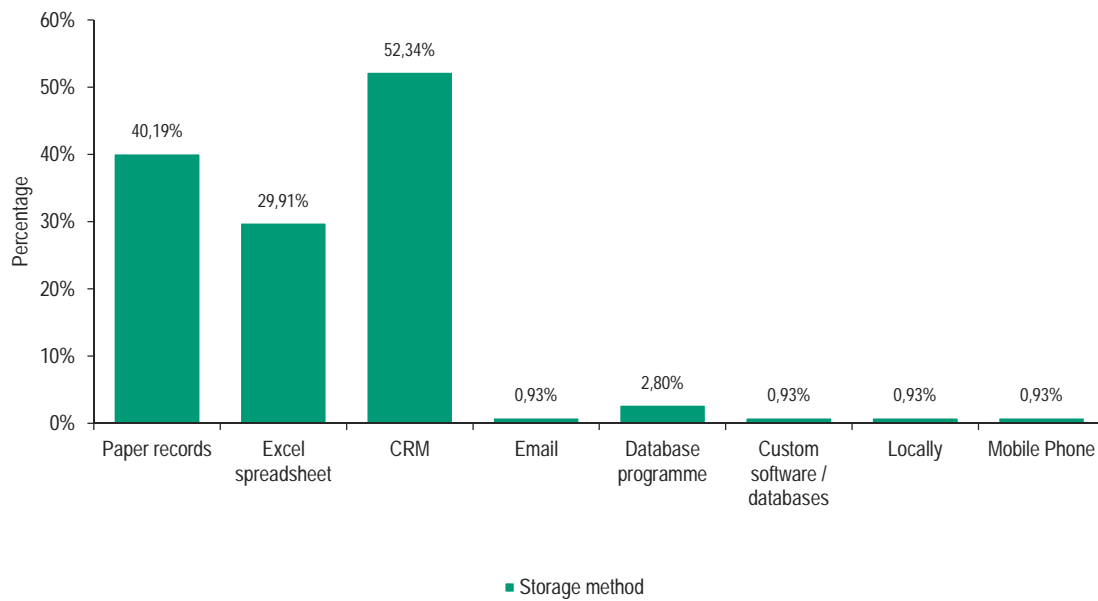


Figure 3ii.255: Methods for Storing Customer Information by Spanish SMEs

### 26.3.2 Time Spent on Each Device

Conclusions show that Spanish businesses spend the highest amount of time on desktop computers (49%), whilst they spend the least time on tablets (5%) (Figure 3ii.256).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

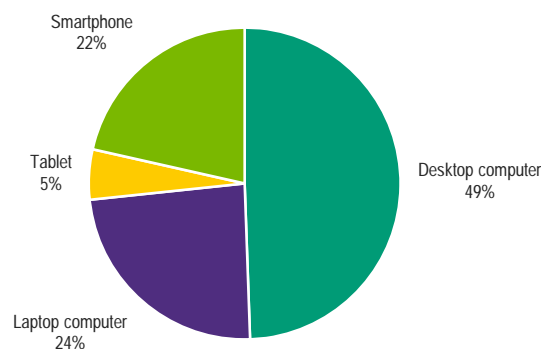


Figure 3ii.256: Percentage of Time Spent on Device to Conduct Business by Spanish SMEs

## 26.4 Attitudes Towards Digitalisation

### 26.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Spanish businesses seek to achieve a higher online presence (96%), are optimistic about future opportunities (90%), and are eager to increase growth (89%) (Figure 3ii.257).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

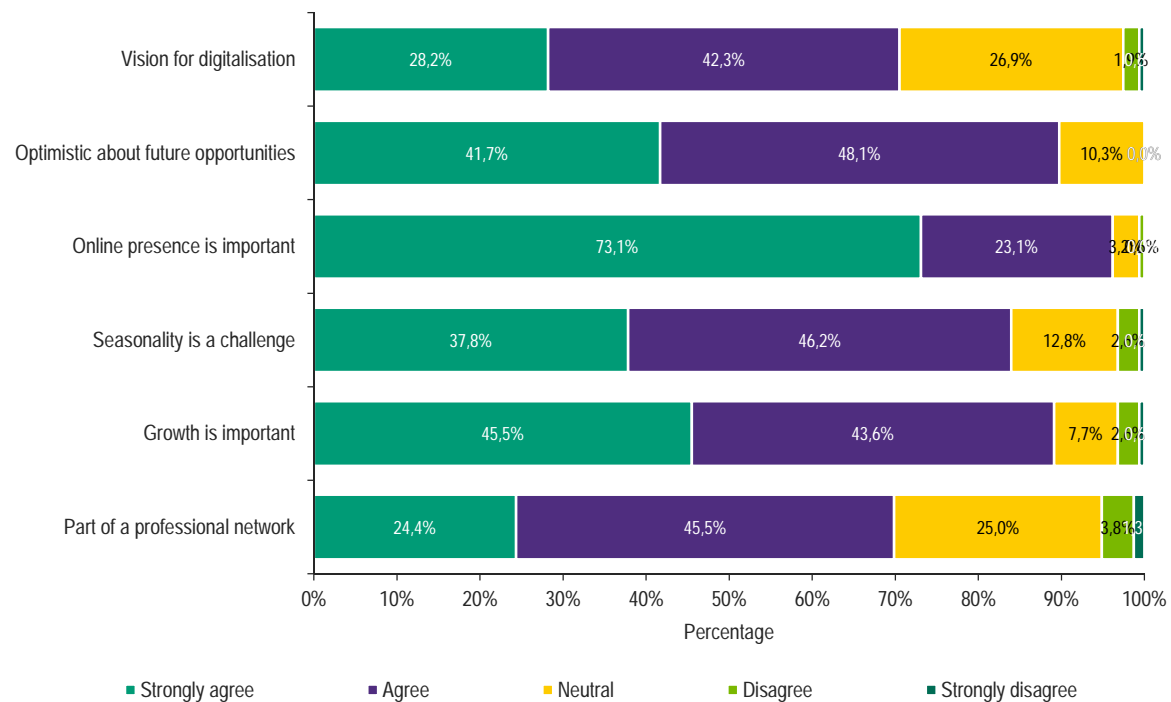


Figure 3ii.257: Spanish SMEs' Motivation to Get Digitalised

### 26.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Spanish businesses that digitalisation enables the more effective management of business (88%), increases growth in the market for products (87%), and generates a positive return on investment (72%) (Figure 3ii.258). It is worth noting that the option "the use of cloud to store data improves business efficiency" registered the highest percentages of neutral (46%) and disagreement (9%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

