

LAW AND ECONOMICS YEARLY REVIEW

ISSUES ON FINANCIAL
MARKET
REGULATION,
BUSINESS
DEVELOPMENT AND
GOVERNMENT'S
POLICIES ON
GLOBALIZATION

Editors

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Mission

The “Law and Economics Yearly Review” is an academic journal to promote a legal and economic debate. It is published twice annually (Part I and Part II), by the Fondazione Gerardo Capriglione Onlus (an organization aimed to promote and develop the research activity on financial regulation) in association with Queen Mary University of London. The journal faces questions about development issues and other several matters related to the international context, originated by globalization. Delays in political actions, limits of certain Government’s policies, business development constraints and the “sovereign debt crisis” are some aims of our studies. The global financial and economic crisis is analysed in its controversial perspectives; the same approach qualifies the research of possible remedies to override this period of progressive capitalism’s turbulences and to promote a sustainable retrieval.

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DIGITAL STRATEGIES AND ORGANIZATIONAL PERFORMANCES OF SMEs IN THE AGE OF CORONAVIRUS: BALANCING DIGITAL TRANSFORMATION WITH AN EFFECTIVE BUSINESS RESILIENCE

Nunzio Casalino * - Ireneusz Żuchowski ** - Nikos Labrinos ***

Ángel Luis Muñoz Nieto **** - José Antonio Martín-Jiménez *****

ABSTRACT: The process of digital transformation requires a careful management since it involves a set of technological, organisational, cultural and social changes that impact the organization as a whole. For that reason, in order to reach satisfying results, it is not enough to passively adopt digital technologies throughout the organisation. Instead, it is important to be aware of the key organisational implications of embracing such a change in order to be able to manage the whole process in the best possible way. To balance the ongoing digital transformation, it is becoming fundamental to improve also the so-called “digital resilience”, that is becoming a critical factor for the success of any SME (Small and Medium Enterprise), now and in the future. Digital resilience needs to be regarded as an integral part of the strategy and mission of any business and should be centred around all involved staff in SMEs. For that reason, the present manuscript

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will go through the main assumptions about decision-making, organisational change, change management, risks prevention and knowledge management which shape the basis for an effective and successful process of digital transformation¹.

SUMMARY: 1. Introduction. - 2. Need of a resilient Business Model. - 3. SMEs' customer relationship, cost structure and revenue streams. - 4. Re-designing an organization by an advanced digital Business Model. - 5. Facilitate a digital transformation process involving all stakeholders. - 6. Implications of digital transformation creating a change culture in a SME. - 7. Strategic and operational implications of the business resilience: from competition to co-competition. - 8. Conclusions

1. European entrepreneurs are calling for measures to ensure the survival of as many small enterprises and SMEs as possible during the escalating Coronavirus situation. It pointed out that while all businesses need cash to survive, SMEs - which typically have higher payroll costs and lower margins than large enterprises - are especially exposed to prolonged business slow-down.

Europe is in the early stages of the Coronavirus outbreak and unfortunately several small and medium-sized businesses, together with professionals, are already feeling its effects.

Italy could provide a showcase for what is to come elsewhere in Europe as businesses are hit by the effects of the rapidly spreading Coronavirus: people staying at home and not spending. Italy's financial sector and public finances are uniquely vulnerable to the COVID-19 crisis. Business loans, above all, are under threat, as Italy's economic structure is particularly reliant on small and medium-sized businesses², while its judicial system has routinely proved itself incapable of processing collateral claims sufficiently quickly. Italian household debt is better-

¹See ROGERS, D.L., (2016), *The Digital Transformation Playbook – Rethink your business for the digital age*, Columbia Business School Publishing, New York.

²See PELLEGRINI, M., CASALINO, N., KRAUSE, V. (2016), *Challenges for expatriates returning: measures and approaches for a successful reintegration of employees in financial organizations*, Law and Economics Yearly Review Journal, Queen Mary University, London, UK, vol. 5, part 1, pp. 125-150, Humanistic Management Network, Research Paper Series No. 45/16.

placed, as residential mortgages are less common and loan-to-value ratios lower than elsewhere in Europe. SMEs are highly important for the national economies and for the European productive ecosystem in all. The 99.8% of Europe's companies are SMEs, accounting for more than two thirds of employment in the EU-27. Moreover, the economic and political interests³ that gain from the current system⁴ and advancement of its current trends can explain that industrial policy, environmental law and policy, and trade initiatives must be opened by expanding the practice of multi-purpose policy design⁵, and that these policies must be integrated as well⁶.

Whilst the individual environmental impacts of each SME are generally small in comparison to those of large companies, the cumulative environmental impact of the sector is considerable.

Since the Coronavirus outbreak began effectively last December 2019, Chinese business activities have been severely slowed, affecting China's position in the global industrial supply chain. The Enterprise Survey for Innovation and Entrepreneurship in China (ESIEC) launched a survey on the "condition of micro, small and medium-sized enterprises (SMEs) during the coronavirus outbreak". Several studies conducted follow-up interviews with representative samples of private entrepreneurs from a database maintained over the past three years, asking about the resumption of production as well the different challenges enterprises face.

As indicated in a study⁷ on the impact of Coronavirus on China's SMEs, the main findings include:

³See WILLIAMSON, O.E. (1985), *The Economic Institutions of Capitalism in Firms, Markets, Relational Contracting*, The Free Press, New York.

⁴See WU, M. (2013), *Towards a stakeholder perspective on competitive advantage in International Journal of Business Management*, vol. 8, n.4.

⁵See PFEFFER, J. (1997), *New directions for organization theory*, Oxford University Press, 1997.

⁶See CASALINO, N. (2014), *Behavioral Additionality and Organizational Impact of European Policies to Promote Internationalization of High-growth Innovative SMEs*, *Journal of International Business and Economics*, American Research Institute for Policy Development, USA, vol. 2, no. 4, pp. 17-44.

⁷See CDG - Center for Global Development notes: <https://www.cgdev.org/publication/impact-coronavirus-chinas-smes-findings-from-esiec>

- 80 percent of surveyed firms had not resumed operations at the time of the survey, February 10, 2020, and 40 percent could not determine a timeframe for resumption;
- 20 percent of surveyed firms will be unable to last beyond a month on a cash flow basis, and 64 percent beyond three months, presenting a dire picture for SME bankruptcies under an extended epidemic scenario;
- Barriers to business operations vary along the supply chain, with upstream firms mainly affected by labor shortages, while downstream firms face more serious challenges related to supply chains and consumer demand; and
- Policies aimed at work resumption should consider the characteristics of each industry and avoid a one-size-fits-all approach.

The biggest question, everyone agrees, is how long the downturn in demand will be. If it is brief, will people start spending again after a month or two, making up for lost spending by using what they have saved while in isolation? Other business – such as restaurants and hotels – are seeing dips of up to 80%. This would seem to be unrecoverable lost spending.

People are postponing purchases of non-essentials from clothes to cars, with some retailers giving up and closing shop. No getting out it is not just cinemas, museums, and ski resorts that are closed by law in Italy, gatherings such as weddings and funerals, football matches and church services are also restricted. Bars and restaurants have a table-service only policy, and customers must stay a meter away from one another. With the empty streets and cafes only, the foreign tourists have gone too, and no one is full operative at work.

