BEST STRATEGIES FOR THE IDEAL BUSINESS MODEL

Dimitrios VALSAMIDIS[1], Dimosthenis PAPPAS[2], Vasilios FERELIS[3] and Michael NIKOLAIDIS[4]

[1]Department of Accounting and Finance, TEI of East Macedonia and Thrace, Kavala, Greece, dim.valsam94@gmail.com
[2]Department of Accounting and Finance, TEI of East Macedonia and Thrace, Kavala, Greece, dpappas@teiemt.gr
[3]Department of Accounting and Finance, TEI of East Macedonia and Thrace, Kavala, Greece, ferel@teiemt.gr
[4]Department of Accounting and Finance, TEI of East Macedonia and Thrace, Kavala, Greece, mnikol@teiemt.gr

***Abstract**: In different chronological periods, four innovative web based business models proved that the human creativity can lead to huge success even with few resources in the beginning. All the examples have something common, the rapid implementation of an instant inspiration. The so called big four (Facebook, Amazon, Google, Apple) or FAGA or GAFA have explosive success in a certain period of time. The last decade, Amazon, Apple, Facebook and Google are the four most influential companies on the planet. These companies excel via their superior use of technology, have built incredible ecosystems and have embraced partnerships and external innovation. Beyond all of this, the big four have embraced an entirely new way of doing business: (1) They are rooted in equally powerful technologies—and their intelligent usage. In other words, they differ from traditional platforms in that they are not predicated on physical assets, land, and natural resources. (2) They benefit tremendously from vibrant ecosystems (partners, developers, users, customers, and communities). Facebook in social networks, Amazon in electronic commerce, Google in search engines and Apple in the multimedia devices proved that brand and business model work together because if they do not align brand and business model it will backfire, probably not in the short run but surely in the long run. The similarities and the differences of the big four models can assist to draw useful insights about the necessary guidelines for an effective entrepreneurship. Using these examples, we conduct a comparative evaluation using SWOT analysis and business model canvas, and present the results. The best practices of FAGA draw valuable insights for an ideal business model.*

***Keywords**:* Business model canvas, SWOT analysis, Digital disruption, Comparative evaluation.

JEL Classification Codes: J21, L86.

1. INTRODUCTION

Digital disruption impacts on personal lives, business practices, industry structures and society (World Economic Forum, 2016). Digital Disruption occurs on many levels (Gilbert, 2015): (1) People's personal lives. (2) Technology (3) Workplace (4) Work style (5) Societal.

The disruptive change alters not only the ways in which people do business, but also more fundamentally how they understand the world, technologies, and products (Christensen, 2006;

Caudron & Van Peteghem, 2014). Digital disruption changes the basis on which we make sense of, give meaning to, and understand our everyday life, industry structures and work practices as well (Evans & Forth, 2015; Downes & Nunes, 2014). For example, the launch of Apple's iPhone 10 years ago, is a classic example of technology disrupting an industry. It ended Nokia's dominance of the mobile phone market and created the first smartphone worthy of the name. Apple is harnessing this technology and the iPhone's launch was a key point in the revolution. But long-term success for companies is not about one disruptive invention like the iPhone. The companies that thrive in this new revolution will be the ones who constantly refine what they do. Apple also created a market for things that people did not really think they needed. They were not the first company to consider apps but it once again reinvented a market when it launched its App Store in 2008. In other words, Apple's success as a disruptor is because it continues to disrupt by adapting (Thomson, 2010).

The Internet has evolved into a ubiquitous information, communication and media network that is indispensable to the social reality of our societies (Lee & Cole, 2003). Its visible interface includes search engines, e-commerce platforms and social media services as distinct commercial offers (Laudon and Traver, 2014). Economically speaking, the Internet is not a clearly defined sector with a well-developed data basis. Instead it offers the space for relatively few yet commercially diverse activities, especially in advertising, commerce, mediation services and the sale of multi-function devices (Botsman & Rogers, 2010). The market structures on the Internet likewise differ from those of many classic markets (Dolata, 2017). The onward march of the Internet into daily life, aided and abetted by the phenomenal demand for smartphones since the launch of the first iPhone in 2007, has created a new world order in the telecoms, media and technology (TMT) industry.

Information and Communication Technologies have fostered the emergence of companies such as Google, Amazon, Facebook and Apple, known as GAFA, on the Internet (Miguel & Casado, 2016). These large parts of the web are based in the United States and are, by and large, Google (restructured into "Alphabet" in 2015), Facebook, Amazon and Apple. They not only dominate the basic offerings and markets of the Internet, but, as operators of the central infrastructures, also regulate access to the web, structure the communication possibilities of users, are key drivers of the innovation process and, as employers of some 10,000 staff, shape the working conditions of the commercial Internet sector. With the exception of Facebook, these companies are among the 50 companies with the highest sales in the United States. Indeed, in 2015, Apple ranked 3rd, Amazon 18th, Microsoft 25th and Google 36th in Fortune 500 (Dolata, 2017). Both Apple and Google have been ranked number 1 and 2 respectively in the Bloomberg-Business Week league table of "The 50 Most Innovative Companies" in the world with Amazon in sixth place and Facebook also in the top 50 (Walton, 2012).

Amazon, Google, and Facebook have leveraged their online intermediary or broker functions to become winner-take-all gatekeepers for consumers seeking to reach companies, and toll-keepers for companies seeking to sell to consumers online (Taplin, 2017). Together Amazon, Google, and Facebook — which do not compete directly with each other in their core businesses — effectively divert much of the offline economy's activities onto their dominant platforms (Cleland, 2017).

Apple was close to bankruptcy when Steve Jobs launched the iPod followed by iTunes, the iPhone, and the iPad. Amazon moved swiftly from being just an online book store to being a place where consumers could find anything on the web before moving media content into digital downloadable format and then introducing the Kindle e-reader and tablet computer. Google has developed a broad range of products to attract "traffic" including books, software, and browsers, Google Earth/Street View, Google Docs, G-mail and Google+. Finally, Facebook has continued to add functions and features including an online store (Galloway, 2017).

