

## Diversification Strategy in Internet Industry: Google Inc. Example

### *İnternet Sektöründe Satın Alma Çeşitlendirme Stratejisi: Google Inc. Örneği*

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#### Abstract

One of the growth strategies for firms is to buy other firms. Growth either may be related to main business area of firm or different fields from different sectors. This study examines the acquisition strategy of Google Inc. which is an important company in the oligopolistic internet industry with a limited number of operators (Amazon, Google, Microsoft, Facebook, etc.). Between the years of 2001-2017, 177 acquisitions were examined in this research,. As a result of this review, it appears that Google Inc. has acquired firms that manufacture in different technological areas. However, those acquisitions increased ability of generating revenues from its core business. Consequently, among 177 acquisitions, constrained-related diversification model is most frequently observed strategy which is aimed to increase performance of main business.

**Keywords:** Acquisitions, diversification strategy, internet sector, Google Inc.

#### Özet

İşletmelerin büyüme stratejilerinden birisi de diğer işletmeleri satın almaktır. Büyüme, işletmenin esas faaliyet alanı ile ilgili olabilirken, farklı sektörlerden farklı faaliyet alanlarını da içerebilmektedir. Bu çalışmada sınırlı sayıda işletmenin (Amazon, Google, Microsoft, Facebook gibi.) oluşturduğu oligopol bir yapıya sahip internet sektöründe önemli bir şirket olan Google Inc.'nin satın alma stratejisi incelenmiştir. 2001 ve 2017 tarihleri arasında 177 adet satın alma işlemi incelenmiştir. Bu inceleme sonucunda Google Inc.'nin farklı teknolojik alanlarda üretim yapan işletmeleri satın aldığı fakat bu satın almalar sonucunda esas faaliyet alanında elde ettiği gelirleri artıracak yeteneklere sahip olduğu görülmektedir. Sonuç olarak, seçilen Google örneğinde 177 satın alma arasında “kısıtlı ilişkili çeşitlendirme” modeli, temel işin performansını arttırmaya yönelik en sık gözlenen strateji olarak belirlenmiştir.

**Anahtar Sözcükler:** Satın alma, çeşitlendirme stratejisi, internet sektörü, Google Inc.

#### Introduction

One of the main objectives of firms is ensuring the sustainable growth. Depending on the conditions they are in, firms may adopt different growth strategies. Within strategic management studies, there are many studies on growth strategies and diversification of enterprises through acquisitions. Mostly, an important part of these literature is about relationship between diversification and operational performance (Rumelt 1974, Pitts and

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Hopkins 1982, Palepu 1985, Hoskisson and Hitt 1990, Hitt, Hoskisson and Kim 1997, Mayer and Whittingto 2003, Li and Greenwood 2004). Also, this literature states why and which growth strategies are frequently owned by companies. Ansoff (1958: 395) depicts that firms prefer diversification strategy for reasons such as reducing technological aging, dissipating risk, utilize excess production capacity and re-investing revenues. In addition, firms can develop different growth strategies in order to enter markets in different geographies, to eliminate competition or to control suppliers.

Firms may prefer to grow through grabbing others which are related or unrelated to their business area. Acquisitions from same sector can be directed towards the development of firms' core capabilities. As an example, Google Inc. has aggressive growth strategy focused on capture other firms. Founded as an Internet search engine, Google Inc. has grown rapidly since the early 2000s, has gained many different businesses, and has begun to produce very different and innovative products beyond search engine advertising. This study explores what kind of diversification strategy Google Inc. has adopted with acquisitions.

## **1. Growth with Diversification Strategies**

Ansoff (1958: 393) describes the diversification strategy with "product line" and "market concepts". Accordingly, diversification creates differentiation in the product and market composition of the firm. Ansoff (1958: 394) propose that firms may prefer to market penetration, market development, product development and diversification strategies. Except from diversification, other strategies use same technical and financial resources for the different products. However, diversification strategy necessiate new skills, new techniques and new activities. The diversification profile of the companies differ depended on relations among the enterprises they have. According to the purchased company's relation to the parent firm's core competence and core business line, adopted diversification strategy is expressed as "related" or "unrelated" diversification.

Rumelt (1974) classifies business diversification strategies by assessing how they focus on a dominant business. Rumelt (1974) classifies business diversification strategies as single business, dominant business, related business and conglomerates. Firms implementing the "dominant business" strategy derive 70% to 95% of their revenues from the core venture. Differentiation degree of firms is classified as; "related diversification" and "unrelated diversification". The diversification strategy focused on creating technological and marketing synergies, is classified as related diversification; while the effort to create a vertical economy that includes actions such as backward growth and reducing costs, or to guarantee the availability of financial resources, is expressed as unrelated diversification (Tsai, 1994: 33,34). Here, related diversification refers to a group of enterprises linked to the core business line. With related diversification, firms build vertical mergers that represent the expansion of product lines or horizontal acquisitions in new markets and the possession of raw material / supply and marketing/distribution opportunities (Dyck and Neubert, 269). Related diversification includes; (i) operating with the same distribution channels in the same markets, (ii) using similar technologies, and (iii) maintaining the same R&D processes. A related diversification strategy is also defined with revenue source. Earning less than %70 of revenues from a single venture is defined as adopting high related diversification strategy. Ülgen and Mirze (2007: 226) point out that with the related diversification strategy, firms aim to create new products to strengthen their market position.