Unlike during the Eurozone crisis, however, this time export-orientated companies may suffer due to the global nature of the crisis; manufacturers⁸ are already struggling due to supply-chain disruption from China, where the virus originated. The accompanying hit to businesses' cashflow means some companies

⁸See DAFT, R.L. (2016), *Organization theory and design*, Cengage Learning, Boston, pp. 69-74.

may soon be forced to stop paying salaries and rent, never mind loans to banks⁹. There's a significant risk of a massive disruption if the government doesn't react.

2. Several entrepreneurs assess how emerging needs linked to COVID-19 business crisis might affect their business and take appropriate action, considering also some competitive aspects as scenario planning, stakeholder analysis, strategy development, external and internal communications. Several indicators can be used in a company to evaluate its reactive capacity and understand the likely impact of digital change to reduce the negative effects of the Coronavirus crisis's issues.

Once the theoretical background is clear, and once the external and internal status analysis has been conducted, SMEs should reflect on their own business model. Digital transformation does not just mean introducing new technologies to perform existing activities: it is a process of re- designing the whole business model.

For several business experts the operational and manufacturing redundancy is becoming crucial. However, redundancy is the enemy of economic efficiency. Over the past few decades, economic engineers have created just-in-time supply chains in order to minimize warehousing costs and have lengthened supply chains in order to access the cheapest labour and materials. Well, everybody got cheaper products, and China has grown its economy at a blistering pace.

Alexander Osterwalder¹⁰, who developed the Business Model Canvas, defined a business model as the logic with which an organization creates, distributes and captures value.

A business is able to create value for its clients when (1) it satisfies one of

⁹See the study *Coronavirus: Italy's banks and SMEs face crisis if shutdown persists* on <https://www.euromoney.com/article/b1kq42s3yscx9g/coronavirus-italys-banks-and-smes-face-crisis-if-shutdown-persists?copyrightInfo=true©rightInfo=true>

¹⁰For further information see <http://alexosterwalder.com/> and <https://strategyzer.com/app> or the book: Osterwalder, A., Pigneur, Y. (2010), *Business Model Generation*.

their needs, (2) it helps them manage an important task, (3) it helps them solve a problem. Regardless of the sector of activity, creating value for customers is the main objective of every company that wants to be successful.

It is exactly for this reason that the first document that a SME¹¹ must develop in its strategic planning is a map of the business model - not the business plan, which can be correctly formed only after the model is understood and validated.

In order to reflect on one's own business model, instead of just talking about it or summarizing it in long and detailed documents, a useful tool for representation is the Business Model Canvas¹². This has become a recognized standard for all businesses and allows managers to visually represent the way a company creates, distributes and captures value for its own customers.

With the Business Model Canvas, everyone has the ability to understand complex elements that affect the operation of the company in a simple and extremely intuitive way.

This is because the Canvas is based on a visual language that is quick to learn and accessible beyond the professional background. This allows maximum alignment between the people involved¹³ and, at the same time, represents the great communicative advantage of the Business Model Canvas. Osterwalder's framework summarises the key nine elements of a firm, each displayed in boxes that must be filled with information regarding the company. Below is a description of each of the key nine elements and a graphical representation of the Business

¹¹See CASALINO, N., DE MARCO, M., ROSSIGNOLI, C. (2015), *Extensiveness of Manufacturing and Organizational Processes: An Empirical Study on Workers Employed in the European SMEs, Smart Innovation, Systems and Technologies*, 2nd International KES Conference on Smart Education and Smart e-Learning, SEEL 2015, vol. 41, pp. 469-479, Italy.

¹²The business model canvas was proposed by Alexander Osterwalder in his first work, *Business Model Ontology* (2004), and then developed by Osterwalder, Yves Pigneur and Alan Smith together with a community of 470 experts in 45 countries around the world. This led to the publication of the book *Business Model Generation*, a world bestseller translated into 30 languages. Today the Model is recognised as an international standard. It is taught in the best business schools in the world, including Stanford and Berkeley University.

¹³See AHMAND, S., SCHROEDER, R.G. (2013), *The impact of human resource management practices on operational performance: recognizing country and industry differences*, Published by Elsevier Ltd.

Model Canvas (figure 1).

Key Partners Mentors and Gurus Industry Associations Tech. suppliers Tech. innovation provider Cloud email provider Cloud virtual servers Remote VOIP telephony Virtual assistants IT remote support providers	Key Activities Sales Billing Management Marketing Order delivery systems	Value Proposition Best prices Quick service Quick delivery Help with risks Convenient Exclusive products Create savings Customer feel better Reduce customer fears Reduce difficulties Digital delivery Online ordering FAQ online Digital payments Online queries	Customer Relationships Self service Order online & delivery included Customer website interactions Social media interactions	Customer Segments Mass market Multi segment Help customer complete jobs Customer needs are satisfied Online members Online client
	Key Resources People Power Communications Sales data Customer data Efficient processes Automation systems Decision support systems Website analytics Industry analytics		Channels Website Email marketing Social media following Digital white paper Company app Online videos Live / recorded Webinars Internet text search Internet image search Pay per click PPC Web page product awareness Web page product purchase	
Cost Structure Labour Taxes Building expenses Equipment Advertising Communications Technologies Web hosting	Email marketing Content creation Pay per click ads Photos, video, audio, illustrations Application creation / maintenance Cloud services pay as you go / need	Revenue Streams Product sales Service sales Membership fees Commission sales Digital products Affiliate commissions Digital service provision App sales / in app purchases	Online sales Online service provisioning Online membership subscription	

Figure 1 - An advanced Business Model Canvas for the SMEs.

Starting from the idea that a company is a system that acts in a larger ecosystem. It is not possible to think of it as something that is self-sufficient. Key partners are suppliers or other firms which are necessary to the right functioning of the Business Model. In fact, there are strategic external actors that allow the company to fully realize the business model and increase the chances of its market success. These can be considered fundamentally its key partners. A company may need a network of partners to meet different needs¹⁴, such as optimizing resources and activities; developing economies of scale; reducing the risks of competition; competing in a wider market; acquiring particular resources and activities; spreading the brand to a wider audience; discovering new customers.

There are three main types of partnerships:

- strategic alliances between non-competitors: this is the case when suppliers or companies are part of a single production chain;

¹⁴See PFEFFER, J. (1997), *New directions for organization theory*, Oxford University Press, 1997.

- strategic alliances between competitors: this is the case when companies that are put on the internet provide their customers with similar value within the various points of contact;
- joint venture: a collaborative agreement between two or more companies. This could be an excellent solution to developing new lines of business.

It is essential to create valid partnerships so that the firm will be able to respond to different needs that cannot be satisfied through its own resources and activities¹⁵. The company's most important activities can be easily identified depending on the business's sector¹⁶. There are three main types of key activities:

1. productive. They are typical of manufacturing companies where it is essential to continue to create, produce and distribute products;
2. problem solving. They are typical of business models where the value proposition is the service proposal. Consulting companies are located in this area;
3. maintenance or development of networks. This is the case with companies like Google and Facebook, where the development of the platform is fundamental for the functioning of their business.

SMEs in the business services sector generally perform either (1) or (2). The value proposition answers the question: why should customers choose your service? It is what uniquely distinguishes a firm, thus determining the success or failure of its business model.

