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# Companies and Covid-19: Emerging Challenges and Recovery Strategies through Technological Upgrading

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## Abstract

This work aims to outline the emerging challenges that businesses are facing as a result of the pandemic spread of Covid-19 and possible solutions for rapid recovery of production and commercial activities. Studies show that the pandemic situation clearly combines with an evolutionary process already underway (revolution 4.0) that requires a reformulation of business models in a digital key. Through the explanation of the concept of *techno-corporate gap*, a term we coined, in this work it is shown how the “micro” initiatives of companies in adopting innovative systems have “macro” repercussions on the whole, influencing the well-known process of technological gap of an entire country with respect to others. Investments in innovation and business upgrading, therefore, are observed not only as a means to implement recovery strategies but also as a specific contribution that companies can give to make their country more competitive. Moreover, through the description of what we have called “Strategy Poker,” we explain how, during an extremely delicate situations such as the current one, companies must “to raise” rather than “to fold” in order to maintain the trust of all stakeholders and regain market share.

**Keywords:** corporate strategy, innovation, investments, techno-corporate gap, strategy “poker”, business administration

## 1. Introduction

After the great economic and financial crisis of 2007, the Covid-19 pandemic is posing one of the greatest economic and social challenges humans have ever faced. From a health and humanitarian point of view, the extent of this impact has already been understood by everyone, thanks to the daily data attesting to a continuing pandemic spread throughout the world, even as procedures aimed at combating the virus have been launched. As far as the social and economic effects are concerned, direct understanding has come about as a result of regulatory impositions that have restricted not only transport and travel but also economic activities, inevitably slowing down the entire economic system.

But can we claim to have fully understood the effects of this scale on companies and business?

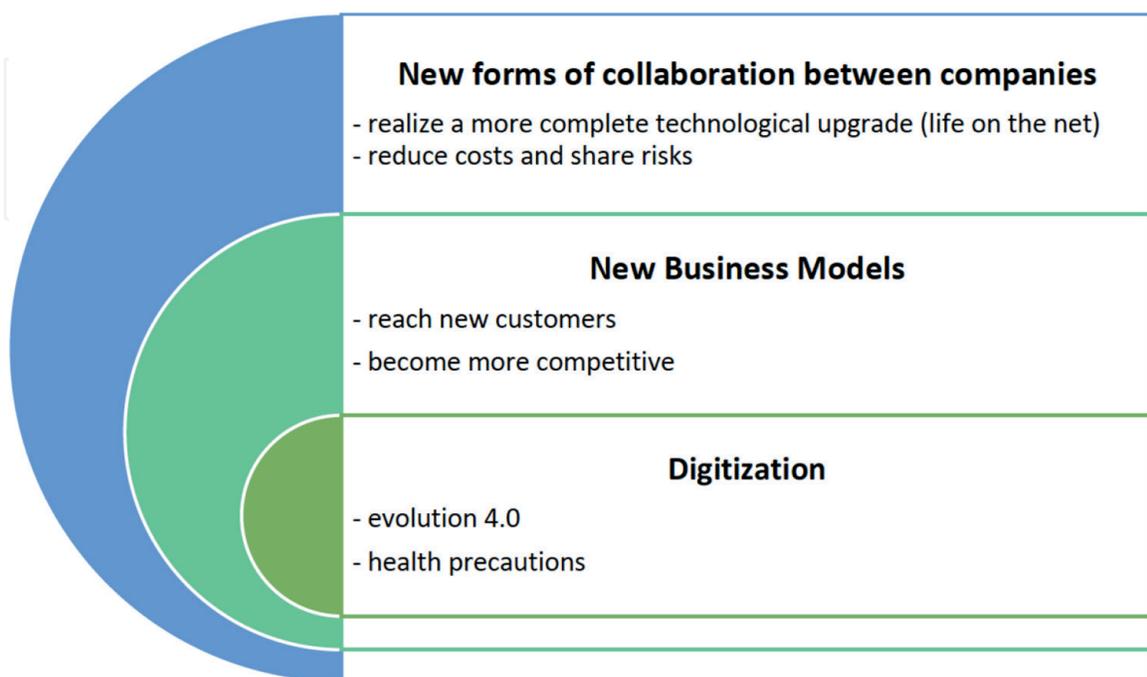
This new climate in which both businesses and private citizens have found themselves can really be considered as unexplored, although there have been similar experiences in the last century [1]. The pandemic has induced profound negative effects throughout the global economy [2] affecting mainly the key points of companies' operational management—first of all the supply chain—together with the way companies have to relate to clients and consumers. Initially, the negative influences led to the closure of simple units, then of business units, and finally, for the companies in trouble, of the entire business. This was induced by multiple factors:

- the prolonged suspension of certain production and service activities;
- supply chain disruption and tighter regulation;
- the severe reduction in business sales;
- the liquidity problems of companies and organizations due to the blockage of activities;
- legal disputes over delays in orders and services

All this was accompanied by the payment of extraordinary costs for adjustments to business structures required by governments to continue operations using precautionary health measures to contain the pandemic spread.

Therefore, the costs that companies have had to bear have paradoxically increased, but at the same time sales volumes and capacity utilization have decreased.

According to CERVED data, nearly one in four businesses closed at a loss in the first year of the pandemic. The study shows that in 2020, the revenues of the companies in the sample analyzed collapsed by 10.7%, compared with the 3% growth they had achieved in 2019, the last year of a positive trend that began in 2013 [3].



**Figure 1.** Scenarios induced by the pandemic crisis and the revolutionary process 4.0. Source: author's elaboration.

These irrefutable data make it possible to outline and hypothesize new trends and possible scenarios induced by the pandemic (**Figure 1**).

The inability to individually ensure the smooth running of business operations and the provision of required services will increasingly induce companies to operate collegially in a network rather than continue with individualistic models. The perception of common problems will lead to the creation of business alliances aimed at stabilizing supply chains and formulating new models capable of achieving cost efficiency and maximizing performance.

However, this need will be realized in an increasing context of digitization. The impressive digital framework already underway will become so large that it will be able to absorb most of the investments made by companies to satisfy the new desires and upcoming needs of customers who are increasingly operating on the Internet.

Therefore, we are driven to argue that all those companies now considered *traditional* that, by inability or desire, will not want to adapt to such a change will be inexorably expelled from a system of advanced interconnection and operation 4.0.

## **2. Emerging challenges for business after the pandemic**

As in any crisis situation, it has to be said that, even in the case of the Covid-19 pandemic spread, entrepreneurial ability, adaptability, and business dynamism will make the difference.

Although this principle is already widely expressed in the “classic” texts of business administration and economics [4, 5], it remains more valid than ever today and should not be disregarded.

In fact, it is possible to see that weak companies risk becoming weaker, while those that are already strong have the opportunity to become even stronger. The case of Amazon is a more than obvious example. It holds an entrenched business model aimed at providing online services, has exponentially increased its revenue and stock market value [6], and today demonstrates a high ROE of 25.6% compared with 19.9% for the industry sector [7]. In the analysis of the status quaestionis, it should be stressed at the same time that the income and wealth gap between households and individuals will also increase. This factor is by no means to be underestimated if we consider that in countries such as Italy, Spain and Greece—by way of example—the entrepreneurial fabric is made up for the most part of micro-small enterprises with family or unipersonal governance systems [8–10].

These perspectives therefore suggest how specific scenarios are emerging, harbingers of new needs and concerns but also the need for new bold actions by equally bold entrepreneurs.

The analysis of the trends outlined above in the introductory section demonstrates, therefore, some needs and challenges experienced by businesses today and can be summarized as follows:

- Companies are experiencing rapid obsolescence in their business models.
- Internal communication and organizational systems, toward and from employees and collaborators, are being reformulated in an innovative way.
- A deep and wise investment in smart asset is essential.

