

**VISUALIZATION TOOLS APPLICATION IN TAX CONSULTING PROJECTS  
FOR A SERVICE PROVIDING COMPANY IN THE IT SEGMENT.**

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## INNOVATION MANAGEMENT

### VISUALIZATION TOOLS APPLICATION IN TAX CONSULTING PROJECTS FOR A SERVICE PROVIDING COMPANY IN THE IT SEGMENT.

#### ABSTRACT

The current paper has approached strategic aspects of services through the use of information technology in the building of strategies, the understanding of the relevance of the right structuring of processes via the planning of scenarios and knowledge management, as well as the observance of technology oriented to knowledge management, grounded on service strategic design through visualization tools. The paper's strategy, which had a qualitative profile, made use of an action research method, as it allowed the adaptation of the prototypes in the course of the study, which, in turn, was adherent to the constant and necessary updates. Regarding data collection, observation techniques and interviews with experts were performed. The current study had the following premise: to evaluate and insert visualization tools applied to services in an IT company and, considering the two cycles studied, propose a service approach with a more participatory tool portfolio by involving the customer since the beginning of each project. This new format pursued the creation of innovation for services inherent to tax solutions. Thus, a distinguished operation, which aimed to reflect on the generation of value to the customers and, consequently, the institution's recognition for their innovative services have been made possible.

**Keywords:** Knowledge Management. Strategic Design. Visualization Tools.

#### INTRODUCTION

The current research contemplates the study of visualization tools in tax consulting projects for a service providing company in the IT segment.

In order to have a differential before competitors, companies must plan and captivate their customers through a portfolio that is directed to their public's specific needs. With view to accomplishing this purpose, this research approaches the relevance visualization tools applied to services have and considers aspects which are based on service visualization tools strategically elaborated through the planning of scenarios, leading to knowledge management and strategic design.

The aligning of a service portfolio is an essential element to companies that aim to structure themselves effectively. By articulating the management of their resources oriented to service strategy and innovation, organizational development follows and formats itself in a sustainable way.

To better determine which management tools must be implemented, it is necessary to have knowledge of the set of tools and integrate them. To that purpose, there is urgency for a constant innovation directed to the potential applicability of their resources.

In the same way, the aligning of organizational competences conducts and equalizes strategic services designed to a thorough customer care, thus leading to business recognition and growth.

Taking into account the current dynamism with which information technology develops and transforms itself as well as the fact that being ahead of these innovations is essential for one to create opportunities, managers must be able to evaluate which projects and

innovative services are cohesive and pertinent to the organization's culture, and then prioritize and optimize them through their human capital and institutional resources.

Based on the information aforementioned, the following question – main reason to the elaboration of the current paper – is brought forward: **How may visualization tools contribute to tax consulting projects in IT companies?**

This paper aims to indicate activities which may turn services provided by the organization into applied solutions in innovative projects. For such construction and under a visualization tool perspective, alternatives that aim to give opportunity to differentiated services and services that are directed to the customer care of a tax consulting company are analyzed. Below are the general and specific objectives, which will help answer the question from the previous paragraph.

- To analyze visualization tools' contributions to innovation and differentiation of the services provided by a tax consulting-oriented organization, through the implementation of processes which make use of these contributions in the conception, construction and consultancy of services.

The specific goals are listed below:

- a. to evaluate the potentials of visualization tools in IT service projects;
- b. to insert visualization tools with a view to the building of the competitive strategy of services provided by the IT company;
- c. to propose the implementation of processes that make use of the concepts of visualization tools in the conception, construction and consultancy of services.

The company in case not only is concerned with meeting the legislation, but also excels on conducting their customers' organizational processes adequately. To that end, an analysis of the current process of an organization oriented to tax projects and two action research cycles are performed: the first cycle is based on the currently utilized processes, optimization of the tools currently utilized by the company, and insertion of visual tools; the second cycle is made of the consolidation of the tools successfully inserted in the first cycle and enables the insertion of the customer as a participating actor in the conduction of tax processes. The research ends with the observation of the insertion of tools and actors in the second cycle and the proposal of implementation of the new process.

The companies that look forward to being in the vanguard of their activities and being acknowledged as such need to align premises and understand that a company isn't made of a physical structure alone.

It's also important to mention that innovation is linked to learning and changing and, in that context, knowledge management – especially in environments of instant mutation – needs to be developed in such a way that its processes don't stifle the operational process.