Elements to be included are not just products and services (obviously divided into lines and types). It is also important to take into consideration other valuable elements that are offered to the customer, such as particular experience,

¹⁵See FRUSCIANTE, A.D., ELSHENDY, M., CASALINO, N. (2014), *How Motivation Brings to Healthy Organizations: Methods and Incentives to Increase Satisfaction, Efficiency and Productivity*, Open Review of Management, Banking and Finance, Regent's University, London, UK, pp. 134-141.

¹⁶See CASALINO, N., CAVALLARI, M., DE MARCO, M., GATTI, M., TARANTO, G. (2014), *Defining a Model for Effective e-Government Services and an Inter-organizational Cooperation in Public Sector*, Proceedings of 16th International Conference on Enterprise Information Systems - ICEIS 2014, INSTICC, Lisbon, Portugal, vol. 2, pp. 400-408.

innovation, affordability, accessibility in an organization¹⁷.

There are several ways to create good value propositions that allow the company to transfer not only intrinsic value in terms of the output offered, but also intangible values such as:

- offering an innovation. This creates a new value, giving customers something that was not there before;
- making a product / services accessible. This allows customer segments that previously could not use a product / service to access it;
- improving a product or service by adding relevant features or modifying the current ones to make them more functional for a specific need;
- reducing the price of a product or service;
- using the brand to convey an identity;
- improving the design of a product;
- reducing the risks¹⁸ related to a product or service.

Organizational resilience is “the ability of an organization to anticipate, prepare for, respond and adapt to incremental change and sudden disruptions in order to survive and prosper”¹⁹. It reaches beyond risk management towards a more holistic view of business health and success. A resilient organization is one that not merely survives over the long term, but also flourishes - passing the test of time. Organizational resilience is a strategic imperative for an organization to prosper in today’s dynamic, interconnected world. It is not a one-off exercise but achieved over time and for the long-term. Managing the organizational resilience requires the adoption of excellent habits and best practice to deliver business improvement by building competence and capability across all aspects of an

¹⁷See SIMON, H.A. (1985), *A formal Theory of the employment relation*, trad. it. Causalità, razionalità, organizzazione, Il Mulino.

¹⁸See CAVALLARI, M., DE MARCO, M., ROSSIGNOLI, C., CASALINO, N. (2015), *Risk, Human Behavior, and Theories in Organizational Studies, Proceedings of Wuhan International Conference on E-Business*, WHICEB 2015, Wuhan, China, AIS, Association for Information Systems, AIS Electronic Library (AISeL), pp.283-297.

¹⁹See BSI - *Organizational resilience and business impacts*, New Organizational Resilience Index Report 2019.

organization.

This allows entrepreneurs to take measured risks with confidence, making the most of opportunities that present themselves²⁰.

3. Digital businesses use technology to create new value in business models, customer experiences and the internal capabilities that support its core operations. The term includes both digital-only brands and traditional players that are transforming their businesses with digital technologies.

Today, people are spending more money online, which has shifted business emphasis to digital sources of revenue and digital channels. The growth of the digital economy has made people more familiar with digital products and services, which has driven companies to seek new competitive advantages in the digital space. But digital business has evolved into more than selling online; according to Accenture “Digital businesses create competitive edges based on unique combinations of digital and physical resources. They do things that others cannot and in ways that build comparative advantage”²¹.

There are several views on the exact definition of digital business from industry experts²². Gartner says that digital business is the creation of new value chains and business opportunities that traditional businesses cannot offer. McKinsey emphasizes that “digital should be seen less as a thing and more a way of doing things”²³.

Most digital businesses fit one or both of these points; they focus on creating value at new frontiers for their core business, or they use digital

²⁰See METALLO, C., AGRIFOGLIO, R., FERRARA, M., CASALINO, N., DE MARCO, M. (2012), *Why should people use wiki in academic environments? An empirical analysis of undergraduate students*, Proceedings of the IASTED International Conference on Computers and Advanced Technology in Education, CATE 2012, pp. 431-437.

²¹See Liferay DXP Business Overview: *Customer Experience and Common Elements of a Digital Business*, 2019.

²²See SHARDA, N., GEORGIEVSKI, M., AHMED, I., ARMSTRONG, L.J., BROGAN, M., WOODWARD, A., KOHLI, G., CLARK, M. (2006), *Leading-edge developments in tourism ICT and related underlying technologies: key findings and future research directions*, Gold Coast, Australia, The Sustainable Tourism Cooperative Research Centre (STCRC).

²³See McKinsey report *What ‘digital’ really means*, 2015.

technology to drive growth, revenue and performance in ways that were impossible with traditional models. It may be helpful for companies to review common elements of digital business and compare them against their own business models. These are some of the trends that differentiate digital from traditional processes.

Use existing technologies to cut costs, gather data and provide a better customer experience. Digital businesses focus on the competitive advantages that technology gains them, whether that's reducing overhead or providing new value to their customers.

Embrace the concept of digital transformation and the cultural shifts that requires. The implementation and management of digital services can necessitate organizational restructuring, especially as new roles are created, and information systems²⁴ are given greater input into strategic decisions. Explore new business models that put customer experience at the center of digital strategy. People are often willing to spend more for an exceptional customer experience, making it a key differentiator in the digital economy. Business models that align with this hyper focus on customer satisfaction will eventually center on digital services, since digital is increasingly the experience that people prefer.

Digital business is changing the way organizations use and think about technology, moving technology from a supporting player to a leading player in innovation, revenue and market growth. Key resources identify what a business needs to make its own business model work. They can be:

- physical resources: these include tangible assets such as point-of-sale networks, systems, technologies, machinery and all that physically needs to be made to produce or sell a certain product or service;
- intellectual resources: these include a company's know-how, patents, trademarks, copyrights, developed projects, partnerships and customer

²⁴See CHANG, D.Y. (2003), *Six fundamentals of strategic implementation of information systems for destination management organizations*, e-Review of Tourism Research (eRTR).

database. If you think of big brands like Coca-Cola, then you realise the importance of these resources. The same goes for the record and the publishing world;

- human resources: HR is important in every business model, especially in the field of services. When you work on this block of the business model canvas, you must first consider strategic resources²⁵. Facebook, for example, cannot exist without its programmers, just as Ikea needs designers who develop new solutions;
- financial resources: i.e. credit lines, cash or a set of stock options that allow the company, for example, to hire important employees or guarantee supplies. This gives them a competitive advantage over competitors.

Customer relations describes the type of relationship that the company establishes with its various customer segments. Depending on the established business model, there are different forms of customer relationships²⁶, such as:

- personal assistance: the relationship is based on the presence of a customer relations manager who becomes their support when help is requested. Think, for example, of the personal employees dedicated to business customers in the various telephone companies;
- dedicated personal assistance: the relationship is constructed and maintained by assigning a specific employee to customers, as in the case with financial advisors. This is a very close relationship that stimulates customer confidence and serenity;
- self-service: the relationship with the customer is guaranteed through an indirect relationship, specifically a structure that allows them to have all the tools to do things themselves;

²⁵See AHMAND, S., SCHROEDER, R.G. (2013), *The impact of human resource management practices on operational performance: recognizing country and industry differences*, Elsevier.

²⁶Another type of customer relationship is community. The relationship is direct and fosters the relationship between consumers, creating shared identity and recognition in a group. Such communities can also be created without the firm's intervention, but they are a source of valuable information. The term refers to all the communities of users, mostly virtual, who follow a brand and interact with the company through initiatives and competitions launched on the web.