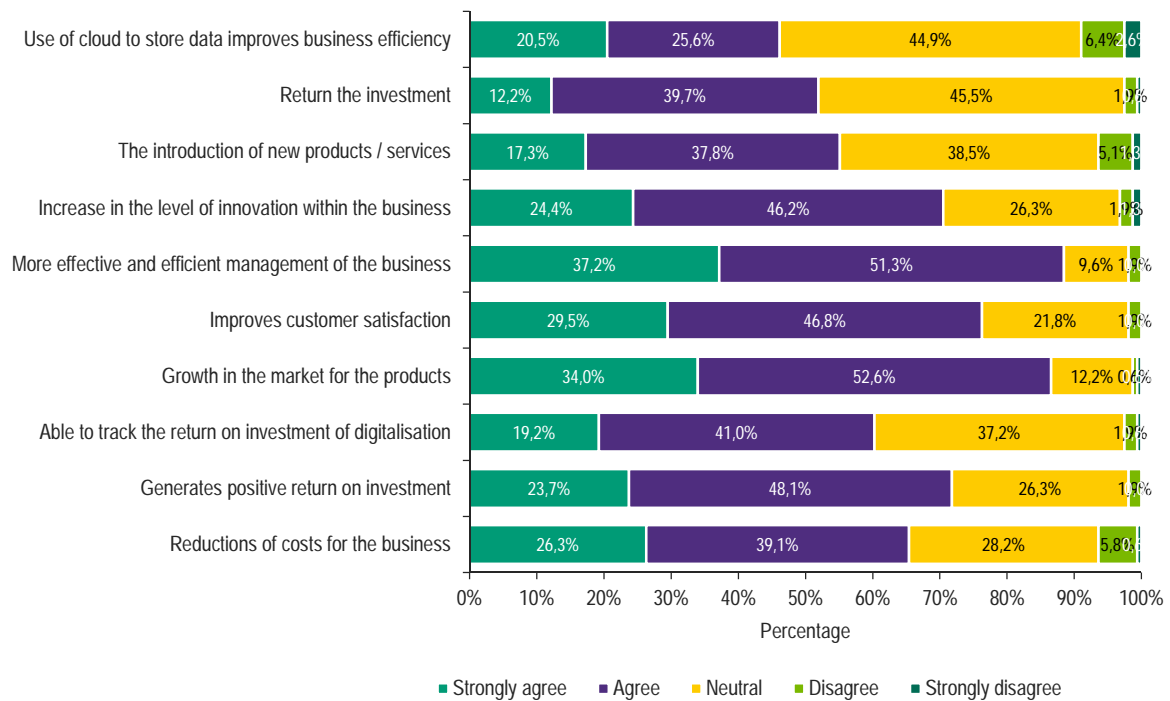


Figure 3ii.258: Advantages Expected/Experienced by Spanish SMEs from Digitalisation

## 26.5 Challenges

### 26.5.1 Difficulties in the Implementation of New Digital Technologies

Spanish businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following its introduction (72%) (Figure 3ii.259). Other difficulties encountered by businesses include concerns over technology becoming obsolete before they can make a return on their investment (53%), the insufficient technical knowledge to make informed choices and to identify the opportunities (both at 62%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

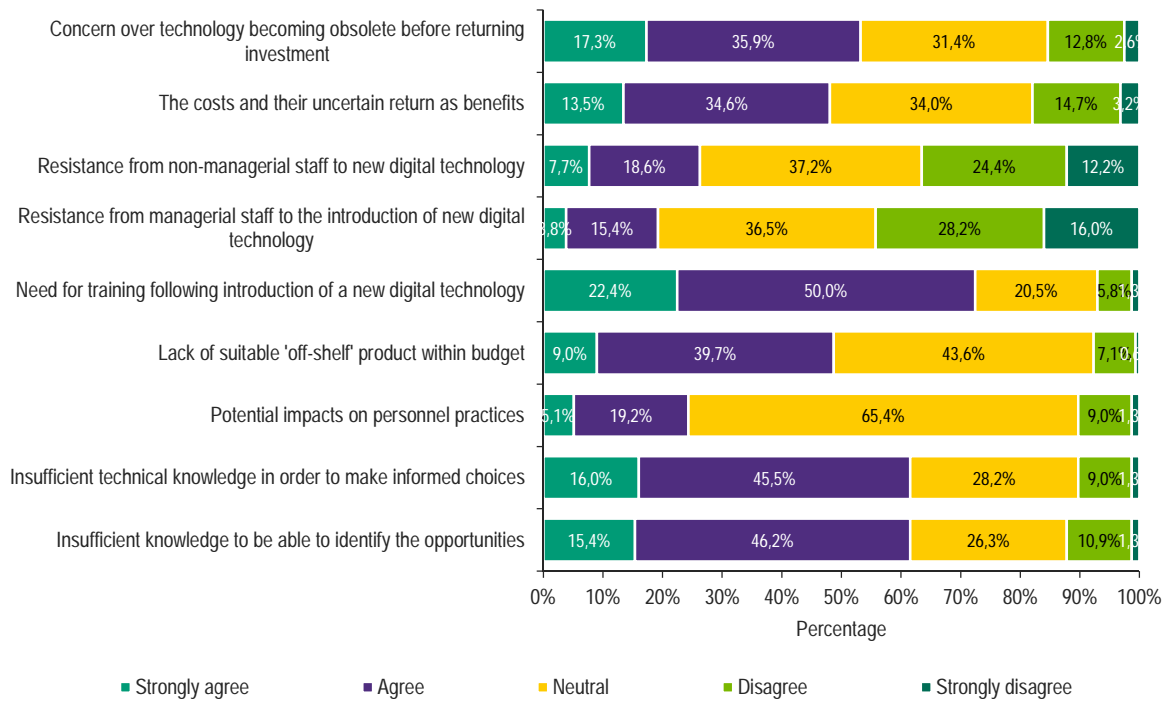


Figure 3ii.259: Spanish SMEs' Difficulty in the Implementation of New Technology

## 26.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is a lack of training (70.9%) (Figure 3ii.260). Apart from this, the main issue for businesses that wish to improve digitalisation is a lack of finance (69.7%), and the cost of high-speed internet (67.8%), as indicated by Spanish businesses. The lack of importance of business growth (22%), and increased costs (45.8%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

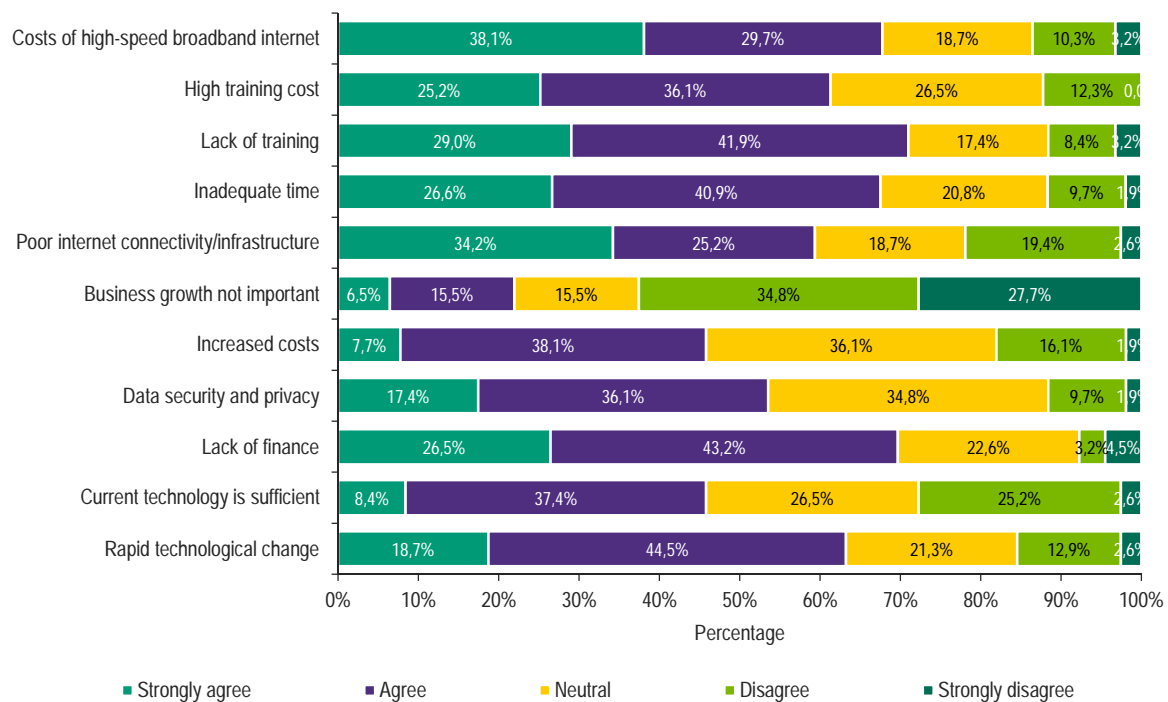


Figure 3ii.260: Spanish SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 27 Sweden

