



**15th Annual Conference of the  
EuroMed Academy of Business**

**Sustainable Business Concepts and Practices**

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## **Sustainable Business Concepts and Practices**

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## POTENTIAL CONNECTIONS BETWEEN INNOVATION AND BRANDING IN HEALTHCARE – A CASE STUDY

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### ABSTRACT

Innovation is the most relevant lever for enterprises to increase the business efficiency and competitiveness; the technological component of innovation, more specifically, has become in recent years ever more focused on digitalization, even in terms of disruption. This trend has been much more evident with the COVID-19 pandemic, which has forced to accelerate on the virtualization of processes/operations and products/services; this effect has interested every sector, but naturally, due to the pandemic emergency, has affected above all the healthcare companies, revealing potential impact even on their brand reputation. This study, based on the investigation of the data from 2010 to 2011 about Johnson & Johnson, one of the most important healthcare companies in the world (if not the most), provides evidence about the existence of a significant correlation between the R&D – Research & Development investments of the company and its brand value. With all the physiological limits of the case study methodology, the outcome of the research has allowed related considerations in this respect, particularly with reference to the disruptive technologies in the field like telemedicine and Medicine 4.0.

*Keywords: Brand value; Innovation management; Digital disruption; Healthcare; Telemedicine; Medicine 4.0.*

### 1. INTRODUCTION

The COVID-19 pandemic has generated, in addition to the clinical and social impact, multiple substantial effects on a huge number of companies with different natures, sizes, and markets. From financial management to operations management, from job organization to Corporate Social Responsibility (CSR), and other business areas, there are many aspects of the business management that have been intensively affected by the pandemic contingency.

In this respect, the effects of the COVID-19 crisis on the healthcare sector are enormous, due to the necessity of handling one of the greatest challenges of the world history. The plurality of several elements (the increase in the provision of healthcare services to cure the ill, the effort in the distribution of preventing devices, the determination in the creation of effective vaccines, and so on), each one closely interconnected with all the others, has augmented the social and economic focus on the companies that animate the healthcare sector, attracting attention on some brands rather than others (cf., only for example, the feat of Moderna with respect to other historical pharmaceutical brands).

In this direction, the aim of this study is to analyze the main problematics connected to the evolution of the brand value in the healthcare sector at international level, moving from the examination of the institutional and theoretical context, but with specific focus on the potential connection with the company's innovation investments, investigating the case study about Johnson & Johnson ([www.jnj.com](http://www.jnj.com)). The innovation effort has been studied with peculiar focus on the technological innovation and the subsequent digital disruption, with 'Medicine 4.0' (similarly to the Industry 4.0) that represents the closest future of the field (Wolf and Scholze, 2017; Cappelletti, 2018); more in general, however, the research aims to analyze the potential correlation between investments in innovation (i.e., in Research and Development – R&D more specifically) and the value of the company brand.

The structure of the paper is the following: after the definition of the institutional and theoretical framework, even with reference to several definitions emerging in the context of the Medicine 4.0, the study will focus on the Johnson & Johnson case study. Adopting an analytical narrative approach with an exploratory intent, subsequent results will be discussed, arriving at developing consequent scientific and managerial implications, with explanation of the potential limits and future directions of similar research in the field.

## **2. BACKGROUND**

The COVID-19 pandemic, as abovementioned, has heavily affected the whole planet, forcing to relevant rethinking of many aspects of the civil society (Buccellato et al., 2021). At the time of this study (2022), many economies are still progressively moving into new phases of the pandemic management, above all to recover the full capacity of the business activity, at economic and social level, with substantial effects even on the perception of the brands, due to the general issue of the 'crisis management' (Biancuzzi et al., 2021; Giorgi et al., 2021).

The healthcare sector, in this respect, has been forced to face a tremendous challenge (Cabezas, 2020), with direct influence on extremely overworked personnel, with enormous psychophysical stress, even

beyond the normal rate of tolerance, as well as the reshaping of the methods of providing the healthcare services, due to the precedence for the infection by COVID-19. More in general, the technology has been a lever to arrange new operational management models for the healthcare companies, introducing innovative forms of engagement with stakeholders and users, even to address the issue of 'maintaining contact', above all in the relationship between healthcare companies and patients, but also in the relationship between healthcare companies and their suppliers and service providers, with exponential increase in marketing and digital communication investments, redesigning most of the communication strategies in the international markets (Hoekstra and Leeflang, 2020; Mason et al., 2021).