The importance of the technology platform and gaining a leadership position has become increasingly important. In his conference speech, Schmidt referred to each member of the "Gang of Four" as having their own platform (Walton, 2012). Supported by hundreds of thousands of software developers, Apple, Google and Facebook's platforms are fuelling innovation in consumer and, increasingly, business services on both the fixed and mobile Internet. Amazon has set the benchmark for online retailing and cloud computing services.

Some of the features of GAFA are analysed in this study; particularly, their strategies and practices, in spite of their being extremely different. The intention is to explain the growth and size of these firms via their characterisation as two- sided markets. However, they not only compete with each other but with all firms that offer advertising (this applies to Facebook and Google) and those that sell devices and content (Apple) and even online and offline shops that sell Amazon products (Miguel & Casado, 2016).

The more such web services are used and the more members they have, the more interesting they become for additional users who then flock there—and the more difficult it becomes for alternative providers to compete. E-commerce platforms or search engines can likewise benefit from such network effects. For example, an e-commerce platform like Amazon can easily attract additional users due to its high acceptance and broad product range. For those same reasons, a leading search engine such as Google can generate added trust in the superior quality of its search results and thereby attract new users. In addition, given the mass of data which Google generates over the long term, the company can continually improve the quality of the search algorithm, thereby distinguishing itself from the competition. Such network effects result in quasi-monopolies, which are engendered by the mass behavior on the web in addition to being, often, desired by the users (Shelanski, 2013; Monopolkommission, 2014). Google is strong in search; Facebook is strong in social networking; Amazon is strong in e-commerce; and Apple is strong in devices. The benefits being appropriated by these large companies were equally impressive with a combined worth of half a trillion dollars (Walton, 2012).

The aim of this study is to analyze the innovative characteristics (idea, design, implementation, use, etc.) of the four well known successful business models such as Facebook, Amazon, Google and Apple. The study is organized as follows. Section 2 describes the baseline. Section 3 describes the background theory. Section 4 describes the adopted approach based on SWOT Analysis and business model canvas. The experimental study of SWOT Analysis and business model canvas for the four companies is reported in section 5. In section 6, the discussion about the findings of the study is presented. Section 7 draws some conclusions together with directions in the future.

2. BASELINE

In the 1990s, platforms and ecosystems were not nearly as powerful, robust, and vibrant as they are today. The figure 1 presents the situation (Simon, 2011).

As it is demonstrated in his book Simon (2011), it's these connections between and among platforms and planks that allow Amazon, Apple, Facebook, and Google to innovate so quickly and profoundly. What's more, they can more rapidly deploy new features and create and dominate new markets.

The most powerful platforms today have two things in common: (1) They are rooted in equally powerful technologies—and their intelligent usage. In other words, they differ from traditional platforms in that they are not predicated on physical assets, land, and natural resources. (2) They benefit tremendously from vibrant ecosystems (partners, developers, users, customers, and communities) (Simon, 2011).

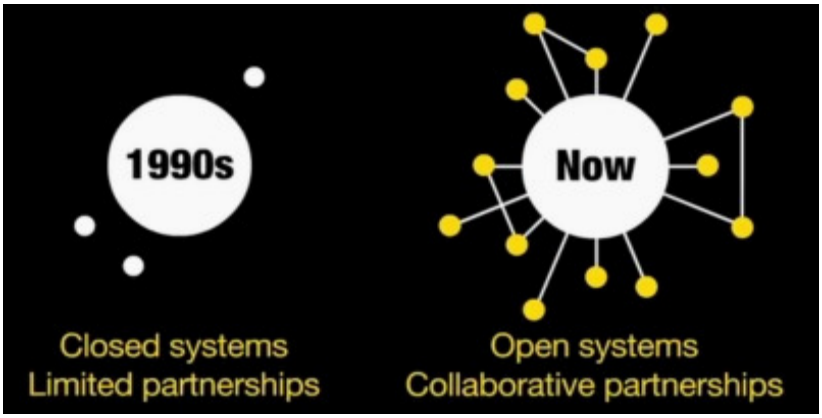

Fig. 1. Platforms and ecosystems

While platforms inhere a great deal of potential commercial appeal and applications, they do not exist simply as a means for companies to hawk their wares. At their core, platforms today are primarily about consumer utility and communications. Finally, because consumer tastes change much faster than business' tastes, platforms today must adapt very quickly—or face obsolescence.

According to Galloway (2017), *"There are three things we do in business. Help people survive (head). Help the ability to love (heart). Help your desire to bear offspring (propagation). As you move down the torso, the margins get better and the business gets better. Luxury is in the business of propagation."*

Apple, Amazon, Google and Facebook have become major conduits for software applications, games, music and other digital content, rewriting the rules of engagement for the media industry (Dolata, 2018). Each member of the Gang of Four has done an excellent job of building and managing its platform. And this is the main reason that each has enjoyed so much success over the last five years. (Simon, 2011). They are called The Four for a reason. They are everywhere, and next to impossible to avoid, unless you are willing to completely disengage from the Internet (Massimo, 2018).

GAFA is used to refer four companies that share certain features (they are two-sided markets which compete as ecosystems, their DNA contains innovation and they are quasi-monopolies in their core activities) (Miguel & Casado, 2016). Each GAFA group is the leader in its core activity (e.g. Google controls 90% of all web searches, Facebook has a 75% share of the social networks, Amazon 6% of global online sales and Apple 45% of smartphone web traffic) (Gómez-Uranga et al., 2016).

One of the four companies actually produces a product whilst the others deliver services (Dolata, 2018). The place factor does not apply due to supply chain disintermediation. Only Apple sells hardware through retailers and Amazon ships physical goods but the move towards digital downloads and streaming of digital content has gathered enormous momentum impacting on the profits and survival of many traditional bricks and mortar businesses (Walton, 2012).

