

# Digital transformation in accounting firms

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There is no denying the fact that many accounting firms are experiencing a real identity crisis. If on the one hand technological innovations are increasingly having an impact on traditional activities, on the other hand there is a growing need to start a digital evolution process, also known as *digital transformation*. However, what does digital transformation consist of for an accounting firm? What are the fundamental steps characterizing it? How must a valid digital transformation process be planned?

## DIGITAL TRANSFORMATION

We are living in a historical time featured by an increase in computational capacity at a decreasing cost. Moreover, the data supplied by more and more advanced computer systems is having an exponential increase. Many refer to this period as the fourth industrial revolution forcing companies, if they want to survive, to think over again about their business model in digital terms. Accounting firms are not immune to this transformation. Some of them, those who are most attentive to market developments, have already started a real process of *digital transformation*.

There are different definitions of digital transformation including:

-“a process of reinventing a business to digitize operations and formulate extended supply chain relationships”<sup>1</sup>

-“the use of technology to radically improve the performance or reach of enterprises”<sup>2</sup>;

-“the deliberate and ongoing digital evolution of a company, business model, idea process, or methodology, both strategically and tactically”<sup>3</sup>

If we want to simplify, we can define *digital transformation* as a process capable of allowing a company to think over again about its business model in digital terms by maximizing the valorization of data through the help of technological innovations.

Since they actually process a huge amount of data daily, this applies to accounting firms too. Unfortunately, only a small quantity of their data is adequately valorized. Therefore, if the main objective of digital transformation is to think anew about one’s own *business model* in digital terms, it is a priority to understand first what a business model is, and then proceed to arrange a valid digital transformation process.

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<sup>1</sup> D. Bowersox et al, *The digital transformation: technology and beyond*, Supply Chain Management Rev, 2005

<sup>2</sup> G. Westerman et al, *Digital transformation: a roadmap for billion-dollar organizations*, MIT Sloan Management, 2011

<sup>3</sup> D.M. Mazzone, *Digital or death. Digital transformation: the only choice for business to survive smash and conquer*, 2014

## THE BUSINESS MODEL

“A *business model* describes the rationale of how an organization creates, delivers and captures value.”<sup>4</sup> A very useful tool for examining the sustainability of a business model is the so-called ***Business Model Canvas***, i.e. a visual representation of how a company generates value, thus allowing a stimulus for comparison and discussion among those taking part in the initiative. The business model is described through nine areas, usually printed in large, hung on the wall, and filled in with post.it notes or markers.

A *Business Model Canvas* is logically filled in as follows:

### ► ***Partners, activities and keys resources***

It includes the examination of the following three aspects:

*Key partners*: It establishes which are the key partners and suppliers who are essential for the good functioning of the business model. It may include strategic alliances between competing and non-competing companies besides joint ventures.

*Key activities*: It defines the useful strategic activities for creating value as well as achieving and maintaining the relationships with customers. These activities can be *productive* (production of goods), *problem solving* (provision of services), or *platform / network* activities.

*Key resources*, i.e. the strategic assets necessary to provide a product and/or a service. They can be physical assets (such as plants, technology, etc.), financial assets (funding, credit lines, etc.), human assets (employees, collaborators, etc.), and intellectual assets (patents, expertise, etc.).

### ► ***Value proposition***

It is the key value meant as the supply of products to clients and/or to provide them with services, thus satisfying their needs in quantitative terms (the lowest possible price for a product, or a greater speed in providing a service, etc.), or qualitatively (a more modern design, a better customer experience, etc.).

### ► ***Market and customers***

It includes the examination of the following three aspects:

*Customer relationships*, i.e. the definition of how to acquire clients and retain them through different types of relationships such as personal assistance, self-services, automatic services, community services, etc.

*Customer segments*, i.e. spotting the customer segment you want to supply with a product and/or provide with a service. This can be done by following different criteria such as the method of sales (shop delivery, through the website), the size (companies with a turnover above a certain threshold, or families with assets above a certain amount), etc.

*Channels*, i.e. establishing which are the best channels you must use to supply customers with a product and/or provide them with a service (e.g. a direct or an indirect channel), or for after-sales services, etc.

### ► ***Economic aspects***

It includes the examination of the following two aspects:

*Cost structure*: the definition of the costs a company has to face to supply products and/or provide services. They can be fixed costs, variable costs, etc.

*Revenue streams*: they consist in the revenue coming from the sale of products and/or services, and it can derive from the sale of an asset, the registration fee for a service, etc.

