EMPOWERING THE EUROPEAN BUSINESS ECOSYSTEM

AN IMPACT STUDY OF BUSINESSES USING FACEBOOK APPS AND TECHNOLOGIES

2020

Copenhager Economics







COMMISSIONED BY FACEBOOK

Note: This report was commissioned by the Facebook company and prepared by Copenhagen Economics. The Facebook company did not provide any new or internal data to generate these estimates. All of the report modelling is based on thirdparty or public data, alongside Copenhagen Economics' own estimates. All of the report conclusions have been drawn by Copenhagen Economics based on the report modelling results combined with existing research within the field.

05	P	R	E	FA	C	Ε
	-					

17

- 07 GLOSSARY
- 09 EXECUTIVE SUMMARY
 - CHAPTER I INTRODUCTION

25 CHAPTER II FACEBOOK APPS AND TECHNOLOGIES FOR BUSINESS

- 33 CHAPTER III EXPANDING SALES, TRADE, AND JOBS
- 47 **FACILITATING AND CONTRIBUTING TO** THE EU INNOVATION AGENDA
- 59 CHAPTER V CONCLUDING PERSPECTIVES
- 69 **REFERENCE NOTES**
- 75 METHODOLOGY APPENDIX

PREFACE

Social media is often viewed as a tool that allows people to interact with family, friends, and a wider social circle by sharing information, images, and experiences in real time. Massive reductions in the cost of information and communication technology and the proliferation of internet access have led social media to become an everyday tool for many individuals and organisations across the globe.

Social media has now evolved to become one of several digital tools that businesses around the world use to establish, grow, and innovate, through nearly instant connections with current and prospective customers, suppliers, and employees.

Copenhagen Economics has been asked by the Facebook company to explore this theme in more detail using two key approaches.

- Review the existing empirical evidence, looking primarily at how digital tools can reduce barriers to growth, such as reducing marketing costs, providing a platform for sales, and facilitating expansion into new markets
- Undertake a survey of businesses to elicit how businesses use Facebook apps and technologies (Facebook app, Instagram, Messenger, and WhatsApp) and how these apps and technologies support their business activities, expansion into new markets, hiring, and economic inclusion for all groups in society¹

In this study, we explore the economic impact of Facebook apps and technologies on business activities, and we look specifically at digital and social media as facilitators of business growth, i.e. a reduction of marketing costs and the provision of platforms on which to sell. We also examine how digital and social media can play a role in expanding sales activities domestically and in new markets, in hiring activities, and in the economic inclusion of all groups of society.

In addition, we provide perspective on the role these digital tools play in innovating business tools, processes, and products. In particular, we focus on how Facebook apps and technologies can serve as both a facilitator and an innovator.

In light of our findings, we evaluate the aggregate economic impact on gross value added (GVA), trade, and jobs. We then provide a perspective on policy implications in the European Union.² We also provide perspective on how social media and other digital tools influence and facilitate innovation, future economic growth, and overall welfare and social inclusion. In this respect, we focus in particular on the ability of such tools to further economic and social inclusion. Our analysis focuses on economic benefits for producers; the additional benefits realised for consumers are not within the scope of this report.

1 Please refer to the Glossary for definitions of report terminology.

2 Note that the terms 'EU' and 'Europe', used interchangeably in this report, refer to the European Union (also known as EU-28), a political and economic union of 28 member states located in Europe.



LOSSARY

Throughout this report there are phrases and words used that are specific to the Facebook company. We have provided a brief glossary to provide clarity on these terms.

Facebook company: Refers to the company to which technologies such as the Facebook app, Instagram, Messenger, WhatsApp, Oculus, Workplace, Portal, and Calibra belong.

Facebook apps and technologies: Refers to the Facebook app, Instagram, Messenger, and WhatsApp.

Facebook app: The social media platform used globally to connect individuals, communities, and businesses.

Instagram: The image-driven, still and video, social media platform used globally to connect individuals, communities, and businesses.

Messenger: Chat platform for use communicating privately or to a user-created group.

WhatsApp: Secure global messaging platform.



ITIVE SUMMARY

Since their inception, digital technologies have transformed nearly every aspect of society. They have transformed the way people collect and share information, experiences, and stories with their friends, family, and society at large. This digital transformation is driven by the ever-increasing accessibility and availability of the internet and the devices, systems, apps, and technologies that connect us with it.

Digital technologies have also transformed the way businesses 'do business', and have irreversibly shaped the way companies find, grow, and develop relationships with their customers. This digital transformation from a business perspective has influenced and empowered businesses through their sales, exports, and employment – and therefore has influenced the economy as a whole.

In this report, we set out to gain a deeper understanding of how European businesses, in particular, use digital tools and social media to empower businesses throughout their lifecycle, from start-up to establishment and with every customer relationship.

There is significant evidence that a broad range of digital tools can help businesses in all industries throughout Europe by reducing the costs of marketing and sales, reducing the barriers to entrepreneurship, expanding the reach of export markets, and facilitating innovation within businesses and throughout industries. To explore these effects, we conducted a survey focusing on the role of social media, using Facebook apps and technologies as an example. Representatives from 7,720 businesses in 15 countries across the EU responded. The survey results suggest that digital technologies, like Facebook apps and technologies, facilitate business growth, trade, and innovation.

METHODOLOGY

This study investigates how firms use Facebook apps and technologies to support their businesses and the corresponding macroeconomic effect. Our empirical basis is a survey of 7,720 businesses.³ Relying on national account classifications designed to be comparable globally, we have structured the survey questionnaire and the economic modelling along 14 industry classifications.⁴

As Facebook apps and technologies are most likely to contribute to businesses in the market economy, we adjust the number of industries by removing public sector industries, as their sales are most likely to be attributed to taxpayers, leaving us with 11 industries in total. Respondents were spread across all industries and all sizes of business across the 15 EU countries (which, taken together, account for 92 per cent of GVA in the EU).







We use micro-level survey data of businesses' use of Facebook apps and technologies, as well as how much businesses credit Facebook apps and technologies in their sales, and infer macro-level estimates based on best available national account data. The survey results were aggregated at the smallest unit of analysis feasible (given the availability of macro data) for inference at the macro-level, namely the country-sector level. Thus, a general limitation with this type of estimation method is that the broad geographical and industry scope of the survey reduces the sample size from which extrapolation takes place.

While these countries span the European Union, the aggregate results reported in this study reflect the set of 15 countries rather than an EU aggregate. Our quantitative macro estimates measure gross value added (GVA), exports, and jobs created by businesses using Facebook apps and technologies (Facebook, Instagram, Messenger, and WhatsApp). This methodology is focused on the businesses using Facebook apps and technologies and the influence these tools have on their ability to generate sales. Thus, it is not within the scope of this analysis to capture the secondary impacts (indirect effects) through supply chains, nor the induced effects through employee spending.⁵

A further challenge is the reliance on online panels to conduct the survey. In particular, this poses a challenge due to the presumed correlation between online panel participation and level of digital activity, including the level of activity on social media. The Economic Impact Model accounts for the reliance on online panels by correcting for internet penetration across countries.

- ³ Survey results cover Belgium, Czech Republic, France, Germany, Greece, Ireland, Italy, Hungary, Netherlands, Poland, Portugal, Romania, Spain, Sweden, and the United Kingdom.
- ⁴ The survey covers the following NACE classified industries: Agriculture, forestry and fishing (A), Mining and quarrying (B), Manufacturing (C), Utilities

(D,E), Construction (F), Wholesale and retail trade (G), Transport, storage, and communication (H,J), Financial and insurance activities (K), Real estate, business and administrative activities (L,M,N) and Other services (R,S,T,U).

⁵ Please refer to the Methodology Appendix for a description of the survey.

METHODOLOGY CONTINUED

As is customary in comparable literature, this methodology does not capture any displacement effects that may occur as businesses prefer to adopt new services, new technologies, and new ways of doing business. Therefore, this study reports gross economic impact (GVA, exports, jobs), and has not been adjusted for activity that may have been displaced by the businesses' decision to adopt Facebook apps and technologies as one of their business tools. In other words, the study provides a snapshot of the aggregate business activity that currently leverages Facebook apps and technologies. Defining and modelling a counterfactual world without online activity or without online tools such as Facebook apps and technologies is outside the scope of this study. Similarly, the study does not seek to measure the incremental influence of Facebook apps and technologies on business performance.

KEY RESULTS FROM THIS REPORT

Digital technology reduces the costs of marketing.

Social media and other digital tools have allowed businesses to reduce the costs of marketing. A recent study reported that 69 per cent of SMEs found lower costs of marketing to be the main benefit of using digital tools and social media for business purposes.⁶⁷

The potential and cost-effectiveness of digital marketing is also reflected in a company's choice of advertising channels. In 2017, nearly half of all EU enterprises used social media for advertising purposes.⁸

Digital technology helps target core customers.

Online advertising allows companies to specifically target their customers, limiting the display of ads to those who are most likely to respond positively. This markedly increases the return on marketing expenditures; measured in cost per thousand impressions (CPM), some studies show that the cost of marketing through social media is more than 90 per cent lower than traditional television marketing.⁹

69% of SMEs found lower costs of marketing to be the main benefit of using digital tools

and social media for business purposes.

Executive Summary

11

- ⁶ According to the European Commission, SMEs are small and medium-sized enterprises with fewer than 250 employees.
- ⁷ Accenture (2016): Five ways to Win with Digital Platforms
- ⁸ Eurostat (December 2019): Social media use by type, internet advertising
- Lyfe Marketing (n.d.): Traditional Media vs. Social Media Advertising

Digital technology helps firms gain access to new markets.

Traditionally, the physical distance between sellers and customers has been the main barrier for growing sales – the farther away the customer, the lower the sales.

Digital tools, including social media, have been shown to be effective in reducing the impact of distance on sales. Recent studies suggest the negative effects of distance on sales can be as much as 65 per cent lower for online sales when compared to offline sales.¹⁰

The conclusions of the survey, conducted as part of this study, support the suggested link between export activity and the use of social media. We find that 7 in 10 businesses using Facebook apps and technologies are exporting to other countries, compared to the 5 in 10 of companies not using Facebook apps and technologies.¹¹ The same group of companies using Facebook apps and technologies also report that 19 per cent of their revenue stems from international sales, compared to 14 per cent for non-users.¹² Of those surveyed, 6 in 10 businesses using Facebook apps and technologies report them as helpful when entering new markets.¹³

Digital technology enables SMEs to grow.

Effective and cost-efficient marketing translates to lower costs of reaching relevant customers. The cost reductions offered by digital marketing tools and social media are of particular importance to smaller companies, which typically have lower marketing budgets than larger companies.

Our survey supports the general finding from the literature that digital tools can be especially helpful for small companies by breaking down barriers to growth. The surveyed SMEs using Facebook apps and technologies report the following:¹⁴

- 47 per cent find the apps helpful to start a new business
- 59 per cent report that the apps are important for growing their businesses
- 58 per cent find the apps helpful in lowering their marketing costs
- 55 per cent consider them instrumental in entering new geographical markets

Digital technology gives the customer a voice and adds intelligence to the business innovation process.

Online reviews and rating systems provide customers with the ability to share and consider information about quality and cost that best suit their preferences and budget. International surveys show that two out of three customers read consumer reviews on the internet before making an online purchase.¹⁵

- ¹⁰ Lendle, A. et al. (2012): There Goes Gravity: How eBay Reduces Trade Costs
- ¹¹ Please refer to the Methodology Appendix for a description of the survey.
- ¹² Please refer to the Methodology Appendix for a description of the survey.
- ¹³ Please refer to the Methodology Appendix for a description of the survey.
- ¹⁴ Please refer to the Methodology Appendix for a description of the survey.
- ¹⁵ Digitas (2015): Connected Commerce: What's next in consumer shopping?

Digital tools allow suppliers and customers to interact at a lower cost and at a higher frequency than other means of communication. According to the survey in this study, 54 per cent of companies using Facebook apps and technologies use them to communicate with customers, and 63 per cent say Facebook apps and technologies are important in their efforts to improve customer service.¹⁶

The enhanced means of communication also provides a strong loop of information to improve a supplier's ability to develop, align, and market products that meet consumer needs.

For example, the feedback flows on customer preferences and ad performance have been shown to foster product innovation.¹⁷ Improving the quality of existing products and coming up with new designs are essential for businesses to remain competitive. In our survey, businesses using Facebook apps and technologies report that the apps' embedded feedback options were helpful in this regard – 4 in 10 companies state they use this feedback to improve their product offering, while 3 in 10 companies use it to improve how their business is organised.¹⁸

Digital technology empowers business and job opportunities.

Economic growth and social cohesion are two of the benefits that arise from a business environment that allows people from diverse social and economic backgrounds to become entrepreneurs and enter a global job market.

There are strong indicators that digital technologies, like social media, help attain this broadly founded performance lift by providing several tools that are available to business owners and managers, irrespective of background.

THE WIDER ECONOMIC BENEFITS AND POLICY IMPLICATIONS

To provide an EU-wide perspective of the economic impact of the business use of Facebook apps and technologies, we scale up the responses of the survey to attain estimates of economic impacts across the 15 EU markets surveyed. Notwithstanding the limitations of the survey described in the Methodology Appendix, our survey suggests that the impact could be substantial. The surveyed companies using Facebook apps and technologies attribute a large share of their business activity to the use of the apps, as reflected in attributed output, jobs, and exports.