Communication must be disseminated in all areas of the organization and pointed to continuous improvement by listening to internal and external customers and enabling shared work. A creative environment is built on significant motivational instruments. Companies that learn count on their collaborators' involvement, which, for being directed to proactive experiences, share experiences and distribute knowledge.

However, the alignment of processes with the institution's strategy is the key element to equalize and develop the organization in a structured and innovative way. By choosing to distinguish itself, mirrored on service visualization tools, the organization intends to offer their customers an innovative service, with deliveries that reflect customer service excellence.

The literature review and the article's method are performed at the same time, as this is an action research, which demands follow-up and changes in accordance with the research's collection. Publications in Journals, which go through constant updates, and the analysis of the research cycles represent its main research source.

## PLANNING OF SCENARIOS

One of the great contributions following the planning of scenarios is the possibility to create alternatives by simulating reactions to paths already trodden, evaluating generated risks and opportunities, thus encouraging better quality of decision making. Decisions are considered attentive when they are logically and congruently coherent with existent knowledge; they must also be in accordance with relevant empirical data and take the contingency planning into consideration.

According to Heijden (2009), the creation of a business strategic policy produces the possibility of resolutions, starting from a previous scenario, optimizing time and thought resources. An adequate planning collaborates with the transfer of individual ideas to the institutional action, besides building organizational assets related to learning. The planning of scenarios aims to include uncertainty and ambiguity as variables not yet contemplated by traditional strategic planning approaches. In environments where there is uncertainty, planning becomes a continuous learning.

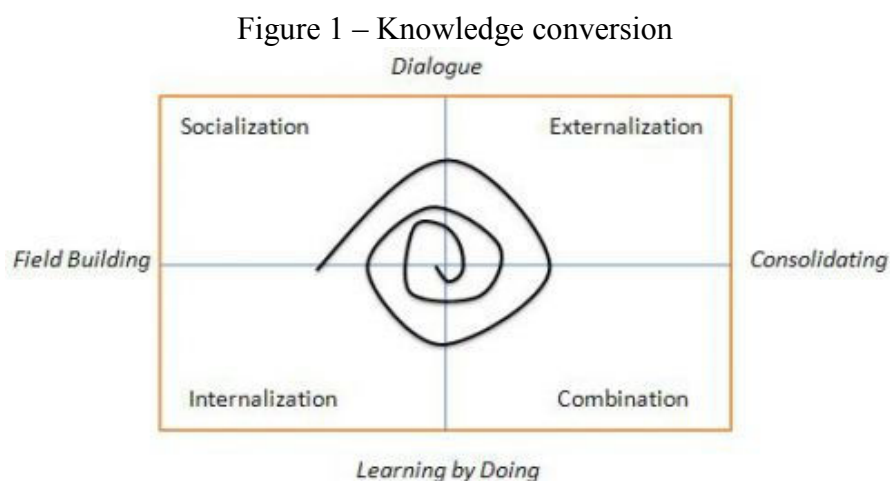
As said by Heijden (2009, p. 40), the planning of scenarios is the study of learning and invention, and it involves the system in its entirety, in which the sum of the parts differs from the total, because it involves individual behaviors.

## KNOWLEDGE MANAGEMENT

According to Laudon and Laudon (2010 p. 344), when knowledge is not shared, it doesn't produce expected results.

There are three types of knowledge: structured, semi structured, and tacit knowledge. The last one requires more attention, as it is in the collaborator's mind and – since it's not documented in such a way that may turn it into a competitive advantage, as that which can't be copied – may make the company vulnerable. In order to settle the question, IT contributes with integrated knowledge management systems through the creation of a unified repository with the intention to collect, store and make knowledge available to the whole company.

Nonaka and Takeuchi (1997) propose four knowledge conversion formats, namely: socialization, externalization, internalization, and combination, which are represented below in figure 1:



When tacit knowledge and tacit knowledge are unified, there is socialization; when tacit knowledge and explicit knowledge are combined, there is externalization; explicit knowledge and tacit knowledge make internalization; finally, explicit knowledge and explicit

knowledge make combination.

As said by Nonaka and Takeuchi (1997), the model linked to organizational learning is internalization, a point to be explored in this paper, as it's connected to learning by doing.