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<sup>4</sup> A. Osterwalder, Y. Pigneur, *Business Model Generation*, 2010

Let us see now a simple example of how a *Business Model Canvas* could be filled out in case of a young *Chartered Accountant* residing in a small town in Mid-England. Let us also suppose he/she co-operates with an accounting firm in his/her area, but that he/she is somewhat dissatisfied and therefore decides to start up his/her own tax consultancy business. He/she is determined to provide tax assistance solely online to foreigners who intend to purchase properties in England, but we must take into account that he/she does not have significant financial resources though he/she juggles very well with social media.

Let us examine how our young colleague might have built his/her *Business Model Canvas*:

- 1) *Key partners*, i.e. some agreements taken with a few English and foreign real estate agencies, a web agency to promote articles and posts, a translation agency to translate articles and posts into languages other than English, and an IT technician who supports him/her in technical aspects.
- 2) *Key activities*: replying to questions within 24 hours, videoconference meetings, periodic informative newsletter, publication of articles in specialized magazines, and publication of posts and videos on social media.
- 3) *Key resources*, i.e. a tax software for the calculation of taxes owed by customers, a web platform to manage virtual meetings, several APPs for instant messaging and social media, a chatbot to answer recurring questions, and a virtual office in a city that can easily be reached where he/she can hold face-to-face meetings with customers.
- 4) *Value proposition*, i.e. some custom-made tax advice for foreigners buying or selling properties in England, periodic tax updates in different languages (German, Italian, Arabic and Japanese), and a 24/7 personalized service.
- 5) *Customer relationships*: a personalized service with strong use of technology, an online calendar to schedule virtual meetings, some services in self-service mode, and replies to recurring questions via a special chatbot.
- 6) *Customer segments*: foreigners (European and non-European) who want to invest part of their savings in properties in England, foreigners who love England and have made up their mind to live there permanently, and foreign pensioners who love England and decide to live there for a few months and to rent a property for the remaining period.
- 7) *Channels*: website (reserved area), e-mail (newsletter), APPs (WhatsApp, Telegram, Twitter, Instagram), and chatbots.
- 8) *Cost structure*: IT technician, web agency, translation agency, and a virtual office.
- 9) *Revenue streams*: yearly fee for periodic newsletters, fees for consultancy during the purchase, sale and rental stages, flat-rate yearly fee for the calculation of taxes, tax calculation, fees for spot consultancy, advice, and replies to questions.

## THE DIGITAL TRANSFORMATION IN ACCOUNTING FIRMS

As it is for companies, the digital transformation in an accounting firm is a rather complex process with high risks of failure<sup>5</sup>. Whereas a young colleague who intends to start a profession can build up *The Business Model* from scratch, for an already established accounting firm the elements that make up the organization (people, technologies and processes) are largely consolidated and not easy

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<sup>5</sup> According to T. Saldanha, "*Why digital transformations fail*"- 2019, the average failure rate of digital transformation processes is 70%.

to remodel. As many architects know very well, it is much easier to build a new house than to restore one that has already been built!

**The digital transformation** of an accounting firm must redefine new balances between the elements that constitute it (people, technologies and processes) in order to place information and data at the center of the activities carried out and the services provided.

Whereas people in a traditional accounting firm often perform repetitive activities of low value and their software programs are poorly integrated to each other with nearly unknown processes, in a “**data-driven**” accounting firm where any decision, activity and service is focused on the data, things are very different. After an adequate training course, accountants will only carry out consultancy activities or monitor mostly automated processes. Their software programs are integrated as much as possible, and they will pay obsessive attention to *data governance* in terms of data security, data quality, data architecture, data storage, data integration and modeling of data, metadata and so forth. If we want now to examine the main stages of a digital transformation process in an accounting firm, we may summarize them as follows:

- 1) Define the AS-IS Business Model
- 2) Define the peculiarities of the AS-IS analysis
- 3) Define the TO-BE Business Model
- 4) Assessment of impacts
- 5) Define a timeline

### ► 1 - DEFINE THE AS-IS BUSINESS MODEL

This first stage aims at making a picture of the Business Model enforced by an accounting firm (AS-IS) with the help of the *Business Model Canvas*. Special care must be taken in carrying out this analysis with extreme objectivity. Actually, it is not easy to be objective and impartial when analyzing something that concerns you directly such as an accounting firm to which you have devoted years and years of commitment and dedication. This is why we suggest delegating this activity, and the following one, to an external figure who is not emotionally involved in the management of your accounting firm and is better suited to carrying out a critical analysis.