Only by implementing a real trend reversal, thus trying to satisfy these three points as best as possible, companies will be able to adapt not only to the change related to the current pandemic but equally to the 4.0 revolution already underway [11].

## 2.1 Toward a radical restructuring of the corporate business model

Among the main needs highlighted by companies and the imminent challenges to be faced, we note first of all the radical restructuring of the traditional business model. One must then ask: why? What are the motivations behind this important choice? And again, what are the criteria for achieving this in the best possible way?

Motivations can have internal and external connotations. These include the following:

- goods or services require a different formulation in order to be accepted by clients and consumers who express new preferences, as they are influenced by new trends;
- threats from new market entrants;
- the product life cycle has reached a stage of maturity, which, if not reformulated and properly managed, risks leading to a phase of decline;
- corporate compliance to a new regulatory environment;
- particular market events and changed economic conditions.

Analyzing the current economic environment in which businesses operate today as a result of the pandemic spread, it is practically possible to find both the validity and contextuality of all the conditions.

The drama is inherent in the fact that all these conditions are interconnected.

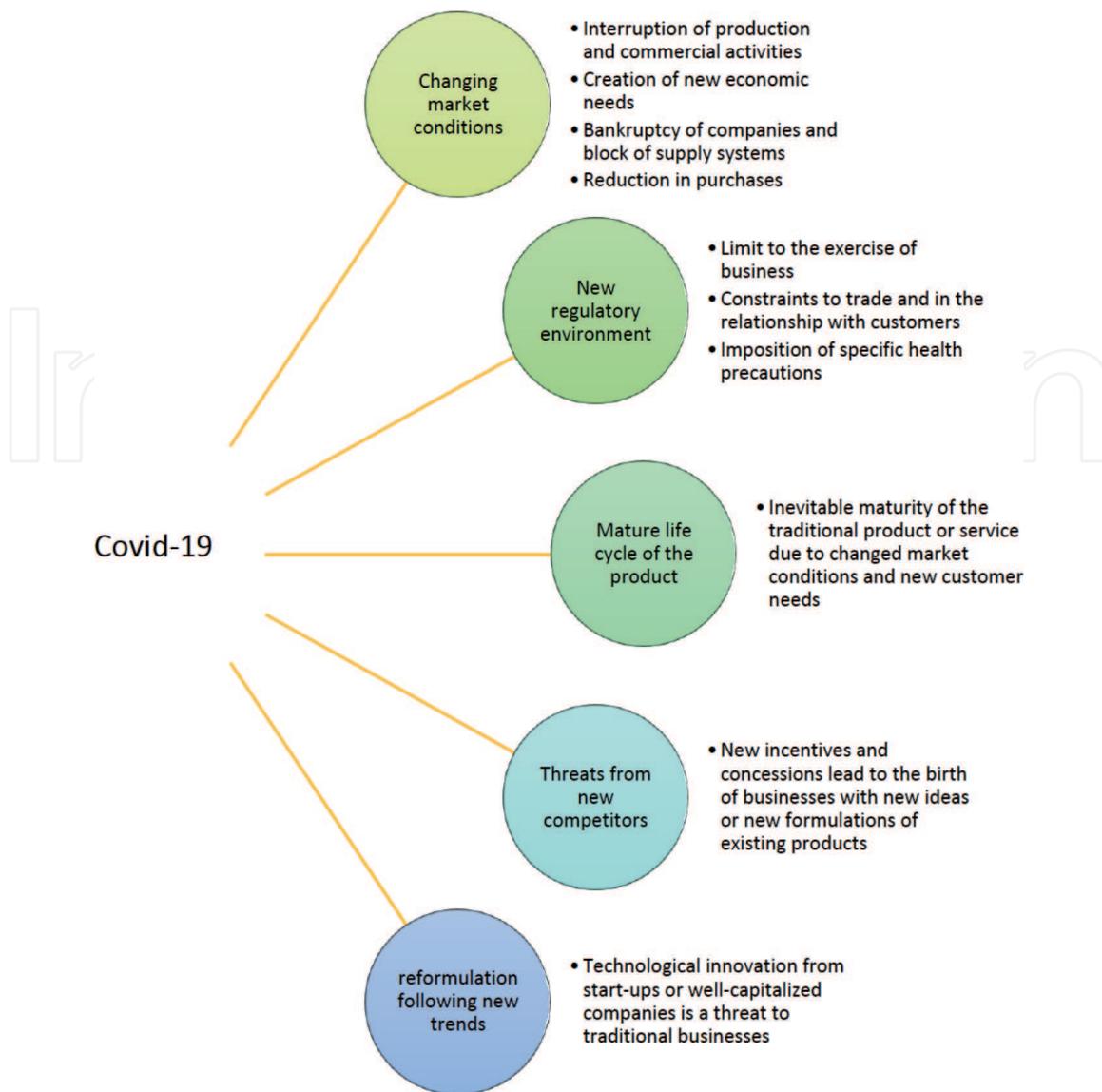
In fact, as graphically depicted in **Figure 2**, Covid-19 resulted in changing economic and market conditions due to the disruption of business operations with concomitant bankruptcy of many firms. In this case, in addition to the individual businesses, the entire supply chain was affected.

This situation was certainly supported by the regulatory impositions that limited the firms' activities during the lockdown. The same sanitary constraints, however necessary, have resulted in a real limitation in customer relations, leading to a distancing of the company from consumers. For many companies, particularly manufacturing companies, the business model tied to a traditional product has become obsolete. It has reached maturity because social distancing as well as the propensity to save has led to a change in the outlook of customers, who are more oriented toward online services and avoid products of secondary importance. These new needs, together with the specific tax benefits promoted by governments, have fomented the birth and spread of new companies (or the further imposition of large companies) aimed at filling the gap of traditional companies, not very accustomed to implement processes and offer technologically advanced services.

Consequently, the continuous and constant change in the articulation of processes and services has led to the imposition of new trends, with the need for *traditional* companies to adopt new systems in order to be competitive or, even more, to survive in a fierce evolutionary context.

It is, however, worth pointing out that the demand for services and products related to a *smart* business reality was not born with the pandemic. Covid-19 simply enhanced a process that was already underway, speeding up its deployment time but exaggerating the potential side effects for companies not yet involved.

Through the restructuring of the business model, the company must try to use its resources more efficiently, making management and operational processes more effective and simpler (**Figure 3**).



**Figure 2.** Relationship between pandemic spread from Covid-19 and conditions for implementation of business model restructuring. Source: author's elaboration.

But above all, precisely in light of the current needs induced by the pandemic spread, the restructuring of the business model must succeed in placing the company in a new context; we refer here to a new era of 4.0 operations that places the company in a new relationship with customers and employees.