Surveyed businesses across 15 EU markets say that using Facebook apps and technologies helped them generate sales corresponding to an estimated EUR 208 billion in economic activity last year.¹⁹ When we take a deeper look into that,

¹⁷ Bertschek, I. & Kesler, R. (2017): Let the User

Innovation

- ¹⁸ Please refer to the Methodology Appendix for a description of the survey
- ¹⁹ Exact estimate of GVA is EUR 208,319,510,707. Speak: Is Feedback on Facebook a Source of Firms' Economic activity here refers to gross value added (GVA) over the past 12 months. Please refer to the Methodology Appendix for a description of the survey.

63% ofsurveyed businesses say Facebook apps and technologies are important in their efforts to improve customer service.

¹⁶ Please refer to the Methodology Appendix for a description of the survey

using standard economic modelling techniques, this translates into an estimated 3.1 million jobs.²⁰

Surveyed businesses across 15 EU markets say that using Facebook apps and technologies helped them generate international sales corresponding to an estimated EUR 98 billion in exports last year.²¹

When splitting export attributions, it is found that Facebook apps and technologies are useful in establishing and growing exports to countries inside and outside the European Union. Surveyed businesses credit EUR 58 billion worth of exports within

the EU and EUR 40 billion worth of exports outside the EU to the use of Facebook apps and technologies.²²

BILLION Surveyed businesses across 15 EU markets say that using Facebook apps and technologies helped them generate international sales within the EU corresponding to an estimated EUR 58 billion in intra-EU exports last year.²³

8

These results suggest that the EU's effort to support the broad development of its digital single market has substantial merit. Concluding the findings of this study, we provide reflections on how three priority areas identified by the EU could be further developed by:

- Improving consumers' and businesses' access to online goods and services across Europe
- Creating an environment in which digital networks and services can flourish
- Maximising the potential of the European
 Digital Economy through the enhancement of digital skills

Despite the efforts to reduce barriers to cross-border trade, businesses still face challenges when expanding into new markets.²⁴ There is more that can be done to ensure equal access to the new opportunities provided by digital tools. One prerequisite for equal utilization of new digital opportunities is closing the 'digital skills gap'. More than one-third of Europeans in the active labour force do not have basic digital skills.²⁵ To realize the full potential posed by digital tools, the EU must make 'digital' a common language.

- ²⁰ Please refer to the Methodology Appendix for a description of the survey.
- ²¹ Please refer to the Methodology Appendix for a description of the survey.
- ²² Please refer to the Methodology Appendix for a description of the survey.
- ²³ Please refer to the Methodology Appendix for a description of the survey.
- ²⁴ European Court of Auditors (December 2019): E-commerce: many of the challenges of collecting VAT and customs duties remain to be resolved
- ²⁵ European Commission (May 2019): A Digital Single Market for the benefit of all Europeans

15



CHAPTER I:

DUCTION

1.1 **NEW DIMENSIONS GO TO MARKET**

Digital and social media bring new dimensions to marketing.

69% of SMEs report that marketing cost reductions are the main benefit of using digital and social media. Digital and social media have changed the way businesses and consumers interact with each other. Today's digital tools allow businesses and consumers to connect in new ways and provide businesses with better insights into consumers' needs and behaviours. These tools empower companies in their marketing efforts through three main channels: costefficiency, targeting, and intelligence.

- Cost-efficiency Lower cost of acquiring new customers compared to traditional marketing campaigns. In a recent study, 69 per cent of SMEs report that marketing cost reductions are the main benefit of using digital and social media¹²
- Targeting Consumer insights allow businesses to target users based on their preferences
- Intelligence The two-way flow of information enables companies to make faster, smarter, and more effective business decisions

17

² Accenture (2016)

¹ According to the European Commission, SMEs are small and medium-sized enterprises with fewer than 250 employees.

More EU businesses are using digital and social media in marketing efforts.³

Many EU businesses are refining their marketing strategy by adopting the marketing tools provided by digital and social media.⁴ Since 2011, the share of marketing spending used on online ads has been steadily expanding. By 2016, more than a third of every marketing euro spent was used online.⁵ See Figure A.

In 2017, almost half of all EU businesses used social media for advertising purposes – a 31 per cent increase since 2014.⁶ See Figure B.

The growing share of online marketing is a strong indicator that businesses perceive digital tools as a competitive alternative to traditional marketing channels. By the economic theory of revealed preferences, the development in the marketing mix shows digital and social media to be the increasingly preferred alternative for marketing activities.⁷

Figure A: Advertisement Spending by Marketing Channel

Share of total advertisement spending, EU-28



Note: 'Other' includes radio, outdoor, magazines and cinemas Source: European Audiovisual Observatory (2017)

Figure B: Use of Social Media in Advertising

Per cent of all enterprises, EU-28



Note: The figure does not include the financial sector Source: Eurostat (December 2019)

- ⁴ Leeflang et al. (2014): Challenges and solutions for marketing in a digital era
- ⁵ European Audiovisual Observatory (2017): The EU online advertising market - Update 2017
- ⁶ Eurostat (December 2019)
- ⁷ The theory of revealed preferences was introduced by the American economist Paul Samuelson in 1938. In essence, the theory states that the preferences of an economic actor is revealed by the purchasing behaviour displayed by the actor.

1.2 AN EVOLVING DIGITAL ECOSYSTEM SUPPORTS BUSINESSES

Once used only by private individuals, social media is now a thriving ecosystem for individuals and organisations alike.

Like the complex and diverse ecosystems in nature, social media – and Facebook apps and technologies in particular – create an environment for business and individual users to interact with, influence, and adapt to each other. When the Facebook company was founded in February 2004, it was 'simply' a social network that connected mainly private individuals and groups. Today, Facebook apps and technologies also include Instagram, Messenger, and WhatsApp and are widely used by private users, commercial businesses, nonprofits, and other organisations. These different types of users are connected in a digital ecosystem that is constantly evolving to match their needs.

The latest estimates suggest that Facebook apps and technologies are used by more than 140 million businesses worldwide.⁸ Many business users utilise the free services provided by Facebook apps and technologies by creating Facebook pages or Instagram accounts and using the free communication tools provided by WhatsApp or Messenger.⁹ A subset of these business users are also business customers of the Facebook company – utilising its paid services primarily related to advertising. See Figure C below.

Figure C: Business Applications of Facebook Apps and Technologies¹⁰

	Facebook	Instagram	Messenger	Whats App
Paid advertising	v	~	~	~
Providing business information	 Image: A start of the start of	~		
Gaining insights on customers and ads	 Image: A start of the start of	~	 ✓ 	 ✓
Communicating with customers	v	~	 ✓ 	 Image: A second s
Finding new customers	v	~		
Unpaid marketing	v	~	v	v
Showcasing products	v	~	(•)	(🗸)
Selling and buying products and services				v
Hiring new employees	v	~	~	✓

Sources: Facebook.com, Instagram.com, Messenger.com, Whatsapp.com, and the Qualtrics survey

Introduction

- ⁸ Facebook (2019b): Facebook company info
- ⁹ The term 'Facebook' is used when referencing the app. Instances of 'Facebook company' indicate the corporate entity, not the app.
- ¹⁰ The tick marks in Figure C refer to the self-reported uses of Facebook apps and technologies by the businesses in this survey, further informed by the apps' available features. Please refer to the Methodology Appendix for a description of the survey.

19

Large international companies are no longer the only ones reaping the benefits of a global economy. Our survey revealed that small to mid-size companies are just as likely to use Facebook apps and technologies as their larger counterparts. This indicates that Facebook apps and technologies have value throughout all stages of business – from start-ups to large corporations.

The idea of 'levelling the playing field' is important in terms of economic and social inclusion. Our survey found that businesses founded by women are more likely to report using Facebook apps and technologies to reach their customers than businesses founded by men. This indicates that digital technologies can provide under-represented business owners a chance at equal footing in the digital landscape. 'Facebook apps and technologies have value throughout all stages of business – from start-ups to large corporations.'

1.3 POSITIONING EU BUSINESS GROWTH AMONG TOP PRIORITIES

Digital and social media play a role in highly prioritised EU objectives.

According to the European Commission, small and mid-size enterprises (SMEs) in the EU represent 99 per cent of all businesses and account for 85 per cent of new jobs created in the last five years.¹¹ Digital technologies provide the right conditions to increase trade, create more competition, and spark critical innovation in an economy that works for all businesses – all of which are top priorities in the EU today.

Trade accounts for over a third of Europe's GDP and supports over 36 million of its jobs.¹² Digital tools, and Facebook apps and technologies in particular, help to eliminate the perceived distance between buyer and seller by providing easy and 'instant' access to each other, regardless of where each are located. In our survey of 7,720 businesses across 15 countries of the EU, we find that 7 in 10 businesses using Facebook apps and technologies are exporting to other countries, compared to the 5 in 10 of companies not using the apps.¹³ The same group of companies using Facebook apps and technologies also report that 19 per cent of their revenue stems from international sales, compared to 14 per cent for non-users.¹⁴ Of those surveyed, 6 in 10 of businesses state that Facebook apps and technologies are helpful to enter

- ¹³ Please refer to the Methodology Appendix for a description of the survey.
- ¹⁴ Please refer to the Methodology Appendix for a description of the survey.

¹¹ Von der Leyen, U. (2019): A Union that strives for more: My agenda for Europe

¹² Von der Leyen, U. (2019)

new markets, suggesting that the shortest distance between two points of sale isn't a straight line – it's the internet.¹⁵

The innovation initiatives outlined by the European Commission are 'vital to European competitiveness in the global economy.'¹⁶ In our study, we find that Facebook apps and technologies – and digital technologies as a whole – provide constant and timely insights that impact what businesses sell and how they do business. In fact, 63 per cent of surveyed businesses that use Facebook apps and technologies report that Facebook apps and technologies are important to improving customer service.¹⁷

'Digital and social media tools level the playing field for companies to engage, compete, grow, and evolve.'

In providing an inclusive, easily accessible, international platform for reaching customers, digital and social media tools, like Facebook apps and technologies, foster domestic as well as international trade for businesses of all sizes. This levels the playing field for companies to engage, compete, grow, and evolve alongside each other.

In this chapter, we have discussed the role of modern digital tools in the world today and gained a better understanding of how digital technologies influence business performance. We provided key insights from our survey of 7,720 businesses, finding that Facebook apps and technologies are primarily used for reaching, communicating with, and marketing to customers. Lastly, we aligned these benefits with the initiatives of the European Union to foster innovation, trade, and employment opportunities.

The remainder of the report is structured as follows. Chapter 2 discusses the role Facebook apps and technologies play in marketing and business empowerment. Chapter 3 provides a closer look into how digital technologies expand sales, trade, and jobs. Finally, Chapter 4 analyses how digital technologies facilitate innovation and contribute to the EU innovation agenda. Chapter 5 concludes this report. 21

¹⁵ Please refer to the Methodology Appendix for a description of the survey.

¹⁶ European Commission (n.d.): Innovation

¹⁷ Please refer to the Methodology Appendix for a description of the survey.

Figure D: Conversational Observations Related to Major Report Themes.

The quotations below from the European Commission and the OECD highlight ways inclusion, innovation, trade, and growth are part of the ongoing dialogue about the EU economy.



'An economy that works for

people [...] strengthening the backbone of our economy: our small and medium-sized enterprises (SMEs) [...] represent 99% of all businesses and account for 85% of all new jobs created in the last five years.¹18

Innovation is vital to European ompetitiveness in the global economy.¹ ²

'We believe in trade [...] it accounts for over a third of the EU's GDP and supports over 36 million jobs. [...] trade is a means to deliver prosperity at home and to export our values across the world.'²³

'A new SME strategy [...] should focus on supporting small businesses, entrepreneurs and start ups [...] enabling them to make the most out of digitisation.' ¹⁹

 'we need more young and nimble innovators with breakthrough
 technologies like this generation's tech giants were only a decade ago.' ²²

1

'[...] comparisons of enterprise creations in the euro area and the US point to a greater dependence on **SMEs as drivers of economic growth** in the euro area.' ²⁰

GROWTH

'Europe's industry provides a livelihood for millions, and is a driver of jobs and growth [...] this digital transition is helping us to redesign our economy, make our industry **more competitive** and find new solutions to societal problems.'²⁴

- ¹⁸ Von der Leyen, U. (2019)
 - ¹⁹ European Commission (1 Dec 2019): Mission Letter from Ursula von der Leyen to Margrethe Vestager, Executive Vice-President for A Europe fit for the Digital Age
 - ²⁰ OECD (2016): Entrepreneurship at a Glance 2016
- ²¹ European Commission (n.d.): Innovation
- ²² Von der Leyen, U. (2019)
- ²³ Von der Leyen, U. (2019)
- ²⁴ European Commission (10 Sept 2019): Mission Letter from Ursula von der Leyen to Sylvie Goulard, Commissioner-designate for Internal Market

23



CHAPTER II:

ACEBOOK APPS ECHNOLOGIES FOR BUSINESS

2.1 EMPOWERING COMPANIES TO REACH NEW CUSTOMERS

Social media offers three channels of empowerment.

Through social media like Facebook apps and technologies, businesses can reach a targeted group of customers more cost-efficiently, while getting feedback on advertisements and consumer patterns that continuously refine their marketing strategy.



Figure A: Three Channels of Empowerment

Source: Copenhagen Economics

Cost-efficiency

Social media reduces the cost of outreach by providing access to high-performing platforms at a low cost. The amount of capital required to start and grow a business – and start and grow product and brand awareness – is therefore lowered.