### ► 2- DEFINE THE PECULIARITIES OF THE AS-IS ANALYSIS

This second stage, which is certainly more delicate than the previous one, aims at spotting the features of your accounting firm as far as the services provided are concerned, and with reference to the three components that characterize it, namely the people working in it, the technology used, and the processes adopted. The target is to intercept the peculiarities of the AS-IS analysis on which to build the foundations of what could be the TO-BE Business Model.

Thucydides<sup>6</sup> argued, “***We need to know the past to understand the present and orient the future***”. Therefore, we need to examine first the characteristics of the AS-IS analysis in detail in order to outline what will then be the TO-BE Business Model.

We can do it with the help of the following 10 questions:

- 1) What are the strengths and weaknesses of an accounting firm?

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<sup>6</sup> Thucydides (460 - 404 BC), was an Athenian historian and military man as well as a philosopher and politician, and is best known for his historiographical work "The *Peloponnesian War* ", in which he meticulously describes the war between Sparta and Athena for dominance over Greece.

Each firm has its own strengths, which could be specialization in a particular area (for example consultancy and financial planning) or its presence in a specific product sector (for example building sector), as well as weak points, such as inattentive and improvised communication with customers or no marketing activity to promote its business.

2) What is the level of customer satisfaction with the services provided?

An accounting firm is not always aware of how the services provided are perceived by their customers, but it is difficult to think about a digital transformation process without this information.

An interview with customers or a simple questionnaire could upset the firm's beliefs.

3) How did new clients find out about an accounting firm?

Even if "*by word of mouth*" is perhaps the most effective and the least expensive way to attract new customers, precisely because it leverages trust between people, nowadays there are many other tools. These are writing articles in specialized online magazines, the publication of posts and videos on networking platforms, taking part in webinars and online seminars, the periodic forwarding of newsletters to potential customers, etc.

4) Why does an accounting firm lose customers?

It sometimes happens that a few clients decide to change accounting firm for economic reasons, or because they think their present accounting firm is no longer trustworthy. In such cases, it is important to understand why. It may be due to a consultancy that did not satisfy a client's requests, or because the client considered the relevant fee too expensive, or because the accounting firm does not provide the kind of services they need.

5) What new services has your accounting firm provided in recent years other than **law-driven services**?

It is important to know this to understand the trend of an accounting firm to innovate the services offered by verifying whether in recent years it has only provided those related to regulatory obligations (law-driven) or others too.

6) What are the margins of profit of the single services provided?

You need to know this to understand which services generate interesting margins compared to those with uninteresting ones. For such an analysis we advise to develop a table (for example Excel) showing the list of services provided, and for each of them the fee, costs and margins of profit.

7) Which services are provided as a one-off and which are instead ongoing services?

It is important to understand which services generate continuous flows of revenue, compared to those that generate it only occasionally, in order to know the turnover an accounting firm can rely on.

8) Are there any processes that could be streamlined or outsourced?

The analysis of processes is an aspect that an accounting firm hardly deals with. Actually, they are often unknown, or a firm thinks they know them whereas they are very different. Instead, it is important to understand how the processes are carried out in detail, whether there are inefficiencies that can be eliminated, or whether they can be outsourced.

9) What is the level of satisfaction with the software used by an accounting firm?

Whether a digital transformation process turns out to be successful or a failure is intrinsically linked to technology and, therefore, to the software an accounting firm uses. It is essential to get an opinion from collaborators on the software programs used, on their degree of integration, on the level of use compared to the real potential, on assistance in the event of malfunction, etc.

10) How much importance does an accounting firm attach to **data governance**?

Considering that digital transformation has the objective of maximizing the valorization of the data produced by an accounting firm, it is useful to understand how data governance is managed. Aspects

such as data security, data quality, data architecture, data storage, data integration, data modeling, metadata, and so forth, must be evaluated.

To summarize the analysis carried out, we suggest setting a table, for example in Excel format, reporting the details of what has emerged.

### ► 3- DEFINE THE TO-BE BUSINESS MODEL

This is certainly the most delicate stage. Accounting firms, with the help of the *Business Model Canvas*, will have to define the Business Model they mean to adopt. If anything, with the help of the following 10 questions:

1) Which are the targets accounting firms want to achieve?

They are economic goals, e.g. the turnover, or other objectives such as the kind of customers they want to reach (only companies with a turnover above a certain threshold, only financial institutions, etc.), or the methods they want to use to provide their services (i.e. online only, etc.).

2) What strategy does an accounting firm want to employ to get its targets?