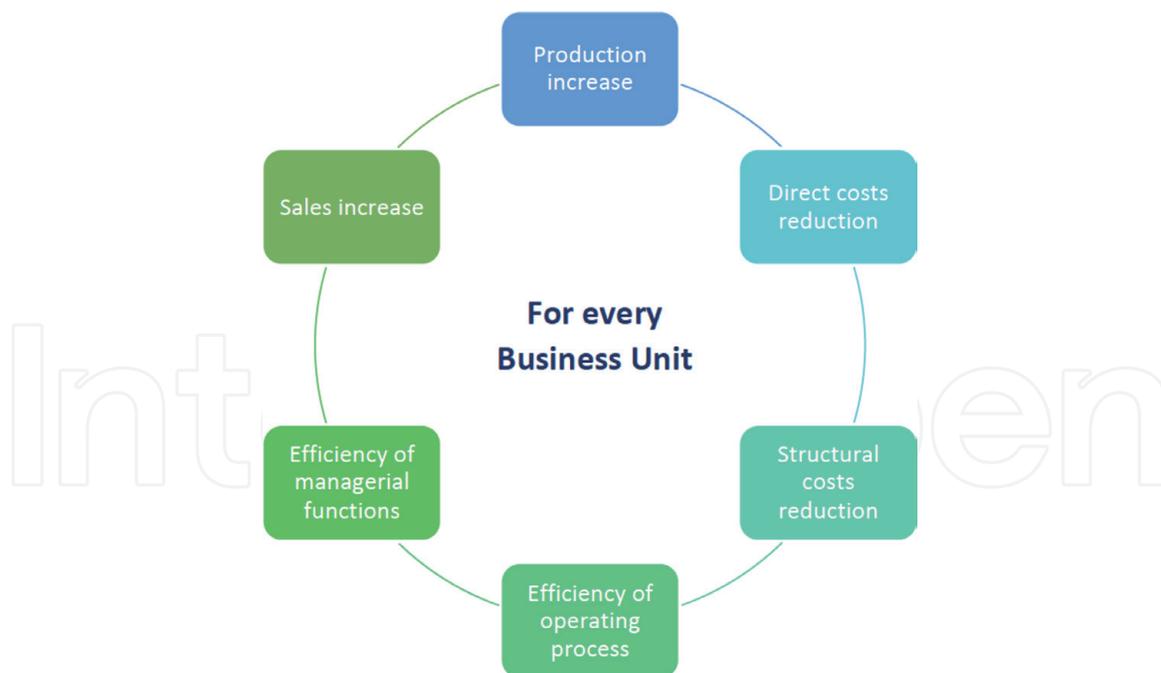
## 2.2 New logic of work and new internal communication systems

Together with the need to reformulate the product or service, the way it is obtained and the way it is offered to the customer, in the era of digitalization it is essential to define new scenarios for the relationship with employees and collaborators.

The 4.0 revolution and even more so the Covid-19 pandemic have given a strong and well-defined impetus on the future of work within the company.

There are still many debates and uncertainties surrounding the issue of *smart* work, but it is also true that, without it, many activities would have come to a complete standstill.

For some years now, several countries around the world have been evaluating and attempting to implement new, more sustainable work systems, aimed at better respecting the private needs of workers and thereby increasing company performance.



**Figure 3.** Internal key points to be met in the reformulation of the business model. Source: author's elaboration.

The so-called “short week” is an obvious experiment in this regard.

In Japan, the government has promoted initiatives to experiment with a 4-day work week for corporate employees.

In France, the working week has been reduced from 39 hours per week to 35.

The Netherlands (29 hours), Norway (33 hours), and Denmark (33 hours) also have weeks with a reduced number of hours.

Between 2015 and 2019, a 4-day work week was tested in Iceland in the public sector with successful results, without reducing the salary of operational employees in schools, companies, and hospitals [12].

This is leading to a reformulation of the level of effort required of the human resources employed in the company, considering that more careful attention to the needs of individual employees can actually lead to greater efficiency in the workplace.

Unilever was one of the very few multinationals (along with Microsoft in Japan) to have tested the short week system in 2020 on a group of operational employees at its New Zealand headquarters.

Through the words of the CEO, Alan Jope, the company itself claims in fact that:

*“Traditional employer-employee dynamics are no longer fit for either individuals or businesses. People are increasingly looking for more personally and professionally satisfying work. They want to move beyond the traditional 40-hour/40-week/40-year employment contract to something more flexible that’s tailored to their needs and stage of life. Older and more experienced workers are increasingly choosing to work for longer; and younger people are after meaningful jobs with more flexibility. And Covid-19 forced us all to think differently about how and where we worked. We see a hybrid future of work, where people might spend a couple of days in the office and two or three days at home or working remotely. This has unlocked tremendous productivity and flexibility in the Unilever team” [13].*

This vision is certainly forward-looking. It envisages innovative paradigms and “hybrid formulations” aimed at providing new stimuli for the HR working in the company.

As analyzed with the empirical case provided by Unilever, the smart model is certainly the most suitable solution to pursue this objective. However, the digitization of the workplace and of communication systems, which allow information to be exchanged immediately but at a distance, is a prerequisite for applying this principle. Traditional models are not compatible with an initiative that has clear 4.0 traits.

The company should prepare a cost–benefit analysis to determine the impact that a new logic at the workplace may have on efficiency and performance.

*Smart* work should then achieve some specific objectives:

- Achieve a new level of communication with employees. The dramatic experience of Covid-19 should be used to establish new forms of communication with employees. It is critical to understand their needs in a time of crisis in order to identify how their role can be made efficient. The management class must be prepared to respond as best they can to the concerns and issues of employees and contractors that have arisen as a result of the pandemic.

Sessions of meetings with staff can certainly allow the company to find out information about human resources and then define a new work organization strategy by introducing specific task forces or work units set up according to specific skills.

- Establish a sustainable level of optimized work. Transparency, Ductility, and Willingness should become the key words to allow employees to define new horizons of collaboration with the company. Compatible with business needs, introducing a *smart* work system allows companies to choose the best options in order to optimize their time at work. Merely as an example, the closure of schools during the pandemic greatly affected the organization of employees with children, especially in the case of single working women.

The most recent reference literature [14] has defined the need for greater inclusion in the corporate environment not only as an ethical tool but for the purpose of value creation. It may therefore be strategic to ask employees on which time slots or days they prefer a reduction in their hours. Transparency must then emerge through an information system that leverages the company's website and social media. These tools need to be updated daily.

Obviously, it is essential that the company imposes logging and activity management systems to monitor productivity remotely.

- Achieve a new level of customer relations. Work-at-home arrangements do not mean absence from the workplace, but rather optimization of time, peace of mind, and availability. All features that can be turned into an added value.

Working remotely must be able to enhance digital sales potential. This can be achieved:

- a. defining greater interaction with customers through the use of digital and social devices. Result achieved: customer loyalty;
- b. enhancing the online services offered. Result achieved: better monitoring and control of operations and services offered.

## 2.3 The need for an innovative company upgrade

Referring the reader to our specific paper entitled *Managing Corporate Innovation. Determinants, Critical Issues and Success Factors*, published by Springer (2020) for any in-depth study of the topic, we find it interesting to highlight the key features of what we have called the *Techno-corporate Gap*.

Could we ever think that Italy, one of the founding countries of the European Union but above all a destination symbol of good living, is today one of the European countries with a very high rate of *techno-corporate gap*?

According to a 2018 study [15], traditional companies, i.e., those that do not use 4.0 technologies nor have future interventions planned, correspond to 86.9% of the total.

The Center-North confirms itself as the main promoter of investments in innovation, while the South shows a very low propensity to change. As part of the transformation toward Industry 4.0, a greater propensity for process innovation is also considered, together with product innovation connected to a decisive research and development activity. From this point of view, large companies express a much higher potential and show a propensity to invest in both production and data technologies, while small companies (micro-small) prefer the specific use of data technologies [15].

If we consider the investments in a more general way, it emerges that the discriminating element among the different profiles is not to be found in the presence of a mere renewal of the physical capital, but rather in the willingness to act on the human capital together with the investment in ICT technologies. In fact, in order to satisfy their needs, companies resort mainly to human capital training (43.6%) and to the acquisition of external services (37.7%).

Analyzing this aspect also from the point of view of size, some substantial differences emerge, since the larger enterprises resort mainly to staff training and new hires, while micro and small enterprises, in addition to training, resort to a relatively greater extent to the purchase of services and external collaborations [15]. While on the one hand, such a policy may seem appropriate by virtue of a considered *make-or-buy* principle, it is worth stressing how much this situation can actually push toward a constant subjugation of micro-small companies to the wishes of service providers.