Google has several flaws, according Galloway (2017). First, although Google is dominant in search, other brands are cutting into Google's share. Facebook now has 1 billion searches compared to Google's 3 billion. Second, two-thirds of product high-value searches—product searches–are happening on Amazon. Third, Google has yet to master mobile in the same way it mastered computer search. Fourth, Google had major failures in Google Glass and Google+, As a result of all these factors, Google's revenue growth is slowing down.

Amazon's business-to-business Marketplace and Cloud offerings are text-book examples of how to repurpose assets and infrastructure developed to serve consumers to open up new upstream markets. As the digital economy goes mobile, Amazon's highly-efficient two-sided

commerce platform is enabling it to compete effectively with rivals that control the leading smartphone and tablet platforms – Apple and Google.

Apple has demonstrated that, with enough vision and staying power, an individual company can single-handedly build an entire ecosystem. By combining intuitive and very desirable products, with a highly-standardised platform for software developers, Apple has managed to create an overall customer experience that is significantly better than that offered by more open ecosystems. But Apple's strategy depends heavily on it continuing to produce the very best devices on the market, which will be difficult to sustain over the long-term (Thompson, 2010).

Facebook is a compelling example of how to build a business on network effects. It took Facebook four years of hard work to reach a tipping point of 100 million users, but the social networking service has been growing easily and rapidly ever since. Facebook has the potential to attract 2.2 billion users worldwide, but only if it continues to sidestep rising privacy concerns, consumer fatigue or a sudden shift to a more fashionable service (Galloway, 2017).

Google, the search giant's virtuous circle keeps on spinning to great effect – Google develops scores of free, and often-compelling, Internet services, software platforms and apps, which attract consumers and advertisers, enabling it to create yet more free services. But Google's acquisition of Motorola Mobility risks destabilising the Android ecosystem on which a big chunk of its future growth depends (Winter et al., 2018).

Their business models and ways of obtaining revenues differ. Whereas, Facebook and Google obtain almost all their revenues from advertising; Amazon and Apple only obtain marginal amounts from this source. Although the degrees of internationalisation are different, they are important (Miguel & Casado, 2016).

The search engine segment is globally dominated by Google as a quasi-monopolist. In all leading Western countries (but not Japan), Google is the unchallenged monopolist in this field—usually accounting for well more than 90% of all search queries. Search engines and social networks are not markets; however, they form the basis of the core business of Google and Facebook. In fact, the two companies generate more than 90% of their sales through internet advertising, which is a fast-growing and highly concentrated market (Dolata, 2017). E-commerce is the domain of Amazon, by far the largest retailer on the Internet. Here too, the effects of two-sided markets are evident: the more consumers use Amazon, the more interesting the platform becomes for retailers—and the more Amazon can dictate the conditions under which these can make their offerings there (Dolata, 2018).

Galloway (2017) believes that the future lies in multi-channel retail. He says single-channel retail will disappear, whether it's pure e-commerce or brick-and-mortar without an online presence. Apercus: *"Amazon cannot survive as a pure-play retailer." "Stores are the new black in the world of e-commerce. We have discovered these incredibly robust flexible warehouses called 'stores."*.

Apple's continued exponential growth ultimately depends on producing products that will make most people's lives truly simpler and better. Facebook has been able to live with the contradiction of a business that appears to offer the personal and the social, while behind the scenes it is ruthlessly exploiting users' personal information for commercial purposes. Facebook says it doesn't pass this information on to advertisers, thereby eliminating liability for privacy protection. One has to wonder how long this contradiction can be maintained and remain acceptable, as users experience the creepiness of a commercial "Big Brother" listening in on personal conversations and immediately deluging those users with ads about subjects they discussed in conversations they thought were private. Google has enjoyed remarkable financial success. Yet anecdotal evidence suggests that Google has become hard to do business with, as a result of a certain arrogance in dealing with business partners. This may indicate that it is

becoming that worrying creature, "the highly-successful process-driven company." (Galloway, 2017).

According to Moore (2006), the contribution of the new concept was that it went beyond the concept of industries. In the case of GAFA, our focus is closer to Moore's definition. Each GAFA member (Google, Amazon, Facebook and Apple) may be considered a business ecosystem because each one's group of activities belong to different "industries", and such activities as a whole are related and used by millions of people (Miguel & Casado, 2016).

Apple sells the ecosystem as a whole. Customers enter the system via the hardware (which has the integrated software), and the content and applications form part of the ecosystem since the hardware is not bought for itself alone. Entrance and exit from the ecosystem carry costs that go beyond the first purchase (Miguel & Casado, 2016).

In the case of Apple, it consists of moving to other similar devices, although the ergonomics are different and content is lost. When a customer leaves Facebook, it may be impossible to delete the information that has been posted. The first consequence for firms is that they are going to compete ecosystemically, or through a group of activities rather than device by device or application by application. This means that only a few can continue growing and innovating since they need an ecosystem to do so. It should be noted that Nokia's loss of market share was the result of the firm's failure to build an ecosystem that could compete with other big ones (Bouwman et al., 2014). Indeed, the economic success of Google and Facebook as advertising and marketing companies results from the large number of users, which make these platforms particularly interesting for advertisers. Commercial or mediation platforms such as Amazon, booking.com or Airbnb likewise work according to this principle (Dolata, 2017).

Apple is a computer company operating in the telecoms, music, and film industries; Amazon is an online retailer which also distributes media content via hardware devices; Google is involved in books, software, and mobile phones; and Facebook now has online retailing capability. Moreover, all of these companies have a "cloud" computing capability. This illustrates what Moore defined as a business ecosystem (Valkokari, 2015).

Google and Amazon make money from the advertising revenues generated by high levels of "traffic". Meanwhile, Amazon is selling its new tablet at cost price based on a strategy to gain revenues from media content rather than hardware sales (Walton, 2012).