## 27.1 Level of Digitalisation

Findings show that 100% of businesses in Sweden use social media and email as means of digital technology (Figure 3ii.261). Other technologies that rank high include the use of basic office software (97.62%), websites (92.86%), and working from home using the internet (90.48%). On the other hand, Swedish businesses are least likely to use computerised ticketing systems (4.76%), chat/instant online advice (7.14%), and computerised stock control systems (9.52%) (Figure 3ii.262).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

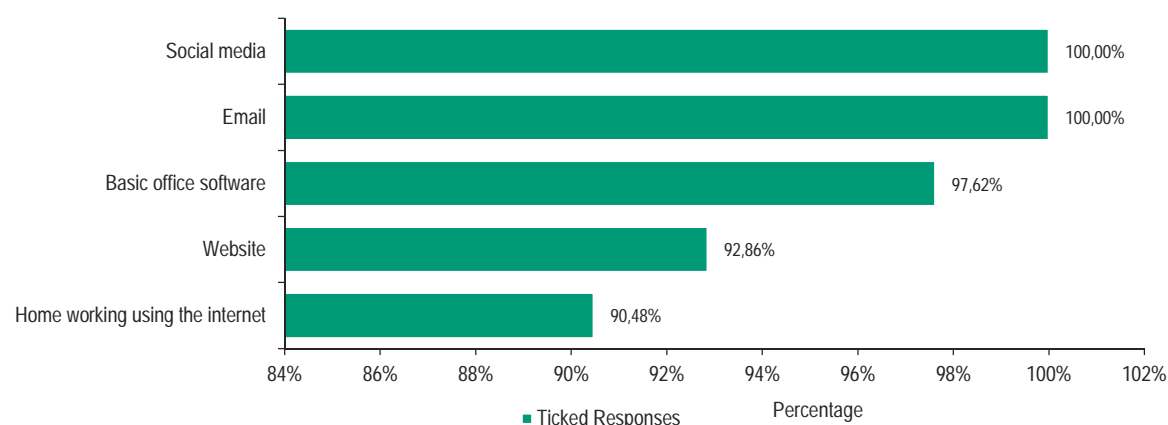


Figure 3ii.261: Digitalisation Adopted by Swedish SMEs

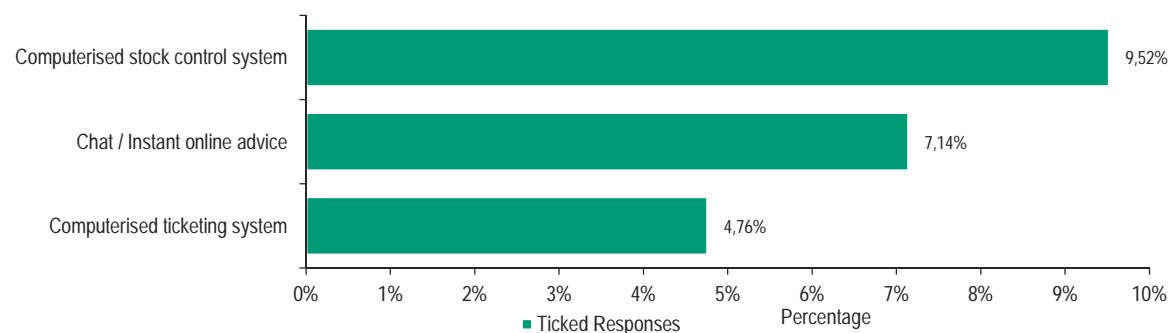


Figure 3ii.262: Digitalisation Least Adopted by Swedish SMEs

## 27.2 Social Media and Websites

### 27.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in Sweden at 97.62% (Table 3ii.27). Businesses in Sweden also use Instagram (66.67%), LinkedIn (35.71%) and Twitter (21.43%). However, Pinterest ranked low at 2.38%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 4.76% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.27: Social Media used by Swedish SMEs

**Usage of social media platform**

Social media	Percentage
	97.62%
	66.67%
	2.38%
	21.43%
	35.71%
	4.76%

**27.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses' own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function standing at 97.44%, whilst the second is sending a reservation request (76.92%), followed by contact by filling in a form (69.23%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 43.59%, availability checks (33.33%), and filing a complaint (30.77%). Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

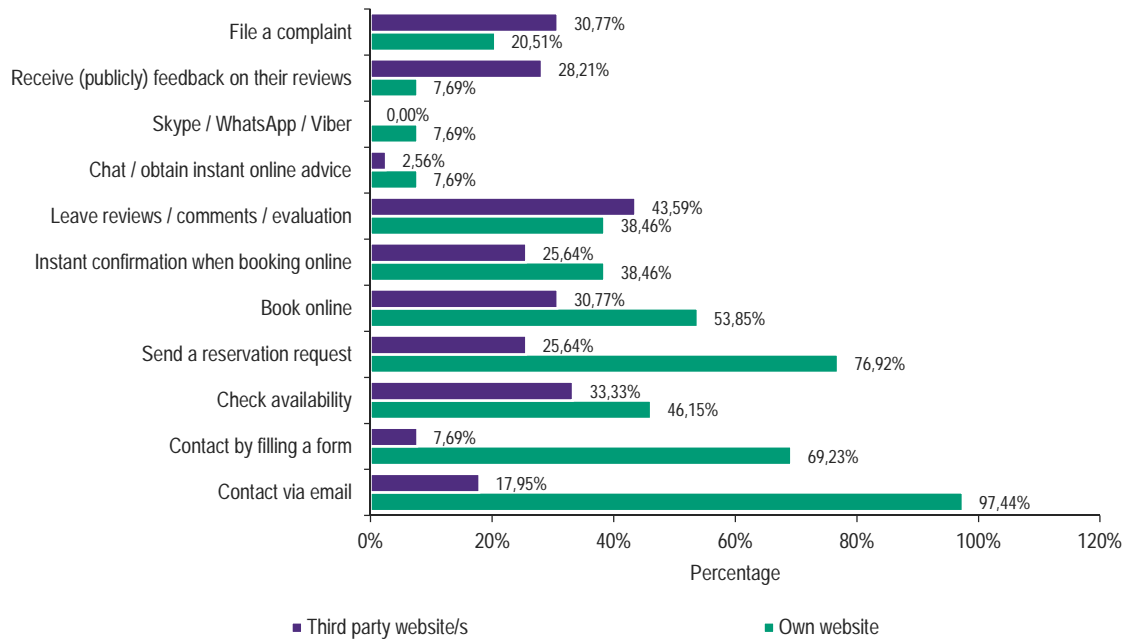


Figure 3ii.263: Usage of Websites by Swedish SMEs

**27.3 Data Processing**  
**27.3.1 Storage of Information**

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

**Where do you store the information?**

Research shows that, in Sweden, information on customers is stored by 67% of businesses (Figure 3ii.264).

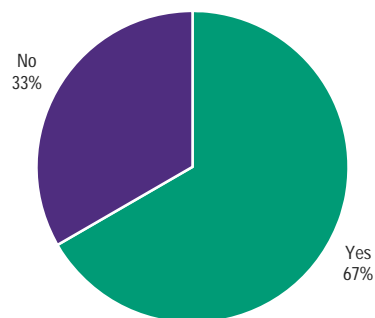


Figure 3ii.264: Swedish SMEs Storing Customer Information

Further analysis (Figure 3ii.265) shows that data storage is mainly done through the Customer Relations Management (CRM) tool that is used by 57.14% of the businesses that



store customer information. There are high percentages of businesses that make use of paper records (17.86%), and Excel spreadsheets (14.29%), to store data.