The Italian business context therefore shows a situation of enormous diffidence toward the use of technologies to support processes and products.

These data, which can be considered extremely dramatic if contextualized in an international economic system already largely centered on technological development, in our opinion clarify the presence of a limited *Company Logic* [9], in Italy still largely linked to traditionalist preconceptions. In spite of ourselves, this view is not only the expression of a *techno-corporate gap*, but as a whole it contributes to exalting an even more worrying technological gap with other European countries, as expressed by the indicators of the Global Innovation Index [16].

### 2.3.1 The *techno-corporate gap*

The statistical results achieved by MET [15] provide us with a very important tool to understand not only the renewal objective of companies but especially the strategy inherent in such processes on which the success of the investments themselves depends. Analyzing the raising of capital for reengineering from a qualitative point of view, it is possible to argue that the planning of a digitization process of the company is largely related to the governance structure. If we want to reason in systemic terms [17, 18], this assumption is expressed by the following relation:

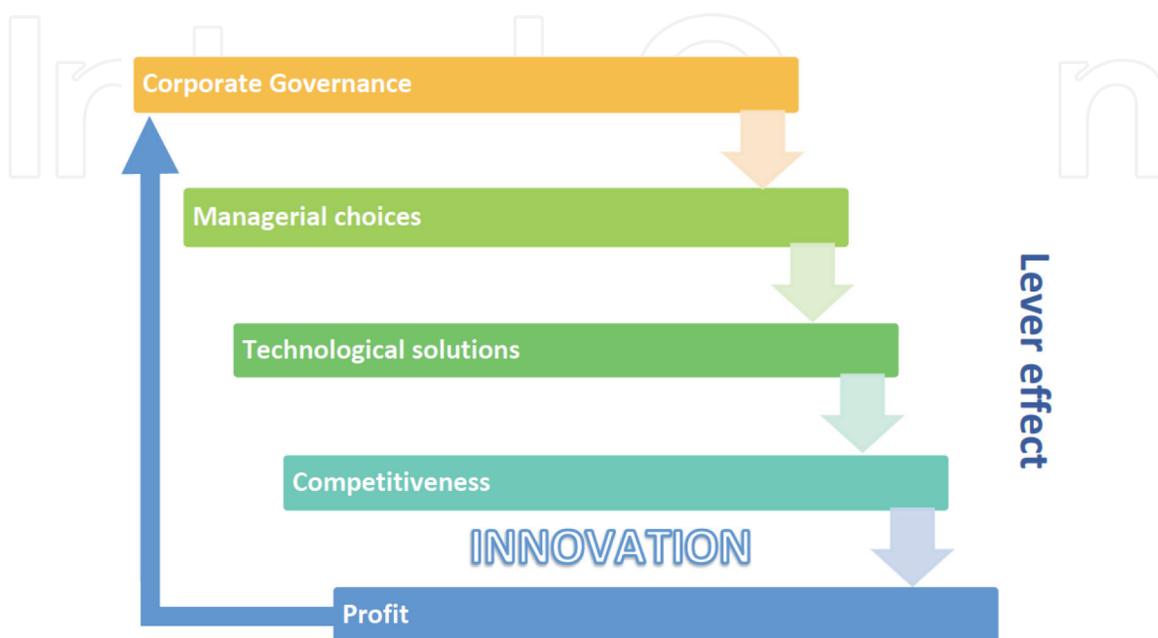
*Innovation  $\propto$  Technology  $\propto$  Management  $\propto$  Corporate Governance.*

This concatenation is intended to underline how the ability to achieve innovation is closely linked to and depends on the technological skills of the company's scientific team; in turn, the know-how of a company is bound to the managerial choices in terms of development of a new product, research of new and specific technical skills to better face the market competition or more generally for the needs of company reengineering. However, the management is conditioned by the eternal debate on the creation of value for shareholders [19–23] or in small companies by the convictions of the founding owners (still linked to an artisan culture) and is largely conditioned by them. In order to avoid unnecessary misunderstandings, we believe it is useful to underline that when we talk about Corporate Governance, we do not refer to the simple shareholder structure but to the type of structure of the top management (shareholders and top managers) and the way they relate to each other and to their stakeholders [10].

In fact, governance establishes medium-long term objectives (in this specific case, the investment in innovation), but it is also constantly influenced by external dynamics that can be cultural (customs and traditions of the territory in which the company operates or the competence of the shareholders themselves and of the top managers), social (massive influence of stakeholders such as the mass media or political forces that discourage certain types of development), and even market (development of private equity initiatives, support of the banking system, high competition) (Figure 4).

Therefore, even if indirectly, the change in the governance structure and the perspectives connected to it can concretely act on the result in terms of innovation: recognizing the need to look for new managers specialized in innovation (innovation coach), approving new investments in the scientific sector, welcoming in its capital new partners to undertake new business initiatives and thus mitigate the risks, etc.

By using the “control theory” in terms of innovation creation, it is possible to identify different levels and levers that the company can use. The *techno-corporate gap*—understood as the margin due to the ability of firms to create innovation (here expressed by the deviation between the target variable  $Y^*$  and the effect variable  $Y$ )—can therefore



**Figure 4.** Cause-effect correlation system between corporate governance and innovation. Source: author's elaboration.

be reduced thanks to countless strategic choices taken by governance (XN levers) that can be adopted individually or in combination:

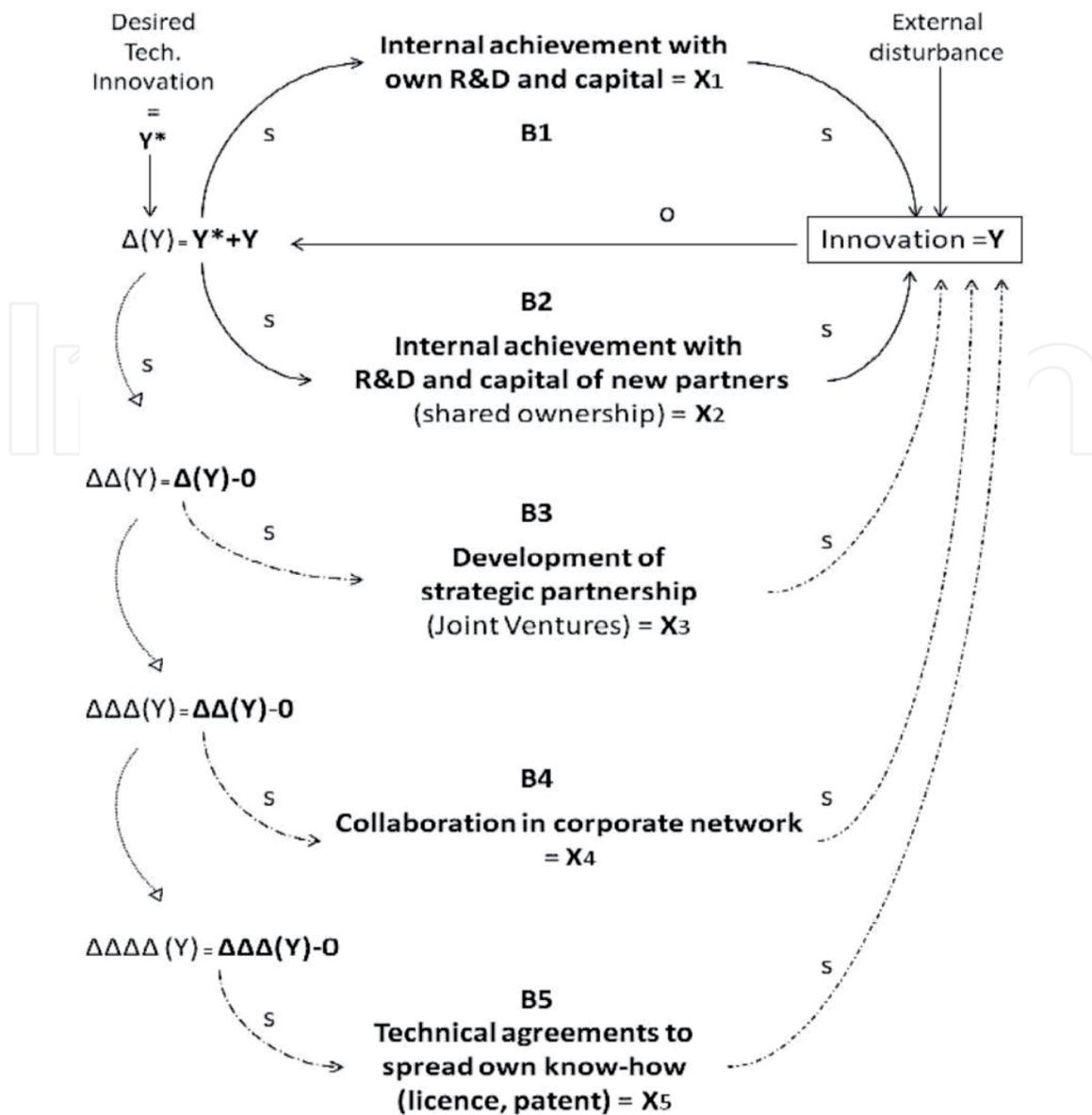
- maintaining a high control governance structure capable of producing innovation technology internally (having experienced managers, internal R&D areas, with own or borrowed capital);
- search for new partners who will contribute capital by way of equity or contribute assets aimed at achieving new technology (logic of shared enterprise—open governance structure);
- development of strategic partnerships aimed at joining forces exclusively for joint development projects (typically found in the creation of joint ventures);
- membership of enterprise networks;
- drafting of technical agreements in order to be able to develop the technology internally without necessarily making investments (**Figure 5**).