With specific regard to the healthcare sector, even though naturally the same issues have involved all the other economic sectors, there have been various communication campaigns oriented to involve patients, families, users, citizens, and the whole population. For example, Sobande (2020) affirms that the claim "We're all in this together" can capture in the best way the pandemic transversal dimension; in this situation, it has been possible to record collective emotions with negative perceptions, determined by a cognitive uncertainty on the evolutionary scenario.

Therefore, emotionality has played a major role in the (re)definition of marketing and communication strategies to support the brand value and the brand reputation. In this direction, it seems useful to adopt the 'H2H Brand Management' approach by Philip Kotler (2021): "H2H Brand Management finally uses the Brand-formative Design concept to integrate design and marketing in the formation of brand meaning by designing customer experiences that fit to the context and needs of the customers" (*ibidem*, p. 1).

In fact, the centrality of the customers, both when professionals and consumers, and related specific needs are fundamental in the definition of the marketing strategies (Denegri-Knott, 2006), even in the healthcare sector, although it is inevitably so different from other sectors. In this respect, one of the greatest effects of the COVID-19 pandemic is represented by the enormous acceleration in the digital transformation processes (Agostino et al., 2021) and with specific regard to the healthcare sector, there has been a tremendous shift to technology, even for health consumers, adopting innovative solutions for population surveillance, cases monitoring, infections identification, contact tracing, and even with respect to collection, management, and dissemination of medical information on social platforms to support institutional communication (Al-Dmour et al., 2020; Budd et al., 2020; Mulrennan and Colt, 2020).

At the same time, it is to highlight that this shift has allowed more progress even for more sophisticated technologies in the healthcare sectors, just because there is a major availability of healthcare data; that is why, for example, there has been a huge development in very last years about

Artificial Intelligence (AI) in the healthcare sector (Asan et al., 2020; Gille et al., 2020; Rubinger et al., 2022). Inevitably, the progressive use of disruptive solutions with an Information and Communications Technology (ICT) nature, communicating the evolution of the single company with respect to another, is in support even of the growth of the brand value, and even with specific reference to the healthcare sector (Westbrook et al., 2009).

Regarding the above-described situation and considering the increasing / better use of technological innovation in the healthcare sector, especially with reference to virtual solutions, it seems useful to provide peculiar attention to the concept of 'telemedicine'. More specifically, it has been tried to outline the major healthcare services connected to telemedicine, which has emerged in recent years, and dramatically in the COVID-19 pandemic, as the future technological vision of the global healthcare.

Narrower than 'telehealth' (that refers to any kind of utility that could be virtually provided for people, and not necessarily only for ill people), and even narrower than 'tele-healthcare' (that refers to any kind of utility that could be virtually provided for ill people, current and/or future, considering altogether clinical and non-clinical services), 'telemedicine' is defined by the World Health Organization [WHO] as follows: "... "the provision of healthcare services at a distance with communication conducted between healthcare providers seeking clinical guidance and support from other healthcare providers (provider-to-provider telemedicine); or conducted between remote healthcare users seeking health services and healthcare providers (client-to-provider telemedicine)" (WHO, 2019). A primordial definition of telemedicine had already been expressed in the previous decades (Bashshur et al., 2000), but without explicit reference to ICTs (those visionary concepts were mainly focusing on technologically advanced processes relating to healthcare services, especially in the American context, and more specifically with reference to the seminal applications in the aerospace field with some research projects of the NASA – National Aeronautics and Space Administration).

Mostly starting from the last decade of the XX century, and more particularly with the diffusion of the Web, but also more in general with the constantly increasing technological development in the healthcare sector, telemedicine has achieved relevant progress; however, it is to admit that the COVID-19 pandemic has forced people from all over the planet to sharply accelerate their use of telehealth and then, telemedicine more specifically. In a recent study (Yulaikah and Artanti, 2022), it has been highlighted that, despite there is still considerable fear / concern of end-users about the application of new technologies in the medical field, the need to access telehealth (and telemedicine when necessary) has recorded a gradual increase, considering that these new solutions are nowadays perceived more as opportunities and no longer only as risks (mostly due to scarce knowledge).