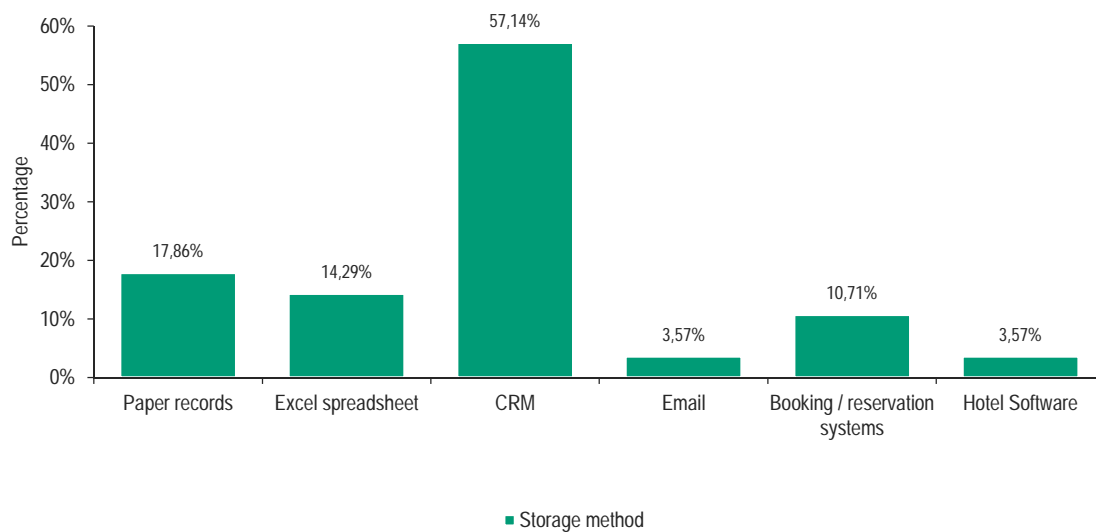


Figure 3ii.265: Methods for Storing Customer Information by Swedish SMEs

### 27.3.2 Time Spent on Each Device

Conclusions show that Swedish businesses spend the highest amount of time on desktop computers (44%), whilst they spend the least time on tablets (1%) (Figure 3ii.266).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

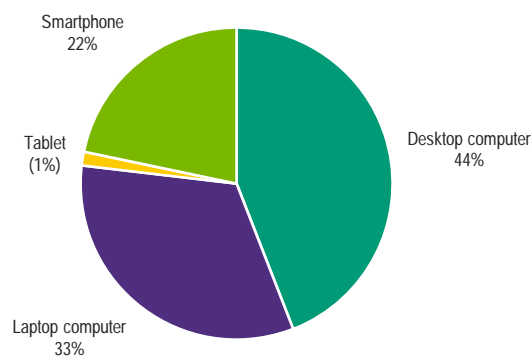


Figure 3ii.266: Percentage of Time Spent on Device to Conduct Business by Swedish SMEs

## 27.4 Attitudes Towards digitalisation

### 27.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that Swedish businesses are

optimistic about future opportunities (93%), seek to achieve a higher online presence (90%), and want to increase growth (86%) (Figure 3ii.267).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

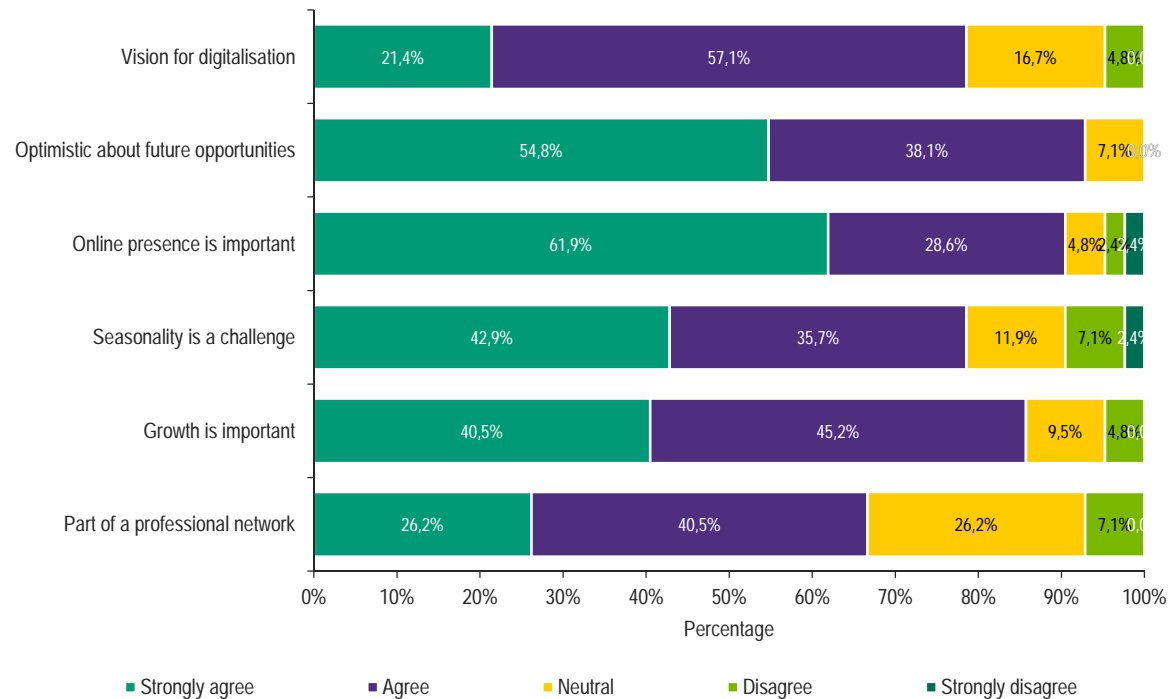


Figure 3ii.267: Swedish SMEs' Motivation to Get Digitalised

### 27.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among Swedish businesses that digitalisation enables growth in the market for the products (86%), enables the more effective management of business (74%), and enhances the introduction of new products/services (67%) (Figure 3ii.268). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (50.0%) whilst “the introduction of new products/services” and “increase in the level of innovation within the business” had the highest disagreement (9.5%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

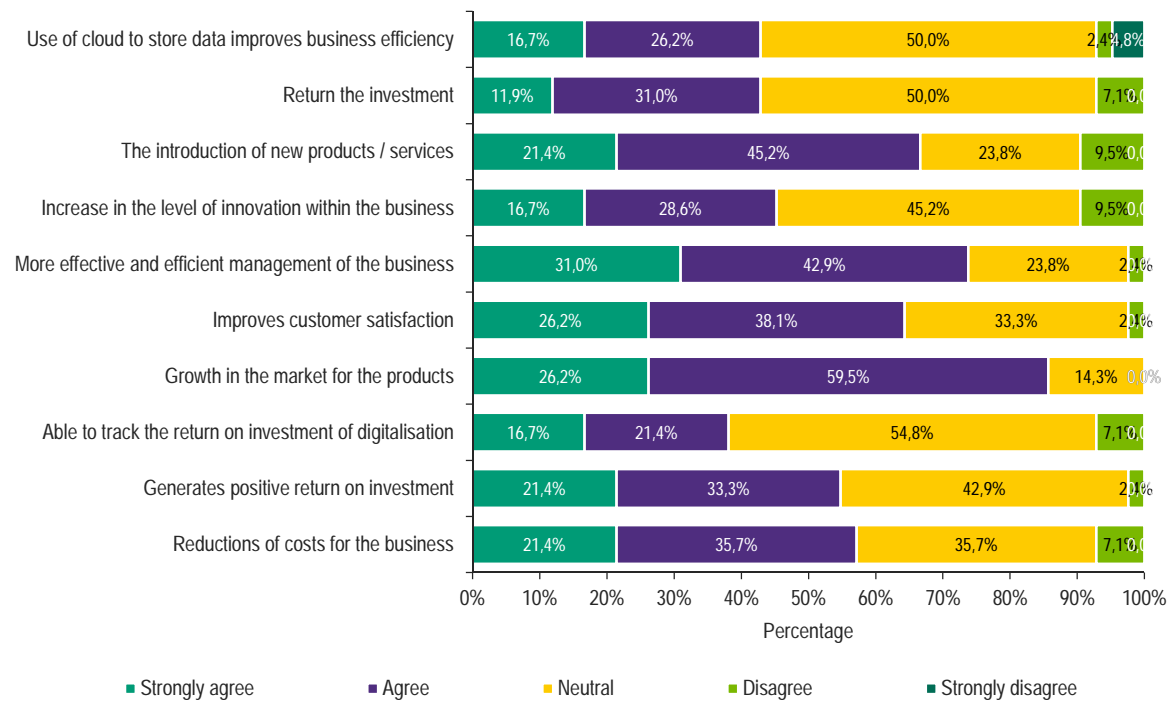


Figure 3ii.268: Advantages Expected/Experienced by Swedish SMEs from Digitalisation