Related diversification strategy includes, constrained-diversification and linked-diversification strategies. The diversification strategy focused on strengthening the main business or creating supportive resources is called "*constrained-related diversification*" while the diversification for strengthening the company's different businesses in the business and creating resources for them is defined as "*linked-related diversification*". Further, vertical acquisition from different sectors, entering new markets and producing new products are defined as "unrelated diversification". Low-related entities are businesses that have less than 70% of their income from a single business and have a low associated diversification rate (Tsai, 1994: 33,34). On the other hand, as an high level diversification strategy, conglomerates as the major constructions, receive less than 70% of their revenues from their core ventures, while the remainder of their revenues are derived from unrelated ventures (Dyck and Neubert, 269).

Models developed by Varadarajan and Ramanujam (1987: 383) which is very much similar to Rumelt (1974)'s diversification strategy that includes of "Very low-level diversification", "unrelated diversification", "related diversification" and "high-level diversification".

Chart 1. Diversification levels of companies

<b>High</b>	Unrelated Diversified Companies	Diversified Companies at Very High Level
	Diversified Companies at Very Low Level	Related Diversified Companies
<b>Low</b>		
	<b>Low</b>	<b>High</b>

Source: Varadarajan and Ramanujam (1987: 383)

The diversification strategy is a rather widespread growth strategy as well as being considered risky. Nevertheless, some firms are able to implement the diversification strategy very successfully. In the 1970s, diversification strategies began to be implemented intensively. When it comes to the 1980s, diversity is assessed from the viewpoint of market power theory and is regarded as an anomaly. In addition, in the 1980s, diversity began to be questioned in terms of the agent-principal relationship. In the 1990s, diversity was assessed from the view of resource dependency, and again expressed focus on focusing on self-talent, withdrawing from irrelevant areas. In this period, more related differentiation should begin to be preferred. When it comes to the 2000s, dynamic resource dependence of the diversification strategy is considered (Table 1) (Picone and Dagnino, 2016: 416).

Table 1. Historical development of diversification strategies

1960	1970	1980	1990	2000
Multidivisional structure is considered efficient in both strategic planning and resource allocation	Formal planning systems	Emergence of value-based planning	Focus on shareholders value	Role of the institutional context in explaining the performance of conglomerates
Universal principles of management	Focus on resource allocation processes and the elaboration of financial matrixes	Market power theory: Corporate diversification is an anomaly	Resource-based view: Refocusing on a firm's core business and divesting unrelated business	A dynamic view of the resource-based view of diversification
Penrosian firm growth represents an imperative for profitability and success		Agency theory: Manager's proclivity to engage in opportunistic behaviors	Related diversification is favorite	

Source: Picone and Dagnino (2016:416)

Historically, although preference of diversification is interpreted in various meaning, question of what is effective on diversification strategy chosen by companies still has being searched. In various articles, many factors are underlined as effective in the choice of diversification strategies. The business environment of firm is effective on what is chosen as a strategy (Heracleous, 2001: 78). Additionally, Peng and Delios (2006) emphasizes the impact of the firms' institutional environment on the diversification strategies. In this sense, the choice of different diversification strategies can vary according to the countries. Mayer and Whittington (2003: 777) indicate that the strategies of European firms vary considerably over time, depending on time and country. According to Mayer and Whittington (2003: 777), while the constrained strategy associated with France in 1983-1993 markedly dominated diversification, linked-related strategic diversification was more prevalent in Germany in the same period. According to the characteristics of the economic environment, firms may prefer related or unrelated diversification strategies. Bhatia and Thakur (2016) argue that the diversification strategies of firms in India vary according to the periods of liberalization and crisis of the economic system. In the period of post-liberalization in the year of 2001 more than half of India's firms preferred the related diversification strategy but when examined in 2006 the growth strategies became various. On the other hand, Bhatia and Thakur (2016: 120) stated that in the aftermath of the crisis, in 2011, Indian firms turned to their core abilities again and chose more related diversification. Factors such as the velocity of change and competition degree of sectors in different countries may cause different diversification strategies to be preferred (Mayer and Whittington, 2003).

It is stated that related and unrelated diversification is effective in the success of firms. According to Rumelt (1974), the related diversification increases synergy in the marketing and technology field. Rumelt (1974) argues that firms adopting the constrained diversification strategy have the information advantage through their intensive internal environmental when compared to companies employ linked-related diversified. While long-run performance is high in enterprises that choose the related diversification strategy, it cannot be sustained long-term performance when preferred unrelated strategy. When related

diversification is selected, it is possible to develop scale and scope economics, to distribute resources efficiently, and to develop technical-managerial skills. On the other hand, unrelated diversity has low potential to generate synergies. Although it is possible to achieve financial success through unrelated diversification, this success is attributed to the presence of more well-functioning financial markets. In order to achieve high performance through unrelated diversification strategies, firms need to have an effective market power (Palepu, 1985: 241, 242). In a competitive environment, it is not enough to produce intellectual information through patents. In a highly competitive environment firms must be able to rapidly produce intellectual knowledge and transform that knowledge into a product quickly (Datta and Roumani, 2015: 204). Related diversification can be admitted as a way of generating innovativeness potential on core competence rapidly.

## **2. Diversification Trends of Internet-Technology Enterprises**

In the last two decades, while the unrelated diversification tendency of firms in many sectors have declined, large businesses in the internet sector had adopted the unrelated diversification strategy (Dolata 2017: 17). Companies in the internet industry operates in a highly dynamic environment. These companies are obliged to comply with rapidly changing market conditions in order to compete (Ahuja & Katila, 2001). In the internet industry, it is seen that the companies which are in the monopoly condition surprisingly have left their place to another firm in a short time. The social profile sharing platform Myspace, which was founded in 2003, has long been a stand-alone player in this field, but with the emergence of Facebook, its market share has been rivaled by a significant portion. Similarly, at the end of the 1990s, firms such as Yahoo and Altavista which were dominant in search engine service vanished with the market introduction of Google Inc. in 1998, (Agarwal and Round, 2011).