An important point to be considered, which is inherent to knowledge sharing, consists of learning and unlearning and contextualizes with the non-retention of knowledge. Another issue to be highlighted has to do with the mixing of sensitivity and logic insight; these skills aren't antagonistic, they are complementary.

## **KNOWLEDGE MANAGEMENT-ORIENTED TECHNOLOGY**

One of the premises that conduct knowledge management is the fact that it makes individual, group and organizational knowledge transfer possible, thus forming a technological combination that is capable of capturing, organizing, storing and transmitting, which gives rise to the term *techknowledge*, a term that merges knowledge and technology.

IT is a relevant decision-supporting tool, but, above all, it is important in the conduction of the processes, which integrate professionals who have a good market vision and professionals who interact well with information technology.

## **STRATEGIC DESIGN**

In order to have a proper understanding of strategic design, one must essentially equalize the meaning of the term *design* in its contextual application in the current paper. Whenever strategic design is mentioned, one can immediately sense something physical, palpable, as products characteristics and elements, namely: shape, function, type of material and handling directions. However, according to Buchanan (2001), design is structured in all levels; it runs from tangibility right through to insight, from the material to the immaterial. Zurlo (2010) highlights the idea of focusing on the building of purpose and not only on decision making by interpreting any complexity and converging to a visible path which may be shared by everyone.

In the context of strategic design, one doesn't consider the product alone, but the set of actions which, once consolidated, gives the consumer an experience as well as alternative methods that aim to fill gaps which haven't been structured and/or have been marked as less important, translating generic insights into the product's peculiar characteristics, thus formatting the product's developing process.

To Meroni (2008, p. 31), which creates an identity, influences and alters the environment. Still according to Zurlo (2010), design manages to interpret the structures of purpose building by designating paths to make the strategy more visible; with design, one may manage choice sharing processes.

By differentiating project culture strategy from company culture strategy, one learns that the latter emphasizes data quality, how the data will be interpreted and which subjective reflexes will be found; the former, on the other hand, is directed to the decisional process, being based on historical series and actions which point to calm examination.

## **SERVICE STRATEGIC DESIGN**

Product-Service System (PSS) is the combination of products, services, communication, and people with the objective of meeting specific needs. As stated by Meroni (2008), service strategic design, under the scope of the Product-Service System, leads the focus of innovation from a product-service orientation to an integrated system which aims to produce solutions.

To the writer, Product-Service System becomes a key factor vis-à-vis competitors because it provides a distinctive identity. She emphasizes the fact that Product-Service System offers a direction to the tangibilization of values.

Every strategic design project is also a PSS project, but not every PSS project is a strategic design project. The main difference is in the innovation that is developed. In order to be considered a strategic design action, an innovation must be radical. Once an incremental innovation development is obtained, in which the strategy is already well-defined, the PSS action is analyzed. Morelli (2002) states that drawing the PSS consists of an interdisciplinary exploration. He points out three methodological directions:

- a. analysis of a system as a social construction;
- b. management of the design process of a PSS through many stages before and during the development of each step;
- c. technical representation of the PSS in the design process.

The first direction suggests that the PSS is the outcome of interactions between different actors and technological elements during the development of each step; that is, design activities must emphasize elements of convergence of social and technological factors. The combination of heterogeneities, like people, cultural model, and technological artifacts, is part of the system's elaboration and one makes use of technological knowledge to come up with the service proposition. Cultural and technological models are included in the technological artifacts and infrastructure of the PSS, becoming relevant during the elaboration of the services.

The second direction, regarding the management of the PSS design process, consists of identifying the customers' needs; establishing goals, specifications, and conceptions of products; selecting products; testing conceptions of products; finalizing specifications; and planning the development itself.

The third direction, regarding the technical representations of the Product-Service System, consists of projections inserted graphically so as to communicate the project visually. At this stage, one verifies the validity of the project as well as the ascertainment that it may be understood and executed by every actor involved in the design process. Such communication may be conveyed through diagrams, graphic representations, like the PERT chart, with a view to focusing the critical aspects of projects and demonstrating interactions among actors, functionalities, and each event's flow.

To Morelli (2002), a PSS upgrade consists of managing the several competing elements, which include technological infrastructure, people, marketing, customer relations and communication.

According to Meroni (2008) strategic design is linked to evolution; strategy is a series of successive actions directed to the creation of scenarios that may be selected, modified and redefined at any time, according to environmental responses and their inclusions.