## 27.5 Challenges

### 27.5.1 Difficulties in the Implementation of New Digital Technologies

Swedish businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following its introduction (59%) (Figure 3ii.269), insufficient technical knowledge to make informed choices and insufficient knowledge to be able to identify opportunities (both 57%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

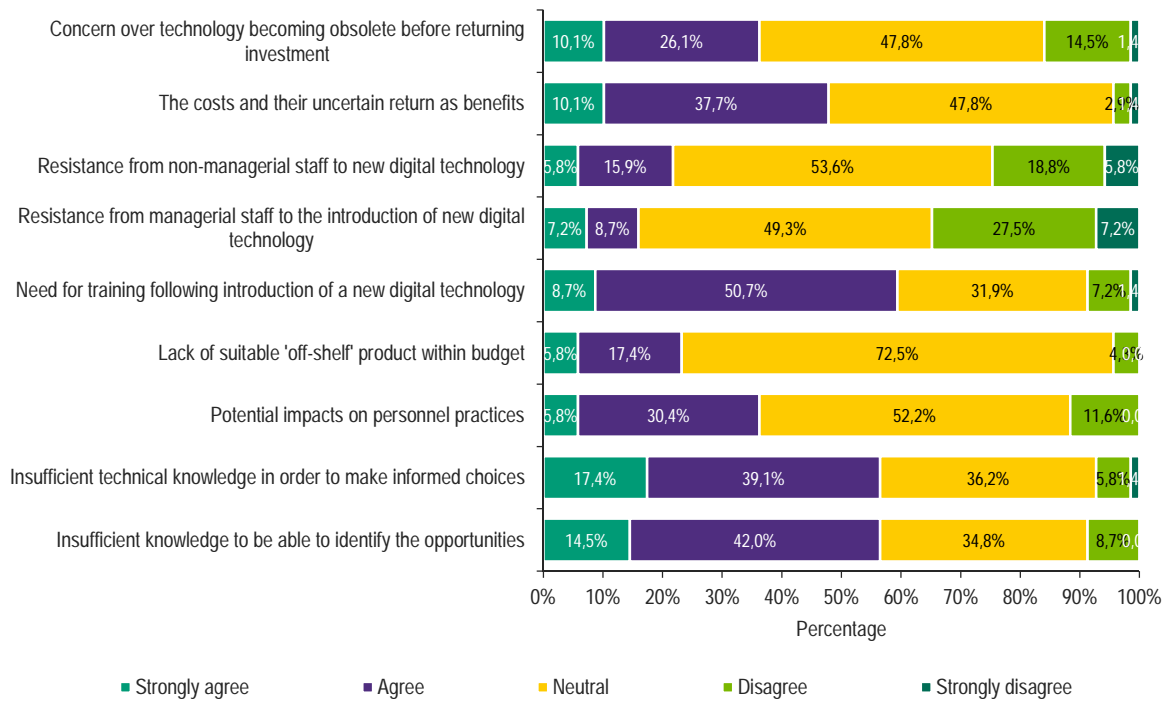


Figure 3ii.269: Swedish SMEs' Difficulty in the Implementation of New Technology

### 27.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is rapid technological change (64.3%) (Figure 3ii.270). Apart from this, the main issue for businesses that wish to improve digitalisation is a lack of training (50%), and a lack of finance (40.5%), as indicated by Swedish businesses. The lack of importance of business growth (7.2%), and data security and privacy (23.8%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

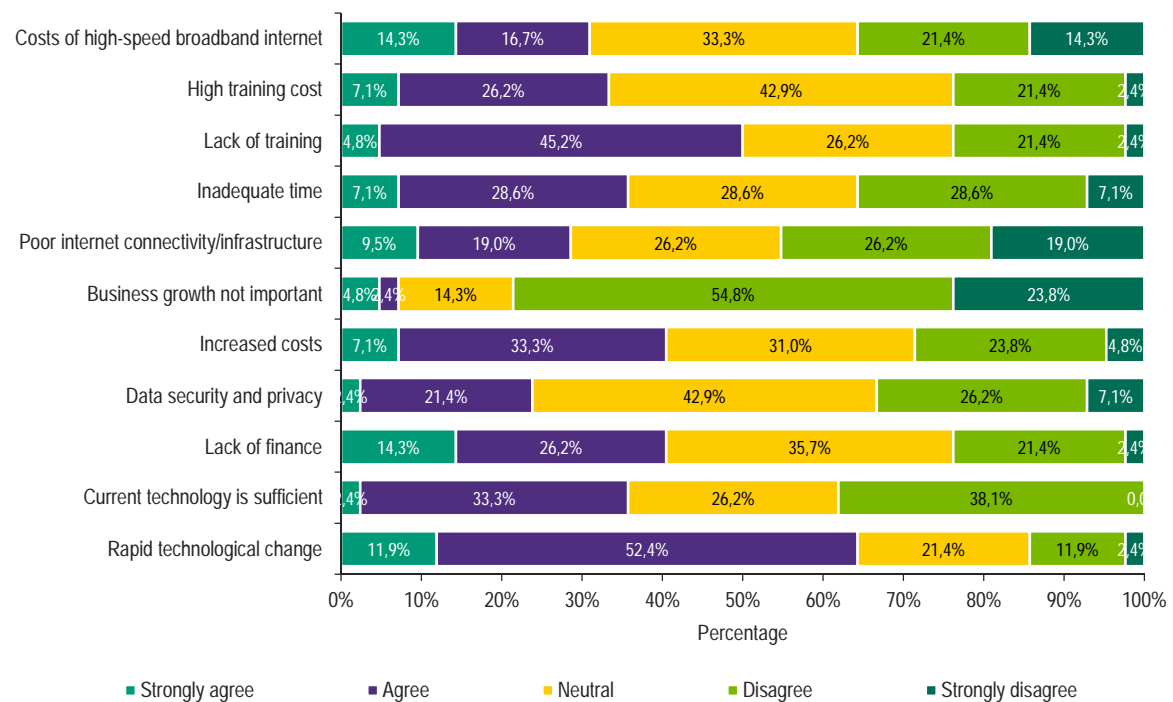


Figure 3ii.270: Swedish SMEs' Obstacles Preventing Them from Further Improving Digitalisation

# 28 United Kingdom

## 28.1 Level of Digitalisation

Findings show that 93.42% of businesses in the UK use email as a digital technology (Figure 3ii.271). Other technologies that rank high include the use of websites (90.79%), basic office software (90.79%), and social media (89.47%). On the other hand, British businesses are least likely to use chat/instant online advice (6.58%), mobile apps (13.16%) and a staff intranet (15.79%) (Figure 3ii.272).