Technology companies are engaged in intensive R&D activities. On the other hand, when the products of internet-technology firms are examined, it is seen that they integrate various fields of technology (programming, development of semiconductors, artificial intelligence, image processing, hardware production, web technologies, communication technologies). The need for inputs from very diverse areas for the final product may facilitate the adoption of diversification strategies. The integration of the inputs of firms working on different technologies facilitates the introduction of innovative products. For example, Apple has managed to create brand recognition and customer loyalty by offering computers, mobile phones, music players, televisions, tablets and laptop computers to the market as part of its associated diversification strategy (Khan et al., 2015: 955). This compels companies to purchase other firms or merger. Thus, the oligopoly structure of the internet sector is shaped by continuous mergers and acquisitions. After a certain amount of time from their start up, firms with innovative ideas are bought by major firms (Google, Microsoft, Apple, Facebook). Oligopol competition among large firms takes place through aggressive innovation and growth strategies. These firms are similar to firms in other high-tech sectors, but outsourcing information is obtained through purchasing instead of collaborating with new businesses in know-how. When the information is insufficient, it is tried to be closed with the purchase of other technology companies (Dolata: 2017: 17, 18, 19).

Google Inc.'s business model is based on search engine and internet advertising (Datta and Roumani, 2015: 210). Google Inc. aims to improve users' search experience and

commercialize internet search through advertisements. Google Inc. prefers concentrating on the market (internet search and advertising) related to its core business. By concentration, it is aimed to increase the functionality and innovativeness of web and mobile technologies for users. Although Google Inc.'s concentration on core function highly dynamic technological environment pushes to the other related markets. The products developed in recent years are intended to provide more benefits to users in a synchronized manner with each other. Sustaining Google Inc.'s innovativeness is possible with acquisition which is widely applied strategy in high technology industry. Acquisitions enable Google Inc. to combine many different technologies in wide spectrum from mobile applications to robotic technologies. Apart from creating random technologies, products are focused on to retrieve high amount of data on customer behaviors. Receiving the feedback from the users also makes them open to advertisements at the same time. Additionally, understanding behavior of a user, gives Google Inc. more opportunity to earn more revenue. At the same time Google Inc. evaluates acquisitions as a shortcut to R&D. Google Inc.'s acquisitions increased the innovation potential and shortened duration of the patent development process. This ecosystem designed through acquisitions of firms which have different abilities increases ability of producing innovative products (Hong vd., 2012; Datta and Roumani, 2015).

Google Inc. is able to invest in R&D constantly through their financial resources. As a matter of fact, the competitiveness of the firm depends on its innovation characteristics rather than cost. In keeping with the sustainability of innovation, companies can reorganize themselves and at the same time use high-cost partnerships and acquisitions. According to Dolata (2017: 11), acquisitions made by firms like Google Inc. supports their core abilities, help them to acquire and improve know-how timely and effectively. In addition, these acquisitions provide access to other business lines. On the other hand, Crookes (2014), states that differentiation strategy diverged, first purchases were much more about "technology transfer". Google Inc. has also entered into different areas through its acquisitions. Through acquisitions Google Inc.'s innovative strategy has added various kind of product to its portfolio. Those various products functionate to provide data to strengthen core function. In 2005, Google Inc. acquired a significant portion of the smartphone market by buying low-cost operating system Android Inc. Thanks to this technology; the existing services are better optimized by more effectively tracking the users' locations and the search terms they use (keywords, terms). The same advantages were increased in 2009 when Nest Inc. was acquired. With the purchase of this company, Google Inc. has increased its skills in the development of smart home systems and has continued to gather information about the behavior of users at home (Crookes, 2014). In 2010, Google Inc. had 550 products in its product portfolio (Żukowska and Pindelsk, 2011: 247). For instance, with buying of Deja, Outride and Neotonic companies, Google Inc. also bought database, search engine and email archive technologies too. In 2013, Google X, a company that works on robotic technologies, has acquired robotic companies like Schaft.Inc, Redwood Robotics, Meka Robotics, Holomni, Bot and Dolly and Boston Dynamics. In 2009, the purchase of Nest Inc. and the development of smart home systems were targeted. Google Inc. has become a serious asset in the internet advertising field by buying businesses that are related to each other in terms of business lines like DoubleClick, Admob, InviteMedia and Admeld. Google Inc. has completed its vertical structuring with the advertisement agencies and advertisement platforms it receives. In addition, with the purchase of businesses in a specific product group, ability of producing complementary, new and different products became possible. For example, the acquisition of On2 by Google Inc. has enabled the development of Youtube

(Hong vd., 2012: 8). In addition to gain capability of innovation, acquisition strategy is adopted to lessen competition and to enter new market. In compliance with Ülgen and Mirze (2007), Google Inc. strengthened its position in the market and prevented competition by applying related diversification. While roadmapping and traffic analysis were controlled by few companies in 2004, Google Inc. entered to this market through acquisitions. In 2005, with the purchase of companies; Zipdash, Where2 and Keyhole Inc. Google Inc. presented GoogleMaps and Google Earth products into the market and become one of the dominant firm in the market.