Adopting a process approach for the analysis of the fundamental utilities in telemedicine, the first service to consider, being most probably the initial step of the more global telemedicine ecosystem, is the 'tele-visit'. It substantially consists in the digital interaction between the doctor and the patient (Bailo et al., 2022), when physically located in different places.

Afterwards, it could be necessary that the single doctor could interact with other peers for a complete diagnosis, during or after the tele-visit; if this multiple analysis is virtually implemented, there occurs a 'tele-consulting', which then happens when two or more doctors interact in a digital environment, even using different devices (laptops, tablets, smartphones, and so on). In this situation, doctors who interface discuss jointly with respect to a specific clinical case or a specific surgical procedure, while the presence of the patient is not strictly necessary, even though she/he may be involved with a different degree of interaction.

After the tele-visit, or maybe to support it, a specific diagnostic exam could be necessary; although there exists the possibility of a 'tele-exam', for example an electrocardiogram via phone or other ICT-based platforms, the most adopted 'virtual' step for the tele-exam is still nowadays only the virtual medical report, i.e., the possibility of having the medical report available online (for the patient and for the doctor). In the progress of the medical process, there may be the need to provide other specific medical services and, in this respect, 'tele-care' refers to the global set of digital solutions for implementing the medical act in conditions of distance between the patient and the overall healthcare staff (Akhlaghi and Asadi, 2002; Oudshoorn, 2012); naturally, tele-care could mean medical services with or without surgery interventions, with the former case that most probably represents the most advanced progress of tele-medicine.

The further services (caring in general until the end of the clinical process, or other above-described clinical services if necessary) represent the remaining set of utilities that realize the global ecosystem of the telemedicine, which, when using disrupting technologies, like Artificial Intelligence (AI), Blockchain, Internet-Of-Things (IOT), and others, may be intended as 'Medicine 4.0'. The impact that the digital transformation has been having on the global healthcare system (both public and private) is exponentially increased in the pandemic period and even in the post-pandemic phase, at least if considering the initial lockdowns, developing ever deeper patient-centered approach. This evolution requires on the one hand high degree of personalization of healthcare providers towards healthcare users, bot professional or end, and on the other hand a high level of trust of the healthcare users towards the healthcare providers, with both directions representing two of the most important challenges in the near future (if not the most).

### 3. METHODS

The main aim of this study is to investigate if medical innovation in the healthcare sector, which as abovementioned is increasingly digital, above all after the COVID-19 pandemic, may have impact on the brand value on the healthcare company. In this respect, a case study methodology has been adopted for a fundamental reason: this is an initial study in this direction, and analyzing the situation of a single company, prevalingly with an exploratory intent, may support in better engineering further research in the field.

In this direction, the case study of Johnson & Johnson has been selected because it can be assumed as an extreme case (Eisenhardt, 1989; Yin, 1994), considering the following reasoning. The "Best Global Brands 2021" survey by Interbrand ([www.interbrand.com](http://www.interbrand.com)) was adopted as starting point; in fact, this report, annually provided, is one of the most authoritative sources in the field of the analysis and classification of the value brand at international level (Chu and Keh, 2006), and the 2021 edition has been adopted for the analysis because the 2022 edition, at the moment of the implementation of the current study, was not yet available; within the "Best Global Brands 2021", the 100 brands that animate the ranking are divided in 15 different categories (which become 16 considering the general category "All"); Johnson & Johnson, classified at the 87th position with a brand value of 5,937 million USD, is the only brand in the ranking that is specifically related to the health sector, and that is why we have considered it as an extreme case (more specifically, in the Interbrand classification it belongs to the FMCG – Fast Moving Consumer Goods category, together with Pampers, L'Oréal, Gillette, Nestlé, Danone, Colgate, Lego, and Kellogg's).

The 2021 report, in its overview, highlighted that in 2021, and earlier in 2020, due to the COVID-19 pandemic, the sector that had recorded the most growth as concerns the brand value is the technological one; naturally, this trend was existing even in previous years, but the pandemic has amplified this tendency exponentially. A peculiar element of interest that has emerged from the 2021 survey is represented by the growth, in term of value, registered by the totality of the investigated brands (the best 100 in the world), with a significant +15% compared to 2020, arriving to a level that was never recorded in the previous editions of the report, revealing how much the brand value is important in current economies, most probably even more after the COVID-19 pandemic, in which industrial and final customers are more seeking for trust.