Strategic design puts together activities which contemplate values and collective interests, define actions step by step, and establish an orientation through scenario simulations; its characteristics include learning how to handle the environment, knowing where to go and how to change. Kimbell (2011) approaches inter-disciplinarity as a way to find new ways of thinking service design and emphasizes collectiveness, since it combines several actors who work in synch, technology, people and products.

## VISUALIZATION OF KNOWLEDGE THROUGH DESIGN

One of the main concerns regarding the delivery of projects to customers is – apart from providing a presentable, well-written report, which depicts exactly what has been contracted – the possibility to enable an assessment of the project on the part of the customer after a presentation that objectively mirrors the synthesis of their requirements is done.

As said by Franzato (2010), company culture calls upon project culture when it requests a drawing from it. The latter then aims to make the former more participating and give significant support to the determination of business strategies. Such journey starts with the creation of the company's logo, magazine illustrations, leaflets, and other items that bear a symbol, an own brand which characterizes the company or a specific project.

Visual organization has expanded to a point that is beyond the operational level, which is notably reflected in the number of designers who now assume positions as decision-makers in companies and ultimately create areas like *design management*, for example. As of the 90's, the Italian scientific community founded the thought that makes the design management discipline a link between business administration and design. Currently, that has been an essential element in strategy development and has made the strategic design area possible.

To that end, Finocchio (2013) proposes the merging of the PMBook methodology with the *Business Model Canvas*, thus making the *Project Model Canvas* methodology, which, in collaborative fashion, introduces the planning of projects by subdividing them in blocks on a single page, which aims to transform these projects into agents of innovation and convergence in organizations.

The visual principles of the *Project Model Canvas* stand in the performing of clustering – more specifically, a sub-division of thirteen blocks – that aim to simplify information and, this way, establish reasoned and sequential bases that may be understood by all stakeholders. The methodology is comprised of four crucial premises, namely:

- a) conceiving;
- b) integrating;
- c) sharing;
- d) resolving.

To Finocchio (2013), by making questions like *what, why, how, who, when, and how much*, which are primordial to the building of *Project Model Canvas* methodology, and then distributing them in areas correlated with the PMBook methodology, the project manager is allowed to perform a structured brainstorm with the aid of post-it blocks and to interact with their project team and customers, facilitating the participation of stockholders, who collaborate as a team and configure the structure of the first stages of the project, with a view to putting all the critical points on the agenda.

The methodology doesn't exclude the elaboration of chronograms and any other controls that may exist in the organization, since only information that fit in a post-it may be put in the chart. It serves as a starting point, that is, a communication tool to connect ideas and people.

One of the main difficulties found by project managers is to be able to implement all the proposed theories, which generate extensive documentation many times not applicable to the reality of companies. In that sense, a one-page representation gives visibility to the project as

a whole, motivating everyone involved to collaborate and having the project be analyzed in a less complex way, which guarantees better follow-up to the activities to be performed.

With the indication that visual thinking and planning is easier, Finocchio (2013), in his *Project Model Canvas* methodology, starts off with a powerful statement, the project pitch. By using the question *why?*, he redistributes the chart of justifications, SMART objective and benefits, which corresponds to PMBook's opening statement.

To the author, justifications point back to past information, that is, situations one is going through and wishes to change – the purpose of the project to be launched. SMART objective follows the premise of being specific, unattainable, measurable in a certain timeline, and delimiting its frontiers in high level. The chart of benefits must correspond to the generation of values obtained with the concretization of the projects' assumptions. It may even include the effectiveness on the utilization of resources, improvement on the company's image, organizational assets and the meeting of the company's strategic goals.

The question *why?* is answered by the charts *products* and *requisites*. A project's products may also include services and may generate a single result. Requisites are related to the quality of the product or service and may be represented by either stipulated metrics or new functionalities with a view to generating values to the customer.