### **3. Research Objective and Method**

In this study, it is aimed to reach some clues to understand of the internet companies' preferences regarding the related and unrelated diversification. In fact, the acquisitions of Google Inc. has been identified as a research "case". The basic research question here is "what kind of diversification strategy does Google Inc., adopt through its acquisitions?" In addition, the purpose of the diversification strategy adopted by Google Inc. has investigated. In order to answer research questions, the acquisitions portfolio of Google Inc. has been examined. The data were obtained from business websites (Bloomberg, Crunchbase, Businessinsider, Forbes) which include acquisition news and also from official web sites (United States Security and Exchange Commission) containing firm strategy, financial statements, and acquisitions, purchase date and main activities" related to 177 Google Inc. subsidiaries (Appendix 1). Additionally, Google Inc.'s top managers' speeches in traditional public meetings (Google Keynote) held at the end of the year analyzed to understand strategic direction of company. All Google Keynote meetings between 2008 and 2018 have been reviewed and strategies for "growth, buyouts" inferred from those speeches are included in this research.

## **5. Findings**

### **4.1. Google Inc.'s main business**

Announcements made by Google Inc. to the US Securities and Exchange Commission, and the managers' speeches held in Google Keynote are evaluated. Google Inc. founded in California in 1998, moved to Delaware in 2003. Google Inc., has been restructured as Alphabet Inc. in 2015. Google Inc. announces that company provides its main revenue from low-cost online advertising services. (United States Securities and Exchange Commission, 2016). Google Inc. defines itself as a technology leader focused on improving the information access of people on a global scale. In this sense, Google Inc. states its mission as organizing worldwide information and making it universally accessible. Google Inc. is basically saying that the innovations they sustained on web search and advertising have made their website important internet property as world's most known brand. Google Inc. defines its product philosophy is presenting innovative products to the marketplace as the earliest and the most frequent. When we look at 96 products, Google Inc. seems focused on search engine technology and advertising, as well as e-commerce and mobile software developing. A significant portion of the revenue comes from advertising. In 2016, 88% of revenue was derived from advertising. After presenting its e-mail services in 2004, Google

has rapidly expanded. Google expanded through adding mobile phones, smart phones, laptop computers, mobile operating systems, online translation, web browsers, computer operating systems, music, movie, gaming, business productivity programs, smart TV platforms, health monitoring programs, cloud storage, payment systems, computers, tablets, digital glasses, smart watches and home security systems into its product portfolio. Today, Google is trying to add new innovative projects such as driverless cars, smart contact lenses, robotics, cloud technology, wireless internet bubble (Project Loon) and human life extension project (Google Calico) into product portfolio (Grant, 2016: 668).

Table 2. Google Inc. products

Admob	Gmail Inbox	Google Play Games
AdSense	Google Academics	Google Play Apps
Adsense	Google Shopping	Google Site
AdWords	Google Allo	Google Store
Adwords	Google Search	Google Street View
Adwords Express	Google My Business	Google Surveys
Analytics	Google Cast	Google Trends
Android Auto	Google Chrome	Google Trusted Stores
Android Mesajlar	Google Classroom	Google Flight Search
Android One	Google Cloud Platform	Google Alerts
Android OS	Google Cloud Print	Google Web Designer
Android Pay	Google Cloud Print	Google Wifi
Android Tabletler	Google Domains	Google+
Android Telefonlar	Google Duo	Double Click
Android Wear	Google Earth	News
Blogger	Google Enterprise Search	Hangouts
Cardboard	Google Tag Manager	Maps
Chrome Web Store	Google Expeditions	Keep
Chromebook	Google Express	Contacts
Chromecast	Google Fits	Pixel 2
Translate	Google Fonts	Project Fi
Daydream View	Google for Education	Search Console
Digital Workshop	Google Groups	Voice
Documents	Google Home	Slides
Drive	Google Camera	SmartBox
E-Tables	Google Map APIs	Calendar
Finance	Google Brands	Tango
Forms	Google Merchant Center	Tilt Brush
Photos	Google Play	Trips
G Suite	Google Play Films and TV	Waze
Gboard	Google Play Newspapers	Local Inventory Ads
Gmail	Google Play Music	YouTube

Source: <https://www.google.com/intl/tr/about/products/>, 20.12.2017.

In US Securities and Exchange Commission (2017) report Google Inc's declares its intention as to generate revenues basically from advertising through its platforms. Thus, Google Inc. is making the most of the ads available through computers and other mobile devices (smartphones, tablets). Google Inc.'s total revenues were \$ 78.532 million in the third quarter of 2017, while ad revenues were \$ 68.148 million. It is obvious that a significant portion of Google Inc.'s revenue comes from online advertising. Non-advertising revenue comes from apps (Apps), digital content on the Google Play Store, hardware sales, Google Cloud (Cloud) and other products. On the other hand, Google Inc. says that growth rate is being adversely affected due to change in customer device preferences tendencies on reaching services and changes in foreign exchange rates (United States Securities and Exchange Commission, 2017).

## **5.2. Google Inc.'s Competitive Environment**

As stated by Google Inc., search engine service and advertising have a serious contribution to the success of its business. The most basic product offered by Google Inc. is the "search engine". This service is primarily offered through Chrome, a product of Google Inc. On the other hand, Google is not unrivaled in this area, even though it has a significant share of the search engine business. In the report of US Securities and Exchange Commission (2016), it is stressed that Google Inc. is in competition with other companies that offer search engine services (Bing, Yahoo, Yandex, Baidu, Naver, and Seznam). In addition, e-commerce sites such as Amazon and eBay (e-commerce), Kayak (travel queries), LinkedIn (job queries), and WebMD (health queries), also called vertical search engines, compete with Google for search engines. Businesses such as Facebook, Criteo and AppNexus, which have been widely used in recent years, are listed the competition in advertising market. In addition, Youtube, owned by Google Inc. in the area of video advertising, competes with Facebook, Netflix, Amazon and Hulu. On the other hand, also in digital assistant market Google Inc. is competing with Apple, Amazon, Facebook and Microsoft (United States Securities and Exchange Commission, 2016).