In analyzing the Johnson & Johnson case study, the correlation between investments in Research & Development (R&D), considered as the most suitable proxy variable for measuring the potential propension of the company to innovation, ever more digital, and the performance relating to the brand value management has been investigated. Then, at the end, even considering the exploratory intention of the study, the fundamental research question is the following.

RQ1. "Does a positive correlation exist between R&D investments and brand value in the healthcare sector?"

#### 4. THE CASE STUDY

Born in the US context in the distant 1886, dealing with wellness and healthcare services since its foundation, Johnson & Johnson is a multinational with more than 140,000 employees, revenues for 82.6 billion USD, assets for 174.9 billion USD, and profits for 14.7 billion USD (2021 data from Forbes.Com > Companies > Johnson & Johnson). It constitutes the "... largest and most broadly based healthcare products company in the world" (2021 Johnson & Johnson Investor Facts Sheet).

The company business model is essentially divided into three main areas of interest.

- *Pharmaceutical*: research, development, and marketing of ethical drugs with chemical synthesis and biotechnology origin.
- *Medical Devices & Diagnostics*: development and marketing of medical, surgical, and diagnostic aids (surgical instruments, sterilization equipment, sutures, components for orthopedic surgery, and many others).
- *Consumer*: healthcare, cosmetics, children's specialties, hygiene products, and first aids.

With specific regard to the Interbrand ranking, Johnson & Johnson, as abovementioned, ranks 87 of the "Best Global Brands 2021", confirming a situation of tendential growth compared to the previous years (cf. Figure 1). The brand value is estimated at 5,937 million USD, registering a significant +3% compared to 2020 (with an estimated value of 5,764 million USD).

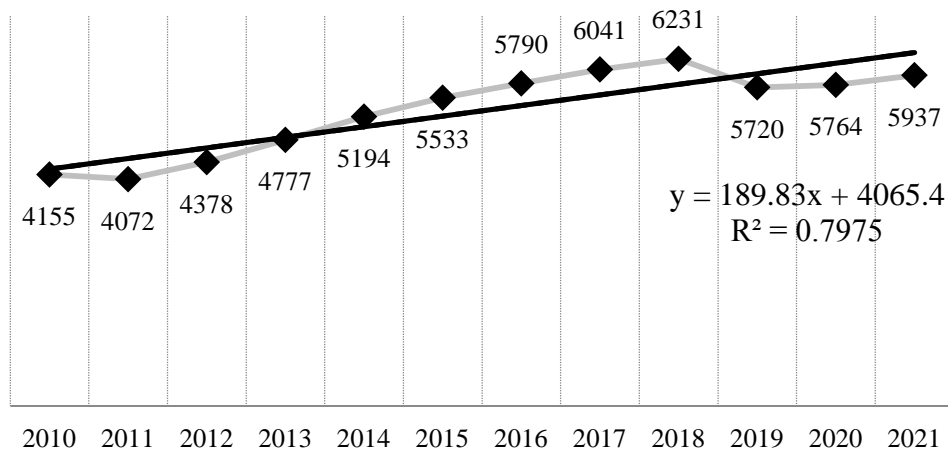


Figure 1. Temporal evolution (2010-2021) of the brand value for Johnson & Johnson (million USD). Source: authors' calculation from "Best Global Brands 2021" (Interbrand).

Till 2018, in the interval under analysis, the progress of the curve has recorded positive changes year on year, with only two declines occurring in 2011 and, more significantly, in 2019. The trend is positive and reliable, showing a  $R^2$  equal to 80% (0,7975).

Although 2020 and 2021 were the years characterized by the COVID-19 pandemic, Johnson and Johnson has been able to register positive increases in the value of the brand, with a significant growth rate, reaching in 2021 an overall value close to the pre-pandemic situation (the highest value was recorded in 2018, when it was equal to 6,231 million USD). After depicting the major data concerning the analysis of the brand value of the company, the investments in R&D, considered as abovementioned as a proxy variable for the overall innovation of the company, have been investigated.