3. BACKGROUND THEORY

3.1. SWOT Analysis

A SWOT analysis is an important tool that helps a business understand its Strengths, Weaknesses, Opportunities and Threats. It was developed in the 1960s and credit for the creation is given to Albert Humphrey (2005). It guides to spot the negatives and positives in the internal and external environment of a company. The internal elements are the strengths and the weaknesses and the external, the opportunities and the threats. The elements that support a successful outcome of a company and its competitive advantages in the marketplace produce the Strengths and the resources that work against a company having a successful outcome, conduct the Weaknesses (Business and industry portal, 2014). The Opportunities are the characteristics and strategies that a business can use to improve and grow and the Threats are the factors that could challenge and set the company at risk. Becoming aware of these elements in a business can help with strategic planning and making correct decisions (Community tool box, 1990).

The use of SWOT analysis provides many benefits to ones company. A SWOT analysis has very little, or no cost at all and anyone who understands the way your business works will be able to perform this strategy. By using this analysis, it is very likely to improve your company without the expense of a business adviser. Also, SWOT analysis focuses on the most important

factors concerning your business. By using a SWOT you can locate weaknesses, prevent threats, take advantage of opportunities and strengths and develop business goals and a various amount of strategies for achieving them (Helms and Nixon, 2010).

It is also important to state that for a business to gain market opportunities, to form a competitive environment and to achieve competitive advantages, which are a few of the main elements that create a business model, the use of SWOT analysis is essential.

3.2. Business models

The business model dates back to the earliest days of business. It explains how the industry makes profits by selling different types of products (Laudon and Traver, 2014). Each new venture will rely on a specific business model to take new products and services to a market (Chesbrough, 2007). The topic of business models is very popular amongst people who own or work in a company because in various industries, we can see a proliferation of new and innovative business models (i.e. new ways of making money). It helps executives as well as entrepreneurs increase their capacity to manage continuous change and constantly adapt to rapidly changing business environments by injecting new ideas into their business model (Carayannis et al., 2015).

A business model is an abstract representation of an organization, be it conceptual, textual, and/or graphical, of all core interrelated architectural, co-operational, and financial arrangements designed and developed by an organization presently and in the future, as well as all core products and/or services the organization offers, or will offer, based on these arrangements that are needed to achieve its strategic goals and objectives (Al-Debei et al., 2008). A business model outlines the principles of how a system captures, generates and distributes value (Osterwalder et al., 2010). It is necessary that a model like this gathers the significant circumstances of a company's procedures and that the view of this matter be straightforward, proper and complete, without oversimplifying the ramifications of the way businesses actually work (Chaffey, 2011). In a company, a business model is considered to be an important factor and it helps determine if the business is established properly and if it's functioning correctly (George and Bock, 2011). For a business plan to be acknowledged as being in correct form, it is essential for the business model to be the prime component in its structure (Ovans, 2015).

Business model is a concept fundamental to business performance, particularly for the numerous telecommunication and business application services of the new digital economy. For this reason, the concept of 'business model' has become quite popular, especially today, in the dawn of the new networked economy (Chaffey, 2011). A business model also has five important functions which are as follows: To align operations with new business strategies, to improve process communication, to increase control and consistency, to improve operational efficiency and to gain competitive advantages (Osterwalder et al., 2005).

3.3. Business model canvas

The BMC is a tool that can be used to visualize an existing or potential business model in a single page (Osterwalder et al., 2010). The tool can be used by individuals and organizations to facilitate design and re-design of business models as it provides a shared language of business model terms and clarifies their relations. The BMC includes nine basic building blocks and visualizes a logic for how an organization creates, delivers and captures value, covering the four main areas of a business: customers, value offer, infrastructure, and financial viability. The building blocks are briefly described in Figure 2.

<table>
<tr><td rowspan="2">PROBLEM
List top 1-3 problems you solve</td><td>SOLUTION
Outline a possible solution to each of the problems</td><td rowspan="2">UNIQUE VALUE PROPOSITION
Single, clear, compelling message that states why you are different and worth paying attention.
High-level concept
List your X for Y analogy Eg. YouTube = Flickr for Videos</td><td>UNFAIR ADVANTAGE
Something that cannot easily be bought or copied</td><td rowspan="2">CUSTOMER SEGMENTS
List your target customers and users
Early Adopters
List the characteristics of your ideal customers</td></tr>
<tr><td>KEY METRICS
List the key numbers that tell you how your business is going</td><td>CHANNELS
List your path to customers (inbound and outbound)</td></tr>
<tr><td colspan="3">COST STRUCTURE
List your fixed and variable costs</td><td colspan="2">REVENUE STREAMS
List your sources of revenue</td></tr>
</table>

Fig. 2. The building blocks of BMC

Customers segments describes the different groups of people or organizations an enterprise aims to reach and serve. The focus is on exploring, understanding and delineating specific customer needs. Examples of customer segments are: mass market, niche market, segmented market, diversified market, and multi-sided market.

Value proposition describes the bundle of products and services that create value for a specific customer segment. Examples of aspects that can contribute to customer value creation are: newness, performance, customization, 'getting the job done', brand/status, price, cost reduction, risk reduction, accessibility, convenience, and usability.

Channels describes how a company communicates with and reaches its customer segments to deliver a value proposition. These customer touch-points play an important role in the customer's experience. The channels serve several functions, including: raising awareness among customers about a company's products and services, helping customers evaluate a company's value proposition, allowing customers to purchase specific products and services, delivering a value proposition to customers, and providing post- purchase customer support. Channels can be direct or indirect through partners. Examples include: own sales force, own stores, web stores, partner stores and wholesalers.

Customer relationships describes the types of relationships a company establishes with specific customer segments. Customer relationships can range from personal to automate and are driven by the following motivations: customer acquisition, customer retention, and boosting sales (upselling). The customer relationships deeply influence the overall customer experience. Several categories of customer relationships can be distinguished, e.g., personal assistance, dedicated personal assistance, self-service, automated services, communities, and co-creation.