## **5.3. Relationship Between Acquisition Strategy and Core Business Activity**

Google Inc. emphasizes that innovation is necessary to increase its advertising revenue. Google Inc. is anticipating that if it fails to constantly deliver new products, it will lose its competitive edge and its revenue will be negatively impacted. This competitive pressure requires investment in R&D or the acquisition of other innovative firms in this area. This will enable the development of existing technologies and products, and new products that customers can use easily and effectively (United States Securities and Exchange Commission, 2016). With the diversification created through acquisitions, Google has managed to get its advertising revenue through different products. As a matter of fact, Google has pointed out that the advertising revenue as a main source is derived from different platforms, and accordingly it must shape its strategy. Google says that by the third quarter of 2017, the increase in advertising revenues is largely driven by mobile technology on smartphones. In this period, it is seen that the revenue of video ads obtained through Youtube has reached a significant level, while the purchasing strategy is shaped accordingly. As a matter of fact, it was targeted to increase the revenue through Youtube with the advertisement company of DoubleClick which was purchased in 2008 (United States Securities and Exchange Commission, 2017).

Since 2004, Google has been focusing on the development of web-based products. In particular, web-based programs also allow Google to diversify. In other words, Google is able to offer different products on the same platform (Chrome), so it tries to make users more benefits. Pichai, one of Google's managers, notes that they are aiming to diversify the web with faster and richer by-products, but earlier on they used a lot of bundled software, but web-based software was developed after 2004 (Google, I/O 2010 - Keynot, 2010). The goal of adding web-based programs and more features to the main product is also observed in Google's acquisitions.

Google has acknowledged that operating system Android for mobile platforms and Chrome OS are in a highly strategic position to earn advertisement revenue. Today users need to use different platforms and many products uninterruptedly. In other words, customers who use a Google product on any platform are not intended to experience any interruption when they switch to another platform (for example, from a PC to a smartphone). Especially, it is considered important that the internet access from mobile technologies has increased. In 2013, Google is trying to connect all the mobile devices that people use with Android and Chrome. This is intended to create a personalized product and make Chrome more useful for mobile web use. In addition, to make Chrome OS operating system more affordable, Samsung, Lenovo, HP and Acer have manufactured laptops operated with Chrome OS at affordable prices for Google. Later, Google introduced the its own laptop Google Pixel, powered by Chrome OS operating system (Google I/O 2013 - Keynote, 2012).

Google attaches great importance to increasing the number of customers entering the internets from different platforms. Google draws attention to the spread of Android platforms and drawing attention to the increase in access to other products through these tools. While the rate of access to Youtube on tablets is 28% in 2013, this figure has risen to 42% in 2014. Google also aims to make sure that the hardware that runs with Android will meet the needs of users at the same time in terms of office and productivity. For this, it is stated that Quickoffice company, which is thought to improve the performance of Google's office software (Google Docs, Google Sheets, Google Slides) (Google I/O 2014 - Keynote, 2014, 2014). In his speech in 2009, Gundatro, a Google administrator, denote that after acquisition of Keyhole Inc which works on geographic imaging programs made Google Inc possible to develop web-based Google Maps product (Google, I/O 2009 - Keynot, 2009). Likewise, the desire to provide better video service for users on the web is seen as the reason for the purchase of On2. Google executives say that they are investing more than \$ 120 million in On2, which has VP video format technology that delivers high-quality video image on the web. Following the acquisition, transferring videos in a more efficient and high-quality format, and video access from platforms with different bandwidths also became possible. Google executives are considered use of such an efficient technology is very important for the Youtube platform, which was viewed 2 billion per day as of 2010 (Google, I/O 2011 - Keynot, 2011).

Google reports that they are developing their products with a "generic" strategy for all users around the world. Google has created a vision for the transition to "smart technologies" as well as improving the performance of the Internet browser and search engine. Technologies such as artificial neural networks, machine learning and Internet of objects have begun to be applied by Google Inc. to different fields. Beyond smartphones Android operating system has been tried to be adapted to many different areas (such as cars,

TVs, smart home systems) and these products are supported by a Google Play marketing platform. By using the Android operating system, Google aims to make objects more intelligent with the internet of things concept (such as agricultural tools, houses, lighting, and transportation tools). Computers that evolve towards to mobile technology are also changing Google Inc. Google executives say that today, 50% of web searches come from mobile platforms and 20% of searches made in the US are made through voice calls. The power of natural language processing that Google has is seen as important in the development of voice searches. Google, emphasizes that voice recognition and voice search technologies will be effective in different areas of application like wearable objects, automobiles, homes and computer technology. For example, Google's smart home app "chromecast" sold 25 million units (Google I/O 2016 - Keynote, 2016). On the other hand, the difficulties of producing intelligent technologies have to be overcome. In this point, Google consider Nest, which they buy in overcoming this difficulty, as a chance. Nest designs user-focused technologies (thermostats and smoke detectors) in the home environment. Google is emphasizing that they are aiming to develop new approaches in the "internet of objects" field by incorporating Nest's know-how into Android and Chrome OS projects (Google I/O 2015 - Keynote, 2015).

Today, users are more likely to reach existing products from different devices, and so the revenue from ads from mobile devices is increasing. In addition, Google reports that non-ad revenues increased from Google Cloud (Cloud), Google Play and hardware sales. For this reason, it is stated that Google intensively invests in R&D to serve users in different areas and to grow existing business. Particularly; it is stated that investments are being continually made in search engine, advertising and machine learning, databases and information technology. In this sense, acquisitions are seen important to increase the "depth" of the products offered, to enhance competence in engineering and other functions (United States Securities and Exchange Commission, 2016).