Large marketing campaigns directed at the general public are costly. Online advertising allows businesses to target the specific users who would be interested in what they have to offer, which is more cost-effective and efficient. In this way, businesses are not paying to reach people who are unlikely to purchase their products and services.

6 in 10

According to the survey of this study, 6 in 10 companies using Facebook apps and technologies say that the apps are important to lowering their marketing costs.¹

Targeting

One of the main advantages of online advertising is the ability to advertise to specific audiences. Facebook apps and technologies offer a highly-targeted approach to online advertising, allowing businesses to tailor each advertisement to an audience they define, based on factors such as location, age, gender, interests, previous social media behaviour, and connections.² The advertisement will then only be shown to users who satisfy these criteria. In this way, Facebook apps and technologies serve as a useful tool for marketers who want to reach a specific group of people.³

Intelligence

Social media provides businesses with valuable consumer and performance feedback, creating opportunities to engineer a more consumer-centric marketing effort. Direct consumer feedback from consumer reviews, comments, and responses to online advertising allows businesses to modify their marketing strategy. This feedback adds intelligence to business decisions and allows companies to prioritise improvements in areas that are important to customers.



The survey of this study finds that 30 per cent of companies using Facebook apps and technologies use feedback from the apps to target their marketing efforts.⁴

- ¹ Please refer to the Methodology Appendix for a description of this survey.
- ³ Kresh, H. et al (2018): Online Advertising: Creating a Relationship Between Businesses and Consumers
- ² Facebook (2019a): Ad targeting; see also Qualtrics survey.
- ⁴ Please refer to the Methodology Appendix for a description of this survey.

2.2 THE IMPACT OF SOCIAL MEDIA ON BUSINESS PERFORMANCE

Improving returns on marketing spending.

Targeted advertising through social media and Facebook apps and technologies offers opportunities to reach customers in more effective ways. This drives down the cost per new customer reached, effectively increasing the return on marketing investments.

Social network platforms, such as the Facebook app, are constantly evolving the marketing landscape. Traditional advertising platforms – television, newspapers, and radio broadcasting – predominantly deliver a static one way message to the audience. Though still available to businesses, they involve high transaction costs and search costs for consumers and businesses alike, and they cannot currently be as clearly targeted to specific audiences.⁵

The effectiveness of marketing channels can be measured by cost per thousand impressions (CPM). CPM is an advertising metric that measures how many dollars a company must spend to reach 1,000 people. The lower the CPM, the more effective the channel. The CPM for social media is 91 per cent lower than for TV.⁶



Figure B: Cost per 1,000 Impressions across Market Channels. Unit: CPM

27

⁵ Lyfe Marketing (n.d)

⁶ Lyfe Marketing (n.d)

Chapter II: Facebook Apps and Technologies for Business

Enabling a broader customer reach.

By empowering businesses in their marketing efforts, social networks play an important role in helping businesses attract, capture, and keep customers.

Effectively increasing sales.

The overall purpose of marketing is to reach new customers, promote products, and ultimately increase sales. In popular terms, marketing 'reels in' the leads and sales teams close them.⁷ Better marketing is therefore connected to increased sales.

'Facebook presents itself as a unique environment that can enable businesses to increase prospective clients...'

-NOBRE AND SILVA (2014)⁸

For businesses marketing on social media, including on Facebook apps and technologies, increased sales are among the benefits they are seeing.

2.3 THE CUSTOMER PERSPECTIVE

Social media facilitates a better product match and reduced search costs.

Digital and social media marketing tools reduce consumer search costs by helping them locate the right products in a more effective way.

By enabling targeted and customised advertisements as opposed to one-size-fitsall methods, these tools narrow the field of products so consumers can find exactly what they need. It also reduces the general noise level by showing customers a higher share of relevant advertisements.

The lower consumer costs associated with identifying the desired product can, in turn, increase 'consumer surplus', the monetary gain represented by the difference between the actual cost of a product and the perceived value that consumers associate with it. Figure C provides a stylized illustration of the concept.

⁷ Beattie, B (13 June 2017): Understanding the Evolving Relationship between Sales and Marketing ⁸ Nobre, H. & Silva, D. (2014): Social Network Marketing Strategy and SME Strategy Benefits

COMME AVANT

Marseilles, France

The natural skincare brand has amassed around 70,000 customers from across Europe since using the Facebook app to introduce its products and connect with people looking for natural skin-kind alternatives in a meaningful way.⁹

The idea for Comme Avant was born when new parent Nil Parra cooked up a batch of olive oil soap on his porch in a bid to soothe his child's irritated skin. With the success of his first soap product, Nil was soon creating more products: toothpaste, creams, deodorant, and shampoo – all created using traditional methods and locally grown ingredients.

The Facebook and Instagram apps were Nil's marketing launchpad. From there, he could tell his story, introduce his products, and show how they were made. Initial local demand was soon followed by nationwide interest. The first international sale came six months later – from Mongolia.

As the business has grown, Nil has relied on the Facebook app's cross border tools to find new customers at home and abroad. He can then engage these people with enticing video ads, and track and respond to their actions on his website with help from Facebook Pixel. Messenger acts as a simple and immediate customer service channel.

According to Nil, the Facebook and Instagram apps have enabled Comme Avant's great communication and transparency with customers, and helped him find new people who share the same values, on a local and international level. He adds, 'With Facebook, we developed a community - a community that guides us in the right direction and helps us to develop new products.'

Source: https://www.facebook.com/commeavantcosmetique

Note that the terms 'EU' and 'Europe', used interchangeably in this report, refer to the European Union (also known as EU-28), a political and economic union of 28 member states located in Europe.



Source: Copenhagen Economics

Social media tools enable mitigation of information asymmetry.

Information asymmetry, the economic term referring to when suppliers have more knowledge of their products and services than consumers, often leads to economic inefficiency through lost transactions and suboptimal decision-making. Social media tools mitigate information asymmetry by providing the ability to write reviews, give product rankings, and seek out third-party verification through the reviews and ratings of others. These tools are widely used by consumers worldwide.

ONLINE PURCHASE

IN-STORE PURCHASE



...consumers read consumer reviews on the internet before making an online purchase while...



...consult online reviews while in-store before buying a good or service.¹⁰

¹⁰ Digitas (2015)

Overall, social media establishes a more direct link between businesses and their customers.

Social media is broadly applied by businesses to communicate and build trust with customers.



... of surveyed companies using Facebook apps and technologies use them to communicate with customers, and...

... say Facebook apps and technologies are important to improving their customer service.¹¹

63%

In this chapter, we have discussed how digital tools – and Facebook apps and technologies in particular – are empowering companies to reach customers in costefficient, targeted, and intelligent ways. Additionally, we have shared how Facebook apps and technologies give businesses the means to reach more customers and improve the returns on their marketing efforts, which also include improving their overall customer service and building consumer trust. These elements all factor into increased sales, trade, and job opportunities, all of which we detail in Chapter 3.

'Platforms such as Yelp, Facebook, and Google are among the most trusted for reviews.'

-INTERNATIONAL TRADE CENTRE (2018)¹²

¹¹ Please refer to the Methodology Appendix for a description of this survey.

¹² International Trade Centre (ITC) (2018): SME Competitiveness Outlook 2018: Business Ecosystems for the Digital Age



CHAPTER III:

JG SALES, DE & JOBS

3.1 TRADE IS AN IMPORTANT DRIVER OF ECONOMIC ACTIVITY IN THE EU¹

Inward, Outward, and Onward: Reducing Barriers to a Healthy EU Economy.

Trade is deeply embedded in the DNA of the EU. Since its establishment, the EU and its policymakers have promoted trade as a key driver for economic growth and job creation. The EU serves more than 500 million consumers and 21 million businesses internally, benefitting from the free movement of goods and services.²

Compared to other large economies, the EU stands out as being economically open,³ implying that trade makes up a relatively large part of its GDP. See Figure A below.



Figure A: Trade of Goods and Services as Share of GDP

Source: OECD National Accounts Statistics / National Accounts at a Glance

- ¹ Note that the terms 'EU' and 'Europe', used interchangeably in this report, refer to the European Union (also known as EU-28), a political and economic union of 28 member states located in Europe.
- ² European Commission (n.d.): Single Market for Goods
- ³ Economic openness is defined as the sum of imports and exports as a share of GDP.

33

In 2016, 85 per cent of the EU GDP was made up of trade of goods and services compared to 37 per cent and 27 per cent in China and USA respectively.⁴

Today, the EU is deeply integrated in the global markets. Global value chains allow European businesses to unbundle their production and place individual tasks and processes at specialised locations. This means that European businesses are involved in the trade of primary, intermediary, and final goods within and outside of the EU.

Trade is key to enforcing future growth in the EU.

A key goal for EU policymakers is to foster trade as a basis for maintaining economic growth. Sustaining the growing trade volumes of European economies is therefore essential for growth and employment. The EU's trade policies aim to improve trade opportunities by removing trade barriers and pursuing fair competition. Ensuring easy access to new geographical markets allows European businesses to reap the benefits of specialisation, upscaling, and improved productivity. This contributes to job creation and lower consumer prices, which benefit the entire EU economy.

Exporting companies create economic spillovers to other companies in the economy, which implies that international trade does not only benefit the exporting companies. The earning opportunities of domestic businesses that deliver primary or intermediary goods to exporters also benefit from spillovers of international trade.

Barriers to trade in EU persist.

Factors such as cultural and geographical distance between consumers and suppliers have been the main barriers to trade historically. These factors, often called nonregulatory barriers to trade, are not reduced by trade-promoting initiatives.

The European Commission conducts a trade-promoting policy to reduce the degree to which regulatory barriers – including tariffs, quotas, and heterogenous product standards – hamper trade. However, it does not lessen the extent to which nonregulatory barriers restrict trade opportunities. Non-regulatory barriers may, however, be addressed by other means.

Social media, and Facebook apps and technologies in particular, may play a part in breaking down some of these barriers. See Figure B.





OECD National Accounts Statistics: National

Accounts at a Glance (2016): Trade in Goods and Services

3.2 PROVIDING MEANS TO GROW AND ENTER NEW MARKETS

More efficient marketing tools lower barriers to entry in new markets.

By introducing better and more cost-efficient marketing and communication alternatives, social media increases the visibility of companies at a lower cost than many other alternatives. Increased visibility affects companies of all sizes and helps to reduce the amount of capital required to start and grow exports needed to enter and reach new markets.

The ability to establish brand recognition through social media marketing is a powerful way for companies to create demand for their products and compete internationally with little cost and risk. This medium is therefore a powerful marketing alternative. See Figure C below.

Figure C: Barriers to Trade Create Situations that are 'Suboptimal'



PRODUCTS SOLD

- P T represents a trade barrier, whilst P W is the hypothetical world price
- At P T, supply of a good is given by the line S T
- As PT is higher than PW, there are opportunities on the world market for more production and greater consumption
- The light green area represents the lost economic opportunities, i.e. an economic inefficiency (misallocation of resources) whilst the darker area is the current welfare
- By minimising PT, the barrier to trade, the darker area (welfare) can be increased by shifting ST towards SW
- This results in a larger quantity of goods supplied at a lower price
- In turn, resources can be better allocated amongst countries to the most competitive producers and the most wanting consumers

Lower barriers to entry reduce the impact of distance on sales, thereby increasing trade.

The impact of distance on trade flows cannot be underestimated. The gravity equation represents a classical economic theory concerning the relationship between distance and level of export. It states that bilateral trade between two countries (A and B) is

inversely related to the distance between them, implying that larger distances will be associated with lower levels of export (and vice versa) when all else is equal.⁵ The simplified equation in Figure D illustrates the point.

Figure D: Simplified Gravity Equation

$$Trade_{A,B} = K \cdot \frac{GDP_A \cdot GDP_B}{Distance_{A,B}}$$

The equation represents one of the most robust empirical findings in economics.⁶ Studies consistently show that trade distance has a significant impact on trade volume.⁷ Therefore, by reducing the perceptual distance between consumers and producers, trade is facilitated.

Existing literature indicates that digital and social media reduces the impact of geographical distance on trade. In a study among 62 countries considering the effect of distance on international trade flows, it was found that the effect of distance is 65 per cent smaller on the eBay platform than offline.⁸



It has been shown that region-pairs that are more socially connected have higher trade flows, even after controlling for geographic distance and the similarity of regions along other economic and demographic measures.⁹

As more companies 'go global', individual markets are subject to increased competition.

International trade fosters competition as it allows more companies to serve the same market. This proverbial 'levelling of the playing field' among SMEs enhances competition, thereby increasing efficiency.¹⁰

When viewed as a non-tariff barrier to trade, additional spillover effects imply increases in both consumer and producer surplus as well as a reduction in information asymmetries. Both of these effects lead to more competitive, robust, and long-term sustainable economies.¹¹

- ⁵ Chaney, T. (August 2013): The Gravity Equation in International Trade: An Explanation
- ⁶ Baldwin, R. & Taglioni, D. (2007): Trade Effects of the Euro: a Comparison of Estimators
- ⁷ Edmond, C. et al. (2015): Competition, Markups, and the Gains from International Trade
- ⁸ Lendle (2012)

- ⁹ Bailey, M. et al. (2017): Measuring Social Connectedness
- ¹⁰ According to the European Commission, SMEs are small and medium-sized enterprises with fewer than 250 employees.
- ¹¹ OECD (April 2010): The Economic and Social Role of Internet Intermediaries
3.3 EFFECTIVE MARKETING EMPOWERS COMPANIES TO ENTER NEW MARKETS

Business users of Facebook apps and technologies show higher propensity to export.

