Innovation Around the World: An Analysis of the Top 10 Most Innovative Companies in the Period 2018-2020

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Abstract

Innovation is a powerful driver for companies around the world, enabling them to achieve success on this constantly changing economic environment through innovative competitive advantages.

The purpose of the paper is to present the situation of the top 10 most innovative companies around the world for the period 2018-2020. From this point of view, the used methodology is based on the research of various secondary sources such as articles and reports.

The findings show the dominating position held by American companies being challenged by the Asian companies.

Key words: innovation, company, rank, United States of America, Apple

J.E.L. classification: F00, F23, O30

1. Introduction

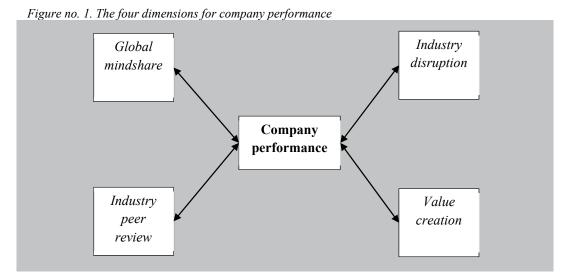
Around the world, highly competitive companies focus their entire architecture on innovation-creation. Because "innovation and business performance are positively correlated" (Saliba de Oliveira et al., 2018, p.154), innovation becomes the fuel that provides companies access to various market segments, boosting their sales, increasing their market share, improving their business models (Tohănean and Toma, 2018) managing to better satisfy consumers' needs, generating added value, creating wealth (Toma, Grădinaru and Catană, 2020, p.264) and providing them the required "sustainable competitive advantage" (Ruiz-Moreno, Garcia-Morales and Llorens-Montes, 2008, p.510) that is imperious in the global economic competition. Reaching "success through various innovations" (Grădinaru, Toma and Zainea, 2020, p.78) is not a simple path that companies choose as it involves true determination, long term efforts and, in so many cases, huge investments in research and develoment. Nowadays, companies have become true and "key drivers of innovation activities" (Yu et al., 2020, p.4).

The aim of the paper is to illustrate the situation of the first 10 most innovative companies in the world for the period 2018-2020, using the data provided by the Boston Consulting Group. The remaining sections of the paper are organized as follows: the second section is focused on exhibiting the theoretical background; the third section is specific to the methodology used for the research; the fourth section highlights the findings of the research and the paper ends with conclusions.

2. Theoretical background

The focus of the paper is put on the Boston Consulting Group's rankings called "The Most Innovative Companies" specific to the period 2018-2020. This annual ranking is based on a survey given to global innovation executives (one year before the actual rank is done).

In 2018, the rank was created based on a survey of over 1000 senior innovation leaders "from a wide variety of countries and industries" (Boston Consulting Group, 2018). In 2019, the global survey was already applied to "more than 2500 senior innovation leaders" (Boston Consulting Group, 2018). For 2020, the survey was addressed to 2500 global innovation executives who had to assess the companies' performance based on four dimensions (Boston Consulting Group, 2020a): global mindshare, industry peer review, industry disruption and value creation (figure no. 1) and was also based on its "global innovation performance database of more than 1000 firms" (Boston Consulting Group, 2020b).



Source: (Boston Consulting Group, 2020)

Each dimension is aimed at:

- Global "Mindshare" shows the amount of votes given by the executives.
- Industry Peer View portrays the number of votes within the company's own industry.
- Industry Disruption: is about The Diversity Index (Herfindahl-Hirschman) of votes across the industries.
- Value Creation highlights the total shareholder return (TSR) including share buybacks (for the 2020 rank, data from January 2017 through December 2019 is used).

In order to better understand the findings, a brief overview of the concept of innovation is required as it is "widely agreed to be a fundamental determinant of organisations' performance" (Goswami and Mathew, 2005, p.380). From this point of view, a comprehensive research (Baregheh, Rowley and Sambrook, 2009, p.1334) shows that "innovation is the multi-stage process whereby organizations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace."

3. Research methodology

For the research objective to be reached, the authors used a methodology based on a quantitative research method. The analysis of the situation specific to the top ten companies in the world using the innovation criteria was done using sources of secondary data, such as books, articles and reports (ranks). The literature review was carried out using electronic databases.