By 2017 Google is emphasizing that issues like artificial intelligence, machine learning are strategically important to itself. When these technologies combined with mobile technologies, compulse Google to assess and review each of existing products. In order to solve the problems of users, all products have to be reevaluated with artificial intelligence and machine learning. For new computer technology that goes beyond the mouse and keyboard, image and sound have become more important tools. Thanks to Deep Learning, speech recognition ability of Google Home's has been further improved. Image recognition as well as voice recognition is also gradually became effective in designing Google's products. In this sense, Google officials emphasize that computers' improved ability to perceive sound and video is important for the development of core competence. Initially, the most basic products created by Google are now rearranged based on artificial intelligence technology. In other words, Google has evolved based on machine learning and artificial intelligence technologies (Google I/O 2017-Keynote, 2017). As a matter of fact, Google seems to have recently acquired artificial intelligence, robotics and deep learning firms (Wavii, Dark Blue Labs, DeepMind Technologies, Vision Factory, Timeful, Boston Dynamics).

## 5.4. Google Inc. Acquisitions

When evaluated between 2001-2017, the most common purchases by Google occurred between the years 2009-2015, the highest purchase occurred in 2014. When purchases are examined, it appears that a significant part of the enterprises are in the form of unrelated diversification. On the other hand, when the business activities of the purchased firms are examined, it is seen that a significant part of them are generally out of Google search-advertising, which is the main activity of Google. Nonetheless, the acquired companies renders as the developer of Google's core business. In other words, Google prefer the constrained-related diversification strategy.

Table 3. 2001-2017 Google Inc. acquisitions

2001	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2017
2	6	5	9	9	14	3	7	26	25	10	20	33	7	1

Source: By Authors

Even Though Google's core competency is about facilitate access to information, its acquisitions proves seems to have implemented the diversification strategy. When purchases made by Google are reviewed, They are very specialized in social networking, intelligent home systems, robotics, communication, e-commerce, travel-navigation systems, office software, as well as their own abilities such as search engine, mobile operating symbols, advertising or information technology (voice and image recognition). Google Inc. products spread across a wide range of areas such as advertising, communications, video sharing and social networks. Harrison, Google manager, evaluates Google's strategy as product-centric and describes it as a response to the environment. Harrison adds that products and businesses that solve problems differently arouse interest. Harrison, on the other hand, evaluates Google's in recent years artificial intelligence related acquisitions as appropriate and specify that this focus will continue in the coming years (Griffith, 2017). In his speech in 2009, Gundatro, a Google administrator, explains that Keyhole, who works on geo-imaging programs, was acquired by Google in 2004, so that a Google became competent on developing web based Google Maps (Google, I/O 2009 - Keynot, 2009). Likewise, the desire to provide better video service for users on the web is seen in the purchase of On2. Google Inc. manager Pichai says they are investing more than \$ 120 million in On2, to improve VP video format that delivers high quality videos on the web (Google, I/O 2011 - Keynot, 2011).

## Result

Founded in 1994 as a search engine, Google Inc. is not limited itself to search engine service, but through purchases made in the ongoing years, it has diversified its products on a wide range. With the acquisitions made; Google Inc. has begun to produce web-based communication, geographical location services, navigation, office, video, social networking and mobile operating systems. In recent years, Google Inc. also has begun to produce more revolutionary products by buying artificial intelligence, machine learning and robotic technology.

In this study, it was found that, when evaluated according to the model of related-unrelated diversification strategy, Google Inc. diversifies in different areas with its purchases. However, it is understood that advertising revenues is a significant portion of Google Inc.'s total revenue, and it is increased through different and innovative products which are generated with acquired firms. Although this may seem to have been entered into different areas, many acquisitions' business is related each other and Google Inc.'s core business. Likewise, as stated by Arthur (2017), Google Inc. bought Omnisio, On2, Episodic, Next New Networks, Director, Vidmaker, Launchpad Toys and other companies to improve video sharing, video compression, video production, mobile video production, copyright and licensing to strengthen the Youtube platform which has a highest revenue potential. Thus, Google Inc. has increased its talent and innovation potential in each purchase.

Acquisitions helped to improve products Google Inc. could increase its advertising revenue. As stated by Crookes (2014), with acquisitions of firms from different areas, Google Inc. gained skills to produce different products and increased the operating revenue of the entity. In the same way, after bought of the firms that works on traffic analysis and three dimensional global map analysis (ZipDash, Keyhole) Google Inc. became able to develop the Google Earth product. Hence, through new acquisitions Google Inc. introduced functional and innovative products which are is aimed at improving the potential of advertising revenues. Eventhough Google Inc. appears to diversify in different areas and generates different products after acquisitions, Google Inc. still generates a significant portion of its revenue from online advertising field. In general, even though purchases are considered to have entered different areas when assessed it seems that many acquisitions are related to each other and core competence. This diversification model fits to constrained-related diversification model. As a matter of fact, Google Inc.'s total revenues were \$ 78,532 million in the third quarter of 2017, while ad revenues were \$ 68,148 million. Accordingly, Google Inc. incurs almost 90 percent of its revenues from only one business.