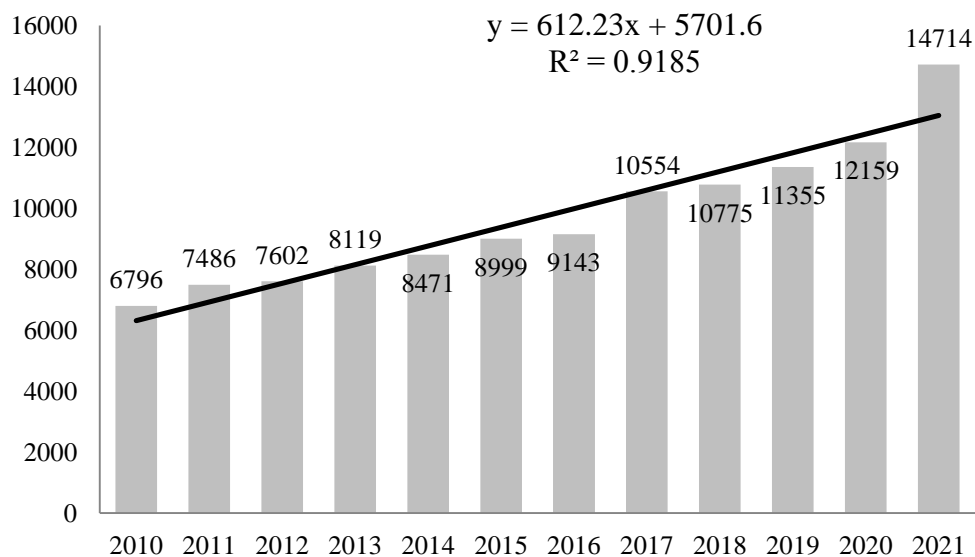


Figure 2. Temporal evolution (2010-2021) of the R&D expenditure for Johnson & Johnson. Source: authors' calculation from Statista.Com.

In Figure 2 it can be observed that the progress of the investments in R&D, in the interval under analysis, is always increasing. The trend is positive and reliable, showing a  $R^2$  equal to 92% (0,9185), with a significant increase in 2021 (most probably, as decided in 2020 due to the COVID-19 emergency), demonstrating that for Johnson & Johnson, notwithstanding the pandemic contingency still underway, a continuous investment in R&D represents not only a considerable increase/improvement for the production (Ringel and Choy, 2017), but also a strategic element of competitive advantage (Ballester et al., 2003).

Naturally, it is to remember that in the COVID-19 pandemic emergency the international scientific community focused all its energies on the unanimous desire to arrive at synthesizing vaccines that were able to fight this Coronavirus. Johnson & Johnson turned out to be one of the pharmaceutical companies that invested most in this research effort, arriving to the formulation of the "Janssen Ad26.COV2.S", known as "Johnson & Johnson Vaccine". However, it is to highlight that, as

abovementioned, considering the evidence from Figure 2, Johnson & Johnson has always invested in innovation as a fundamental element of its competitiveness.

More in general, regarding the new digital frontiers, connected and not to the COVID-19 issue, there are significant implications relating to telemedicine; in fact, Marquez (2021) found that, according to the data of the "US Centers for Disease Control and Prevention" ([www.cdc.gov](http://www.cdc.gov)), about 95% of the centers have offered several telemedicine services during the pandemic emergency, compared to only 43% in 2019. In this respect, the specific areas of interest of Johnson & Johnson are related to the digitization of the medical and/or surgical experience, using specific platforms accessible via different devices, to structure and optimize the relationship with the user/patient, both for prevention, diagnosis, and treatment (at clinical level), and for the global healthcare service in general (Nilsen et al., 2006; Buchmueller, 2009).