All respondents were asked to answer the following question:

### Does your business currently make use of the following digital technologies?

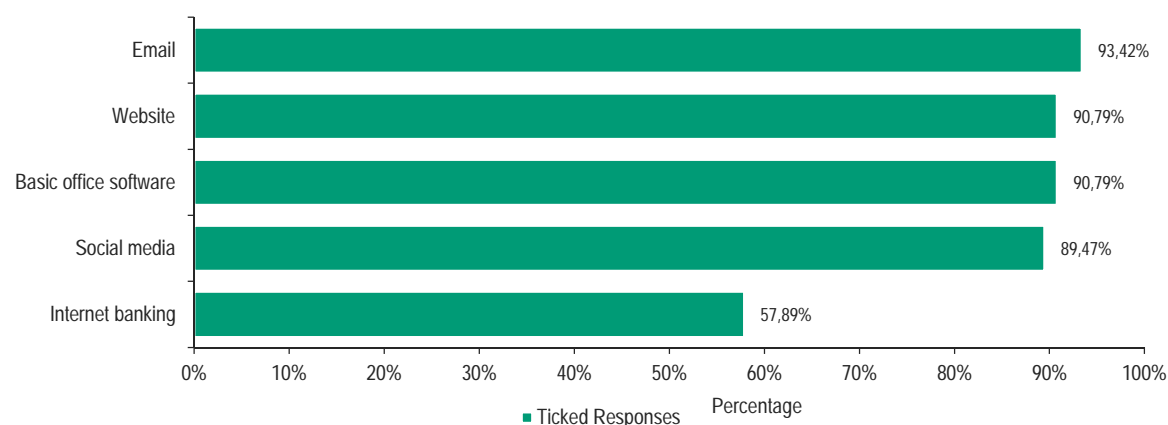


Figure 3ii.271: Digitalisation Adopted by British SMEs

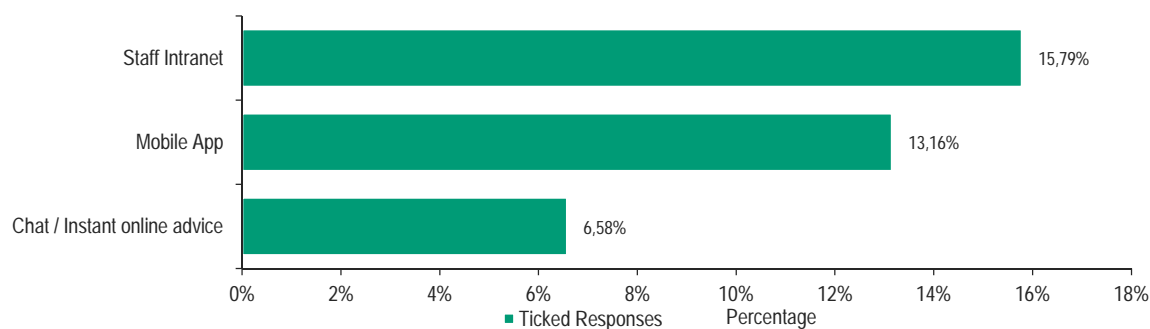


Figure 3ii.272: Digitalisation Least Adopted by British SMEs

## 28.2 Social Media and Websites

### 28.2.1 Social Media Platform

Evidence shows that Facebook is the most used social media platform in the UK at 100% (Figure 3ii.273). Businesses in the UK also use Twitter (69.12%), LinkedIn (33.82%) and Instagram (23.53%). However, Pinterest ranked at 8.82%, whilst other social media platforms (such as YouTube, Google+, Tumblr and Flickr) make up 1.47% usage.

Respondents who chose social media in the first question (Section 1.1) were asked:

**Which social media platform does your business use?**

Table 3ii.28: Social Media used by British SMEs

**Usage of social media platform**

Social media	Percentage
	100.00%
	23.53%
	8.82%
	69.12%
	33.82%
	1.47%

**28.2.2 Functionality of Site**

Focusing on the businesses that make use of websites as a digital technology, the survey sought to collect information relative to the functionality and features available to businesses and their clients on the businesses’ own website, as well as on third-party websites that the businesses use. The most common feature available to businesses using their own website is the email function, standing at 95.65%, whilst the second is sending a reservation request (73.91%), followed by making availability checks (65.22%). In the case of businesses using third-party websites, the most common feature available is leaving reviews/comments/evaluations at 43.48%, followed by contact via email (30.43%), and receiving feedback on reviews, as well as sending a reservation request (both at 28.99%).

Respondents who chose websites in the first question (Section 1.1) were asked:

**Can your customers do the following on your website or via third-party websites you use to provide services?**

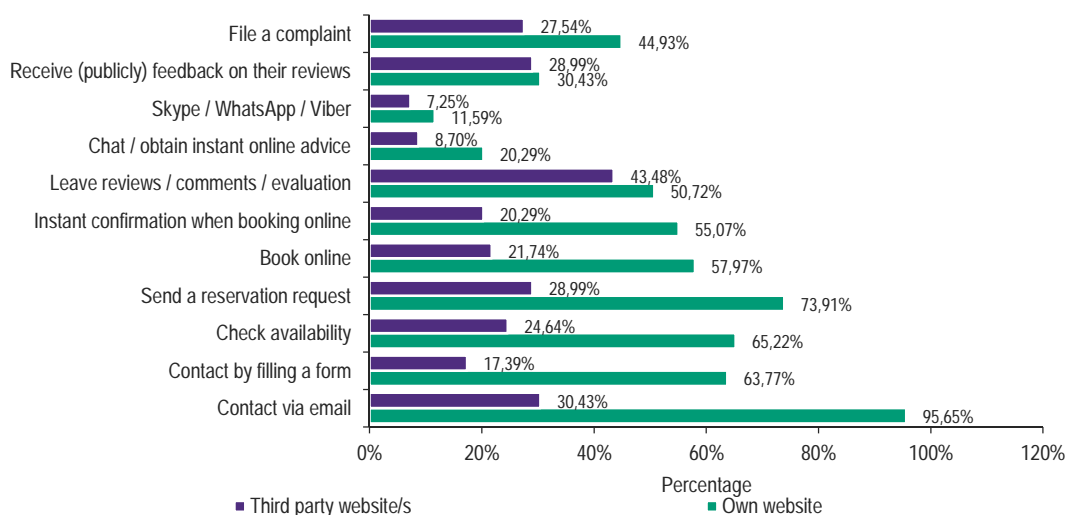


Figure 3ii.273: Usage of Websites by British SMEs

## 28.3 Data Processing

### 28.3.1 Storage of Information

All respondents were asked, “Do you store information about your clients?” Those who responded, “Yes” were asked to answer the following question:

#### Where do you store the information?

Research shows that, in Britain, information on customers is stored by 79% of businesses (Figure 3ii.274).

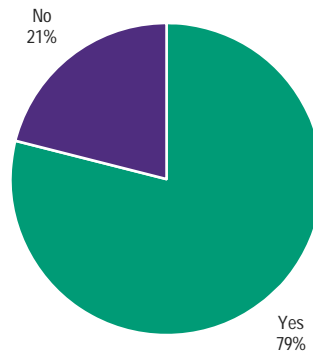


Figure 3ii.274: British SMEs Storing Customer Information

Further analysis (Figure 3ii.275) shows that data storage is mainly done through Excel spreadsheets, which are used by 46.67% of the businesses that store customer information. There are high percentages of businesses that make use of Customer Relationship Management (CRM) tools (45%) and paper records (35%), to store data.