In the light of the strategic solutions adopted, a series of causal diagrams [24, 25] will take shape, which will positively or negatively influence the achievement of an adequate level of innovation. As mentioned earlier, however, it is up to the system thinker or manager to be able to best identify the boundaries of the system being examined.

If we accept the systemic thinking according to which the variation of a simple variable has a cumulative effect on the entire system, and how the loops in which the variables act are repetitive and recursive, then, from the results obtained in the field of innovation and data relating to the level of openness of corporate governance, this correlation becomes clear, homogeneous in all its aspects. Applying the reasoning of System Thinking [17] to Control Theory [26], we can consider systems in terms of variables (input, state, output), and we can evaluate the way in which they are interdependent within the company system also for the purpose of pursuing innovative processes. But the company system is a simple element when considered within a larger context with which it constantly interacts and from which—as we have seen—it receives important influences. It is therefore useful to understand how these dynamic processes are also set in relation to the community, therefore, how the micro systems (or the micro behaviors) interact with the macro ones. To accomplish such an approach, it is possible to make use of the doctrine of Combinatory Systems [18].

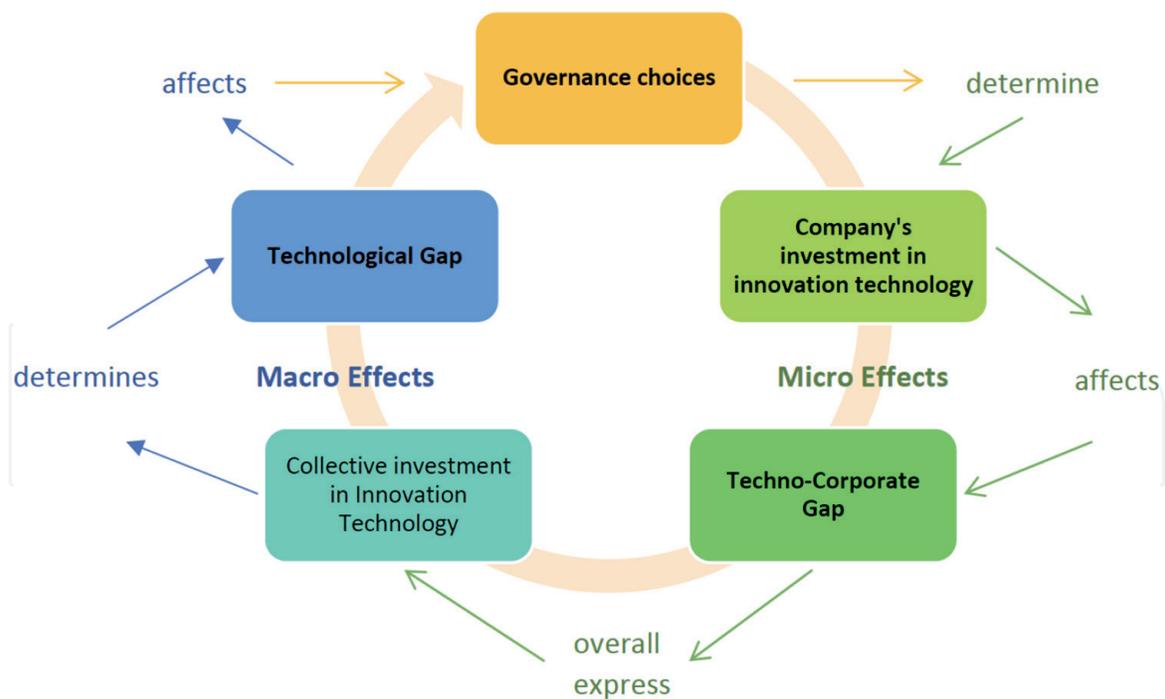
This theory starts from the assumption that the collectivity is made up of elements or agents that, operating individually, adopt micro behaviors but as a whole are able to determine macro behaviors.

From **Figure 6**, it is therefore possible to observe the way in which the *techno-corporate gap*—understood as the inability of the firm to achieve innovation—becomes a crucial expression of “micro” behavior; if multiplied countless times, it can characterize the “macro” behavior of a community, which in our specific case consists in the inability to achieve innovation and, therefore, to increase the technological gap experienced by some countries—including Italy—compared with others. It is represented here how the propensity to innovate, stimulated by the different governance structures of a firm (micro effect), can express a general innovation potential when considered in its complexity. Collective investment in innovation has macro effects in terms of increasing or reducing the technological gap



**Figure 5.** Innovation control system with multiple levers and levels. Source: Rangone [8].

between countries and others. Let us consider first of all that every company can achieve innovation according to the type of investment made or strategies adopted. Therefore, thanks to the numerous levers, the top management can consider to open the capital to new partners or follow new partnerships achieving a specific development strategy, and consequently, top managers can take decisions that spur the company to achieve specific objectives in the technological field. The particular governance structure that characterizes companies in a specific geographical area can therefore be a winner or a critical factor. We must not forget that a territory can be considered developed if the companies and bodies operating within it are efficient and not simply because of the ability of a single company—however large—to produce efficiently. The result is that the ability to open up to innovation of every single company in a specific territory, together with similar micro behaviors, will influence and compose the collective behavior in terms of technological development; the latter factor will be the source of macro effects that translate into a technological gap with neighboring areas, regions, and, as a consequence, competing countries, if we look at the process in macro terms. The core of the problem then lies at the heart of the company and must be analyzed there.