- automatic services: this is an advanced form of self-service that is spread across many sectors. Obviously, it differs a lot from business models that provide personal and dedicated assistance, but it can still be effective. For example, online banks offer a personal online profile with which the client can perform many of the actions at the counter;
- co-creation: the relationship is based on sharing the value creation process. In essence, the customer actively participates by making choices that change the value proposition of the company. Nowadays, the active involvement of consumers in the value creation process is considered crucial. Think, for example, of the emergence of consumer innovation labs worldwide.

The three essential elements of organizational resilience²⁷:

- product excellence;
- process reliability;
- people behaviours.

Three functional domains of organizational resilience which help to unlock the potential of within their organizations:

- operational resilience;
- supply chain resilience;
- information resilience.

It is fundamental since it allows the building of the package of products and services around the precise needs of each specific cluster of customers. An easy way to find out which elements to insert in this box is to classify customers in relation to their behaviours and needs.

It is needed to identify and create different customer segments each time. There are:

- different needs that justify different value proposals;

²⁷See BSI - *Organizational resilience and business impacts*, New Organizational Resilience Index Report 2019.

- different channels to reach different customers (e.g. physical shops vs. virtual shop);
- different methods of interaction are used (e.g. telephone companies have a customer care dedicated to business customers and one dedicated to individuals);
- different clients available to pay for different aspects of the value proposition (e.g. merchants use the POS to cash in, their customers use it to make payments);
- several aspects that could determine a specific profitability.

The channels block describes how the company reaches a certain customer segment. Channels are therefore simply the point of contact with clients. They can be direct, if owned by the company, or indirect, if owned by a partner. To identify the key elements to insert in this box, think through the following 5 basic steps from the consumer's perspective:

- create awareness about the product or service and about the company itself. Help the consumer evaluate the value propositions made by the company;
- offer the product or service;
- allow the consumer to buy the product or service. Follow the consumer after the sale has taken place.

The variables to be considered in the composition of the revenue streams box are the price and the payment method. Both of these are fundamental for regulating financial flows and making the business model sustainable.

There are two different payment methods that generate different revenue streams and which in turn include other different forms of payment:

- payment in one solution;
- recurring payments, such as rentals or subscriptions.

Given that we are focusing on the services sector, you should consider whether you are offering your services for a user fee (based on the use of a

particular service) or entry free (which is typical for services offered on an ongoing basis). SMEs may also offer their services²⁸ for a loan, rental or leasing (typical when customers have the opportunity to use an asset for a specified period of time), licensing, advertising, commissions and so on.

In terms of prices, these can be defined in different ways. If the company is dealing with fixed prices, it can set them, for example, based on its business volume and the identified segment of customers. In the case of dynamic prices, these will be defined in terms of real-time market trends, negotiations with partners and other variables.

In the process of mapping the business model canvas, the cost structure is left until last, because it derives almost directly from the structure of the blocks related to key activities, key partners and key resources. By analysing the cost structure, the business model can have:

- fixed costs: in this business model the costs remain unchanged as the volume of goods or services produced (rent, wages, production plants) changes;
- variable costs: costs vary according to the volumes of goods and services produced;
- economies of scale: costs are lowered when a company expands (this is the case with large brands that have much higher price advantages than small producers);
- economies of scope: costs decrease by increasing the range of an operation.

A good question to ask is: is your business cost-driven or value-driven? In a cost-driven business, each diminished cost represents an additional opportunity to respect the value proposition. In a value-driven company, even if you are still

²⁸See CASALINO, N., CAVALLARI, M., DE MARCO, M., GATTI, M., TARANTO, G. (2014), *Defining a Model for Effective e-Government Services and an Inter-organizational Cooperation in Public Sector*, Proceedings of 16th International Conference on Enterprise Information Systems - ICEIS 2014, INSTICC, Lisbon, Portugal, vol. 2, pp. 400-408.

going to optimise costs and reduce waste, the most important thing is to offer a value that the customer perceives to be very high. This depends on each company corporate strategy, which can differ across firms within the same sector.

4. Innovating a business model means understanding and rethinking the company at the highest level, observing all the processes (production, distribution, sales and so on) as a whole and in their synergies, without any particularities. A structural vision makes it possible to identify bottlenecks, unexploited opportunities and dead activities, which can then be cut out.

The business model can also be considered the operating system of a company. To put it simply, it is the upstream logical structure that defines the relationships and the behaviour of each single element, and that allows it to work in a fluid, optimised and productive way.

Making business model innovation is like updating a computer operating system. It is something that a company must do when:

1. new threats come from outside (viruses in the case of the PC, new competitors in the case of the company);
2. new needs arise that need a different support (new applications in the case of the PC, new potential customers in the case of the company or new market requirements such as a Digital Transformation process);
3. the system is overloaded, and operations are slow and not very fluid (reduced performance in the case of the PC, reduced marginality in the case of the company).

On the basis of what has been said so far, there are some useful tips below that a business services company should consider when deciding whether to modify its own business plan. It is convenient to suggest reviewing each box of the business model or creating a new one which is tailored to needs of the digital era.

First, the firm needs to change its perspective. Even the largest leading companies worldwide have realised that just using tools as marketing research is

not enough. In order to develop a successful business model, it is crucial to understand clients' needs and desires in the digital era (i.e. which services they are expecting and how is it possible to satisfy their new needs). Then focus on which customer' needs are real and most urgent. In a preliminary brainstorming phase, it is possible that numerous needs might arise. In the process of revision, the managers should then include only those that should really be prioritised.

Value propositions and needs; activities and customer desires must be in synergy with each other. This makes the difference between a successful business model and a broken business model.

Emotional and social aspects must be taken into account, as well as functional aspects (such as the need for the client to perform a certain activity at best). There are also needs linked to the emotional sphere (such as hidden fears, frustrations and desires), which are just as important. At an operational level, it is important and strategic to understand how the built business model is integrated. Is it adequately supported by the key activities? Is it synergistic with the value you offer? What kind of relationship can be more functional for each customer segment? These considerations will allow the company both to make appropriate choices and to harmonise them within the design process.

The different types of relationships that the company establishes with different customer segments support and structure the customer experience. Do not underestimate the importance of communicating with clients: they can help you to be aware of the needs of the target group and from time to time to spread various initiatives, to gain news on offered services and new value proposals. And all without necessarily exposing the company immediately in a co-creation relationship²⁹.

Enter only key strategic activities: don't consider all the activities that will

²⁹See CASALINO, N., CIARLO, M., DE MARCO, M., GATTI, M., (2012), *ICT Adoption and organizational change. An innovative training system on industrial automation systems for enhancing competitiveness of SMEs*, Proceedings of 14th International Conference on Enterprise Information Systems–ICEIS, Wroclaw, Poland, Maciaszek L., Cuzzocrea A., Cordeiro J. (Eds.), INSTICC, Setubal, Portugal.

be part of the business cycle but just the ones that are particularly relevant for the functioning of the business model. Together with key resources and key partners, this block will determine what cost structures the company will have to support. Keep a clear vision: always keep a clear and concise overview of the business model. This will be particularly useful in translating the business model canvas into subsequent strategic planning documents.