Revenue streams describes the revenue streams, i.e., the cash a company generates from each customer segment. Costs are subtracted from revenues to calculate earnings. This way, it can be deemed whether the business model is profitable (i.e. successful) or not. A business model can involve two different types of revenue streams: transaction revenues resulting from a one-time customer payment and recurring revenues resulting from ongoing payments. There are several ways to generate revenue streams, including: asset sale, usage fees, subscription fees, lending, renting, leasing, licensing, brokerage fees, and advertising.

Cost structure describes all costs incurred to operate a business model. It includes costs for creating and delivering value, maintaining customer relationships, and generating revenue.
Many business models fall under two broad classes of cost structures: cost-driven and value-driven. Cost structures can have the following characteristics: fixed costs, variable costs, economies of scale, and economies of scope.

Key resources describes the most important assets required to make a business model work. Key resources can be physical, financial, intellectual or human. Key resources can be owned or leased by the company or acquired from key partners.

Key activities describes the most important things a company should do to make its business model work successfully. Key activities are required to create and offer a value proposition, reach markets, maintain customer relationships, and earn revenues. Examples of some categories of key activities are production, problem solving, and network related activities.

Key partners describes the network of suppliers and other partners that make the business model work. Some main types of partnerships are: strategic alliances between non-competitors, strategic partnerships between competitors (competition), joint ventures to develop new business, and buyer-supplier relationships to assure reliable supplies. Some motivations for creating partner- ships are: optimization and economy of scale, reduction of risk and uncertainty, and acquisition of particular resources and activities.

4. APPROACH

The context of the present paper is to examine the methods that a few businesses use to become successful by gaining wealth and competitive advantages. It is imperative to point out that the strategy that business models use to better themselves and to develop vastly often has great advantages as well as many disadvantages (Quick MBA, 2010). Nevertheless, the elements that a business model is made up of, when followed in a correct manner, help a company achieve the success that it is obligated to have. Regarding the parts of this approach, SWOT Analysis and Business Model Canvas were selected as suitable tools for presenting strategies that a business uses to achieve a few of the aims that it may have. The strengths, weaknesses, opportunities and threats of a business all work together to show what a company has accomplished and the if the aims it had from the beginning are part of its achievements. The external and internal elements determine whether a company will reach its goal of further growth by maximizing its wealth or eventual market failure. By using the proper mechanism in a business, the use of improper methods and actions are easily detected and they become more avoidable. This shows us that the factors of a business model enable a company to grasp the strengths and opportunities of its business, but also helps it to be prepared for the weaknesses and threats that may appear. The Customers segments, Value proposition, Channels, Customer relationships, Revenue streams, Cost structure, Key resources, Key activities and Key partners will complete the analysis for the four companies: Facebook, Amazon, Google and Apple. In order to examine the digital business models and disclose their successes of these emblematic companies due to digital innovation.

The methods that are used to make a business acknowledged and to identify its strengths, weaknesses, threats and opportunities of these well-known companies by examining its business model and its strategic use of SWOT to help it gain competitive advantages (Stavrinoudis, 2007). Our sources are constituted mainly by surveys, articles and expert opinions which are our main argumentation sources.

The aim of our research is to understand at which level of their business models adapted digitalization and this is investigated through the study of companies' strategies. In addition, the attention is focused on what improvements due to digital technologies make them winners against the competitors. These “leader” companies were taken into consideration and analyzed, to indicate the consequences of digital disruption, the strategies that each company uses to differentiate from the competitors in the competitive environment and how they take advantage of the digital technologies and succeed as digital disruptors. The selected companies are Amazon, Facebook, Apple, Google because they are the most successful in their sector.

5. EMPIRICAL STUDY

The results of SWOT Analysis of Amazon (Jurevicius, 2018A; Smith et al., 2017), Facebook (Bhasin, 2018), Apple (Jurevicius, 2018B), Google (Jurevicius, 2018C) are presented in Table 1.

Table 1. SWOT Analysis of four business models

	Facebook	Amazon	Google (Alphabet)	Apple
Strengths	Market Leader in Search Engines Ability to Generate User Traffic Revenue from Advertising and Display Introduction of Android and Mobile Technologies	Attractive prices Efficient distribution Innovative technology	Strong market position Robust finance situation Strong brand image Diversified product lines Low operating cost Strong infrastructure base. Excellent acquisition capabilities	Customers loyalty Brand reputation Strong Financial performance
Weaknesses	Excessive Reliance on Secrecy Falling Ad Rates Overdependence on Advertising Lack of Compatibility with next generation devices	Risky activity Free shipping Only online presence	Too depended on advertising revenue Lack of product integration compared to competitors International reputation	High price Restrictions on the phone Patent infringement
Opportunities	Competition from Facebook Mobile Computing Slowdown in online ad spending	Expand into technology Improve the delivery time Physical presence Work on robotization	Growth in internet usage Increasing worldwide online ad spending New products (especially google+)	High demand of iPad mini and iPhone 5 Damages from patent infringement Geographic expansion Growth of Tablet and Smartphone markers
Threats	Android Operating System Diversification into non-Ad Business Models Google Glasses and Google Play Cloud Computing	High delivery time and costs Competitors Online security threats	Intense competition Exchange rate fluctuations Lawsuit expenses Hacking and related security issues Privacy issues Economic down turn as trere might be a cut in advertising spenditure	Competition Lack of innovation Price pressure over Key components

The results of BMC of Amazon are presented in table 2 (Dunn,2017; Osterwalder, 2017).