Acquisitions also aim to increase competitive features. Acquisitions increase Google Inc's innovation potential and competitive power. According to Dolata (2017: 11), competition was avoided by purchasing emerging companies through acquisitions, and their technology were adapted to Google Inc.'s existing products. This is in line with the constrained-related diversification strategy, which is focused on strengthening the core business of the business as stated by Rumelt (1974). As a matter of fact, in parallel with Ülgen and Mirze (2007: 226), the related diversification strategy and Google Inc. strengthening the position of the market and creating new products. Thus, Google Inc., which has increased its innovation potential, has also increased its revenue from its search engine-advertising business. In addition, Google Inc.'s intention to offer personalized ads has led to the purchase of companies with technology to identify users' behavior. By using technologies such as artificial intelligence and deep learning, how users behave on PCs and mobile platforms, purchasing patterns and needs have begun to be more easily identified. In addition, acquisitions are also aimed at increasing competitive features.

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## Appendix 1:

Acquisition Date	Purchased Company	Main Business Area	Acquisition Date	Purchased Company	Main Business Area
2001	Deja	Information Technologies, Internet, Web Development	2011	Fridge	Photo Sharing, Social Media
2001	Outride	Information Technologies, Internet, Web Development	2011	Green Parrot Pictures	Digital Media, Resource Planning Software, Video
2003	Applied Semantics	API Development, Online Advertising	2011	ITA Software	Information Technology, Travel
2003	Genius Labs	API Development, Software Development	2011	Katango	Search Engine, Social Media
2003	Kaltix	Seo, Search Engine Tools	2011	Next New Networks	Video, Video Views, Social Media
2003	Neotonic Software	CRM	2011	PittPatt	Face Recognition Software, Video Software
2003	Pyra Labs	Blogging Platform, API Development, Developer Tools, Resource Planning, Project Management, Social Media	2011	PostRank	Web Performance Measurement (Analytics), Social Media, Web Content Test and Measurement
2003	Sprinks	Geospatial Software Development	2011	Punchd	Loyalty Programs for Android, iOS, Mobile Phone Users
2004	Ignite Logic	Web Development	2011	PushLife	Digital Media, E-Commerce, Mobile
2004	Keyhole, Inc	Geospatial Software Development	2011	RightsFlow	Accounting of license fees for composers and organizations, payment services, Video Licensing, Publishing
2004	Reqwireless	E-mail Software and Internet Browser Developer for Wireless Tools	2011	SageTV	Digital Media and Entertainment
2004	Where2	Navigation Software Developer	2011	SocialGrapple	Social Media, Web performance metrics (Analytics)
2004	ZipDash	Navigation, Traffic Software	2011	Sparkbuy	Consumer Electronics, E-Commerce, Shopping
2005	Akwan Information Technologies	Search Engine	2011	TalkBin	Customer Feedback Platform
2005	allPAY GmbH	Mobile Payment	2011	Zagat	Consumer Reviews, Restaurants, Hotels, Entertainment Venues
2005	Android	Linux, Mobile Operating Systems	2011	Zave Networks	Discounted Coupon Shopping
2005	bruNET GmbH	Mobile Software Development	2011	Zynamics	Internet Security
2005	dMarc Broadcasting	Advertising, Advertising Platform, Internet Radio	2012	BufferBox	E-Commerce, Shopping, Cargo
2005	Dodgeball	Geographically Based Social Networking, Mobile Software	2012	Incentive Targeting Inc.	Retail, Sales Platform
2005	Phatbits	Widget, Software development	2012	Meebo	Internet, Messaging, Web Development
2005	Skia	Graphic design	2012	Milk, Inc	Mobile Software Development
2005	Urchin Software Corporation	Web performance metering (Analytics)	2012	Nik Software, Inc.	Image Recognition, Photo Processing, Photography
2006	@Last Software	3D Modeling, Graphics	2012	Quickoffice	Mobile Office Programs
2006	2Web Technologies	Web Development, Software Development	2012	Sparrow	Email, Messaging
2006	Endoxon	Information Technologies, Mapping	2012	TxVia	Finance, Financial Services, Mobile Payment, Paas
2006	JotSpot	Resource Planning Software	2012	VirusTotal.com	Web performance measurement (Analytics), Computer, Security

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2006	Measure Map	Advertisement, Web performance measuring (Analytics), Big Data	2012	Wildfire Interactive	Advertising Software, Social Media Marketing
2006	Neven Vision Germany GmbH	Mobile Software Development	2013	Autofuss	Product design
2006	Orion	Content, Search Engine, Hosting	2013	Behavio	Artificial intelligence
2006	Upstartle	Web Development, Software Development	2013	Bot ve Dolly	Computer, Robotics, Software
2006	YouTube	Video Sharing Platform	2013	Bump	Apps, Mobile, Wireless Technology
2007	Adscape	Advertising, Digital Marketing, Marketing	2013	Channel Intelligence	Shopping Platform
2007	FeedBurner	Blogging Platform, Internet, Podcast	2013	Current Communications Group	Electronics, Information Technology, Software
2007	GrandCentral	Mobile, Telecommunication, VoIP	2013	DNNresearch Inc.	Artificial Intelligence, Image Identification, Machine Learning
2007	GreenBorder	Internet Security	2013	FlexyCore	Mobile Phone Software Development
2007	ImageAmerica	Imaging, Mapping	2013	Flutter	Motion Identification Technologies
2007	Jaiku	Social Networking, Messaging	2013	Holomni	Robotics
2007	Marratech	Video Conferencing Software	2013	Industrial Perception	3D Technology, Artificial Intelligence, Industrial Automation
2007	Panoramio	Photo Sharing, Social Media	2013	Makani Power	Energy, Energy Efficiency, Wind Energy
2007	PeakStream	API Development, GPU, Software	2013	Meka Robotics	Robotics
2007	Postini	Cyber security	2013	MyEnergy	Clean Energy, Energy Efficiency
2007	Tonic Systems	Document Management	2013	Nest Labs, Inc	Sensor, Smart House
2007	Trendalyzer	Statistical Software, Data Visualization	2013	Redwood Robotics	Robotics
2007	Zenter	Content, Online Presentation, Document Sharing	2013	Talaria Technologies	Software, Web Design, Web Development
2007	Zingku	Digital Media, Social Media, Social Networking	2013	Wavii	Machine Learning, Mobile Applications, Natural Language Processing
2008	DoubleClick	Ads	2013	Waze	Navigation, Travel
2008	TNC	Blogging Platform	2013	WIMM Labs	Hardware, Software, Wearable Technology
2008	Omnisio	Video interpretation and sharing platform	2014	Adometry	Saas Temelli Marketing
2009	AdMob	Advertising Network, Advertising, Marketing, Mobile	2014	Alpental Technologies	Wireless Technology
2009	AppJet	Online Web Page Preparation Tools	2014	Appetas	Restaurant Marketing Platform
2009	DocVerse	Document Management, File Sharing	2014	Appurify	Mobile Application and Web Site Optimization, Testing and Measurement
2009	Gizmo5	Voip	2014	Dark Blue Labs	Artificial Intelligence, Data Visualization, Machine Learning