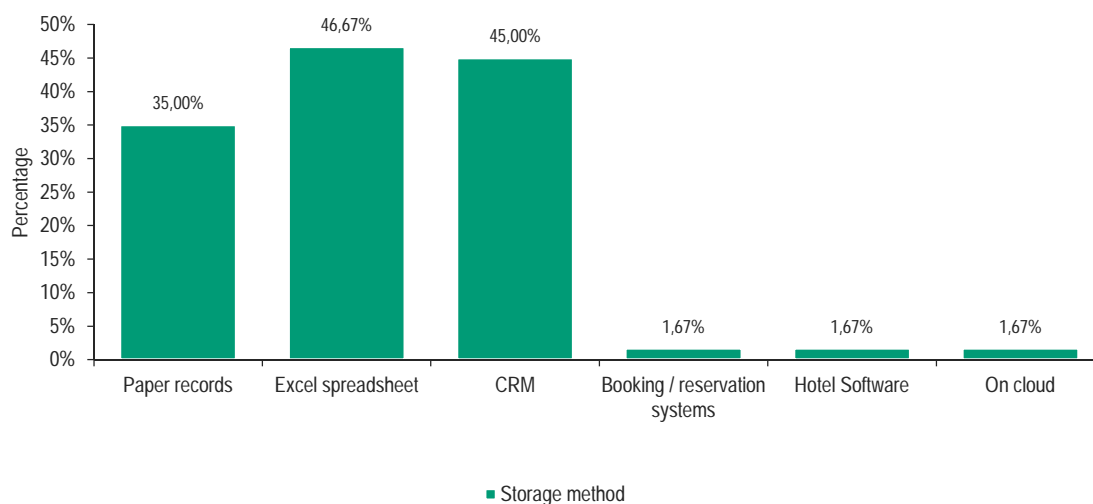


Figure 3ii.275: Methods for Storing Customer Information by British SMEs



### 28.3.2 Time Spent on Each Device

Conclusions show that British businesses spend the highest amount of time on desktop computers (49%), whilst they spend the least time on tablets (7%) (Figure 3ii.276).

All respondents were asked to answer the following question:

**Approximately what percentage of your time is spent on each device for conducting your business?**

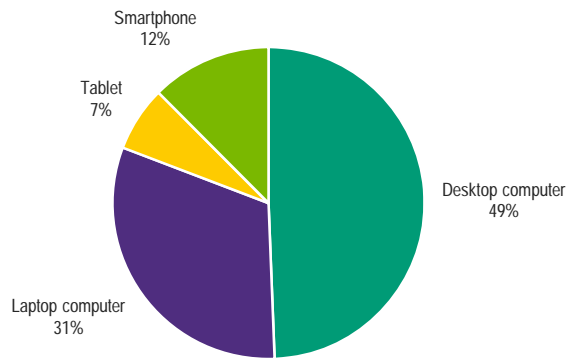


Figure 3ii.276: Percentage of Time Spent on Device to Conduct Business by British SMEs

## 28.4 Attitudes Towards Digitalisation

### 28.4.1 Motivation Behind Further Increasing Digitalisation

The research sought to identify the businesses' motivation towards the increase in the adoption and use of digitalisation. Data collected shows that British businesses are optimistic about future opportunities that come with becoming more digitalised (97%), increased growth (88%), and as a means to respond to seasonality (88%) (Figure 3ii.277).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

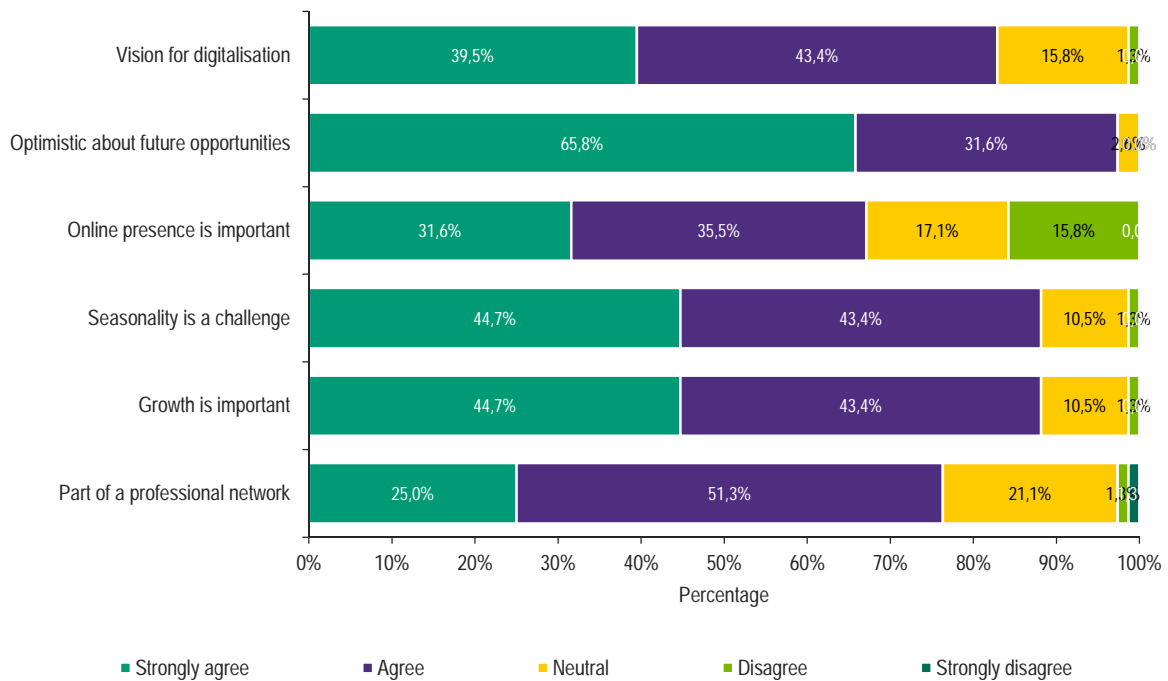


Figure 3ii.277: British SMEs' Motivation to Get Digitalised

### 28.4.2 Advantages Expected/Experienced from Improved Digitalisation

There is general consensus among British businesses that digitalisation enables the more effective management of business (83%), generates a positive return on investment (72%), and enhances growth in the market for the products (71%) (Figure 3ii.278). It is worth noting that the option “the use of cloud to store data improves business efficiency” registered the highest percentages of neutral (38%) and disagreement (21%) results.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

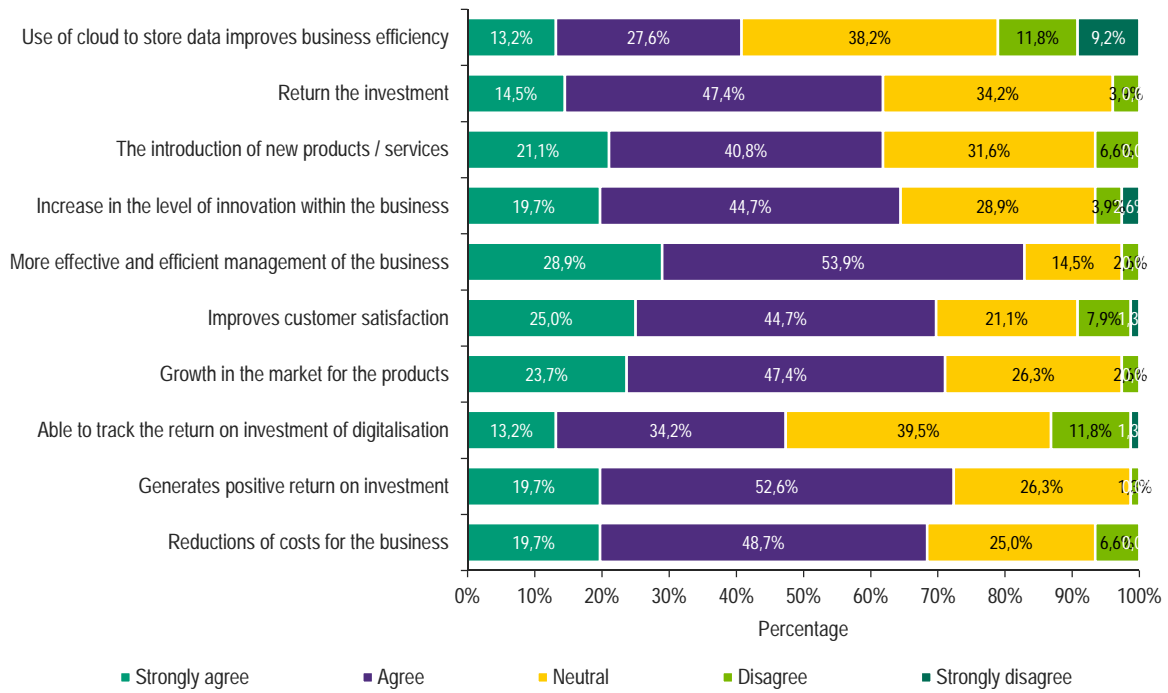


Figure 3ii.278: Advantages Expected/Experienced by British SMEs from Digitalisation