Table 2. BMC of four business models

	Facebook	Amazon	Google	Apple
Value proposition	Connect with your friends, Discover & Learn, Express yourself Reach, Relevance, Social Context, Engagement Personalized and Social Experiences, Social Distribution, Payments	Convenience Price Instant fulfillment with eReader Vast selection	Web Search, Gmail, Google + Targeted Ads using AdWords (CPC) Extended Ad campaigns using AdSense Advertising display management services OS and Platforms - Android, Chrome OS Hosted web – based Google apps	Design Performance Brand/Status Convenience / Usability
Customer Relationships	Same – side Network Effects Cross- side Network Effects	Self service Automated Service	Automation (where possible) Dedicated Sales For Large accounts	Self-service Personal assistance
Customers Segment	Internet Users Advertisers and Marketers Developers	Individual Leverage Global consumer market	Internet Users Advertisers & Ad Agencies Google Network Members Mobile device owners Developers Enterprises	Mass market Multi- side platforms

	Facebook	Amazon	Google	Apple
Revenue Stream	Ad Revenues Payment Revenues	Sale of Assets E books and content Acquisitions and Investment Commission on reseller sales Prime monthly subscriptions fees	Ad Revenues - Google websites Enterprise Product Sales Free	Safe of Products Media sales/licensing Rend and subscription fees
Channels	Website, Mobile Apps Facebook Ads, Facebook Pages Developer Tools and APIs	Affiliates Application Interfaces Amazon.com	Global Sales & Support Teams Multi-product Sales force	Apple.com Apple retail stores Other relaters
Key resources	Facebook Platform Technology Infrastructure	Physical Warehouses Human: Web application & development	Datacenters & Servers IPs, Brand, License & HR	Human Intellectual Physical
Costs	Data center costs General and Administrative Marketing and Sales Research and Development	Low Cost structure IT and fulfillment infrastructure Economies of Scale	Traffic Acquisition Costs Datacenters Operations Sales & Marketing, G&A R&D Costs (mainly personnel)	Cost – driven Economies of scale
Key Activities	Platform Development Data Center Operations Mgmt.	Merchandising Production and Design	R&D - Build New Products, Improve existing products & Data distribution Management & Maintenance of massive IT infrastructure	Design Software development Manufacturing Quality control
Key Partners	Content Partners (TV Shows, Movies, Music, News Articles)	Logistics Partner Affiliates Authors and Publishers Network of sellers	Distribution Partners Open Handset Alliance lOMs for (Chrome & OS devices)	Manufactures App store Cellular service provider Publishers Music, television, and movie industries

6. DISCUSSION

All in all, after analyzing these four business models, we deduce that they all have a few key factors that make them innovational. These businesses flow dynamically through the global market. Apple Cooperation is a company which focuses mostly on the elegance of its software rather than reducing the prices of its products. Nevertheless, even with these prices being as high as they are, customers still prefer to buy Apple products and as a result, make this company very successful. Amazon is an online shop which focuses on serving the customer's needs and giving him/her the opportunity to buy whatever s/he desires. Although there may be some negative factors that come along with this online shop, for example late delivery and defective products, the majority of Amazon's customers prefer this site to shop for products and keep their relations with this company. Amazon's shipping costs should not be looked at in isolation from the overall shopping experience at Amazon. If "free" shipping for shoppers who subscribe to Amazon Prime makes Amazon the primary search destination of most shoppers and so trump Google search in this high-value search arena, the cost of "free shipping" may be a smart investment, both cheaper and more effective than, say, buying advertising for the Amazon brand.

This competition places pressure on the pace of innovation and firms are constantly obliged to bring out new and improved products or services, some of which are surprising. Nevertheless, part of the innovation focuses on exploring new financing sources which compensate the limitations of advertising—Facebook and Google—or show significant growth potential, which exceeds that which characterises the core activity—Amazon and Apple. Contrary to appearances, this innovation does not add extreme diversification but is integrated in each firm's ecosystem, which it strengthens. At the same time, the big five will surely disrupt each other. Google is increasingly in head-to-head competition with Facebook in the online advertising market, while squaring up to Apple in the smartphone platform segment.

In the digital entertainment space, Amazon and Google are trying to challenge Apple's supremacy, while also attacking the cloud services market.

However, what contributes the most to the increase of switching costs for users and providers is the development of the various offerings and business activities into integrated socio-technical ecosystems that encompass coordinated and networked services, programs and devices. Such ecosystems are not simply cross-application technological infrastructures but rather, with their wide range of offerings and services, also social spaces in which users build member profiles, establish specific search, communication and consumption patterns, and develop reproducible behavioral and usage routines—all of which invariably ties them to the offerings of a given company. Overall, users do have the possibility to switch systems, yet only at the price of a comprehensive reorganization or reconstitution of their individual patterns and movements on the net (Dolata, 2017).

There is no end to the options available, and each player unsurprisingly promotes its own approach: suite versus best-of- breed, on-premises implementation versus the cloud, licensed versus metered, open source versus proprietary. As always, there is no one right answer; every selection will depend upon the specific conditions and focal needs of the organization. But one thing is very clear. Given today's dynamic, volatile, complex, and fast-changing business environment, any solution must promote, rather than inhibit, agility and flexibility. The primary business requirement is the ability to respond to new, unforeseen, or even wholly unpredictable business requirements and consumer demands (Downes & Nunes, 2014).

7. CONCLUSIONS

In conclusion, the aim of this study was to understand as best as possible the structure of some business models by using the SWOT Analysis and BMC tools of four Internet-based companies, Amazon, Apple, Google, and Facebook, and to explore the significance of their success in terms of their impacts on traditional business models and paradigms relating to the strategic management of modern businesses. The paper evaluated the rapid exponential growth of these four technology leaders and compare and contrast a range of management tools and approaches. The paper also critiqued existing paradigms relating to the role of the Internet and the extent to which it has become a platform ecosystem in its own right.