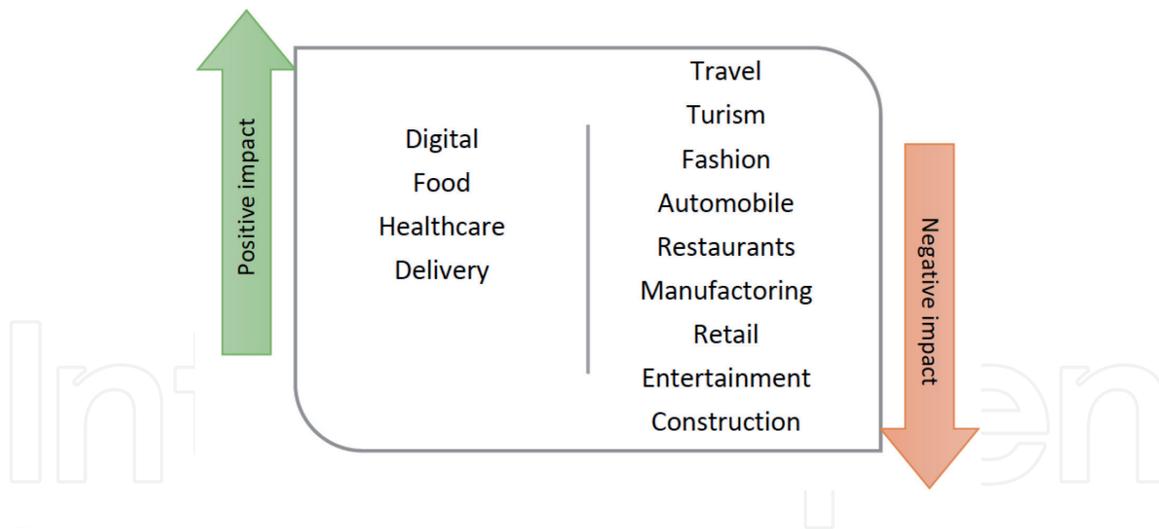
**Figure 6.**  
*Micro and macro effects in terms of investment in innovation technology. Source: author's elaboration.*

### 3. Technological upgrading and competitiveness: define a strategy

#### 3.1 Sectors and perspectives: is there a common line?

In identifying a strategy that can enable businesses to recover optimally from an economic and financial point of view after the pandemic spread, it should first be pointed out that not all sectors have been adversely affected by the crisis. Wanting to subdivide the company sectors between those that have received a positive impact and those that have suffered enormously from the pandemic crisis, it is possible to consider the summary scheme proposed in **Figure 7**, which provides a subdivision that is certainly not exhaustive but still useful to have a general idea:

- The sectors least affected or even benefiting from this situation are those related to the satisfaction of basic needs, such as food and health, but also those that have a close connection with digital activity. We are therefore talking about online service platforms, online market places and the delivery sector (against online orders).
- On the contrary, most of the sectors that do not fall into these macro-areas have suffered heavy setbacks. Restrictions on travel and fears of an increase in contagions have imposed a real freeze on the tourist industry.
- The fashion industry has received backlash as it is not an expression of basic needs. The restaurant industry suffered the full impact of the lockdown by keeping their businesses closed for several months; moreover, when they reopened, the businesses had to make some important choices:
  - a. primarily incurred expenses in retrofitting their facilities in light of government-mandated health criteria;
  - b. secondly, they had to choose between different levers aimed at recovering immediate losses or dealing with impending difficulties:



**Figure 7.**  
Sectors affected and sectors that have benefited from the current situation. Source: author's elaboration.

- reduce staff;
- give up a portion of the profits;
- raise prices;
- increase table rotation.

All this considered, it is our belief that short-term strategic solutions are certainly a *modus operandi* aimed at sustaining the business in a short period of time, but they are not a solution that can really help businesses affected by the pandemic to break the deadlock.

Today, more than ever, we need recovery strategies that are the expression of a medium-long term vision and that are aimed at helping companies regain a specific position in the evolutionary context we are experiencing.

Sudden difficulties have led companies to shelve long-term projects, therefore, to suspend the expansion and value projects that produce the true profit margin. Today, companies aim to carry out short-term interventions, perhaps pending public subsidies and aimed at reducing costs as much as possible and obtaining flexibility.

The opportunity is actually great to definitely understand the company status. Paradoxically, if the repercussions of the crisis have been.

*slight* = previous good company status > use of strategic levers in the short term.

*acute* = previous weak corporate status > use of m/l-term strategic levers.

In the latter case, it is certainly appropriate to use levers that provide immediate economic and financial relief, but a thorough analysis of the status of the company is urgently needed to allow radical changes in the company in order to offer a new and attractive product or service. This can be done by making estimates as soon as possible that define:

- changes in the company's market positioning (trends by year and economic and financial variances);
- the margins resulting from the adoption of a new business model depending on the different scenarios;

- the costs of investments in new company assets and innovative know-how;
- the timing of the change and the company's ability to sustain such pace considering current operational needs.

We can therefore conclude these reflections by stressing that there is no common line or common strategy. There is only the solution that can be identified by the individual company in light of the backlash received during the pandemic and the company's awareness of its status and positioning on the market.

However, it is our conviction that there is a common need to pursue smart innovation processes, dictated by a constantly evolving economic and social context.

In the light of these forecasts, let us see which specific innovation-related strategic lines can be pursued and in the light of which specific criteria they can best be implemented.

### **3.2 Strategic lines and operating criteria**

The experiences of the nearly 2 years since the pandemic spread of Covid-19 have taught a key lesson: businesses will never return to their former reality. Profound changes have been imposed both internally and externally on businesses. There is therefore a totally new dimension that requires new approaches to business and, therefore, new models. The companies that over the years have been able to ride the technological wave, anticipating the dramatic moment we are living today, are certainly prepared for the ongoing evolution and to meet the needs of customers by offering innovative services and products. In the short to medium term, these companies will always be able to acquire new market shares. In the presence of new rules, new needs, and new forms of customer relations, it is our belief that companies must set their recovery strategy along the following lines (**Figure 8**).

#### *3.2.1 Study the new trends and tastes of the digital consumer*

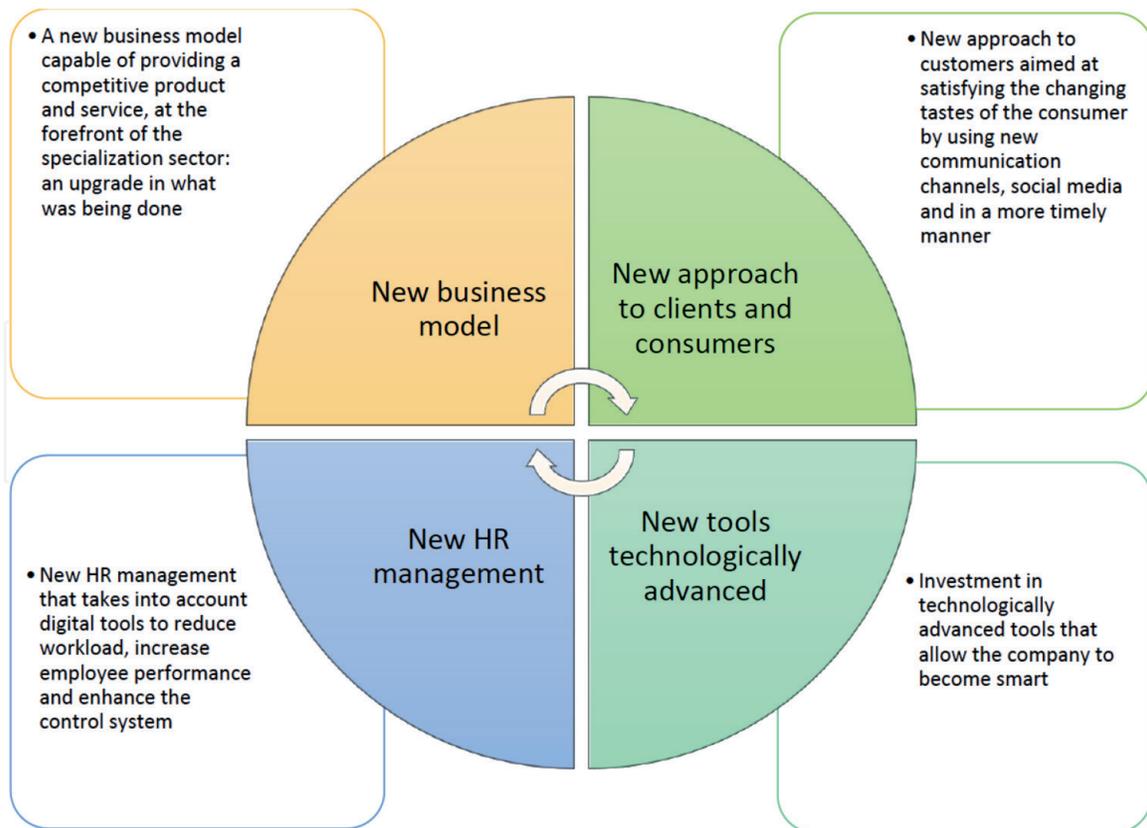
Understanding business after the Covid-19 pandemic means observing the mutations that have characterized consumption trends in the Business-to-Consumer and Business-to-Business spheres and understanding which path the national but above all the global market is taking.