Social media and digital platforms, like Facebook apps and technologies, can help break down the barriers that hinder many European companies from expanding their business internationally.

A study of US companies by the Mercatus Center finds that businesses using Facebook apps and technologies are more likely to export, compared to companies in general.¹² This conclusion is supported by the survey conducted as part of this study, which indicates that users of Facebook apps and technologies are more likely to be exporters compared to other companies.

Companies exporting outside the EU display a similar pattern, indicating that business users utilise Facebook apps and technologies to expand their business globally. In fact, 58 per cent of businesses using Facebook apps and technologies report exporting to countries outside the EU, compared to 39 per cent of companies not using Facebook apps and technologies.¹⁴

Export intensity is higher among companies using Facebook apps and technologies.

It is well-documented in economic literature that the perceived distance between producers and consumers is one of the main factors hampering international trade. European businesses use social media to increase visibility and to interact with customers and clients in foreign markets. By facilitating two-way communication, social media assists businesses in enhancing customer relations and building trust across markets, which is essential to growing a business abroad.

According to the survey of this study, 19 per cent of revenues among companies using Facebook apps and technologies stem from international sales, compared with 14 per cent for companies not using the apps and technologies.¹⁵

7 in 10

surveyed companies use Facebook apps and technologies to export to other countries compared to 5 in 10 among companies not using the apps.¹³

58% of surveyed businesses using Facebook apps and technologies export to countries outside the EU.

37

¹² McDaniel, C. & Parks, D. (January 2019): Businesses on Facebook and Propensity to Export: Australia

- ¹³ Please refer to the Methodology Appendix for a description of the survey.
- ¹⁴ Please refer to the Methodology Appendix for a description of the survey.
- ¹⁵ Please refer to the Methodology Appendix for a description of the survey.

For many businesses, Facebook apps and technologies provide important tools to enter new markets.

The use of social media and digital platforms is not only associated with increased export intensity; in some cases, social media and digital platforms also open doors to new export markets. The Greek businesses in the survey of this study serve to illustrate this point. Among these companies, the largest export destinations for those using Facebook apps and technologies are markets more distant than those to whom the general Greek economy exports.¹⁶

By reducing financial and informational barriers, social media makes it easier for companies to enter new markets. This suggests that companies are more likely to export if they are on a digital platform. The survey of this study supports this, finding that the majority of business users find Facebook apps and technologies important to reaching new markets.

3.4 SOCIAL MEDIA BENEFITS SMALLER COMPANIES AND START-UPS

SMEs benefit from the lower marketing costs supported by Facebook apps and technologies and other social media platforms.

Social media and digital platforms, like Facebook apps and technologies, can help break down the barriers that hinder many European companies from expanding their business internationally.

Cost-efficient and effective marketing translates to the ability to reach more customers at a lower cost. Reaching relevant customers represents a key step in starting up and growing a business, and the related costs are not a direct function of production size. In stylised terms, these costs represent a fixed component in setting up a business.

Figure E: Cost of Reaching New Customers



Lower costs of reaching new consumers allows smaller players to enter the market

In this stylised market, companies producing lower volumes (A and B) are SME's

When costs of setting up a business are high (FC H), only companies producing high volumes (C) are profitable, i.e. have higher revenue than costs

When costs of setting up a business are lowered (FC L), companies producing lower volumes (B) are also profitable most competitive producers and the most wanting consumers

⁶ Three largest export partners as measured by trade volumes according to national accounts (WITS database); top export partners among business customers of Facebook apps and technologies according to the Qualtrics survey This is particularly important for companies operating in sectors with low marginal costs and high fixed costs associated with setting up a business. In these sectors, volume is a key determinant of profitability. With this line of argument, some businesses would not be able to launch and run a profitable business without the means to reach customers in a sufficiently cost-efficient manner.

In terms of gathering information to make well-founded business decisions, digital and social media also play a role in levelling the playing field among companies of different sizes.¹⁸ As such, social media lowers barriers to starting a business through a number of avenues.

'Digital platforms provide SMEs with a particularly crucial tool to receive and share information about suppliers, buyers, products, and services as well as general market trends.' 17

SMEs find Facebook apps and technologies especially important in relation to starting and growing their businesses.

In the survey conducted as part of this study, a higher share of SMEs state that they find Facebook apps and technologies important when starting and growing their businesses as well as lowering marketing costs.¹⁹

According to the survey in this study of SMEs using Facebook apps and technologies:

- 47 per cent find the apps important in relation to starting their businesses²⁰
- 59 per cent find the apps important in relation to growing their business revenue²¹
- 58 per cent find the apps important in relation to lowering their marketing costs²²

3.5 ENABLING SMES TO EXPAND INTO MARKETS ABROAD

SMEs face particularly great challenges in reaching customers abroad.

SMEs face financial, informational, and managerial barriers to growth and, in particular, to entering new markets. Social media can enable SMEs to expand into new territory by making it easier to reach consumers outside of their local markets.

¹⁷ International Trade Centre (2018): SME Competitiveness Outlook 2018: Business Ecosystems for the Digital Age

¹⁸ Michaelidou, N. et al (2011): Usage, barriers and measurement of social media marketing: An exploratory investigation of small and medium B2B brands. Industrial Marketing Management.

- ²⁰ Please refer to the Methodology Appendix for a description of the survey.
- ²¹ Please refer to the Methodology Appendix for a description of the survey.
- ²² Please refer to the Methodology Appendix for a description of the survey.

CHUPI Dublin, Ireland

A well-loved Irish jewellery brand has earned itself a global reputation, with customers as far afield as Singapore and Australia, amassing 130,000 followers on the Facebook and Instagram apps along the way. These platforms are where founder Chupi Sweetman says authentic, meaningful conversations happen – and where sales follow.

Chupi Sweetman's career began in fashion, but after a number of years in the industry, she started looking for something more – and she found it in jewellery. Inspired, she began creating pieces that mark the special moments in life. In a few short years, Chupi and her growing team of 23 have made the brand a major success story in Ireland, and one that is growing its global reputation daily. Chupi is now on a mission to bring her handcrafted jewellery to the world. With the help of the Facebook and Instagram apps, her designs have already reached customers as far away from Ireland as the United States, Singapore, and Australia.

According to Chupi, the Facebook and Instagram apps have helped her forge valuable personal connections with her customers. Instagram Stories provide the perfect way to share designs in a compelling visual format that resonates with audiences, regardless of language. However, when it comes to driving even wider global growth, Chupi and her team rely on the Facebook app and its range of cross border marketing tools.

Explains Chupi, 'Instead of just being an anonymous, online store anywhere in the world, Instagram and Facebook let us talk directly to our customers about what matters to us and matters to them.'

Source: https://www.facebook.com/xChup

Economic research has underscored the difficulties SMEs experience in utilising conventional marketing due to their limited resources and the different behaviours of smaller companies. Networking is an essential tool in marketing, but it can be much harder to tap into for smaller companies.²³

Digital marketing tools bring big company benefits to smaller companies.

Social media can help smaller companies achieve 'big company benefits' from digitalisation. Influential commentator Thomas Friedman made an early argument that information and communications technology (ICT) sets the basis to 'flatten the world' and 'level the playing field', allowing small enterprises to match what only larger companies could do previously.²⁴ This line of reasoning has since been broadly acknowledged.

As a result, the amount of capital required to start and grow a business in a new market is reduced, and SMEs can more easily become more competitive in exports.

Benefits derived from Facebook apps and technologies are particularly large for SMEs.

Many studies point towards the fact that small companies benefit particularly from the use of social media in expanding their business abroad.²⁵

55% of surveyed SMEs using Facebook apps and technologies state that it is important for them to enter new geographical markets. Among the surveyed SMEs using Facebook apps and technologies, 55 per cent state that Facebook apps and technologies are important for them when entering new geographical markets.²⁶

A study conducted among Australian SMEs supports this on a broader level, finding that SMEs using the Facebook app have a higher propensity to export than other companies across all industries.²⁷ As such, findings indicate that small businesses experience lower barriers to trade when utilising online digital platforms for marketing purposes.

- ²³ Gilmore et al. (2001): SME Marketing in Practice
- ²⁴ Friedman, T.L. (2005): The World is Flat: A Brief History of the 21st Century
- ²⁵ McDaniel, C. & Parks, D. (2019)
- ²⁶ Please refer to the Methodology Appendix for a description of the survey.
- ²⁷ McDaniel, C. & Parks, D. (2019)



FACE THIS T-SHIRTS

Rotterdam, Netherlands

When a charitable foundation wanted to spread the word about its work with schoolchildren in Indonesia and sell T-shirts to raise funds, the Facebook and Instagram apps were the obvious choices for building awareness on a global level.

It all started in 2008, when friends Jos and Jelka took a trip to Bali. For Jos, it was a homecoming of sorts; having grown up in the Netherlands as an adopted child in a Dutch family, he was keen to visit Indonesia for the first time and connect with his cultural roots. While visiting schools there, Jos realised that Indonesian children did not always get the great education he had received himself in the Netherlands. In response, he and Jelka founded Face This T-Shirts.

Face This T-Shirts not only donates to schools, but also involves the children in the design process and connects them with the wider world. Jos and Jelka match drawings by the schoolchildren to groundbreaking international artists, who use the drawings to create beautiful T-shirt designs to be sold online, with the proceeds funding school projects. For such highly visual products, the Facebook and Instagram apps have been the perfect place to tell Face This T-shirts' story from the very beginning.

Jos and Jelka say they mainly use the Facebook and Instagram apps for brand awareness, and have raised more than EUR 75,000 for their projects to date. The pair are now working with influencers like actress Teresa Palmer in a bid to help even more Indonesian schoolchildren get the education they deserve.

Source: https://www.facebook,com/FaceThisTshirts

3.6 UNLOCKING THE FULL POTENTIAL

Much potential rests in businesses with underrepresented owners and employees.

Enabling equal economic opportunities for all – irrespective of gender, ethnicity, educational or socio-economic background – is an essential part of fostering economic growth. Studies have shown that business cultures that embrace a diversity of backgrounds and views support innovation and creativity.²⁸ Other studies indicate that businesses run by underrepresented owners perform similarly in terms of growth and job creation as compared with other businesses.²⁹ However, these businesses face structural barriers, such as limited access to finance, that impede their ability to fulfill their economic potential.

As such, several unresolved issues still exist when it comes to ensuring equal opportunities in doing business.

Unlocking the potential of underrepresented businesses requires a more inclusive approach.

To unlock the large economic potential that lies in the groups who are currently underrepresented, a more inclusive approach is needed.

Women constitute one of these underrepresented groups of business owners. Studies find that women face higher barriers to business entry than men.³⁰ On average, women all over the world have less access to education, training, and financing.³¹ Therefore, they tend to be less active in business and as entrepreneurs. Similarly, less educated entrepreneurs face higher barriers to entry than people with more education, especially in accessing finance.³²

Ensuring equal economic opportunity for all is therefore the key to unlocking the economic potential of all citizens and to support growth.

In several cases, Facebook apps and technologies have been the key to unlocking this potential.

Social media platforms, such as Facebook apps and technologies, present several tools that are available to business owners and managers irrespective of background. In a number of cases, these tools have proven themselves to be essential to starting and growing a business.

- ²⁸ International Labour Organization (May 2019): Women in Business and Management: The Business Case for Change
- ²⁹ Parilla, J (September 2017): Opportunity for growth: How reducing barriers to economic inclusion can benefit workers, firms, and local economies
- ³⁰ World Bank (29 March 2018): Many Governments Take Steps to Improve Women's Economic Inclusion, Although Legal Barriers Remain Widespread

³¹ International Labour Organization (May 2019)

³² OECD (2014): Policy Brief on Access to Business Start-up Finance for Inclusive Entrepreneurship: Entrepreneurial Activities in Europe Higher usage rates underscore the importance of online tools among underrepresented business owners. Studies show that businesses run by women are more likely to leverage online tools to facilitate business success compared with businesses run by men.³³ This finding is supported by our survey, showing that larger shares of women-founded businesses are utilising Facebook apps and technologies.

Similarly our survey indicates that Facebook apps and technologies are particularly important to women-founded businesses in all aspects of starting, developing, and running a business. In particular:

- 58 per cent of businesses with women founders find the apps important in relation to starting their businesses, compared with 46 per cent of businesses founded by men³⁴
- 64 per cent of businesses with women founders find the apps important in relation to improving product development, compared with 52 per cent of businesses founded by men³⁵
- 60 per cent of businesses with women founders find the apps important in relation to overcoming challenges, compared with 50 per cent of businesses founded by men³⁶

In this chapter, we have discussed the importance of trade on the economic health and future growth of the EU and gained a better understanding of the barriers businesses often face when entering and sustaining growth in new markets. We then discussed how social media, and Facebook apps and technologies in particular, can reduce these barriers, especially for underrepresented business owners.

- ³³ Facebook et al. (2017): Future of Business Survey Gender Management in Business
- ³⁴ Please refer to the Methodology Appendix for a description of the survey.
- ³⁵ Please refer to the Methodology Appendix for a description of the survey.
- ³⁶ Please refer to the Methodology Appendix for a description of the survey.



CHAPTER IV:

ITATING AND TING TO THE ION AGENDA

4.1 INNOVATION IS A CORNERSTONE OF THE EUROPE 2020 STRATEGY¹

Innovation is high on the EU agenda, where efforts focus on closing the innovation gap.

