

## **Innovation in the Company: Twenty Years Ago and Now**

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**ABSTRACT:** About twenty years ago I drafted my doctoral dissertation on innovation. I found it interesting to review what has changed in these last two decades. I learned that the concept of innovation, innovative companies and the determinants of innovation have not changed much in the last twenty years, but new companies and new knowledge have been added in the field of innovation that make it much more important today and in the future.

**Key words:** innovation, business, growth, development

### **I. INTRODUCTION**

About twenty years ago I drafted my doctoral dissertation on innovation. I found it interesting to review what has changed in these last two decades.

### **II. CONCEPT OF INNOVATION**

We can start with the definition of innovation. In my research I proposed this definition:

"Innovation is the set of efforts aimed at the development of new products and services and the change in the technical, administrative and commercial processes of the company in order to generate a positive impact on the market"

Bolton (2019) defined innovation this way:

"Innovation is something different that creates value"

McKinsey (2022) proposed these two similar definitions:

"Innovation is the systematic practice of developing and marketing innovative products and services for adoption by customers"

"In a business context, innovation is the ability to conceive, develop, deliver and scale new products, services, processes and business models for customers"

Stanford Online (2024) proposed:

"An innovation is the process of developing or renewing a technique or product to create or improve value"

As we can see, the concept of innovation has not changed, although it can be expressed in several ways. Some definitions refer only to new products and services, but others, more complete, speak of "something different" or "new products, services, processes and business models". Some of them simply mention that innovations are adopted or used by customers, but others indicate that they "create value" or "enhance value" for customers, which is similar to my definition in which I mentioned "generate a positive impact on the market".

After reviewing all the above mentioned definitions, I lean towards this one:

"Innovation is the development of new products, services, processes and business models to create or improve value for customers"

### **III. INNOVATIVE COMPANIES**

In my dissertation twenty years ago, I mentioned the following innovative companies, in alphabetical order, 3M, Caterpillar, Cemex, Hewlett & Packard, Johnson & Johnson, IBM, IDEO, and McDonald's. All of these companies are still highly innovative, and Ang (2021) describes a study of Boston Consulting Group that includes IBM, Hewlett & Packard, and Johnson & Johnson among the twenty current most innovative companies.

For more than a century, IBM has built on the fundamental promise of technology: to apply science to real-world problems, so that both business and society can thrive. And as those issues have changed over time, so have IBM. It has repeatedly reinvented itself to overcome any obstacles that stand in the way of innovation and value for its customers.

In its labs, Hewlett & Packard focuses on transferring advanced technologies to its next-generation products and solutions. Its laboratories collaborate with other company units and research partners to deliver innovation that drives its growth, creates competitive advantage, and provides industry leadership.

Innovation at Johnson & Johnson seeks to positively impact human health. They work alongside innovators and entrepreneurs, providing a robust exchange of ideas and resources to support their success and create healthcare solutions that improve the lives of people around the world.

Ang (2021) reports that in the Boston Consulting Group study, Apple, Alphabet, and Amazon were identified as the three most innovative companies in the world. Microsoft, Tesla, Samsung, IBM, Huawei, Sony and Pfizer round out the top ten.

Apple is well known for its innovations in hardware, software, and services. Patel (2020) stated that Apple's fluid business plan and obsession with perfection can be attributed to its overwhelming success. One of the main elements of Apple's success is its approach to design thinking. They make products that follow a simplistic style of design. In addition, Apple adopted an organizational culture for creativity and innovation, with a focus on challenging the status quo. Excellence, creativity, innovation and secrecy are at the heart of its operating model. Podolny and Hansen (2020) highlighted Apple's organization for innovation. Apple adopted after 1997, when Steve Jobs returned to the company, an organizational structure that aligns experience with decision-making, a structure that is still maintained.

Alphabet Inc. is a multinational technology company, headquartered in the United States, whose main subsidiary is Google, which develops products and services related to the internet, software, consumer electronics, electronic devices and other technologies. It also includes companies in sectors such as biotechnology, health, telecommunications and automation of homes and buildings of any kind. Alphabet stands out for its constant investment in research and development. This allows them to explore innovative technologies and markets, giving them the flexibility to diversify their revenue streams and maintain their leading position in the technology industry. In addition, Alphabet has demonstrated a strong commitment to artificial intelligence (AI) since 2001, leveraging machine learning and AI capabilities, especially evident in the evolution of Google Search. In short, its focus on constant innovation and the adoption of emerging technologies have contributed to its success as one of the most valuable companies in the world.

For Amazon, innovation doesn't take place at any given time, but takes place as part of everyday work. Its guiding principles lead it to innovate for customers. To be truly focused on innovation, Amazon seeks to think long-term and be comfortable taking calculated risks, which sometimes fail. They evaluate new products and services regularly (some are hugely successful, others fail and fail), but the lessons learned lay the groundwork for the next big idea.

#### IV. HOW TO BECOME AN INNOVATIVE COMPANY

In my dissertation twenty years ago, I concluded that the main determinants for a company to become innovative are the following:

- Market orientation
- Resources and capabilities
- Leadership
- Change strategy
- Communication
- Research and development

In a consultation with Copilot (2024), I obtained as an answer that innovation processes are influenced by several factors. Among the main determinants of innovation are:

##### 1. Internal factors:

- Internal capabilities: The skills, knowledge, and resources within an organization affect its ability to innovate.
- Organizational culture: A culture that encourages creativity, learning, and experimentation is crucial for innovation.
- Leadership and vision: Leadership committed to innovation and a sharp vision drive change.

##### 2. External factors:

- Innovation systems: Collaboration with other organizations, universities and research centers contributes to the development of innovative ideas.
- Institutional factors: Government policies, regulations, and financial support influence innovation.
- Competition and market: Competitive pressure and market demands stimulate innovation.

##### 3. Country/region-specific factors:

- Socioeconomic context: Economic, social, and cultural conditions affect innovation.
- Networks and connections: Relationships with other companies and key players in the industry can facilitate innovation.

In relation to the determinants that I had identified, there is a coincidence in internal capabilities, leadership and innovation systems. However, the other determinants identified by me and those suggested by Copilot (2024) may also be relevant depending on the circumstances and nature of the organizations.

Regarding the development of innovation, De Jong et al (2013) stated that good innovation performance requires:

- Accept that innovation-driven growth is absolutely critical
- Invest in a coherent and balanced portfolio of initiatives, with resources to earn
- Learn business, marketing, and technology insights that can be translated into winning value propositions
- Create new business models that provide defensible, robust, and scalable sources of profit
- Develop and launch fast and effective innovations to outperform the competition
- Launch innovations in relevant markets and segments in the right magnitudes
- Create and capitalize on external networks to earn
- Motivate, compensate, and organize your people to innovate repeatedly

## **V. CONCLUSION**

The concept of innovation, innovative companies and the determinants of innovation have not changed much in the last twenty years, but new companies and new knowledge have been added in the field of innovation that make it much more important today and in the future.

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