If a SME follows a multichannel strategy, all channels should be considered simultaneously so that it will be easier to create points of contact with people who will benefit from products and services. The digital era is the era of omnichannel environments, where in order to reach the consumer it is important to select the right message and to deliver it at the right time and through the right touchpoints³⁰.

Search for partners with whom to create synergies: especially if the firm needs to acquire knowledge³¹ and skills about new digital technologies it should consider the possibility of developing a partnership with specialised firms.

In terms of prices, the first questions you should ask are: What do customers have to pay for? How should they do it? How much do they have to pay?

Revenue Flows can then be structured along with the cost structure analysis, and this will allow you to maintain the success achieved by making the business model sustainable.

There is no single factor that makes revenues sustainable and functional. When you think about your new business model, do not make the mistake of considering revenue based on price. You should also pay attention to payment methods, resources, partners and key activities. In fact, it is important to ask

³⁰See McKinsey Customer Decision Journey in the Digital Era, 2019.

³¹See AGRIFOGLIO, R., METALLO, C., VARRIALE, L., FERRARA, M., CASALINO, N., DE MARCO, M., (2013), *Assessing Individual Learning and Group Knowledge in a Wiki Environment: An Empirical Analysis*, in Klement E.P., Borutzky W., Fahringer T., Hamza M.H., Uskov V., Proceedings of Web-based Education - WBE 2013 conference, IASTED-ACTA Press Zurich, 11-13 February, Innsbruck, Austria, DOI 10.2316/P.2013.792-042.

which of these items will have a greater impact on costs. If an entrepreneur has done the analysis correctly, in the presence of high costs you will have to make a comparison with the revenue streams. Obviously, the business model will become sustainable only if these are higher than the costs.

5. If digital transformation is simply approached as a new tool or just an addition to the current firm's structure it will definitely fail. Digital transformation must be implemented as a total rethinking of what must be done in a market where new technologies are continuously introduced and shaping new customer needs. The real challenge in a process of digital transformation is not to keep up with all technological changes – these are countless and getting faster everyday – but to become quicker, more flexible and cost-efficient, and therefore to minimise risk and structural complexities.

It is important that entrepreneurs remain watchful, taking steps to proactively and intelligently address also cyber-security risks within their organisation. Beyond the technological solutions developed to defend and combat breaches, it is possible that can accomplish even more through better training, awareness and insight on human resources behaviour³².

Confidence, after all, is not a measure of technological systems, but of the people who are entrusted to manage them.

Digital resilience is about balance and collaboration. The balance between seizing the opportunities and managing the digital risks your organisation faces. The balance between your people, processes and technology as each needs to play their role in any integrated and enterprise-wide response to better protect the most precious and valuable information assets. And collaboration is the key to

³²See AHMAND, S., SCHROEDER, R.G. (2013), *The impact of human resource management practices on operational performance: recognizing country and industry differences*, Elsevier.

success³³ – collaboration between the leadership team and their risk, security and technology teams as well as collaboration with other key business stakeholders (communication, public relations, marketing, legal, procurement, etc.) to ensure entrepreneurs are well placed and prepared for a breach as and, almost inevitably, when it happens.

In order to ensure that your new business model will work adequately, pay attention to the following useful tips:

- development and role of an effective and inclusive leadership: top management clearly and formally sets out the objectives of change, but middle management must be involved with accountability actions to facilitate communication and decisions, thereby involving staff at all organisational levels;
- make people aware of the benefits of change: develop an awareness of the effects and benefits of change, for example how it will change the way people work and their roles, so as to facilitate acceptance. It is also good to provide incentives and reward mechanisms;
- learning: create a way to develop specific change skills that can be distributed within the organisation, integrating them also with a programme or project management skills³⁴. SMEs could distribute some general instructions to their employees or organise ad hoc training sessions;
- organisational governance: define the role of a change coordinator with a clear and visible mission;
- tool, methodologies, check list: provide methods that facilitate and speed up the start of the programmes without having to “reinvent the wheel”

³³See ARMENIA, S., CANINI, D., CASALINO, N. (2008), *A system dynamics approach to the paper dematerialization process in the Italian public administration*, *Interdisciplinary Aspects of Information Systems Studies*, pp.399-408.

³⁴See CAPRIGLIONE, F., CASALINO, N. (2014), *Improving Corporate Governance and Managerial Skills in Banking Organizations*, *International Journal of Advanced Corporate Learning (iJAC)*, Austria, vol. 7, issue 4, pp. 17-27.

every time. Develop instead a permanent operational culture that is dedicated to change;

- monitor hard and soft key performance indicators (KPIs)³⁵: activating control mechanisms linked to business objectives (KPI hard), but also KPIs that are soft for communication, alignment with strategies, and company climate. The technology also provides innovative support with change predictive analytics for increasingly effective decisions related to change.

The following step by step instructions, provided by Gartner³⁶, facilitate the process of digital transformation within an organisation:

1. create the right mind-set and shared understanding;
2. put the right leadership in place;
3. launch a digital business centre of excellence;
4. formulate the digital strategy;
5. find, develop and acquire knowledge;
6. create new digital capabilities.

The impacts of not effectively balancing your digital transformation with effective digital resilience have already been keenly felt by too many organisations. So, it is more and more fundamental to focus on the more effective way to start to make digital resilience the critical business enabler it should be.

6. The present manuscript tries to emphasize that digital transformation is not achieved simply introducing new technologies to perform organisational tasks. It is, instead, a process of change which involves the organisation as a whole and therefore has organisational, financial, strategic and operational implications.

The tricky part of transforming a business is to change the organisational culture, the mind-set and instincts of the working people in a company. The

³⁵Key Performance Indicators (KPIs) are metrics which indicate the level of achievement of a given objective by an individual, a department or a company.

³⁶See Gartner Inc. research and advisory services. With expert-led, practitioner-sourced and data-driven research it steers clients toward the right decisions on the issues that matter most. <https://www.gartner.com/technology/about.jsp>

common definition of culture is the set of values, norms, beliefs and knowledge that shapes people's will and needs and is embedded in the place in which they were born and have grown up. Just as it varies between each different country, so also every organisation has its own values, which characterise people's behaviours and interactions: this has an impact on activities and the way in which they are managed.

When dealing with changes – i.e. introducing new strategies, structures or processes – it is important to clarify whether they are in contrast with basic norms and values shared by the corporate culture. If so, getting the benefits from the change process will be practically impossible.

So, what if the SMEs organizational culture is not in line with a process of digital transformation? It is clear that changing an organisational culture means changing values, norms, attitudes, opinions and ways of thinking which permeate the whole organisation and thus influence the entire workforce's behaviour.

It is important to understand and improve a recognition of non-formal and informal learning acquired through work experience in an organisation to overcome, or, at least, to reduce the effects of this crisis³⁷.

Traditional models of on the job training are often not enough for continuous skills' updates and upgrades as they are too cumbersome and limit learners to prescribed and closed educational/training systems.

There are many methods and a variety of techniques for collecting evidence to provide a basis for judgments about whether learning/training outcomes (skills and competences) have been acquired or not.

Learning and knowledge support systems have to convey professional knowledge to non-specialists³⁸.

³⁷See USKOV, V., CASALINO, N. (2012), *New Means of Organizational Governance to Reduce the Effects of European Economic Crisis and Improve the Competitiveness of SMEs*, in *Law and Economics Yearly Review Journal*, Queen Mary University, London, UK, vol. 1, part 1, pp. 149-179.