Europe has been investing less in innovation than its competitors – the US, Japan, and South Korea – and is falling behind on turning research into business opportunities.² Particular emphasis has therefore been put on innovation as a key source of economic growth in Europe, exemplified by the Juncker Commission, which introduced a European Innovation Council to 'turn Europe's scientific discoveries into businesses that can scale up faster.³

The EU innovative landscape is evolving towards a more open approach.

Innovation has traditionally been described as something happening inside companies and corporations, and as being either product innovation or process innovation – where product innovations create new goods and services, and process innovations reduce the cost of producing existing products.⁴

European Commission (22 June 2018): European Innovation Scoreboard 2018: Europe must deepen its

innovation edge

47

¹ Note that the terms 'EU' and 'Europe', used interchangeably in this report, refer to the European Union (also known as EU-28), a political and economic union of 28 member states located in Europe.

³ European Commission (18 March 2019): European Innovation Council

⁴ Tirole, J. (1988): The Theory of Industrial Organisation

Today, open and collaborative innovation is assisted by technologies that enhance the capabilities of individual designers and support distributed, collaborative design projects. In fact, a key goal of EU innovation policy is 'Open Innovation', meaning opening up the innovation process to people with experience in fields other than academia and science.⁵ The idea is that by including more people in the innovation process, knowledge will circulate more freely, and this knowledge can then be used to develop products and services that can create new markets.

A specific kind of open innovation is user-innovation or user-driven innovation, which describes the idea of involving customers and users of products and services in the innovation process, using their feedback to refine existing offerings and even develop new products and services.⁶ See Figure A below.





Source: Copenhagen Economics

APPROACH TO INNOVATION

Social media and the Facebook company take part in the development of the innovation landscape, both as facilitators and innovators.

Social media platforms are uniquely suited to facilitate the next generation of innovation in a more community-minded digital landscape. The Facebook company, given its investments in innovation and the open source environment, is also an active contributor. In the following section, we look at Facebook apps and technologies from two angles: first as a facilitator of innovation and then as an innovator itself.

⁵ European Commission (n.d.): Goals of research and innovation policy

⁶ Szymańska, E. (2017): User-Driven Innovation – the Concept and Research Results

4.2 FACEBOOK AS A FACILITATOR OF INNOVATIONS

Facebook apps and technologies deliver valuable consumer and ad performance insights to business users.

Social media and digital tools like Facebook apps and technologies are available to all companies, small or large. However, the insights from Facebook apps and technologies are particularly important to SMEs, which typically have limited resources devoted to research and development compared to marketing.^{7 8} Because of the low-cost nature of the feedback that Facebook apps and technologies can provide, many SMEs use the platforms as a cost-effective way to learn about their customers and gather insights on their products, services, and business processes.

Business users can use either free or paid services to get feedback. Free sources of feedback include comment threads, likes, or shared content, reviews and ratings. Paid services offered by the Facebook company include tools like Facebook Pixel or Facebook Measurement, which provide in-depth insights into consumer behaviour and marketing campaign performance.^{9 to} No matter how much they invest, businesses can get feedback and insights that would otherwise be difficult to obtain.

Insights from Facebook apps and technologies can help develop better products based on actual customer needs.

4 in 10 surveyed companies using Facebook apps and technologies use insights to improve their product offerings. Studies have shown that companies using Facebook apps and technologies are better at product innovation due to the insights the platforms provide.¹¹ The survey of this study supports this, finding that 4 in 10 companies using Facebook apps and technologies improve their product offerings based on what they learn through the apps.¹²

The inclusion of users and consumers in the product development process illustrates how online communities can blur the lines between consumers and producers. Through social media, and Facebook apps and technologies specifically, consumers can become part of the co-production process.¹³

Businesses also use insights from Facebook apps and technologies to innovate internal processes.

The insights gleaned from Facebook apps and technologies are not only used for product innovation. They can also help transform and optimise internal processes, e.g. by shaping marketing strategies. Marketing budgets are often limited in SMEs, making

- 7 According to the European Commission, SMEs are small and medium-sized enterprises with fewer than 250 employees.
- Hitchen et al. (2017): Social media: open innovation in SMEs finds new support
- ⁹ Facebook (2019c): The Facebook Pixel
- ¹⁰ Facebook for Business (2019a): Facebook Measurement
- ¹¹ Bertschek, I. & Kelser, R. (2017)
- ¹² Please refer to the Methodology Appendix for a description of the survey.
- 13 ITC (2018)

3 in 10

surveyed companies using Facebook apps and technologies use feedback from the platforms to improve how their businesses are organised. it relatively more challenging to carry out conventional marketing tactics. The easily accessible insights from Facebook apps and technologies can be used as an effective alternative to more expensive approaches, e.g. expensive focus groups and surveys.¹⁴

According to the survey in this study, 3 in 10 companies using Facebook apps and technologies use the feedback from the platforms to improve how their businesses are organized.

INSIGHTS AVAILABLE THROUGH FACEBOOK APPS AND TECHNOLOGIES.

Facebook apps and technologies offer multiple channels and ways in which businesses can reach, grow, and market themselves to their target audiences. Some examples include utilising photo ads, Facebook Pixels, targeted and dynamic advertising to selected customers, and Facebook Marketing Partners. Only a fraction of business users utilise the paid services provided by the Facebook company; most businesses using Facebook apps and technologies utilise its free services.

Businesses paying to advertise on Facebook apps and technologies are allowed access to insights gathered in the Facebook Ads Manager.¹⁵ This tool provides information on the number of people who are seeing the ad, the number who are clicking on it, as well as the amount of money spent on each ad campaign. Audience Insights include gender, age, country, region, designated market area, and on which app the ad is seen.¹⁶

Companies can also obtain insights for free by reading comments, messages, analysing likes, and the sharing of content.

4.3 ACCELERATING SOFTWARE INNOVATION

Facebook apps and technologies are built using open source software and contribute to a greater developer ecosystem.

Most of Facebook apps and technologies servers are running open source software. This means that additions and improvements made to this software by Facebook company developers are accessible to the open source community for anyone to use.¹⁷ In this way, the Facebook company contributes to a blossoming ecosystem of open source developers, where software innovation is viewed as a commonly available good that can be utilised across country borders, industry boundaries, and company walls.

- ¹⁵ Facebook for Business (2019b): Ads Manager
- ¹⁶ Facebook for Business (2019c): Optimization: Results & Reports

17 Facebook (12-December-06): The Spirit of Openness

¹⁴ Nobre, H. & Silva, D. (2014)

SCHWESTER SCHWESTER Mölln. Germany

Two German sisters built a distinctive accessories brand with the help of the Facebook and Instagram apps from the very start. From their initial inspiration in 2012 to a global audience in 65 countries today, Schwester Schwester has evolved as beautifully as their style. Now the sisters say their sights are set on further growth and Facebook is leading the way.

Janne and Jytte von der Heide's passion for statement earrings prompted them to form the aptly-named Schwester Schwester. Inspired by their travels, they created designs that evoke the bright colours and motifs of nature. Having set up a Facebook page and an Instagram profile, the sisters learned how to make up their designs and grew their online business from there. New inspiration comes regularly from the Facebook and Instagram apps – with instantaneous follower interactions and feedback, Janne and Jytte can learn which styles or colours their customers want and quickly make them a reality.

Janne and Jytte cite Instagram Stories as the perfect tool for a visual, fashion-led business such as theirs. There they can showcase products, test out new designs, and invite people behind the scenes of the brand that they have grown to love. Since visual language transcends borders, Schwester Schwester's growing audience spans countries worldwide – 60% of customer requests come via the Facebook and Instagram apps, with many of these resulting in direct orders.

'We especially like using the Stories function on Instagram to get direct feedback from our global community and inspiration for the next collection,' explains co-founder Janne Rönsberg von der Heide.

When it comes to turning awareness into sales, Facebook's cross border tools come into their own, providing opportunities to reach people in multiple countries, regions, or even specific trading areas. The first international sale happened quickly and was a real milestone for the business. Since then, Schwester Schwester earrings have found loving homes in addresses as far from Germany as Namibia, Australia, and Dubai.

Source: Facebook.com/SchwesterSchwester

WHAT IS OPEN SOURCE?

The term open source is widely used, but originates from the world of software development. The term broadly refers to something with a publicly-accessible design.

Open source software is a type of software in which the source code is released under a license. The copyright holder grants users the rights to study, change, and distribute the software to anyone and for any purpose. Open source software may be developed in a collaborative public manner. In many cases, anyone who makes use of open source material must agree to make all enhancements to the original material available under these same conditions.

Open source refers to a widely used collaborative approach to software development.

According to a recent study, more than two million businesses around the world use open source software.¹⁸ Open source software such as Python, Perl, and Java allow businesses to freely benefit from ready-to-use products that are constantly improved by the efforts made by developers on the technological frontier. As such, the entire community works in collaboration to further the development of software.

Open source allows more companies to benefit from the same development, effectively accelerating software innovation.

In economic terms, open source software can be characterized as a public good. Anyone can freely use open source without restricting the access of others. Hence, it allows everyone to benefit from state-of-the-art software being developed by the Facebook company.

All kinds of developing entities – including commercial businesses, single developers, and non-profit organisations – benefit from open source as a basis for innovation.¹⁹ Open source accelerates innovation by letting developers engage in networks that continuously refine the code that others have produced. See Figure B below.





¹⁸ Deloitte (2019): Open Source Compass: Tracking the trajectory of open source technologies

¹⁹ Lerner, J. & Tirole, J. (2015): The Economics of Technology Sharing: Open Source and Beyond

TAMMY & BENJAMIN

Paris, France

The stylish French accessories business brought its designs to the world with the Facebook apps and technologies, which the founders credit with generating over 40 per cent of sales. With customers in 65 countries, the brand founders say the Facebook app is a vital component of its strategy for continued growth.

The Tammy & Benjamin adventure began in 2009, when Tammy Lo was still in fashion school. Inspired by memories of her grandmother's collection of purses and bags, she and Benjamin Pincemaille began to design and produce high-quality bags in classic styles not easily found on the high street. Initially, they sold through resellers but when they started using the Facebook and the Instagram apps to extend their reach, they saw both national and international sales increase dramatically.

The Instagram app gives the brand an exciting international platform from which to showcase products, while the Facebook app helps it build close relationships with customers and generate sales. Tammy and Benjamin are able to easily tailor their content to different regions, thanks to the app's localisation tools, which serve ad content in the correct language and currency for the viewer. Likewise, as it does for many businesses working across multiple time zones, the Messenger app acts as the ideal client service channel, where it responds dynamically and quickly to customer queries with automated replies.

Benjamin explains: 'It's very important for us to be present here locally in France, but equally, the Facebook app has permitted us to develop internationally which is fundamental for our growth.'

Source: Facebook.com/TammyandBenjamin

A study on the economic impact of open source software on innovation finds that open source software carries a potential to save the industry more than 36 per cent in software research and development investment, which in turn will result in increased profits or further investments into innovation activities.²⁰ It also finds that further investments in open source software can increase EU GDP growth with up to 0.1 per cent, corresponding to over EUR 10 billion annually.²¹

4.4 INNOVATION-DRIVING INITIATIVES

Investing in innovation is an integrated part of Facebook's business model.

The Facebook company makes significant investments in areas holding economywide value. In 2018, Facebook invested almost 20 per cent of its revenue in research and development to maintain their position as a front runner within tech development. Some examples of these innovation investments are displayed on page 55.

Unless innovations and new knowledge are fully protected by patents or other property rights, innovations create spillover value to other businesses within the economy. Other businesses can make use of the resulting knowledge in their own business or use it to further innovation in their research processes.^{22 23}

State BILLION estimated amount VR/AR software will contribute to European economy by 2025. Inventions and innovations also have the potential to add value to the broader society by creating new technologies and opportunities that enable growth outside of the originating industry. As an example, virtual reality/augmented reality software is estimated to contribute with more than \$16 billion (USD) by 2025 to the European economy through increased efficiency in European enterprises and the public sector.²⁴

In this chapter, we have discussed the role of Facebook apps and technologies, and digital technologies as a whole, in facilitating and contributing to the innovation of businesses through consumer feedback. We also gained a better understanding of how open source software accelerates innovation through the sharing of ideas. Lastly, we looked at how the Facebook company is contributing directly to innovations with projects like virtual reality/augmented reality and artificial intelligence.

- ²⁰ Ghosh, R.A. (2007): Economic impact of open-source software on innovation and the competitiveness of the Information and Communication Technologies (ICT) sector in the EU
- ²¹ Ghosh, R.A. (2007)

²² Arrow, K.J. (1962): Economic Welfare and the Allocation of Resources for Invention

²³ Acs, Z.J. et al. (2013): The knowledge spillover theory of entrepreneurship

²⁴ European Commission (2017): Augmented and Virtual Reality

EXAMPLES OF FACEBOOK'S INNOVATION INVESTMENTS

Augmented (AR) and Virtual Reality (VR)



Augmented reality (AR) and virtual reality (VR) allow people to interact with computer-generated content, either in a real-world (AR) or a digital (VR) environment. These technologies are likely to redefine how we think of the physical and the virtual world as disparate entities, affecting the way we live and do business.