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2009	On2	Content, Internet, Saas, Software, Video	2014	DeepMind Technologies	Artificial Intelligence, Machine Learning, Software
2009	reCAPTCHA	Security	2014	Director	Video Editing Software
2009	Teracent	Advertisement, Machine Learning	2014	Divide	Resource Planning Software, Information Technology, Mobile, Saas, Software
2010	Aardvark	Search Engine, Social Networking	2014	drawElements	Resource Planning Software
2010	Agnilux	Semiconductor	2014	Dropcam	Wireless Remote Imaging Systems, Video
2010	Angstro	Social Networking, Reporting	2014	Emu Messenger	Android, Artificial Intelligence, Machine Learning, Messaging, Mobile, SMS
2010	BlindType	Mobile	2014	Firebase	Cloud Infrastructure, Developer Apps, Developer Tools, Resource Planning Software, Mobile Apps, Real Time
2010	BumpTop	3D Teknology	2014	Gecko Design	Product design
2010	Episodic	Publishing, Internet, Video Platform	2014	GreenThrottle	Console Games, Consumer Electronics, Mobile
2010	Global IP Solutions	Video And Audio Processing Software	2014	Imperium	Cyber Security, Service Sector
2010	Instantiations	Commercial Software Language Development	2014	Titan Aerospace	Aerospace, solar energy technology and satellite production
2010	Invite Media	Advertising	2014	Jetpac	Artificial Intelligence, Machine Learning, Travel
2010	Jambool	Social Media, Virtual Money	2014	Lift Labs	Hardware, Health, Medical, Software
2010	LabPixies	Game Developer	2014	mDialog	Advertising, Information Technology, Video Streaming
2010	Like.com	Image Recognition, Internet, Search Engine	2014	Polar	Application, Market Research, Mobile
2010	Metaweb	Data Base	2014	Quest Visual	Data Visualization, iOS, Software
2010	Phonetic Arts	Semantic Software, Game	2014	Rangespan	Market Data Systems for Retail Businesses, Supply Chain Management
2010	Picnik	Photo Sharing, Photo Editing	2014	Red Hot Labs	Mobile Gaming Infrastructure Development
2010	Plannr	Calendar Softwares	2014	RelativeWave	Apps, Developer Tools
2010	PlinkArt	Video Search Engine, Search Engine	2014	Revolv	Internet of things, Smart Home, Software
2010	Quiksee	Location, Video Matching, Tourism	2014	Skybox Imaging (Terra Bella)	Satellite Imaging Systems
2010	reMail	E-mail, Messaging, Mobile Application	2014	SlickLogin	Mobile Security
2010	Ruba.com	Guide, Internet, Tourism, Travel	2014	Songza	Music Platform

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2010	SayNow	Messaging, Social Networking, Telecommunication	2014	spider.io	Internet Security
2010	Simplify Media	Digital Media, Media Sharing Platform	2014	Stackdriver	Cloud Computing, Cloud Based Applications
2010	Slide.com	Photo Sharing	2014	Vidmaker	Social Media, Video
2010	SocialDeck, Inc.	Social Media Marketing, Public Relations.	2014	Vision Factory	Artificial Intelligence, Machine Learning, Search Engine, Software
2010	Widevine Technologies	Digital Media, Video, Digital Entertainment	2014	Zync Render	Cloud Based Storage, Social Media
2010	Zetawire	NFC, Mobil Payment	2015	Skillman & Hackett	3D Graphic Design Software, Virtual Reality
2011	Admeld	Ad Optimization	2015	Launchpad Toys	Education, Technology and Software Training
2011	Apture	Web Development, Content Development	2015	Odysee	Resource Planning Software, Mobile Applications, Photo Sharing
2011	BeatThatQuote.com	Price Comparison Site	2015	Pixate	Mobile Software Development
2011	Clever Sense	Information Technologies, Machine Learning, Food & Drink, Entertainment Advice Practice	2015	Softcard	Application, Mobile Payment
2011	DailyDeal	Discount Coupon Shopping	2015	Thrive Audio	3D Virtual Audiovisual Design
2011	Dealmap	Discounted Coupon Shopping	2015	Timeful	Analysis, Artificial Intelligence, Database, Machine Learning
2011	eBook Technologies	Content, E-book, Publishing	2017	Boston Dynamics	Robotics, Artificial Intelligence, Machine Learning
2011	fflick	Social Media, Movie, Film Information Sharing Platform			

Source: By Authors