In the digital age, it is not possible to focus only on national trends. Global trends inevitably condition national trends, perhaps not in the immediate term but certainly in the medium to long term. The vision of the entrepreneur must therefore be attentive to what is evolving at international level, always drawing new ideas not only in step with the times but also to anticipate the potential repercussions of foreign competition.

In a post-pandemic period, it is worth considering that not all consumer groups have been affected. Like companies, which as we have observed above can be distinguished between positively and negatively influenced, the consumer market also responds with its own particularities.

Employees working in positively influenced business sectors are certainly able to maintain a consumption trend equal to the pre-pandemic period. Lockdowns and restrictions on transport and communications, as well as on leisure, initially saved resources that can now be put back into the economic circuit. Not to mention that the weakness of the markets is also a lure for investors and speculators interested in setting up new businesses.

All of this is obviously part of an evolutionary context defined by new digital approaches.



**Figure 8.**  
*Elements of intervention for the implementation of a recovery strategy. Source: author's elaboration.*

The transformation of the consumer goes hand in hand with the transformation of companies. Therefore, since the consumers will spend more and more time online and will direct their consumption interests more to products on the web, companies must be able to identify the digital tools available today to understand the new paradigms of consumption, the trends that draw the attention of customers, but above all they must be ready to define solutions that can build consumer loyalty [27].

### 3.2.2 Set up an upgrade or transformation of the business model

Digital innovation must become an imperative for any business. The business needs to follow innovative protocols, looking to achieve an upgrade (if the impact of the pandemic has been limited) or a full transformation if the conditioning has been larger. We are not talking here about diversification [28], which often arises from a prospect of enlargement, but of evolution aimed at redevelopment.

In order to make an accurate assessment of the need for such a measure, it is essential to carry out different analyses.

Without wishing to have any claim to exhaustiveness, leaving any further in-depth study on the subject to the vast literature of reference, since the present work aims to investigate the challenges experienced by businesses today, it is possible to summarize some key points:

- calculation of the opportunity and application areas;
- definition of the reallocation of expected profitability;
- monitoring and control of new results.

First of all, it is essential to realize to which specific activity, good, or service has connected the business model to be restructured and for which company needs a real digital upgrade. In the case of small and medium-sized enterprises, there are no complex forecasts from an analytical point of view, whereas in the case of larger enterprises, which have several production lines or a diversified business, it is necessary to identify the activities to be examined and which will be the main beneficiaries of the restructuring. At the same time, the risks must be estimated. The previous risks must be compared with the potential risks following the redevelopment in order to verify the feasibility of the project. From this point of view, the feasibility study is primarily the tool that must provide valid alternatives to the managerial class for a more prudent choice of options. Secondly, it is essential to verify the conditions for the reorganization of the entire operation. The reformulation of internal communication and human resource management—nowadays dedicated to the understanding of new horizons of *smart* working—are very delicate phases, too often misunderstood by both company leaders and employees [29, 30].

A third fundamental analysis is then referred to the reallocation of profitability expected following the company reorganization and the reconversion of production and services.

How will corporate value be distributed? What will be the new horizons and prospects promoted by the achievement of corporate value?

These are just some of the fundamental questions that the company must ask itself in order to define the strategic lines aimed at pursuing a correct reformulation of the business model. The answers to these questions come in part from the monitoring and control of the performance achieved, which must take place in a constant manner and always keeping in mind that the evolution today must take place in a “responsible” and “sustainable” key [31].

A few different examples of intervention may be eloquent in this regard (Table 1).

Then, both in the event of a good corporate status and in the event of a compromised economic-financial situation, traditional businesses must approach a conversion of their offering models in a *smart* and *lean* way.

Although outlined in their essential points, these steps and macro-areas of intervention are a valid point of reference for companies wishing to draw up well-considered plans to restructure their business in order to respond to the new challenges of the market, to contain the impact of an increasingly ruthless international competition, and still to regain a relationship with customers and collaborator lacerated by the global pandemic and an incessant evolution in a digital key.

Sector	Firm's status	Type of intervention	Specification
Restaurant	good; strong	upgrade	online order; smart profile; social management
	recessionary	trasformation	delivery; ghost kitchen
Manufacturing	good; strong	upgrade	e-commerce; smart company
	recessionary	trasformation	sale on marketplace; from B2C to B2B; consulting

**Table 1.** Example of interventions according to firm's status and sectors. Source: author's elaboration.

### 3.2.3 Investing in digital and innovative tools for a firm 4.0

Investing in digital assets means first of all understanding what digital means, studying its impact on the business model and on the relationship with the customers. Digital technology not only enhances socialization as it amplifies opportunities for relationships, but above all it removes the constraints of space and time. Let us think of a company engaged in agribusiness that has to take care of monitoring the fields, checking the health of the crops.

This requires the use of staff, more or less specialized, and time (full days if the company is of medium or large size). If major forces, such as storm events, come into play, these tasks can be made even more complex and sometimes completely obstructed.

The technology that makes the company *smart* or 4.0 can facilitate this through information systems that make the entire production and control process interconnected with each other [32].

Traceability throughout the supply chain makes supply processes clearer, providing an additional service of transparency to the consumer in addition to a quality product on time.

We've been talking about digital and the *smart company* for several years now, yet the number of businesses benefiting from such systems is really limited.

We believe that this is an opportunity to accelerate those renewal projects that had already been planned and that today join, indeed strengthen, the strategic solutions to combat the emergency.

It's time for businesses to become visible, join the network, and benefit from a renewed digital image.

But in order to do this, a major investment in 4.0 tools is needed.

Investing in digital assets means having a previously described upgrade or transformation plan well in mind.

Now is the time to verify the applicability of new technologies in the company and design innovation processes, thus reducing the *techno-corporate gap* that limits the expansion potential of the company.

In fact, *smart* innovation makes it possible to achieve a quality product, making the most of the resources available to the company (thus reducing costs for raw materials, capital goods, and HR) in a working environment that is not only safer but also leaner (**Figure 9**).

And in a post-pandemic context what better opportunity could there be to provide the consumer with that peace of mind when consulting and purchasing.