Today, the Facebook company is one of the pioneering companies in the AR/VR sphere, employing more than 4,000 people worldwide in their AR/VR unit and collaborating with more than 40 European universities.²⁵ This unit is working on the frontier of technology to develop products that seamlessly combine real and virtual worlds and allow people to easily connect in the virtual environment. The first generation of the Oculus VR series has already been introduced to provide consumers with the tools to get connected anytime and anywhere. The technology of the Oculus VR series offers an opportunity for all businesses to join the global business conversation, while reducing their impact on the environment.²⁶

Artificial Intelligence



The technological frontier is moving at an incredible pace, and artificial intelligence (AI) programming is no exception. Broadly speaking, the field of AI focuses on creating "intelligent" machines with cognitive, human-like functions, e.g. machines that pay attention to, learn from, and react to their environments.

The Facebook company has been active in the AI community since 2013. The Facebook AI Research (FAIR) in Paris, a public-private research partnership, is an example of how the Facebook company is supporting state-of-the-art AI research. FAIR is conducting an "open model" to research, meaning that the centre is collaborating broadly with the developing community, to the benefit of all. Besides leading research centres, the Facebook company also invests in research that allows us to better understand the ethical issues of AI. One example is the Technical University of Munich (TUM), which recently opened an Institute for Ethics and Artificial Intelligence with support from the Facebook company. The Facebook company contributes to the development and utilization of automatic, algorithmicbased insights from AI while supporting efforts to understand the dimensional impact of this technology.²⁷

²⁷ More information about FAIR and Facebook's innovations with AI at https://tech.facebook.com

²⁵ Facebook Tech: (https://tech.fb.com/inside-facebookreality-labs-research-updates-and-the-futureof-social-connection/, https://tech.fb.com/ar-vr/, https://tech.fb.com/ai/) Facebook Portal (https:// portal.facebook.com/features/)

²⁶ More information about Oculus VR can be found at https://business.oculus.com

AIR FRANCE

Paris, France

IRFRANCE

Founded in 1933, Air France is the number one French airline. The growth in digital habits have helped Air France's e-commerce business generate several billion euros in revenues; hence they believe in the importance of digital transformation every day, in order to remain a leader and be innovative in the field.

Air France needed to succeed in these 3 criteria:

- Keep a quality customer relationship through a new way of communicating
- Be on a third platform while affirming their brand identity
- Be efficient with fast, personal replies in many languages

Two years ago, they launched on the Messenger app and within a few days it became their number one social messaging platform. The opening of a social media messaging system was born from the simple observation that more customers would prefer means of communication used in their everyday lives, as compared to the channels imposed on them such as a website, the Air France app, mobile, and more.

The Messenger app allows a great experience for bot interactions and offers an extensive set of user interface elements like quick reply buttons, permanent buttons for URLs, and channel capabilities. Air France uses Customer Chat on the baggage info page on their website, which links directly to the baggage skill and is responsible for 50 per cent of all traffic towards this feature.

'Louis' is a metabot who redirects to specific bots according to the recognition of the case (Booking bot, Check-in bot, Rebooking bot, Flying Blue bot, Crisis bot). At any time travelers can switch to an advisor. Louis can speak six languages and has more than five skills.

Air France sends more than 100,000 notifications and 300,000 messages per month to customers on the Messenger app, including boarding passes, booking confirmation, and missing baggage updates via push notifications.

Since setting up these tools, Air France has reported

- A 15-point increase in NPS scores for customer servicing
- 25 per cent more productivity due to the tools helping the advisors
- 3.6/5 satisfaction score for Louis

The Messenger app experience has become an integral part of the support workforce. The Messenger app now handles more than 18 per cent of the requests automatically without any human interaction, and it was expected to reach 22 per cent by the end of 2019.There was also a 50 per cent decrease on resolution time on Flying Blue-related topics and an estimated 214,000 monthly active users on the Messenger app.

Source: Facebook.com/airfrance



CHAPTER V:

UDING RSPECTIVES

AGGREGATE ECONOMIC IMPACT ACROSS THE LARGEST EU MARKETS¹

Economic impact estimates encompass 15 markets covering 92 per cent of the EU gross value added (GVA).² The Economic Impact Model in this study represents a first strand of research to explore how businesses use Facebook apps and technologies to support their activities and, in particular, how this translates into aggregate economic impact.

The model is primarily based on the 7,720 responses from the Qualtrics survey, representing all industries³ and business sizes. These responses are then matched and scaled up with macro-level information from official national statistics to convert them into aggregate economic impact estimates.

While the Qualtrics survey in this study left out 13 European countries, the included 15 countries account for 92 per cent of the EU gross value added (GVA).

The Economic Impact Model estimates the aggregate direct economic impact from businesses using Facebook apps and technologies on GVA, jobs, and exports.⁴

It is not within the scope of the study to capture secondary impacts (indirect effects) through supply chains nor the induced effects through employee spending. Neither does this study capture the displacement effects that may occur as businesses preferring to adopt new services and technologies embrace new ways of doing business. Finally, the study does not seek to measure the incremental impact of Facebook apps and technologies on business performance, nor does it attempt to model a counterfactual world where the Facebook company does not exist.

These effects represent topics for future research.

- ³ The survey covers the following NACE classified industries: Agriculture, forestry and fishing (A), Mining and quarrying (B), Manufacturing (C), Utilities (D,E), Construction (F), Wholesale and retail trade (G), Transport, storage and communication (H,J), Financial and insurance activities (K), Real estate, business and administrative activities (L,M,N) and Other services (R,S,T,U).
- ⁴ Please refer to the Methodology Appendix for a description of the survey and the Economic Impact Model.

¹ Note that the terms 'EU' and 'Europe', used interchangeably in this report, refer to the European Union (also known as EU-28), a political and economic union of 28 member states located in Europe.

² Survey results cover Belgium, Czech Republic, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Romania, Spain, Sweden, and the United Kingdom.

Figure A: Countries Included in the Survey of This Study



5.1 AGGREGATE ECONOMIC IMPACT ACROSS THE LARGEST EU MARKETS

Companies across the EU are using Facebook apps and technologies to support growth in several aspects of business.

Based on the survey of this study, which included 7,720 businesses across 15 countries within the EU, Facebook apps and technologies generate value for business users through a number of different avenues, including:⁵

- Supplying an alternative platform for advertising, showcasing products, and providing business information to customers
- Delivering insights on customers and ads
- Maintaining a trusted forum for communicating with customers and selling products and services
- Furnishing a platform to locate new customers and recruit new employees efficiently

Marketing through Facebook apps and technologies means that businesses can efficiently target specific users based on their individual needs, wants, and purchasing behaviours.

Please refer to the Methodology Appendix for a description of the survey and Economic Impact Model.

In short, the Facebook company contributes to a digital media ecosystem, which supports the running and growing of businesses. By enabling businesses to reach and communicate with customers in a more efficient way, Facebook apps and technologies empower users to increase their business activities. The increased level of business activity is reflected in output as well as employment.

Surveyed businesses across 15 countries in the EU credit Facebook apps and technologies with significant sales, jobs, and exports last year.⁶



Surveyed businesses say that using Facebook apps and technologies helped them generate sales corresponding to an estimated EUR 208 billion in economic activity last year." Using standard economic modelling techniques, that economic activity translates into 3.1 million jobs."



Surveyed businesses say that using Facebook apps and technologies helped them generate international sales corresponding to an estimated EUR 98 billion in exports last year." When splitting export attributions, it is found that Facebook apps and technologies are useful in establishing and growing exports to countries inside and outside the European Union. Of these attributed exports, an estimated EUR 58 billion worth of exports are from international sales within the EU, and EUR 40 billion are from sales outside the EU.¹⁰

- ⁶ Numbers are based on the Qualtrics survey and the Economic Impact Model. See Methodology Appendix for a description of the survey.
- ⁷ Exact estimate of GVA is EUR 208,319,510,707. Economic activity here refers to gross value added (GVA) over the past 12 months. Please refer to the Methodology Appendix for a description of the survey.
- ⁸ Please refer to the Methodology Appendix for a description of the survey.
- Please refer to the Methodology Appendix for a description of the survey.
- ¹⁰ Please refer to the Methodology Appendix for a description of the survey.

5.2 DIGITAL POLICIES ARE HIGH ON THE EU AGENDA

Creating a digital single market is a key EU priority.

Both the previous and new European Commission have shown great ambitions in the area of digitalisation. In the five years since its inception, the Juncker Commission, together with the European Parliament and Council of the European Union, have implemented 28 out of 30 legislative initiatives in the endeavour to create a digital single market, one of the Juncker Commission's ten political priorities.¹¹

The digital single market consists of three policy pillars:

- Improving consumers' and businesses' access to online goods and services across Europe
- Creating an environment in which digital networks and services can flourish
- Maximising the potential of the European Digital Economy through the enhancement of digital skills¹²

'By creating a connected digital single market, we can generate up to EUR 250 billion of additional growth in Europe in the course of the mandate of the next Commission.'

-JEAN-CLAUDE JUNCKER, FORMER PRESIDENT OF THE EUROPEAN COMMISSION (2014-2019)¹³

As a result of the previous Commission's work in this area, EUR 14 billion has been invested in digital technologies, and consumer rights have been updated to better reflect the digital age and better facilitate cross-border e-commerce.¹⁴

As reported in this study, digital tools such as social media are broadly used by EU businesses to reach new consumers and markets across the EU. Thus, new technology can be at the heart of empowering EU firms, large or small, to make the most of the EU single market opportunities. In other words, digital technologies facilitate commercial connections overcoming the structural barriers that are driven by the physical distance between businesses and consumers within the EU.

¹² European Commission (n.d.): What is the digital single market about? ¹³ Juncker, Jean-Claude (15-July-2014): A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change – Political Guidelines for the next European Commission

¹⁴ European Commission (May 2019)

¹¹ European Commission (May 2019)

While digital technologies are reducing structural impediments to trade within the EU, challenges to maximise EU business growth can follow from residual barriers to trade, including frictions, obstacles, and legal uncertainties surrounding the digital single market.

Better connectivity means higher productivity and cohesion.

To deliver on its digital market strategy, the Commission has also adopted a set of initiatives and proposals to place the EU at the forefront of internet connectivity. Without better access to the internet and to information and communications technologies (ICT), the EU will not be able to progress further into a digitally transformed and empowered economy.

Increasing the broadband access of public institutions, households, and businesses is a central element of EU policy. The objective is to turn Europe into a so-called 'Gigabit Society' by 2025.¹⁵

Since 2014, the household uptake of ultrafast internet (+100 Mbps) has increased significantly from 3 per cent to 20 per cent. Digital transformation across businesses, measured as the firms' adoption of electronic information sharing, social media, big data, and cloud services, has increased from 28 per cent to 43 per cent with the North-Western Member States taking the lead, see Figure B below.¹⁶ At the same time, we share the European Commission's view that connectivity is still, in part, insufficient to address the fast-growing needs of all European businesses.¹⁷

Figure B: Digital Transformation Across Businesses in the EU



Source: European Commission (29 October 2019), Digital Scoreboard

¹⁵ European Commission (2019a): Broadband Europe
¹⁶ European Commission (29 October 2019): Digital

Scoreboard

¹⁷ European Commission (11 June 2019): Commission's report shows that targeted investment and robust digital policies boost Member States' performance Better and faster internet connectivity will help increase the productivity of European businesses by offering better access to digital tools and more effective processes. Connectivity can also help improve cohesion across Europe by offering new opportunities to remote regions as well as to regions that are undergoing industrial diversification.

Minding the digital skills gap.

1in3 in the EU labour force do not have basic digital skills. Even with better and faster access to the internet, the creation of the digital single market is dependent on digital literacy – of both the European people and its businesses. Yet, more than one third of Europeans in the active labour force do not have basic digital skills.¹⁸ Improving digital skills is a key part of the new Commission's Digital Education Action Plan, by which digital literacy is a foundation for everyone.¹⁹

More specifically, digital skills are a key enabler to supporting entrepreneurship. The case of social media use by businesses of varying sizes across Europe demonstrates that technologies and apps used by consumers can be a valuable tool for businesses. Social media business tools can be accessible and are directly and intuitively understandable to European entrepreneurs and their employees because they are often based in similar or familiar interfaces that people have for personal use. However, for the potential within these digital tools to be fully realised, basic digital skills are an important component, especially among the smallest firms.

5.3 ADVANCING DIGITAL GROWTH POTENTIAL

Removing the remaining barriers to cross-border trade.

With efforts to improve access to high-speed internet and a workforce with a digital skill set, Europe will be well-equipped to realise the economic and societal benefits of digitalisation. However, there is still some way to go before the full potential offered by digital tools and social media can be realised.

As with the EU single market, the digital single market is still developing and being completed. Even though important policies have been implemented in recent years to ease cross-border e-commerce, there is still room to improve policies linked to cross-border trade.²⁰

²⁰ European Commission (2019b): New EU rules on e-commerce. Measures include the revised Payment Services Directive.

¹⁸ European Commission (May 2019)

¹⁹ Von der Leyen, U. (2019): A Union that strives for more: My agenda for Europe

As shown in this report, social media, and Facebook apps and technologies in particular, offer ways for businesses to market and sell their products at a low cost. Still, issues – like those related to VAT and customs collection – may hamper growth opportunities from exports and thereby limit the potential of digital technologies to enhance growth across EU businesses.²¹

Retaining the focus on connectivity.

While connectivity is improving, it remains a challenge to ensure the necessary investments in infrastructure meet the increasing data demands, despite the inherent challenges and high unit costs of rolling out civil engineering assets in sparsely populated areas.

Digital tools and opportunities provided by digital platforms, social media, and, in particular, Facebook apps and technologies, are equally accessible to businesses that are able to get online. Therefore, limited access to the internet and constraints in data capacity can be key barriers to unlocking the growth potential of all companies.