## 28.5 Challenges

### 28.5.1 Difficulties in the Implementation of New Digital Technologies

British businesses agree that the major difficulty with regards to the implementation of new digital technologies relates to the need for training following its introduction (67%) (Figure 3ii.279). Other difficulties encountered by businesses include insufficient knowledge to be able to identify the opportunities (65%) and insufficient technical knowledge to make informed choices (59%).

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

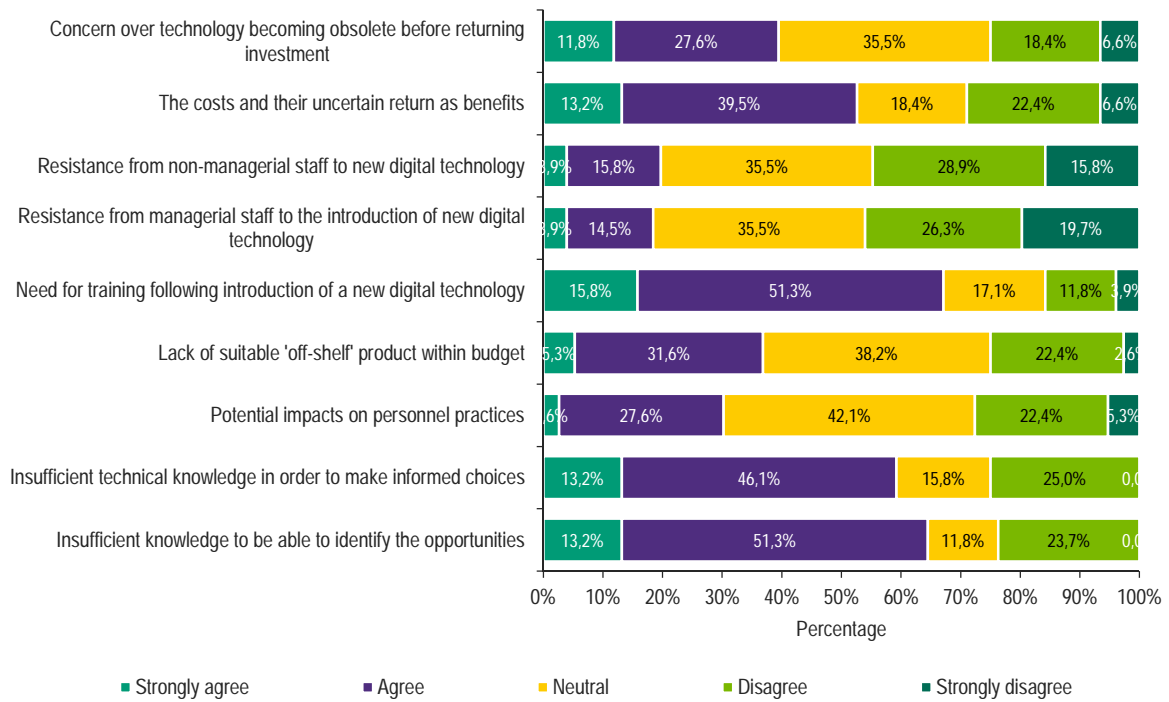


Figure 3ii.279: British SMEs' Difficulty in the Implementation of New Technology

### 28.5.2 Obstacles Preventing Firms from Further Improving Digitalisation

The main obstacle hindering businesses from improving digitalisation is rapid technological change (63.2%) (Figure 3ii.280). Apart from this, the main issue for businesses that wish to improve digitalisation is a lack of finance and the belief that their current technology is sufficient (both at 55.3%), as indicated by British businesses. Data security and privacy (34.2%), and the lack of importance of business growth (35.5%), were the issues least mentioned by firms as major obstacles to further improving businesses' digitalisation.

All respondents were asked to answer the following question:

**Please rate your level of agreement/disagreement with each of the following statements.**

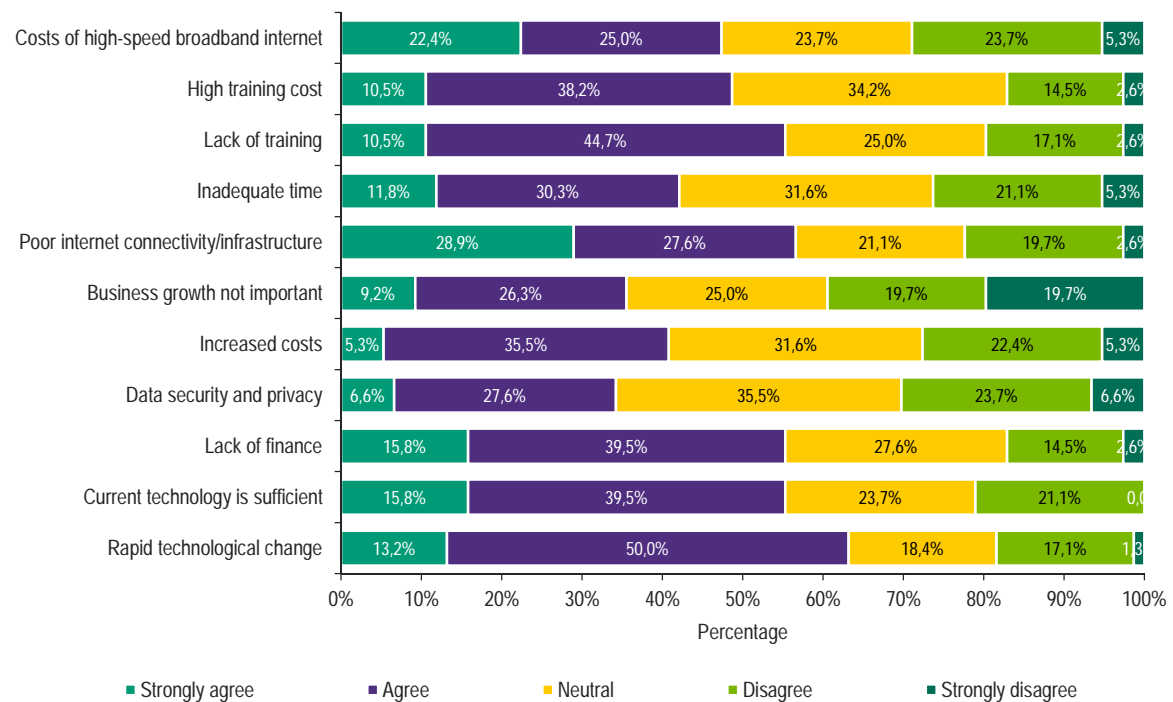


Figure 3ii.280: British SMEs' Obstacles Preventing Them from Further Improving Digitalisation

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