Finally, the potential correlation between the R&D investments (as independent variable) and the brand value (as dependent variable) has been investigated, to explore for a potential positive relationship (cf. Table 1). The expectation, as abovementioned, is that increasing levels of investment in R&D, especially when regarding technological innovation, digital disruption, telemedicine, and Medicine 4.0, could generate a major brand value, and consequently greater/better competitive advantage with respect to other competitors.

| Years                | R&D Investment | Brand Value         |
|----------------------|----------------|---------------------|
| 2010                 | 6,796          | 4,155               |
| 2011                 | 7,486          | 4,072               |
| 2012                 | 7,602          | 4,378               |
| 2013                 | 8,119          | 4,777               |
| 2014                 | 8,471          | 5,194               |
| 2015                 | 8,999          | 5,533               |
| 2016                 | 9,143          | 5,790               |
| 2017                 | 10,554         | 6,041               |
| 2018                 | 10,775         | 6,231               |
| 2019                 | 11,355         | 5,720               |
| 2020                 | 12,159         | 5,764               |
| 2021                 | 14,714         | 5,937               |
| $\rho = 0,780848077$ |                | $R^2 = 0,609723719$ |

Table 1. Correlation (2010-2021) of R&D expenditure and brand value for Johnson & Johnson (million USD).

Source: authors' calculation.

From the inferences in Table 2 there is evidence that for Johnson & Johnson, in the 2010-2021 period, a positive correlation between R&D investments and brand value exist, thus providing evidence for responding to RQ1 (“Does a positive correlation exist between R&D investments and brand value in the healthcare sector?” – “Yes”). The relationship, from a statistical point of view, is strong (more than 78%) and reliable (about 61%), even though this reliability is minor that the abovementioned ones emerging from the temporal regression for brand value and R&D investments separately.

## 5. DISCUSSION

In the past, continuous change, due to strategic, organizational, productive, and commercial requirements that are increasingly dynamic, both for the external and the internal business context, played a relevant role in the governance and the management of the enterprises (Schweizer, 2005), while nowadays it seems that the managerial change needs not only to be continuous, but also disruptive. This evolution has also implications as concerns the brand management; in fact, although the brand building is usually intended as the constant accumulation of the brand reputation in a wider sense, normally along many years, it is evident that the technological evolution, most of all when digital disruption, has generated huge and fast reputation value for many entrepreneurial examples (starting from the so-called GAFAM, i.e., Google, Apple, Facebook, Amazon, and Microsoft, but also Tesla, for example, in another field).

However, in the past, in the present, and in the future brand represents the key to the competitive advantage of companies (Werther and Chandler, 2005), providing in general the possibility that a specific product/service may be chosen instead of others, and perhaps with higher price (Agres and Dubitsky, 1996), incorporating a premium value. Inevitably, this power can be applied even to the healthcare sector, most of all when the related products/services are ever more evolving from a technological point of view, and even more in the times of the COVID-19 pandemic.

Trust remains the fundamental concept for aligning the digital evolution of the healthcare company with its brand value in favor of the users, fueling ever more on a patient-centered practice approach, which can even be unknown to the direct customers, if it is evident to the professionals involved in the healthcare process. In this respect, the analyzed performances of Johnson & Johnson, in terms of R&D investments and brand value, is relevant, showing a profound interaction within these two forces.

## 6. IMPLICATIONS

From a theoretical point of view, the evidence of the study supports the assumption about a direct relationship between innovation, most of all when disruptive, and brand value in the healthcare sector, at least for an extreme case like Johnson & Johnson (the “... largest and most broadly based

healthcare products company in the world"). This result may seem probably acquired in every other sector, but in truth it is not so banal when reasoning about healthcare brands; for example, if considering the perspective of the end users in the pharmaceutical market, there is still significant number of patients that prefer branded drugs (old) to related generic drugs (new), although equivalent, being even available to pay for the price difference in the case of reimbursement/coverage on behalf of the potential national health service.

Thus, it seems possible that the impact of the innovation effort of the individual healthcare company on its brand value is due to the perception of the customers about the situation of the global environment, in a sort of comparative evolution. In other words, if other companies in the field are investing in innovation, the brand value of the individual company would be coherently affected (and in truth this is what has happened throughout the world with the various vaccines for the COVID-19 pandemic, with various reputation effects that most probably have regarded not only the brands of the pharmaceutical corporations involved in the field, but also their Country-Of-Origin reputations).

From a practical point of view, the collective attempt at international level to combat the pandemic has generated a common effort towards alternative and/or innovative healthcare services of various kinds to guarantee major/better assistance to patients and users (Tanne et al., 2020). The validity and reliability of these innovative solutions inevitably affects the general level of trust that can be expressed by professional and end users towards healthcare providers and their brands; if they are perceived as engaged in the technological struggle to survive, growth, and develop, their brand value is assumed to coherently evolve, as in the case study under analysis (in other words, as abovementioned, in a constantly evolving sector, like healthcare, evolving seems essential for maintaining and increasing the brand value).