Just like many other areas of the world, urban areas in Europe have the highest rates of digital and technology growth, leaving those in the remote areas of the economy behind. Therefore, when expanding the infrastructure, an opportunity arises to address issues related to spatial differences in internet access and growth opportunities at the same time. Exploring possible links to the Digital Europe programme within the next multiannual EU Budget could be a way to progress work in these areas simultaneously.

Making 'digital' a common language in the EU.

EU industry and enterprises demand new types of skills. A further widening of the digital skills gap would have a negative impact on the ability of EU businesses to compete with non-EU competitors and to make use of the opportunities and benefits offered by digitalisation.²²

The Digital Education Action Plan is a strong step towards developing the necessary digital skills within the EU workforce.²³ To harness the opportunities provided by digital tools, however, the EU needs to improve the overall ability to use current digital technologies and also help train the workforce so they can obtain the skill sets needed to create new digital products and innovations.

65

²² European Commission (n.d.): Digital Transformation

Chapter V: Concluding Perspectives

²¹ European Court of Auditors (December 2019)

²³ European Commission (n.d.): Digital Education Action Plan

Another essential element to digital fluency is ensuring that risk capital is available to new digital ventures, which are currently held back by an unfavourable funding environment. Given their high reliance on risk capital, digital ventures in the EU would benefit from relevant support measures that help close funding gaps, both at the Member State and EU level.²⁴

Thinking digital in all we do.

In this concluding section, we have highlighted areas of policy central to realising the business and economic benefits offered by digital technologies. However, as digital platforms like Facebook apps and technologies grant businesses – and, in particular, small to mid-size enterprises (SMEs)– with easy and quick access to new markets and growth, all policies relevant to framework conditions of SMEs should, in principle, take into account the opportunities posed by digital tools and facilitate these to the largest degree possible.²⁵

This may very well imply a need for a deeper understanding of how digital tools are utilised by businesses across Europe and how business performance is affected by the use of digital technologies and social media. For example, are certain business models or industries more likely to benefit? Why is that? Are some Member States or regions better equipped at reaping benefits? What can be learned from the high performers?

Further research that explores in greater detail how EU businesses use digital technologies, social media, and Facebook apps and technologies will improve the wider understanding of the role of these tools in our economies as well as the potential to be unlocked from new uses, additional skills, and ongoing business adoption of these technologies. Ultimately, this will enable policymakers to design more tailored policies to support European leadership in the global digital economy.

²⁵ According to the European Commission, SMEs are small and medium-sized enterprises with fewer than 250 employees.

²⁴ Lannoo, K. & Thomadakis, A. (2019): "Rebranding Capital Markets Union: A Market Finance Action Plan", CEPS-ECMI Task Force Report, Centre for European Policy Studies; OECD (2017): International comparability of venture capital data in Entrepreneurship at a Glance.



FERENCE NOTES

- Accenture (2016), Five ways to Win with Digital Platforms. Retrieved from: <u>https://</u> <u>www.accenture.com/us-en/_acnmedia/pdf-29/accenture-five-ways-to-win-with-</u> <u>digital-platforms-full-report.pdf</u>
- Acs, Z.J., Braunerhjelm, P., Audretsch, D.B., & Carlsson, B. (2013), The knowledge spillover theory of entrepreneurship. Small Business Economics, 41:757. Retrieved from: <u>https://doi.org/10.1007/s11187-013-9505-9</u>
- Arrow, K.J. (1962), Economic Welfare and the Allocation of Resources for Invention. The Rate and Direction of Inventive Activity: Economic and Social Factors. Princeton University Press, pp 609 - 626.
- Bailey, M., Cao, R., Kuchler, T., Stroebel, J., & Wong, A. (2017), Measuring Social Connectedness, NBER Working Paper 23608. Retrieved from: <u>http://www.nber.org/papers/w23608</u>
- Baldwin, R. & Taglioni, D. (2007), pp 780–818 Trade Effects of the Euro: a Comparison of Estimators, Journal of Economic Integration 22(4), December 2007; 780-818. Retrieved from: <u>https://www.jstor.org/stable/23000919?seq=1#page_scan_tab_contents</u>
- Beattie, B. (13 June 2017), Understanding the Evolving Relationship between Sales and Marketing, Volaris. Retrieved from: <u>https://explore.volarisgroup.com/</u> <u>volaris-group-blog/understanding-theevolving-relationship-between-sales-and-</u> <u>marketing</u>
- Bertschek, I. & Kesler, R. (2017), Let the User Speak: Is Feedback on Facebook a Source of Firms' Innovation? ZEW Discussion Paper No. 17-015. Retrieved from: <u>http://ftp.zew.de/pub/zew-docs/dp/dp17015.pdf</u>
- Chaney, T. (August 2013), The Gravity Equation in International Trade: An Explanation, NBER Working Paper 192852. Retrieved from: <u>http://www.nber.org/papers/</u> <u>w19285</u>
- Deloitte (2019), Open Source Compass: Tracking the trajectory of open source technologies. Retrieved from: <u>https://www2.deloitte.com/content/dam/Deloitte/</u><u>us/Documents/process-and-operations/us-open source-compass.pdf</u>
- Digitas (2015), Connected Commerce: What's next in consumer shopping? Retail Ecosystem Research, 2015. Retrieved from: <u>https://www.digitas.com/</u> <u>connectedcommerce2015data/#/</u>
- Edmond, C., Midrigan, V., & Yi Xu, D. (October 2015), Competition, Markups, and the Gains from International Trade. American Economic Review. 105:10, pp 3183-3221. Retrieved from: <u>https://www.aeaweb.org/articles?id=10.1257/</u> <u>aer.20120549</u>

- European Audiovisual Observatory (2017), The EU online advertising market -Update 2017. Retrieved from: <u>https://rm.coe.int/the-eu-online-advertising-market-update-2017/168078f2b3</u>
- European Commission (6 May 2015), A Digital Single Market Strategy for Europe. Retrieved from: <u>https://ec.europa.eu/digital-single-market/en/news/digital-single-market-strategy-europe-com2015-192-final</u>
- European Commission (22 June 2018), European Innovation Scoreboard 2018: Europe must deepen its innovation edge. Retrieved from: <u>https://ec.europa.eu/growth/content/european-innovationscoreboard-2018-europe-must-deepen-its-innovation-edge_en</u>
- European Commission (18 March 2019), European Innovation Council. Retrieved from: <u>https://ec.europa.eu/commission/news/european-innovation-council-2019-mar-18_en</u>
- European Commission (May 2019), A Digital Single Market for the benefit of all Europeans. Retrieved from: <u>https://ec.europa.eu/commission/sites/beta-political/files/euco-sibiu-a_digital_single_market.pdf</u>
- European Commission (11 June 2019), Commission's report shows that targeted investment and robust digital policies boost Member States' performance. Press release. Retrieved from: <u>https://ec.europa.eu/digital-single-market/en/ news/commissions-report-shows-targeted-investment-and-robust-digitalpolicies-boost-member-states</u>
- European Commission (10 Sept 2019), Mission Letter from Ursula von der Leyen to Sylvie Goulard, Commissioner-designate for Internal Market. Retrieved from: <u>https://ec.europa.eu/commission/sites/beta-political/files/mission-letter-</u> <u>sylvie-goulard_en.pdf</u>
- European Commission (29 October 2019), Digital Scoreboard. Retrieved from: https://ec.europa.eu/digital-single-market/en/digital-scoreboard
- European Commission (1 Dec 2019), Mission Letter from Ursula von der Leyen to Margrethe Vestager, Executive Vice-President for A Europe fit for the Digital Age. Retrieved from: <u>https://ec.europa.eu/commission/commissioners/</u> <u>sites/comm-cwt2019/files/commissioner_mission_letters/mission-letter-</u> <u>margrethe-vestager_2019_en.pdf</u>
- European Commission (2019a), Broadband Europe. Retrieved from: <u>https://</u> <u>ec.europa.eu/digital-single-market/en/broadband-europe</u> Retrieved from: <u>https://ec.europa.eu/digital-single-market/en/new-eu-rules-e-commerce</u>
- European Commission (2019b), New EU rules on e-commerce. Retrieved from: https://ec.europa.eu/digital-single-market/en/new-eu-rules-e-commerce
- European Commission (n.d.), Digital Transformation. Retrieved from: <u>https://</u> <u>ec.europa.eu/growth/industry/policy/digital-transformation</u>
- European Commission (n.d.), Digital Education Action Plan. Retrieved from: <u>https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan_en</u>
- European Commission (n.d.), Goals of research and innovation policy. Retrieved on https://ec.europa.eu/info/research-and-innovation/strategy/goals-researchand-innovationpolicy_en
- European Commission (n.d.), Innovation. Retrieved from: <u>https://ec.europa.eu/</u> growth/industry/innovation_en
- European Commission (n.d.), Single Market for Goods. Retrieved from: <u>https://ec.europa.eu/growth/single-market/goods_en</u>
- European Commission (n.d.), What is the digital single market about? Retrieved from: <u>https://ec.europa.eu/eurostat/cache/infographs/ict/bloc-4.html</u>

- European Court of Auditors (December 2019), E-commerce: many of the challenges of collecting VAT and customs duties remain to be resolved. Special Report, 12. Retrieved from: <u>https://op.europa.eu/webpub/eca/special-reports/ecommerce-12-2019/en/</u>
- Eurostat (December 2019), Social media use by type, internet advertising. Retrieved from <u>http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_ cismt&lang=en</u>
- Facebook (2019a), Ad targeting. Retrieved from: <u>https://www.facebook.com/business/</u> ads/ad-targeting
- Facebook (2019b), Facebook Company Info. Retrieved from: <u>https://newsroom.fb.com/</u> company-info/
- Facebook (2019c), The Facebook Pixel. Retrieved from: <u>https://www.facebook.com/</u> <u>business/learn/facebook-ads-pixel</u>
- Facebook (12-December-06), The Spirit of Openness. Retrieved from: <u>https://www.facebook.com/notes/facebook/the-spirit-ofopenness/2223862130</u>
- Facebook for Business (2019a), Facebook Measurement. Retrieved from <u>https://www.facebook.com/business/measurement</u>
- Facebook for Business (2019b), Ads Manager. Retrieved from: <u>https://www.facebook.</u> <u>com/business/tools/ads-manager</u>

Facebook for Business (2019c), Optimization: Results & Reports. Retrieved from: <u>https://www.facebook.com/business/help/318580098318734?</u> <u>id=369013183583436</u>

- Facebook, OECD and the World Bank (2017), Future of Business Survey Gender Management in Business. Retrieved from: <u>https://fbnewsroomes.files.</u> wordpress.com/2017/02/future-of-business-survey-gender-management-inbusinessjanuary-20171.pdf
- Friedman, T. (2005), The World is Flat: A Brief History of the Twenty-first Century, Farra, Straus and Giroux
- Ghosh, R.A. (2007), Economic impact of open source software on innovation and the competitiveness of the Information and Communication Technologies (ICT) sector in the EU. Maastricht: UNU-MERIT.
- Gilmore, A., Carson, D., & Grant, K. (2001), SME marketing in practice. Marketing Intelligence & Planning, 19:1, pp 6-11.
- Google (2018), Economic Impact Report United States. Retrieved from: <u>https://</u> economicimpact.google.com/
- Hitchen, E., Nylund, P., Ferràs, X., & Mussons, S. (2017), Social media: open innovation in SMEs finds new support. Journal of Business Strategy. 38. 21-29. 10.1108/JBS-02-2016-0015.
- International Finance Corporation and World Trade Organization (2019), Trade finance and the compliance challenge: A showcase of international cooperation. Retrieved from: <u>https://www.ifc.org/wps/wcm/connect/050c73ad-39c2-468d-a808-44bdb7cc971c/trade-finance-compliance-2019.</u> pdf?MOD=AJPERES&CVID=mKTmQ69
- International Labour Organization (ILO) (May 2019), Women in Business and Management: The Business Case for Change. Retrieved from: <u>https://www.ilo.org/ wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/</u> wcms_700953.pdf
- International Trade Centre (ITC) (2018), SME Competitiveness Outlook 2018: Business Ecosystems for the Digital Age. Retrieved from: <u>http://www.intracen.org/</u> <u>uploadedFiles/intracenorg/Content/Publications/SMEC02018.pdf</u>