Nowadays, the volatility of global market makes understanding - let alone predicting strategic movements - very difficult. All the problems associated with analyzing a dynamic market environment, have not simple solutions. In today's environment more than ever, managers of "old economy" companies need the right tools to support and improve their effectiveness when making major strategic moves, allocating scarce resources, and managing risk. The large "old economy" companies from consumer products to industrial manufacturing have begun to see relatively small pieces of their markets taken away by new, web-enabled firms. As a result, they're waking up to the e-business threat and opportunity and have started to push toward more efficient digital strategies based on optimizing customer experiences, integrating their value chains, and accelerating information flow.

We are in the early stages of a revolution that's changing the business landscape (Schwab, 2016). As with any revolution, there are moments of extreme optimism when the potential reveals itself; there will also be moments of extreme pessimism when skepticism rules. E-business is creating new opportunities for companies willing to adapt. For other companies, this same revolution represents a destabilizing threat to the status quo of business as usual. Strong competitive advantage is only achieved by having low costs and/or doing something different from the competition. This must add value to the customer, who then pays a premium price. S/he is glued to the company, which will earn dependable revenue streams and be in the profit zone.

This is considered to be an important area of research because as a new class of Internet companies emerges, incumbent firms in traditional industries will need to know how to prepare for the new challenges that face them. A number of very important questions raised regarding how managers viewed the Internet and the strategic approaches and management techniques they should deploy in order to compete with these digital technology leaders. These concerns are of particular relevance to information and data-intensive industries such a home-entertainment and publishing as well as computing, mobile telecommunications, and advertising etc (Walton, 2012).

The economic and social problems caused by the exceptional unchecked power of the analyzed companies has created a rare bipartisan opportunity for the right and left to come together around common interests: holding abuses of unaccountable power accountable (Cleland, 2017). The problem with The Four is that they simply have far too much power in our lives, both in terms of the information they store about us and how they use it, and of their financial muscle, which of course easily turns into political influence (Galloway, 2017; Simon, 2011).

It is hardly possible to conduct a study that does not contain weaknesses or an element of bias. Therefore, there are some limitations in this study as well. This study did not include Twitter, Microsoft, Yahoo or Samsung, which may also be studied as business ecosystems and could be considered an extension of GAFA (Zabala-Iturriagagoitia et al., 2016). The four GAFA members suffice for the study of ecosystem dynamics, particularly the competition between them. Nevertheless, practically all of the points raised in this research can be applied to firms expanding from GAFA (Miguel & Casado, 2016).

Beyond of these weaknesses regarding the approach because only four business models were mentioned, there wasn't much access to more financial information for each and every company. Future studies should seek a broader set of companies to perform a more complex analysis and validate the results. Another challenge for future work is the use of other techniques (Porter's Five Forces and PESTLE analysis) for the same companies. There are many other methods such as Critical Success Factor (CSF) and Key Performance Indicator (KPI), that are available for a more extensive investigation concerning the success of a company or an organization. Finally, for future research on business models to be more effective, the development of a appropriate questionnaire would be well-acknowledged and would deepen the analysis of the research. This two-fold evaluation would improve the findings, since the quantitative results of the first method would be confirmed by the qualitative results of the questionnaire.

REFERENCES

1. Al-Debei, M. M. and El-Haddadeh, R., Avison, D. (2008). Defining the business model in the new world of digital business, *Proceedings of the Americas Conference on Information Systems (AMCIS),* Vol. 2008: 1-11.
2. Bhasin, H., (2018). SWOT of Facebook, retrieved on 14-04-2018 from https://www.marketing91.com/swot-facebook/
3. Botsman, R., & Rogers, R. (2010). What's mine is yours: The rise of collaborative consumption. New York, NY: Harper Business.
4. Bouwman, H., Carlsson, C., Carlsson, J., Nikou, S., Sell, A., & Walden, P. (2014). How Nokia failed to nail the Smartphone market.
5. Business and industry portal, (2014). *Benefits and limitations of SWOT analysis*, retrieved on 25-03-2015 from https://www.business.qld.gov.au/business/starting/market-customer-research/swot-analysis/benefits-limitations-swot-analysis
6. Carayannis, E. and Sindakis, S., Walter C., (2015). Business Model Innovation as Lever of Organizational Sustainability. *The Journal of Technology Transfer*, 40: 1-85.