³⁸See BIANCHI, M., CASALINO, N., DRAOLI, M., GAMBOSI, G. (2012), *An Innovative Approach to the Governance of E-Government Knowledge Management Systems*, in *Information*

Current approaches and information systems³⁹, enhanced by Web 2.0, provide a viable solution for fast paced and multitask oriented patterns of learning and working today. They enable learning in small steps and with small units of content through social interaction.

Innovative and well-designed processes aligned with formal learning and embedded in online going professional development. As companies seek various new ways and options for the more efficient and effective cross training of employees, informal learning has become an increasingly valuable alternative⁴⁰.

Organisational culture has been described in literature by Edward Twitchell Hall as an iceberg (figure 2)⁴¹.

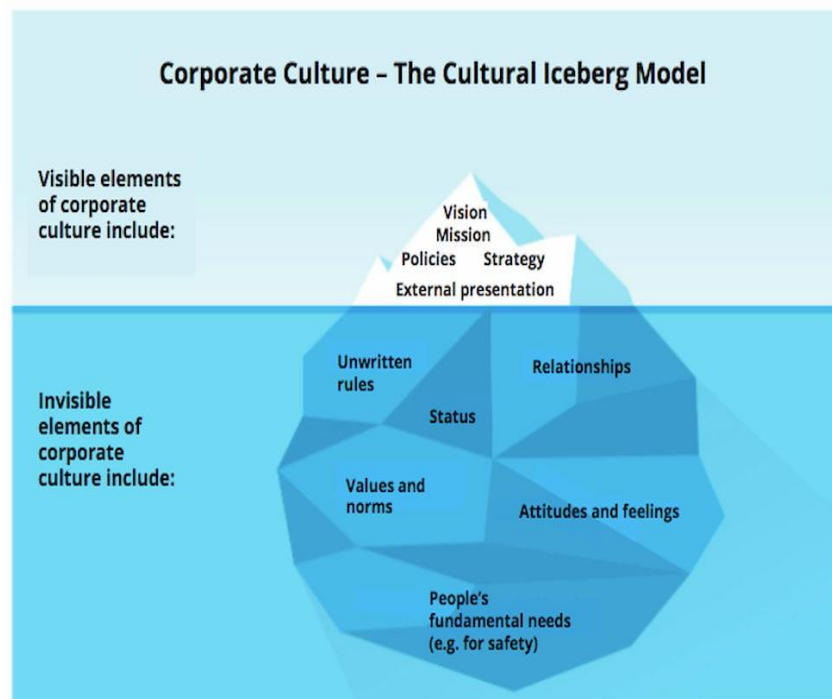


Figure 2 - Iceberg model of corporate culture by Edward Twitchell Hall (1989).

Systems: a Crossroads for Organization, Management, Accounting and Engineering, De Marco M., Te'eni D., et al. (Eds.), Physica-Verlag, Springer, Heidelberg, pp. 113-121, ISBN 978-3-7908-2788-0, doi 10.1007/978-3-7908-2789-7_14.

³⁹See D'ATRI, A., DE MARCO, M., CASALINO, N. (2008), *Interdisciplinary Aspects of Information Systems Studies*, pp. 1-416, Physica-Verlag, Springer, Germany.

⁴⁰See USKOV, V., CASALINO, N. (2012), *New Means of Organizational Governance to Reduce the Effects of European Economic Crisis and Improve the Competitiveness of SMEs*, in *Law and Economics Yearly Review Journal*, LEYR, Queen Mary University, London, vol. 1, part 1.

⁴¹ See EDWARD, T.H. (1989), *Cultural Iceberg Model*, in *Beyond Culture*, Anchor Books, USA.

On the surface there are visible elements, i.e. organisational structures, office layouts, brand, vision, mission, symbols, and all the other elements that can be seen by everyone inside and outside the organisation. On the other hand, the lower part of the iceberg is made up of all the deep-seated values embedded in people's minds within the organisation, i.e. assumptions, opinions, unconscious mental processes that define their culture.

Of course, in order to change the company's culture, it is important to change underlying elements, that will in turn impact all visible elements⁴². It is essential that the management encourages values that are in line with concepts such as innovation, sharing, teamwork, flexibility, responsibility, etc.

There are four main strategies that are considered effective for a successful cultural change:

1. business Development. Managers should introduce the change as a business development strategy aimed at improving the firm's capability to adapt to changes and solve new problems;
2. groups. This is when managers organise a meeting with all the relevant stakeholders of the organisation and they meet outside the firm to reflect on new opportunities and to develop a new plan;
3. team Building. Working together can always be translated into teamwork. Teams can be created to solve problems, to develop new products, to achieve other specific objectives. Building teams can strengthen cohesion and collaboration among employees;
4. activities among employees. Employees that typically perform different tasks are brought together in a neutral place to reflect on ways to make communication and coordination more effective.

New technologies imply changes in employees' knowledge, competences and skills. More specifically, each organisation needs to design jobs, and assign goals and tasks that employees must achieve. Managers can intervene with job

⁴²See DAFT, R.L. (2016), *Organization theory and design*, Cengage Learning – Boston, pp. 69-74.

descriptions when they believe there is a possibility for improving the productivity or motivation of employees. Nowadays, new technologies are often popular interventions, but since they modify employees' work, they are often seen as a threat and are not always easily accepted.

However, although it is true that technologies have often reduced the number of workers needed to perform a task, they should not be seen as a danger. The possible effects of technology on jobs are:

- job simplification: activities become simple and not very varied, so employees could be unsatisfied with their mechanic role⁴³;
- job enrichment: there is an increase in responsibilities and competences required to employees, so that they would need training and instructions to perform their tasks effectively;
- job enlargement: the number of tasks performed by a single employee is increased.

In the digitalised world, employees must be ready to learn continuously since new technologies could be introduced nearly every day, changing the way in which the job is executed. Even if they are often negatively perceived, literature suggests that if the role of technologies is well interpreted, employees' positions will be strengthened and will provide them with new opportunities that also ensure higher satisfaction.

Training on the workplace is a process through which individuals are helped to learn a skill or technique. In particular, skills may be manual, such as using a keyboard, or intellectual, such as negotiating a contract. Progress in today's digital era places emphasis on the growth of the individual, relating to acquiring a broad range of planned activities and experience that is most commonly acquired through the extensive use of a computer or other means of modern technology. Internet has far-reaching implications for the availability of information and for

⁴³A possible solution could be to introduce job rotation so that everyone can practice different roles and learn new tasks.

education. It is changing the way we work and creating new businesses that support technology. At the same time, technology and the internet also provide new techniques for trainers to use in the process of training itself. However, this can affect interpersonal communication. The basis for most training remains the traditional training process system.

This comprises of four main steps, namely identifying training and learning needs, devising a learning plan, delivering training, and evaluating the outcomes.

While establishing an entrepreneur training plan, be sure to stress the relevance of creativity, effectiveness, adaptiveness and flexibility. These are the characteristics which were considered most important in the current state analysis⁴⁴. In fact, technologies could and will change in the future. People must be ready to adapt and quickly update their knowledge and skills.