- Juncker, Jean-Claude, (15-July-2014), A New Start for Europe: My Agenda for Jobs, Growth, Fairness and Democratic Change – Political Guidelines for the next European Commission. Retrieved from: <u>https://ec.europa.eu/commission/sites/ beta-political/files/juncker-political-guidelines-speech_en.pdf</u>
- Kresh, H., Laible, A., & Lam, M. (2018), 'Online Advertising: Creating a Relationship Between Businesses and Consumers', Global Business Value Innovations: Building Innovation Capabilities for Business Strategies. Palgrave Macmillan, pp 47-61.
- Lannoo, K. & Thomadakis, A. (2019), 'Rebranding Capital Markets Union: A Market Finance Action Plan', CEPS-ECMI Task Force Report, Centre for European Policy Studies. Retrieved from: <u>https://www.ceps.eu/download/publication/?id=23131&</u> <u>pdf=Rebranding-Capital-Markets-Union.pdf</u>
- Leeflang, P. S. H., Verhoef, P. C., Dahlström, P., & Freundt, T. (2014), Challenges and solutions for marketing in a digital era. European Management Journal, 32:1, February 2014, pp. 1-12.
- Lendle, A., Olarreaga, M., Schropp, S., & Vézina, P. (2012), There Goes Gravity: How eBay Reduces Trade Costs, Discussion Paper No. 9094, Centre for Economic Policy Research. Retrieved from: <u>https://cepr.org/active/publications/discussion_papers/dp.php?dpno=9094#</u>
- Lerner, J. & Tirole, J. (2005), The Economics of Technology Sharing: Open Source and Beyond. Journal of Economic Perspectives, Volume 19, Number 2, Spring 2005, pp 99–120.
- Lyfe Marketing (n.d.), Traditional Media vs. Social Media Advertising. Retrieved from: <u>https://www.lyfemarketing.com/traditional-media-versus-social-media/</u>
- Michaelidou, N., Siamagka, N.T., & Christodoulides, G. (October 2011), Usage, barriers and measurement of social media marketing: An exploratory investigation of small and medium B2B brands. Industrial Marketing Management, 40:7, pp 1153-1159.
- Nobre, H. & Silva, D. (2014), Social Network Marketing Strategy and SME Strategy Benefits, Journal of Transnational Management, 19:2, 138-151, DOI: 10.1080/15475778.2014.904658
- OECD (April 2010), The Economic and Social Role of Internet Intermediaries. Retrieved from: https://www.oecd.org/internet/ieconomy/44949023.pdf
- OECD (2016), Entrepreneurship at a Glance 2016, OECD Publishing, Paris. Retrieved from: <u>https://doi.org/10.1787/entrepreneur_aag-2016-en</u>
- OECD (2017), International comparability of venture capital data, in Entrepreneurship at a Glance 2017, OECD Publishing, Paris. Retrieved from: <u>https://www.oecd-</u> <u>ilibrary.org/employment/entrepreneurship-at-a-glance-2017_entrepreneur_aag-</u> <u>2017-en</u>
- OECD National Accounts Statistics: National Accounts at a Glance (2016), Trade in Goods and Services. Retrieved from: <u>https://data.oecd.org/trade/trade-in-goods-and-services.htm</u>
- OECD (2014), Policy Brief on Access to Business Start-up Finance for Inclusive Entrepreneurship: Entrepreneurial Activities in Europe. Retrieved from: <u>https://www.oecd.org/cfe/leed/Finacing%20inclusive%20entrepreneurship%20</u> <u>policy%20brief%20EN.pdf</u>
- Parilla, J. (September 2017), Opportunity for growth: How reducing barriers to economic inclusion can benefit workers, firms, and local economies. Brookings Institution. Retrieved from: <u>https://www.brookings.edu/wp-content/uploads/2017/09/metro_20170927_opportunity-for-growth-iedl-report-parilla-final.pdf</u>
- Szymańska, E. (2017), User-Driven Innovation the Concept and Research Results. Procedia Engineering, Volume 18s, pp 694-700.

Tirole, J. (1988), The Theory of Industrial Organisation. MIT Press.

- Von der Leyen, U. (2019), A Union that strives for more: My agenda for Europe. Retrieved from: <u>https://ec.europa.eu/commission/sites/beta-political/files/</u> <u>political-guidelines-next-commission_en.pdf</u>
- World Bank (29 March 2018), Many Governments Take Steps to Improve Women's Economic Inclusion, Although Legal Barriers Remain Widespread. Retrieved from: <u>https://www.worldbank.org/en/news/press-release/2018/03/29/many-governments-take-steps-to-improve-womens-economic-inclusion-although-legal-barriers-remain-widespread</u>



DOLOGY APPENDIX

The Facebook company commissioned this study to measure the economic benefits of its apps and technologies for businesses.¹ Facebook apps and technologies include Facebook app, Instagram, Messenger, and WhatsApp.² Notably, this study includes both businesses that use Facebook apps and technologies for free marketing and for paid advertising. The economic benefits are measured in terms of gross value added (GVA) as well as employment and exports that businesses have credited to their use of Facebook apps and technologies.³ This chapter covers the methodology applied to this study.

The estimates derived from the analysis should be viewed as gross figures; they do not take into account any substitution effects, displacement effects, or cannibalisation that may occur as a result of the use of Facebook apps and technologies or their potential substitutes. In other words, the study provides a snapshot of the aggregate business activity that currently leverages Facebook apps and technologies. The inherent challenges of defining and modelling a counterfactual world without online activity, or without online tools such as the Facebook app, is beyond the scope of this study.

At the time of writing, there is no single accepted methodology for estimating the impact of digital platforms on multi-sided markets. Other public studies have used willingnessto-pay formulations and return-on-investment estimates for digital advertising, among other techniques. As such, guidance from the literature is sparse, and methodologies used by previous studies either use internal data or are presented with a series of limitations that should be acknowledged at the outset.⁴ In this study, similar caveats apply and are discussed in detail throughout this Methodology Appendix.

¹ This study captured the impact on businesses' total sales, not total revenues, noting that revenues could arise from sources on which the Facebook company may have no impact.

² The term 'Facebook' is used when referencing the app. Instances of 'Facebook company' indicate the corporate entity, not the app within the offering of apps and technologies.

³ Gross value added (GVA) is the component of gross domestic product that captures the contribution by industry.

⁴ See Google (2018): Economic Impact Report - United States

Throughout this study, the research team did not have access to any internal Facebook company data regarding the business use of Facebook apps and technologies nor the value derived from their use. The methodology included a survey of over 7,727 businesses across 15 countries in the European Union that was further supported and augmented by current and available public data with regards to employment counts, output, and GVA.⁵ In reference to the above points, these estimates should be viewed as approximate calculations using the available data.

The research identified an increase in sales that businesses credited to Facebook apps and technologies and the corresponding economic values associated with the following perspectives:

- GVA Gross value added supported by the increase in sales credited to Facebook company
- Jobs Employment supported by the increase in sales credited to Facebook company
- III. Exports The increase in international sales credited to Facebook company (total international exports as well as intra- and extra-EU exports)

The analysis covered private businesses in the 'market economy'. Public sector industries are not included as their revenues are most likely to be attributed to taxpayers.

The aggregate economic contribution of the Facebook company was estimated using:

- a survey of 7,727 businesses from 15 countries to identify insights on their businesses' use (or non-use) of Facebook apps and technologies^{6 7}
- a collation of publicly available economic data by industry across every country within the survey sample

The survey

The survey (throughout the study referred to as the Qualtrics survey) was designed by the research team and was fielded by Qualtrics between 1st October and 1st November 2019.⁸ Sampling quotas were set based on the distribution of GVA across industries for each country to ensure appropriate coverage of the sources of GVA within

- ⁵ Note that the terms 'EU' and 'Europe', used interchangeably in this report, refer to the European Union (also known as EU-28), a political and economic union of 28 member states located in Europe.
- ⁶ The countries surveyed were as follows: Belgium, the Czech Republic, France, Germany, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, Romania, Spain, Sweden, and the United Kingdom. Approximately 500 employees were surveyed in each of the 15 countries.
- According to Eurostat the total GVA of the 15 surveyed countries was 92 per cent of EU GVA in 2018.
- ⁸ The survey was opt-in with a small incentive offered (between EUR 5 and EUR 10). Employees were used as proxy informants of the business they represented. This is inferior to auditable and reliable information regarding a business. Reverseworded questions were used as well as positively phrased questions regarding the sales attribution to Facebook apps and technologies. The negatively phrased questions were used within the economic analysis as this produced a more conservative response (approximately 5 per cent lower attribution of sales to their use of Facebook apps and technologies).

each economy. The survey was pre-tested on approximately 5 to 10 per cent of respondents from each country to ensure the survey was operating as intended. The survey used a two-step translation method using native speakers for the non-English language survey.

Screening questions were used to ensure that the respondent was currently employed and had input into decision-making for the business they represented. This helped to ensure respondents would have access to sufficiently detailed business information required to complete the survey accurately.

To further ensure the validity of survey data used in the analysis, incorrect, inaccurately formatted, or repeated data was removed from the sample, and a rule-based approach to removing non-feasible responses was applied.⁹

The survey was administered via online panels. These panels are unlikely to represent the true distribution of businesses by key geodemographic variables (e.g. size, industry, country), introducing systematic error into sample estimates. As the distribution of relevant geodemographic variables in the population is not known in all countries surveyed, it is not possible to correct for this bias in a valid and reliable way, e.g. by postweighting to match known population characteristics.

Efforts were made to ensure the survey sample was representative of the target population through quota sampling. A sampling plan was used that closely aligned with the distribution of GVA by industry for each country, as this is a known population characteristic. However, as quota sampling is a non-probabilistic sampling technique, the potential remains for selection bias. Further information can be found within the complete Methodology Appendix.

Economic analysis

Survey results and public data were used to estimate the economic contribution supported by the Facebook company in terms of GVA, employment, and exports, according to the procedures as outlined below (throughout the study referred to as the Economic Impact Model).

⁹ See Section 3.2.5 of the Methodology Appendix for a description of the survey scrubbing and detection.

Table A: Description of equation variables

С	country
i	industry
b	business
%Sales	Lower bound of the proportion of a respondent's sales attributed to the Facebook company according to the survey
\$Sales	A respondent's total sales according to the survey
GVA (public)	Total gross value added according to public data
Output (public)	Total output value according to public data
GVA	The estimated GVA attributed to the Facebook company
Employment (public)	Total number of employees in an industry according to public data
%IntlSales	Lower bound of the proportion of respondent's international sales attributed to the Facebook company according to the survey
\$IntlSales	A respondent's international sales according to the survey

Gross Value Added (GVA)

Calculating the contribution to GVA from businesses' use of Facebook apps and technologies used the following method:

- Calculate the dollar figure of the sales attributable to the Facebook company for our sample by industry and country¹⁰
- Multiply in-sample sales attributable to the Facebook company by the industry and country-specific ratio of GVA to output according to publicly available sources
- Scale up the in-sample GVA attributable to the Facebook company to the industry level in each country, using the ratio of industry-level GVA (from public data) to the in-sample GVA reported for each industry
- Sum GVA across industries and countries for an overall estimate of GVA supported by the Facebook company for the 'market economy' in the 15 countries surveyed

This is conceptualised in the equation below.

Figure A: Calculation of GVA Attributed to Business use of Facebook Apps and Technologies

$$GVA = \Sigma_{c,i} \left(\Sigma_b \left[\left(\frac{GVA_{c,i}(public)}{Output_{c,i}(public)} \right) * \left(\%Sales_{c,i,b} \right) * \left(\$Sales_{c,i,b} \right) \right] * \frac{GVA_{c,i}(public)}{\Sigma_b \$Sales * \frac{GVA_{c,i}(public)}{Output_{c,i}(public)}} \right)$$

Conceptually, this is a hard question for respondents to answer because it requires imagining a counterfactual world without the Facebook company. Therefore, the estimates should be viewed as a representation of the survey findings, applied to the national level across the 15 countries, and could include inaccuracies.

¹⁰ 'Attributable to the Facebook company' are defined within this study as survey respondents reporting the value of sales that occur with the assistance of Facebook apps and technologies. It draws from the key question of 'In the past 12 months, how much do you think your total sales would have decreased if you did not use Facebook apps and technologies?'

This equation can be simplified as seen in Figure B.

Figure B: Simplified Calculation of GVA Attributed to Business use of Facebook Apps

and Technologies

$$GVA = \Sigma_{c,i} \left(\Sigma_b \left[\%Sales_{c,i,b} * \$Sales_{c,i,b} \right] * \frac{GVA_{c,i} (public)}{\Sigma_b \$Sales} \right)$$

Employment

To estimate employment supported by Facebook apps and technologies, we divided GVA supported by Facebook apps and technologies (from the steps above) by the average GVA per worker across the surveyed economies. This is shown by the equation below.

Figure C: Calculation of Employment Attributed to Business use of Facebook Apps and Technologies

$$Employment = \frac{GVA}{\left(\frac{\sum_{c,i} GVA_{c,i} (public)}{\sum_{c,i} Employment_{c,i} (public)}\right)}$$

Exports

The steps to calculate exports are:

- Calculate international sales attributable to the Facebook company for our sample by industry and country¹¹
- Scale up the in-sample international sales attributable to the Facebook company to the industry level in each country, using the ratio of industry-level GVA (from public data), to the in-sample GVA reported for each industry
- Sum the international sales attributable to the Facebook company across industries and economies, for an overall estimate across the 15 market economies surveyed

This equation is shown in Figure D.

Figure D: Calculation of Exports Attributed to Business use of Facebook Apps and Technologies

$$Exports = \Sigma_{c,i} \left(\Sigma_b \left[\left(\%IntlSales_{c,i,b} \right) * \left(\$IntlSales_{c,i,b} \right) \right] * \frac{GVA_{c,i} (public)}{\Sigma_b \$Sales * \frac{GVA_{c,i} (public)}{Output_{c,i} (public)}} \right)$$

The estimates of the Facebook company's contribution to GVA, employment, and exports, calculated using the equations presented above, were corrected for internet penetration, controlling for selection biases inherent to using an online survey to obtain business data.¹²

¹² As members of online survey panels by definition have access to the internet, sampling strategies supported by online panels are likely to over represent businesses that are more likely to be on-platform.

¹¹ International sales (intra- and extra-EU) attributable to the Facebook company are defined within this study as survey respondents reporting the value of international sales (i.e. foreign sales from the domestic country), which they credit to the use of Facebook apps and technologies.