4. Findings

This chapter is focused on the evolution of the world's most innovative companies in the world for the 2018-2020 period. For this purpose, the analysis is based on the data provided by the Boston Consulting Group, highlighted within their "The World's Most Innovative Companies" rank. Their

ranking is largely based on a survey of addressed to executives (in global innovation), evaluating the companies' performance.

The first ranking presented in the analysis portrays the situation for 2018 (table no. 1), using the 2017 BCG global innovation survey data.

Table no. 1 The top 10 most innovative companies for 2018

Rank	Company name	Country of origin		Industry	Company type
1	Apple	United S America	states of	Computers, Office Equipment	Public
2	Google	United S America	states of	Internet Services and Retailing	Public
3	Microsoft	United S America	states of	Computer Software	Public
4	Amazon	United S America	states of	Internet Services and Retailing	Public
5	Samsung	South Korea	l	Electronics, Electrical Equipment and Heavy Industry	Public
6	Tesla	United S America	states of	Motor Vehicles & Parts	Public
7	Facebook	United S America	states of	Internet Services and Retailing	Public
8	IBM	United S America	states of	Information Technology Services	Public
9	Uber	United S America	states of	Internet Services and Retailing	Public
10	Alibaba	China		Internet Services and Retailing	Public

Source: (Ringer et al., 2018, p.4) (Fortune, 2020)

Within the 2018 rank, the analysis of Microsoft has factored in Nokia as well, the same procedure being applied for Samsung, implying that it includes all the business groups that are part of Samsung (electronics and heavy industry).

The leading company Apple, famous "for its innovations in hardware, software, and services" (Podolny and Hansen, 2020, p.88) due to its extraordinary leadership model and its organizational design.

From a country perspective, the 2018 rank is remarkably dominated by the United States of America (placing 8 companies in the top 10); the other two spots are occupied by South Korea and China.

Considering an analysis by industry, it is clear that digitalization plays the decisive role and, thus, there is a noticeable shift towards digital innovation. Therefore, digital technology becomes essential in achieving business goals (Nylén and Holmström, 2015, p.57) to an increasing extent. When looking at the industry in which they operate, out of the top ten companies, five are from internet services and retailing industry (Google, Amazon, Facebook, Uber and Alibaba).

An observation is to be done connected to the type of the company, as for 2018 all the companies are public.

The second rank analyzed highlights situation for 2019 (table no. 2), using the 2018 BCG global innovation survey.

Table no. 2 The top 10 most innovative companies for 2019

Rank	Company name	Country of origin		Industry	Company type	
1	Alphabet/Google	United America	States	of	Internet Services and Retailing	Public
2	Amazon	United America	States	of	Internet Services and Retailing	Public
3	Apple	United America	States	of	Computers, Office Equipment	Public
4	Microsoft	United America	States	of	Computer Software	Public
5	Samsung	South Kore	ea		Electronics, Electrical Equipment	Public
6	Netflix	United America	States	of	Entertainment	Public
7	IBM	United America	States	of	Information Technology Services	Public
8	Facebook	United America	States	of	Internet Services and Retailing	Public
9	Tesla	United America	States	of	Motor Vehicles & Parts	Public
10	Adidas	Germany		Ť	Apparel	Public

Source: (Ringer et al., 2019, p.4) (Fortune, 2020)

Within the 2019 rank, the analysis of Samsung only factors in Samsung Electronics (as opposed to the 2018 rank, where the heavy industry was taken into consideration as well).

The leader is represented by Alphabet (Google), managing to surpass the former leading company, Apple (falling down to the third spot). The holding company Alphabet was created so as to separate the search engine (Google generates most revenue for the group) from their riskier moonshot projects (Waters, 2019, p.15), highlighting the future attitude towards disruptive innovation, as this is the "era of exponential technologies" (Wadhwa, 2015, p.1).

Considering a country analysis, the rank for 2019 is still dominated by eight countries from the United States of America (seven of them being the same as in 2018; Netflix replaces Uber); the other positions are held by South Korea and Germany (replacing China when referring to the 2018 rank).