5. Many organisations have already changed their structure due to the introduction of new technologies. This has led to important implications for both strategy and operations. More specifically:
 - it would help organisations when responding to customers that are becoming more demanding every day in terms of the speed, comfort, quality and value they expect from companies;
 - it would provide advantages in terms of upgraded decisional process, higher control, efficacy and coordination.

Technologies support agile work⁴⁵, and this has some important implications for strategy and operations:

⁴⁴See CASALINO, N. (2014), *Simulations and Collective Environments: New Boundaries of Inclusiveness for Organizations?*, in *International Journal of Advances in Psychology* (IJAP), Science and Engineering Publishing, USA, vol. 3, issue 4, pp. 103-110.

⁴⁵Sometimes also referred to as smart work or flexible work, agile work is defined as “an approach to organizing work through a combination of flexibility, autonomy and collaboration, which does not necessarily require the worker to be present in the workplace or in any pre-defined place and enables them to manage their own working hours, while nevertheless ensuring consistency with the maximum daily and weekly working hours laid down by law and collective agreements”. It is, of course, facilitated by new technologies (European Parliament resolution of 13 September 2016 on creating labor market conditions favorable for work-life balance).

- organisations can be smaller. Some internet-based firms, for example, exist almost completely in the “cyberspace”. There is no formal organisation with offices and big structures, everything could be managed directly from home, reducing the need for large investments in assets and fixed costs⁴⁶. When dealing with the transformation of SMEs this means that the small dimension of those enterprises is not a weakness⁴⁷, at least for operational and strategic purposes. Thanks to ICT consulting organisations⁴⁸, companies in general could also outsource many functions and reduce their internal dimensions;
- decentralisation of structures. Many firms are using ICT to decentralise the decisional power. Nowadays, in fact, there is no need for managers to heavily rely on what the top management says. Thanks to ICT they could have all the information they need at any time, thus being able to take decisions in the most efficient and effective way. Depending on the organisational culture, technology⁴⁹ could also be used to strengthen the power of the centralised authority. In this case, they could have an even greater control over all the activities carried out throughout the company;
- better internal and external coordination. Communication is simplified, and it is the most important thing to ensure coordination among members of the organisation. Information systems ensure that workers can be connected and that they can work together even if they are located in different parts of the world. On the other hand, a greater flow of information and communications could increase the number of direct interactions among members within the organisation, thus creating new

⁴⁶This is the case with hi-tech start-ups, which are born to be competitive in the international scene and are characterized by flexibility and a high level of innovation.

⁴⁷Instead, as was previously thought, this small dimension could also be a weakness due to the lack of financial resources required to invest in digital transformation.

⁴⁸See CHANG, D.Y. (2003), *Six fundamentals of strategic implementation of information systems for destination management organizations*, e-Review of Tourism Research (eRTR).

⁴⁹See POLLOCK, F. (1956), *Automation: a study of its economic and social consequences*.

challenges when it comes to supervising the whole process;

- better inter-organisational relationships. Point 3 also applies to horizontal coordination and collaboration with third parties such as suppliers, clients and partners. While traditional interactions with third parties were often considered to be distinct, a growing trend is to level organisational boundaries and promote collaboration as if suppliers were part of the company;
- reinforced networks. If the transforming SME is working in a network of enterprises, then their work will be optimised by all the advantages carried by business information systems. The continuous flow of information obtained at a lower cost helps companies reinforce their competitive position.

Technologies are almost everywhere in services and they are the most important source of innovation. Incorporating them in the whole firm is essential to optimise strategies. As defined by Huang and Rust (2017)⁵⁰, the three major impacts on services are related to: (1) the ability to communicate with clients, (2) the improved storage of data on clients (big data), (3) the ability to analyse this data and better understand clients' needs. These three impacts are all focused on customers. It is therefore clear that technology can help to strengthen relationships with clients⁵¹, which can be standardised (when technology is used for gaining efficiencies) or personalised (when technology is used to better discover customers' needs)⁵².

As has been stated before, the main implications of digital transformation relate to communication and coordination between various stakeholders, which could be inside the boundaries of the organisation or outside. This explains the

⁵⁰See HUANG, M., RUST, R. (2017), *Technology-driven service strategy*, in *Journal of the Academy of Marketing Science*, Springer, 45:906-924.

⁵¹See WILLIAMSON, O.E. (1985), *The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting*, The Free Press, New York.

⁵²See HUANG, M., RUST, R. (2017), *Technology-driven service strategy*, in *Journal of the Academy of Marketing Science*, Springer, 45:906-924.

implications of digital transformation for two important stakeholders: suppliers and competitors. An increasingly widespread trend is the “integrated enterprise”.

Technologies allows companies to communicate and coordinate their work internally, but also to do so with suppliers, clients and partners. Integrating suppliers in the production process makes it easier to satisfy customer needs.

Companies are entrenched in multiple multifaceted relationships that make them interdependent on each other for success so that we cannot talk anymore about competition, in its strictest sense. Technologies even reinforce this trend, given that they often require scales: the more they are used and improved, the more they will be useful for all companies.

One particularly interesting theory is that of James F. Moore in his work on business ecosystems⁵³ (figure 3). He defines these ecosystems as a system formed by the interaction of a community of organisations and their environment.

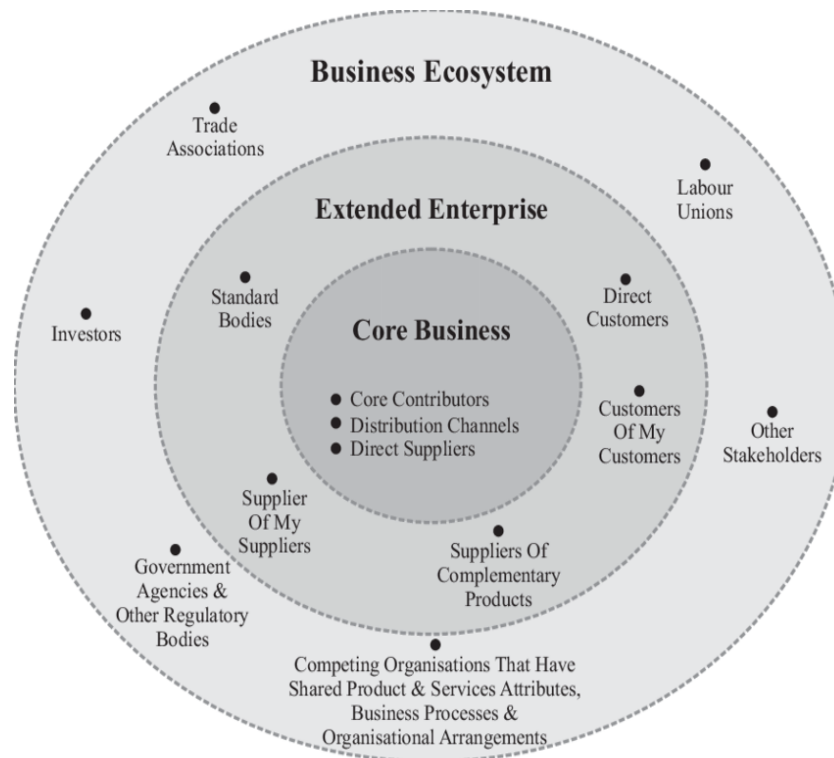


Figure 3 – The Business Ecosystem described by James F. Moore (1996).