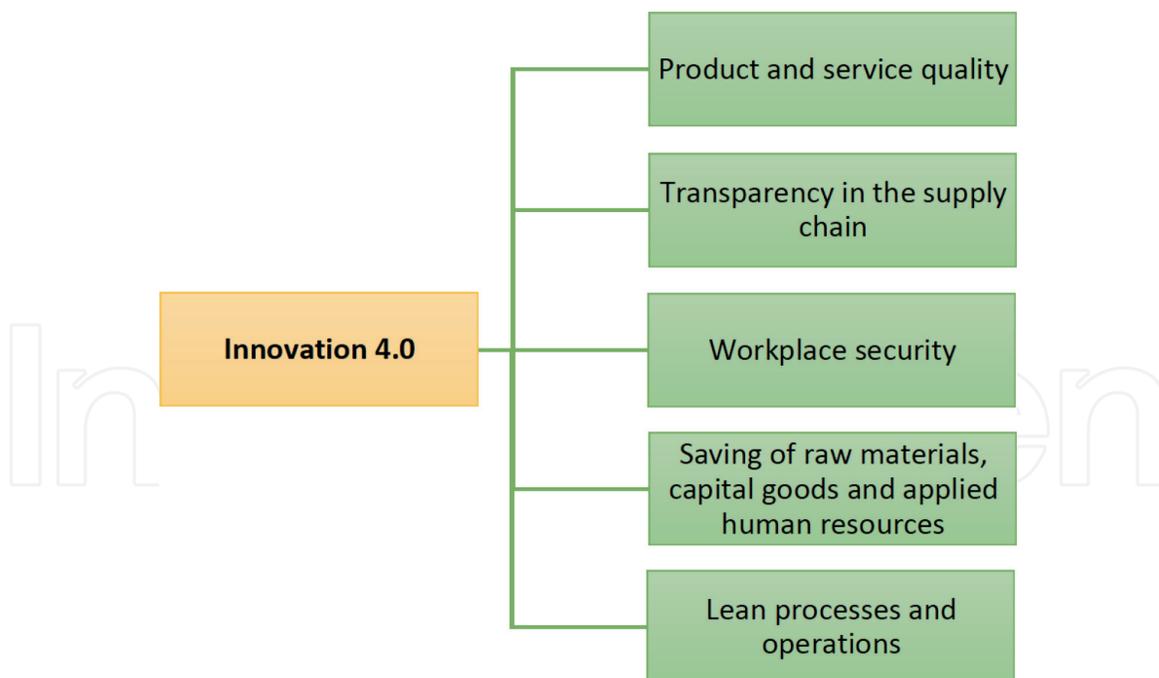
In a time of health uncertainty, there is no greater impact factor than transparency that provides peace of mind by increasing trust.

And this trust can be ensured thanks to 4.0 tools along the entire supply chain, during the production phase, the service provision phase, up to the moment of purchase by the consumer.

Giving peace of mind and security to the consumer is in itself a qualifying factor that helps businesses stand out in the market environment to win the competition.

### 3.3 Raise or fold? How to relaunch the company according to the “strategy poker”

Once we have defined the criteria and key elements for understanding the context of a corporate relaunch aimed at facing the countless challenges that everyday life brings, we like to conclude this work with some singular but far from trivial reflections. Apologizing in advance to “pure” theorists for the association proposed



**Figure 9.** Strengths of an investment in technology 4.0. Source: author's elaboration.

here, we think it is really interesting to share many common aspects between business strategies and strategies adopted in the game of Poker that can help us to understand the *forma mentis* adopted by an entrepreneur—or a board of directors—in certain situations.

In poker as in business life, players and companies face a probabilistic challenge to the success of their initiative or investment, whether initial or mid-course. It is true that in the corporate world there are countless systems for risk forecasting, but it is always good to remember that the company is created by man to work among men. Therefore, there are no exact formulas for predicting the future but mathematical conjectures as close to the truth as possible that must be confronted with the human psyche, with the changing moods of man (tastes and tendencies), and with the many unforeseen events such as natural disasters, pandemics, collapses of governments, etc.

Those who are familiar with this card game will not miss the choice of “raise,” which defines an aggressive, proactive playing strategy clearly in opposition to “fold.” In fact, the fold solution determines a choice aimed at buffering, thus limiting potential damage or losses. The player knows he does not have any winning cards and, intimidated by the probabilistic weight, throws his cards on the table, thus giving up the pot and proceeding with the next pot.

But how long can such a policy continue?

The *fold* solution is then associated with and compared with cases in which companies—in order to cope with impending difficulties—choose:

- the downsizing strategy
- the sale of business branches
- the disposal of assets

If left unchecked, these strategies can lead to a worrying corporate weakening.

This point of view is inherent not only in economic and financial principles but also in social and environmental ones. Living in an economic and social context in which reputation plays an increasingly relevant role [33], a company that adopts *fold* tactics demonstrates loss of control, weak governance, thus demonstrates an image that is likely to heavily intimidate investors, sponsors, and stakeholders.

On the contrary, a “raise” strategy demonstrates confidence in what company does, but also it demonstrates business strength and robustness even in those cases (such as the current post-pandemic one) where business status has been heavily weakened, but it is appropriate not to demonstrate it (*bluff* technique).

The *raise* strategy includes solutions such as:

- turnaround
- leverage
- investment in new assets or initiatives
- mergers
- joint venture

This technique scares competitors, reducing the likelihood of takeovers, implicitly increasing the potential investors and sponsors.

Stakeholders are also induced to work better or to continue the collaboration with a proactive and relaunching company rather than with a submissive company that focuses on downsizing.

Human resources, especially those who can make a significant contribution to business progress, are qualified to work in a company that aims for growth and relaunch rather than *fold* solutions.

With all this, we do not want to emphasize that cost containment strategies or the sale of unused or obsolete assets are to be avoided.

Here we want to link the *raise* strategies that can support companies instead of intimidating them to the principle of transformation or upgrade 4.0.

In this work we do not want to advise the company to constantly live in *bluff*, deceiving the customer or the entire category of stakeholders.

We want to emphasize that the strategies must consider the potential repercussions that a *fold* policy can entail, especially in certain situations such as the current ones.

Innovation in 4.0 key can therefore constitute a real proof that allows the company to experience a dramatic post-pandemic and constantly evolving reality.

Given the requirements of this work, we will still have the opportunity to further deepen these affinities between the corporate strategy and the strategies adopted in Poker in subsequent works.

## 4. Conclusions

The experiences that companies are having today show that the emerging challenges due to the pandemic spread of Covid-19 converge extraordinarily with an evolutionary path already started and due to the so-called 4.0 revolution.

The prospects for businesses are manifold and are determined by the economic and financial status with which companies have had to face the pandemic.

This work wanted to emphasize the fact that, contrary to what one might think, the time has come for companies that have received the greatest repercussions to take a bold step. The time has come to relaunch the business with decisive investments aimed at giving the company a new face.

Today exists a substantial literature aimed at demonstrating the multiple positive effects for companies that adopt technologically advanced systems. This is certainly a point of reference to try to understand the potential solutions and, therefore, in support of the thesis set out in this work.

The new company profile must have 4.0 traits and must allow the company to offer innovative, fast, and competitive services using the technology available on the market today.

This is further demonstrated by the fact that, unlike the most affected companies, those that have not received particular setbacks have been able to benefit from already innovative business models or are part of already digital sectors.

The time has come for “traditional companies” to take the next step, what we have considered a technological upgrade, while those that have remained completely away from technological innovation criteria should carry out a real transformation of the business model.

Decisions in this sense, however, must come from corporate governance, the only real driving force for achieving innovation and aimed at reducing the so-called *techno-corporate gap* with respect to competing companies.

Besides through the description of the relationship between the *techno-corporate gap* and the technological gap, this strategic solution has been analyzed through the description of what we have called “Strategy Poker.” With this principle we have defined a clear will to relaunch the company through positive solutions that influence the image stakeholders have of the company and aimed at acquiring new assets in a digital key.

Obviously, this being the first appearance and description of the concept of *Strategy Poker*, we leave to the following works a greater study of this theory.

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