You may think of a strategy as the pattern of activities performed and those in view over time. If an accounting firm intends to focus only on tax or contractual consultancy and wants to eliminate bookkeeping as they hold it unprofitable, the objective can be achieved by outsourcing the latter to an operator specialized in this area. Otherwise, they may take part in the creation of a highly innovative accounting data processing center in order to be competitive on the market.

3) What is the available budget?

Digital transformation has a cost that accounting firms must estimate carefully. If they do not reckon it, they run the risk that such process will be interrupted due to a lack of resources. The purchase of technology, or the training of collaborators, are not the only costs. In fact, accounting firms do not often take into account many other costs such as, for example, those for data migration, or for the loss of collaborators who perceive digital transformation as a threat.

4) Which are the new *data-driven services* accounting firms can offer to their current customers?

In order to identify which new services they mean to provide to their present clients we suggest accounting firms should:

a) Ask their customers directly which other services they expect from them by means of online surveys, or through targeted meetings aimed at understanding what they are. In many cases, a meeting with customers allows you to gather extremely useful ideas or proposals.

b) Carry out intelligence activities through OSINT too<sup>7</sup> (*Open Source Intelligence*). They are useful activities in order to understand which new services other accounting firms provide to the same type of clients. Sometimes, a simple search using “Google search operators” can give interesting results.

5) Which are the new *data-driven services* accounting firms can offer to a different kind of customers?

This involves spotting which new services could be provided to a type of customers different from the current ones. For this purpose, we suggest accounting firms should:

a) Analyze which new services they could provide with a limited investment in new technologies, procedures, processes and staff training.

b) Analyze which new services they could provide with more demanding investments in new technologies, procedures, processes and staff training.

6) Do accounting firms provide any services that could be eliminated?

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<sup>7</sup> According to the *Office of the Director of National Intelligence* (2011), OSINT means “intelligence produced from publicly available information that is collected, exploited, and disseminated in a timely manner to an appropriate audience for the purpose of addressing a specific intelligence requirement.”

It is important to understand whether among the services provided there are some that do not bring any value to both the accounting firm and their customers besides not being preparatory to other services. Actually, it is paramount to focus only on services capable of bringing value to both the client and the accounting firm. They must eliminate the remaining services or delegate their provision to third parties.

7) Which are the technologies needed to provide new services?

After spotting which data-driven services an accounting firm can provide to their already existing clients, or which ones to a different type of customers, it will have to define the technology needed to provide them. If, upon a customer request, an accounting firm has made up its mind to provide consultancy with the aid of business intelligence tools, they will need to understand which software they must use for such service.

8) What are the skills needed to provide new services?

After spotting who the data-driven services are for (present customers, or a different type of clients), accounting firms will need to define the right skills to provide them.

9) What are the risks associated with new services?

When providing new services you always need to evaluate the risks, and the analysis must include both direct and indirect risks. If an accounting firm, for instance, decides to provide consultancy with the aid of business intelligence tools, in addition to evaluating the risks the consultancy activity involves, they will also have to evaluate the degree of reliability of the data provided by the client through the definition of measures to mitigate them.

10) Who will be the team and the project manager in charge of the digital transformation process?

Accounting firms will have to appoint the members of the team that will govern the digital transformation process. At least three people will have to make up such team in case of small firms, whereas in more structured accounting firms one or more people are needed for each single area (for example IT, accounting, consultancy, marketing, etc. ). Accounting firms will also need to appoint a project manager who, in many cases, is going to be assigned by the team itself. Finally, at least for highly structured accounting firms, we suggest to involve external consultants capable of bringing useful experience and skills to prevent the project from failing.

#### ► 4 - ASSESSMENT OF IMPACTS

After defining a possible TO-BE Business Model, you need to assess the impacts on processes, people, technology, the services provided and partners.

##### **Impacts on processes**

If you intend to automate some processes you must make sure they have specific characteristics, i.e. they must be standardized (the activities are known and certain), they must be stable (with a low probability of being modified), and they must be performed with a low cognitive level.

Automation through RPA solutions<sup>8</sup> cannot be applied to all processes, and the same is for the use of technologies such as chatbots or AI<sup>9</sup>. It is therefore necessary to understand how processes might change following, for example, the use of APIs<sup>10</sup> to acquire banking data and automate the recording of bank transactions. You may as well use a chatbot equipped with artificial intelligence<sup>11</sup> to reply to the recurring tax questions received from customers.

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<sup>8</sup> Robotics Process Automation

<sup>9</sup> Artificial Intelligence

<sup>10</sup> Application Programming Interface

<sup>11</sup> In the US, more and more professional firms are using chatbots to answer recurring questions 24/7.