Within the industry, a noticeable focus is put on the use of Artificial Intelligence and ecosystems. Out of the top 10 companies in the world for 2019, the internet services and retailing industry (Alphabet, Amazon and Facebook) is still dominating (but with only three companies opposed to the previous year).

All companies from the 2019 rank went public.

The third examined rank is specific to the situation for 2020 (table no. 3), using the data from the 2019 BCG global innovation survey.

Table no. 3 The top 10 most innovative companies for 2020

Rank	Company name	Country of origin			Industry	Revenues (\$M)
1	Apple	United	States	of	Computers, Office	Public
		America			Equipment	
2	Alphabet	United	States	of	Internet Services	Public
		America			and Retailing	
3	Amazon	United	States	of	Internet Services	Public
		America			and Retailing	
4	Microsoft	United	States	of	Computer Software	Public
		America				
5	Samsung	South Kor	ea		Electronics,	Public
					Electrical	
					Equipment	

6	Huawei	China		Network and Other	Private
				Communications	
				Equipment	
7	Alibaba	China		Internet Services	Public
				and Retailing	
8	IBM	United States	of	Information	Public
		America		Technology	
				Services	
9	Sony	Japan		Electronics,	Public
				Electrical	
				Equipment	
10	Facebook	United States	of	Internet Services	Public
		America		and Retailing	

Source: (Ringer et al., 2020, p.16) (Fortune, 2020)

The 2020 rank places (as in 2018) Apple on top of the leaderboard and, thus, pushing Alphabet into a follower's position.

From a country perspective, the United States of America are still dominating with six companies, weakening only by a little its previous domination (from 2018 and 2019). China now has two companies placed within the top 10 most innovative companies and the rest of the rank is completed by South Korea (represented in 2018 and 2019 by Samsung) and Japan (with a new entrant, Sony).

Within the industry, serial innovation becomes a prerequisite. Within the 10 companies in the world for 2020, there are four companies from the internet services and retailing industry.

Since 2018, this is the first time a private company enters the rank: China's Huawei.

An interesting situation is revealed by the analysis of the evolution of the top ten most companies in the 2018-2020 period (figure no. 2).

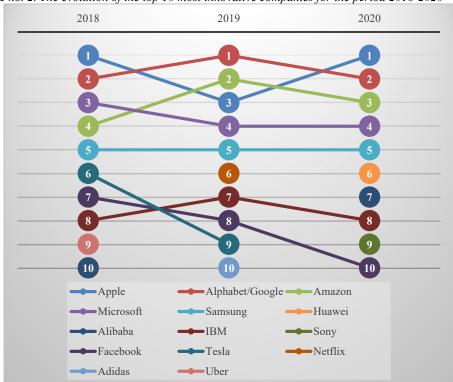


Figure no. 2. The evolution of the top 10 most innovative companies for the period 2018-2020

Source: Author's contribution based on tables 1, 2 and 3

Within the three year period analysis, there are seven companies that have a constant presence {Apple, Alphabet ["Google's parent company" (Hartmans and Meisenzahl, 2020) after Google's reorganization from 2015 in order to become Alphabet], Amazon, Microsoft, Samsung, IBM and Facebook}, two that have appeared twice [Alibaba (for 2020 and 2018) and Tesla (for 2019 and 2018)] and there are five other companies that have only appeared once [Huawei and Sony (for 2020), Netflix and Adidas (for 2019) and Uber (for 2018)].

5. Conclusions

Innovation is a prerequisite of today's competitive environment, becoming the driving force behind any company that wants to succeed, following the results of other studies (Toma and Grădinaru, 2017). Moreover, as the use of Artificial Intelligence increases and as digitalization becomes a constant, the winner's game may only be played by those that are disruptive. The United States of America continues its domination among the top innovative companies in the world but is faces a strong challenger represented by Asian countries. It is interesting to see what the future holds for this potential "clash" between the two power poles in the world in their pursuit for global economic supremacy, as other studies have demonstrated (Toma, Marinescu and Grădinaru): America and China.

Future research can be conducted in the direction of comparing this ranking to other similar or complementary rankings such as the Global Innovation Index (Cornell University, INSEAD, and the World Intellectual Property Organization), World's Most Innovative Companies (FastCompany), The World's Most Innovative Companies (Forbes), Global Creativity Index (Martin Prosperity Institute) etc.

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