7. Caudron, J. & Van Peteghem, D., (2014). *Digital transformation. A model to master digital disruption, Duval Union Consulting.*
8. Chaffey, D., (2011). *E-Business and E-Commerce Management*, 4th edition, Prentice Hall, ISBN: 0273719602.
9. Chesbrough, H. (2007). Business model innovation: it's not just about technology anymore. *Strategy & leadership*, 35(6), 12-17.
10. Christensen, C. M., (2006). The ongoing process of building a theory of disruption. *Journal of Product innovation management, 23*(1), 39-55.
11. Cleland, S., (2017). Facebook, Google And Amazon Wield Power Over Us All, And Everyone Should Be Worried.
12. Community tool box, (1990). Jones B, *What is SWOT analysis*, retrieved on 20-03-2018 from http://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/swot-analysis/main.
13. Dolata, U. (2017). *Apple, Amazon, Google, Facebook, Microsoft: Market concentration-competition-innovation strategies* (No. 2017-01). Stuttgarter Beiträge zur Organisations-und Innovationsforschung, SOI Discussion Paper.
14. Dolata, U. (2018). Social Movements: The Sociotechnical Constitution of Collective Action. In *Collectivity and Power on the Internet* (pp. 31-55). Springer, Cham.
15. Downes, L., & Nunes, P., (2014). *Big bang disruption: Strategy in the age of devastating innovation*. Penguin.
16. Dunn, J., (2017). The tech industry is dominated by 5 big companies — here's how each makes its money, Retrieved on 21-04-2018 http://www.businessinsider.com/how-google-apple-facebook-amazon-microsoft-make-money-chart-2017-5
17. Evans, P., & Forth, P. (2015). Navigating a world of digital disruption. *IEEE Engineering Management Review*, 43(3), 89-97.
18. Galloway, S. (2017). *The Four: The Hidden DNA of Amazon, Apple, Facebook, and Google*. Penguin.
19. George, G and Bock, AJ. (2011). The business model in practice and its implications for entrepreneurship research. *Entrepreneurship Theory and Practice*, 35(1): 83-111.
20. Gilbert, R., (2015). E-Books: A Tale of Digital Disruption, *Journal of Economic Perspectives*, 29(3): 165-84.DOI: 10.1257/jep.29.3.165.
21. Gómez-Uranga, M., Zabala-Iturriagagoitia, J. M., & Barrutia, J. (Eds.). (2016). *Dynamics of big internet industry groups and future trends: A view from epigenetic economics*. Springer.
22. Helms, M.M. & Nixon, J., (2010). Exploring SWOT analysis—Where are we now: A review of academic research from the last decade. J. Strateg. Manag. 3, 215–251.
23. Humphrey, A., (2005). SWOT Analysis for Management Consulting. *SRI Alumni Newsletter* (SRI International).
24. Jurevicius, O., (2018A). Strategic Management SWOT analysis of Amazon, retrieved on 14-04-2018 from http://www.strategicmanagementinsight.com/swot-analyses/amazon-swot-analysis.html.
25. Jurevicius, O., (2018B). Strategic Management SWOT analysis of Apple 2018, retrieved on 15-04-2018 from https://www.strategicmanagementinsight.com/swot-analyses/apple-swot-analysis.html.
26. Jurevicius, O., (2018C). Strategic Management SWOT analysis of Google 2018, retrieved on 15-04-2018 from https://www.strategicmanagementinsight.com/swot-analyses/google-swot-analysis.html.
27. Laudon, K. C., and Traver, C. G., (2014). E-commerce. 10/E, Pearson Prentice Hall, ISBN-10: 013302444X.
28. Lee, G. K. and Cole, R. E. (2003). Internet Marketing, Business Models and Public Policy. Journal of Public Policy and Marketing. 19: 287-296.

29. Massimo, (2018). Against The Four: Amazon, Apple, Facebook, and Google , retrieved on 15-04-2018 from https://platofootnote.wordpress.com/2018/02/26/against-the-four-amazon-apple-facebook-and-google/.
30. Miguel, J. C., & Casado, M. Á. (2016). GAFAnomy (Google, Amazon, Facebook and Apple): The big four and the b-ecosystem. In *Dynamics of Big Internet Industry Groups and Future Trends* (pp. 127-148). Springer, Cham.
31. Monopolkommission, (2014). Eine Wettbewerbsordnung für die Finanzmärkte. Zwanzigstes. Hauptgutachten der Monopolkommission. Manuskript.
32. Moore, J. F. (2006). Business ecosystems and the view from the firm. *The antitrust bulletin*, *51*(1), 31-75.
33. Osterwalder, A. and Pigneur, Y., Tucci, C. L. (2005). Clarifying Business Models: Origins, Present, and Future of the Concept. *Communications of the Association for Information Systems*, 16: 1-40.
34. Osterwalder, A. and Pigneur, Y., Smith, A. and 470 practitioners from 45 countries, (2010). *Business Model Generation*, self published, 2010.
35. Osterwalder, A., (2017). Comparing Business Models: Apple, Alphabet, Microsoft, Amazon & Facebook Retrieved retrieved on 21-04-2018 from https://blog.strategyzer.com/posts/2017/6/1/comparing-business-models-apple-alphabet-microsoft-amazon-facebook
36. Ovans, A. (2015). *What is a business model*, Harvard Business Review, retrieved on 20-02-2015 from https://hbr.org/2015/01/what-is-a-business-model.
37. Quick MBA, (2010). *The business Model*, retrieved on 20-03-2018, from http://www.quickmba.com/entre/business-model/.
38. Simon, P. (2011). *The age of the platform: How Amazon, Apple, Facebook, and Google have redefined business*. BookBaby.
39. Shelanski, H. A. (2013). Information, innovation, and competition policy for the Internet. *University of Pennsylvania Law Review*, 1663-1705.
40. Schwab, K., (2016). *The Fourth Industrial Revolution*. Geneva, World Economic Forum.
41. Smith, A. D., Rupp, W. T., & Offodile, O. F. (2017). Amazon. com, Inc.: Retailing Giant to High-Tech Player?.
42. Stavrinoudis T., (2007). *Applying SWOT Analysis in Formulation of Propositions for more Effective Operational Application of Timeshare in Greece*, University of the Aegean.
43. Taplin, J. (2017). *Move fast and break things: How Facebook, Google, and Amazon have cornered culture and what it means for all of us.* Pan Macmillan.
44. Thompson, B. (2010). Apple and the Innovator's Dilemma.
45. Valkokari, K. (2015). Business, innovation, and knowledge ecosystems: how they differ and how to survive and thrive within them. *Technology Innovation Management Review*, *5*(8).
46. Walton, N. (2012). Four-Closure: How Amazon, Apple, Facebook & Google Are Driving Business Model Innovation. *Chinese Business Review*, *11*(11).
47. Winter, J., Battisti, S., Burström, T., & Luukkainen, S. (2018). Exploring the success factors of mobile business ecosystems. *International Journal of Innovation and Technology Management*, *15*(03), 1850026.
48. World Economic Forum, (2016). Digital Transformation of Industries Demystifying. Digital and Securing $100 Trillion for Society and Industry by 2025, http://reports.weforum.org/digital-transformation/wp-content/blogs.dir/94/mp/files/pages/files/wef1601-digitaltransformation-1401.pdf.
49. Zabala-Iturriagagoitia, J. M., Gómez-Uranga, M., Barrutia, J., & Etxebarria, G. (2016). Epigenetic Economics Dynamics in the Internet Ecosystem. In *Dynamics of Big Internet Industry Groups and Future Trends* (pp. 53-126). Springer, Cham.