## Impacts on people

People are the most important part of any organization. For this reason, they must be trained, encouraged and protected. By introducing technologies into accounting firms that automate some activities, or allow the provision of new services, collaborators will increasingly be required to carry out control and monitoring tasks. Furthermore, they will be asked to perform new activities such as, for example, the preparation of a report following some analyses carried out with the aid of business intelligence software. It could be useful to draw up a document that details the AS-IS activities for each collaborator, besides the activities that will be carried out during the different stages that make up the digital transformation process.

## Technological impacts

It is important that the collaborators of accounting firms be aware that *value triggers off from "data"* and that, therefore, every single stage of the digital transformation process must respect this principle. Thus, if an accounting firm decides to offer its customers a new service, this must be provided with particular attention to *data governance*. The data must be of excellent quality, there must be no critical issues as far as cybersecurity is concerned, and the integration between the different IT systems must be excellent. All this is not always guaranteed causing some problems to arise, e.g. some accounting firms do not have a perfect integration between the different software programs ("silo" situations), others have been hacked, and some accounting firms produce inaccurate reports since the data they have analyzed are of low quality (the "*garbage in, garbage out*" principle always applies).

The processes of digitalization and automation of an accounting firm have technological impacts of no small importance, since they require high levels of data governance. Should this not be the case because, for example, an accounting firm wants to save on the budget, in the end they will have to face much higher costs. Never before has the rule "*the less you spend, the more you spend*" been so true. Let us imagine that, instead of purchasing a business intelligence software integrated with the accounting system, an accounting firm decides to buy one of a much lower price though not integrated. Consequently, the files from the Accounting Information System (AIS) will have to be exported, the file layout will have to be converted, and then they will have to be imported into the business intelligence software. This will entail the risks of losing data or conversion errors, the reports produced may be completely unreliable and, as a result, you will provide a very bad consultancy.

## Impacts on the services provided

One of the objectives of digital transformation is to identify the data-driven services you want to provide to your customers. Some of them will be offered in **self-serviced mode**, whereas others will become **commodities**, i.e. services provided without any real profit with the sole purpose of enabling others services.

In the case of small and medium-sized businesses, not only will accounting firms be able to provide more advanced services by using predictive or prescriptive algorithms as it happens in the financial sector, but they will also be able to support their client companies in a real and proper digital transformation. In such instances, AI algorithms are central for analyzing company data, market trends and competitors by making use, for example, of OSINT techniques.

## Impacts on partners

There are also impacts on partners, meant as customers and suppliers, especially with regard to technology suppliers. In fact, accounting firms need to move towards partners capable of supporting

them with reliable and efficient solutions that must be perfectly integrated with each other. We suggest accounting firms should move towards a single software house, as this will facilitate the integration between the different software programs making up the cluster of tools they need.

Accounting firms will also need to urge customers, especially those less accustomed to technology, to use the new services they mean to make available to them. It is worth mentioning that for single owners' micro-businesses applications accessible on smartphones are often preferable.

#### ► 5- DEFINE A TIMELINE

After defining the TO-BE model, accounting firms will have to set a timing for the different stages that make up their digital transformation process. This will neither have to be too short to avoid highly probable errors, nor too long so as not to leave further time to competitors to better position themselves on the market. Accounting firms will have to find the right time for the completion of the individual stages characterizing their digital transformation process with the help, for example, of a GANTT diagram pointing out the time on the horizontal axis, and the different stages on the vertical one. At the end of each stage, we suggest carrying out an analysis to understand if there are any aspects to be reviewed, or any possible impacts to be taken into consideration again.

## CONCLUSIONS

The digital transformation process allows accounting firms thinking about their business model over again in a digital way by maximizing the value of their own data through technological innovations. Many digital transformation projects fail. It is therefore very important to examine the AS-IS business model and its peculiarities carefully. Thus, an accounting firm can define the TO-BE business model without forgetting to evaluate the impacts on people and processes, the technological impacts, the impacts on the services provided, and the impacts on partners.

A digital transformation process can only be considered successful if it has been able to modify the “DNA” of an accounting firm. I.e., by making processes as automated as possible, by digitalizing customers' relationships, by valorizing and governing data with extreme care, by using the new forms of digital communication to promote the accounting firm through a steady monitoring of customers and the market, and by investing much more than in the past in technology and training.

The digital transformation process is nowadays a “must” for both companies and accounting firms who want to keep on being competitive on the market.

It is not anymore a matter of starting or not a digital transformation process; it is just a matter of when to start it.