⁵³See MOORE, J.F. (1996), *The Death of Competition: Leadership and Strategy in the Age of Business Ecosystems*, John Wiley & Sons Ltd, USA.

SMEs could also think about sharing the costs required by technology investments and creating networks. In organisational ecosystems and enterprise networks cooperation and competition coexist, creating an environment of co-opetition. The term co-opetition was coined by Adam Brandenburger and Barry Nalebuff in a book of the same name. The authors applied game theory to business relationship to show why the right strategy for rival businesses is often a mix of competition and cooperation on different fronts. [...] rival companies must cooperate to “grow the pie” and at the same time they compete to “divide the pie”⁵⁴. What is clear from the analysed framework is that firms need to be ready to lose their boundaries in the pursuit of organisational efficiency and market growth. SMEs in the business services sector should learn from the experience of Italian industrial districts, made of small and medium enterprises, that perform traditional activities but still enjoy the benefits of sharing major costs, in some ways thanks to geographical proximity⁵⁵. The same can be done, nowadays, even without being located close to other competitors. Data and information sharing could be the new source of competitive advantage if they allow firms to anticipate their clients’ needs.

6. An effective and innovative business strategy will aim to maximize the use of communication tools to raise the demand, favoring a dynamic selection of markets in which to intervene, of products and strategies to promote and commercialize, etc.

From the business point of view, a resilient organization must demonstrate key traits in the way that it operates: adaptable with agile leadership that governs robustly. A resilient organization will benefit from:

⁵⁴See BARANDENBURGER, A.M., NALEBUFF, B.J. (1997), *Co-opetition*, New York, Currency Double day, 11-27 cited in ROGERS, D.L. (2016), *The Digital Transformation Playbook – Rethink your business for the digital age*, Columbia Business School Publishing, New York, pp. 74-75.

⁵⁵See CARABELLI, A., HIRSCH, G., RABELLOTTI, R. (2006), *Italian SMEs and Industrial Districts on the move: Where are they going?*, PRIN research project, MIUR.

- strategic adaptability – giving them the ability to handle changing circumstances successfully, even if this means moving away from their core business;
- agile leadership – allowing them to take measured risks with confidence and respond quickly and appropriately to both opportunity and threat;
- robust governance – demonstrating accountability across organizational structures, based upon a culture of trust, transparency and innovation, ensuring they remain true to their vision and values.

Besides the company, through a promotion aligned to the organizational value proposition⁵⁶, has to distinguish one country from another, is a great resource to exploit: organizational culture⁵⁷ and, in the same time, the local lifestyle by the analysis of the data obtained by GIS – Geographical Information Systems. So, the governmental support to the market access for SMEs could be guided by the following objectives:

- promote a digital European internal market;
- facilitate access to international markets for innovative entrepreneurs;
- enable concretely the uptake of resource efficiency technology through concrete investments, training actions and cooperation exchanges between European SMEs.

Given limited public resources, it is really recommended that the European countries, as is making the Chinese government, will assist enterprises in resuming work and production as soon as possible. Supportive policies should be tailored to the unique characteristics of each sector. For example:

- the light industry sector is most in need of support, in particular those enterprises involved in exports. By introducing support for the full industrial chain, and rebates in social security contributions, the government can help

⁵⁶See CASALINO, N., D’ATRI, A. MANEV L. (2007), *A quality management training system on ISO standards for enhancing competitiveness of SMEs*, Proc. 9th International Conference on Enterprise Information Systems – ICEIS conference.

⁵⁷See WILLIAMSON, O.E. (1985), *The Economic Institutions of Capitalism. Firms, Markets, Relational Contracting*, The Free Press, New York

- enterprises to quickly resume operations;
- to assist the heavy industry sector, the government should roll out region-specific epidemic control measures. Many medium- and large-sized heavy enterprises have their own dormitories. They should take responsibility for organizing production while keeping workers safe within their perimeters;
 - in the business services sector, as the long-term impact of the outbreak will likely be relatively small, the government should continue to provide medium- to long-term loans to avoid disrupting cash flows;
 - although the residential services sector has been hit by the direct impact of weak demand, the need for government support should be relatively limited. Rent relief is identified by the residential services sector as the most important supportive policy.

Despite more than a dozen supportive policies unveiled by various ministries and commissions to help enterprises overcome the epidemic, most private entrepreneurs lack a clear understanding of these policies and have no idea how to make proper use of them.

Supportive policies should take into account differences across sectors to be more relevant to their specific needs; they should also be more transparent if they are to deliver subsidies directly to the private entrepreneurs, they aim to help overcome the crisis.

In the meantime, digital transformation follows the rise of new digital skills and the adoption of digital tools. This is a process of transformation which requires the re-structuring of previous business models to make room for new, more effective and efficient, practices⁵⁸.

These draw on existing theories of organisational change, change management, knowledge management, project management and risk management.

⁵⁸See CASALINO, N., D'ATRI, A., BRACCINI, A.M. (2012), *A quality management training system concerning ISO standards for sustainable organisational change in SMEs*, in *International Journal of Productivity and Quality Management (IJPQM)*.

An appropriate digitalization strategy to develop own business aims to expand the products/services offer of SMEs to make them more and more competitive. In particular, the suggested strategy is oriented to the full use of the competitive advantage linked to the plurality and variety of cultural, and social motivational tools, also expressed towards practical skills, knowledge, experience, better talents and local feedbacks (also using for example the latest GIS – Geographical Information Systems).

A successful process of digital transformation is a complex task to perform. First, it is fundamental plan for the worst and implement a clear action plan. Every decision maker within the company needs to ensure they are fully aligned with the business on the expectations. Then is essential to look carefully for the right technology. Sometimes purchasing more products to fix issues only tends to make things worse. It exposes vulnerabilities in the business, leaving SMEs also opened to malicious attacks and troubles.

Finally, businesses need to properly test their digital infrastructures. By running a full failover test, enterprises can be sure they can fully recover valuable data when necessary, ensuring all plans for digital transformation are not quashed by increasingly sophisticated data losses. With the right technology for information systems resilience in place, businesses can drive their digital transformation efforts forward, safe in the knowledge that the risk of downtime is mitigated, with an always-on business that will maintain superior customer experience in any eventuality.

The experience with SARS, H1N1 and Ebola already showed that, while some progress is made after each outbreak, this is often not sustained. This COVID-19 epidemic shows that managing diseases is absolutely critical to the long-term health of global economy, and doubly so in circumstances where traditional central bank and finance ministry tools for dealing with major global economic

shocks are limited⁵⁹.

For this reason, in order to simplify the analysed complexity, an advanced business process model⁶⁰ could be very useful for representing a step-by-step re-organisational process. SMEs should first assess their current status⁶¹, then be aware of new technologies and innovations. They should then revise their business model, while considering profound implications on culture, training and financial, strategic and operational performance.

⁵⁹See BUTLER, C. (2017), *How to Fight the Economic Fallout from the Coronavirus*, Chatham House.

⁶⁰See BECKER, J., ROSEMANN, M., VON UTHMANN, C. (2000), *Guidelines of business process modeling*, in *Business Process Management*, pp. 30-49, Springer Berlin Heidelberg.

⁶¹See PFEFFER, J. (1998), *Seven practices of successful organizations*, in *California Management Review*, 40(2), pp. 96-124.