Nonetheless, it is always to remember that for the brand building consistent actions are indispensable, but their communication is vital (it would be highly inefficient, in terms of brand management, to act without communicating), and most probably this is even truer in a very peculiar sector like healthcare. In fact, not only the trust for the brand is different with respect to different product categories and consumer types (Menidjel, 2017), but with specific reference to healthcare, the degree of involvement, for both professional and end users, is inevitably higher, because it concerns people's health, and then the innovative use of online communication (Marmat, 2021) and more specifically of Social Media Networks has gained tremendous relevance, especially in the light of the pandemic contingency (Wong, 2021), and maybe in the future even more with the metaverse (Marzaleh et al., 2022).

## 7. LIMITS

The main shortage of the study is related to the adopted methodology, i.e., the case study approach,

which does not allow at statistical level to formulate responses that could be acceptable for other companies, even when similar, also because it has been repeatedly emphasized that Johnson & Johnson represents an extreme case. In fact, the essential outcome of the research has consisted in exploring the issue under investigation to gain experience for further studies in the field, although the positive response to the research question, i.e., confirming the existence of a positive correlation between R&D investments and brand value, seems to rely on solid basis.

Another limit concerns the period under analysis, that has considered 2021 as the final year of study (because at the time of the research the 2022 survey of Interbrand was not yet available) and has considered the previous decade (starting from 2010) as the perimeter of investigation. First, enlarging the period of investigation could allow the inferential calculations to provide more reliable results; and second, 2020 and 2021 are the most problematic years of the COVID-19 pandemic (so far, hopefully), and inevitably the values related to these years may provide some bias to the general investigation, in a positive or negative manner.

Finally, the innovation effort, most of all with respect to technological innovation, digital disruption, telemedicine, and Medicine 4.0, has been proxied with the R&D investments of Johnson & Johnson. In this respect, it is evident that this choice is not perfect, most of all because for a healthcare company that is also a pharmaceutical company there is a relevant portion of R&D that is specifically connected to new drugs, although even the pharmaceutical innovation can be considered as technological innovation, and even with regard to Medicine 4.0 if considered “medicine of precision”; however, further improvement about the refinement of the independent variable, maybe even activating a multiple regression, i.e., using more than one variable, seems desirable.

## 8. CONCLUSION

The technological development that in different sectors and in different dimensions has characterized and is still characterizing the evolution of the business process management represents one of the most relevant guidelines for determining the future business scenarios. Brand building is largely affected by technological progress, most of all because a higher innovation rate in the development of new products and services can reasonably increase the level of competitiveness of the company.

With specific regard to the healthcare sector, whether the company in question be public or private, the tremendous opportunities offered by the digital disruption, telemedicine, and Medicine 4.0, in all their forms, constitute a challenge for the future not only of medicine in a strict sense, but also in the relationship with the patient/user in the broad sense. In this respect, it is fundamental to accurately manage the level of trust that is perceived by professional and end users towards some providers

rather than others, with consequent reference to the necessity/opportunity of the related brand management on behalf of the companies.

The case study that has been analyzed has revealed that Johnson & Johnson has significantly increased its investments in R&D in the 2011-2021 decade, with evident subsequent correlations with its brand value as calculated by the Interbrand "Best Global Brands 2021". Although in 2021 Johnson & Johnson substantially has confirmed its ranking in the global classification, it is to mention that it remains the only healthcare company in the best 100 ranking, with a constant growth of its brand value.

From the specific the point of view of the study, the most relevant evidence concerns the potential correlation of the brand value with the investments in R&D, assumed as proxy variable for the generic innovation of the company. With all the limitations that have been highlighted, the correlation is evident and sufficiently reliable, and represents an initial element, in the perspective of the case study methodology, to continue investigating about the effect that innovation may exert not only on the improvement of the global efficiency and competitiveness of a healthcare company, but also on the increase of the customer loyalty in the relationship with professional and end users, promoting a better perceived trust towards the brand.

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