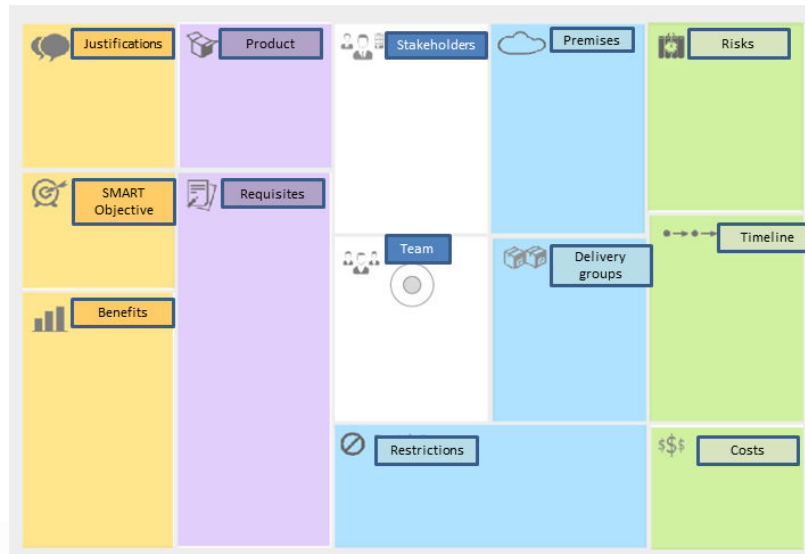
The categorization of the stakeholders and the team make the question *who?* The stakeholder and external factors are listed in the pictures and may include the frequency of controls that are necessary to monitoring. Team is represented by all the actors that are supervised by the project manager and perform the project's deliveries.

In order to format the question *how?* one must elucidate the premises, deliveries and restrictions of the project. Premises are suppositions that are taken as given and aren't under the control of the project manager. Deliveries, which may be final or intermediate, are those which are tangible, measurable and integrated, produced in the project. Restrictions are the limitations that are imposed to the work done by the project team. They may include budgetary restrictions, availability of time and/or room.

In order to answer the questions *when?* and *how much?*, the charts of risks, timeline, and costs must be fed. Risks are dicey events that are relevant to the project; each significant event must be curbed by the elaboration of answers. Timeline stands for the visibility of the project's stages and deadlines put chronologically; such visibility must form the intermediate and final stages. Costs are represented by the financial estimates of the project.



Figure 2 – Project Model Canvas’s illustrative blocks



Source: Finocchio (2013)

Below is the applied method to this research.

## **METHODOLOGY**

Due to the characteristics of strategic design, according to which obtained results are built and adapted during the process, as well as reconfigure themselves in accordance to a change of scenarios, it is fundamental to make use of a modality that privileges gradual changes.

The research strategy used must contribute in regard to the sudden and constant changes in Legislation. To that purpose – and for maintaining an interventionist profile – the means of investigation to this research was action research, as it aims at the construction of diagnoses and their adequacy in the course of the study process.

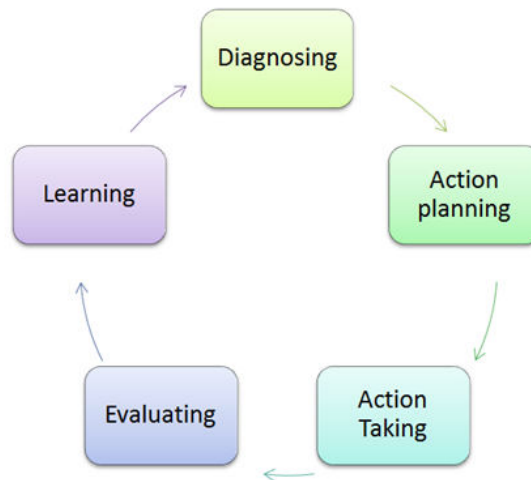
As in reference to the study field, it focused on an IT company located in Porto Alegre, which offers projects in tax consultancy. Their service portfolio includes tax diagnoses, tax software implantation projects, outsourcing and customer service innovation. The research concentrated on the service associated with tax diagnosis projects; it featured the analysis of the initial situation, the first and the second research cycles. Both cycles were made possible as consequence of the application of the prototypes to two distinct customers, and the research was finalized with a final proposition, which was based on the results gotten in the second research cycle.

## **NATURE OF THE METHOD**

The nature of the method is that of a participative qualitative approach, which aims at the configuration of services oriented to project visualization tools and has the premise to innovate tax consulting services.

The action research may be represented by the figure below. Here its cyclic characteristic is analyzed; the action is diagnosed, planned, executed and evaluated, as learning is facilitated, new diagnoses are reported, and the flow is resumed.

Figure 3 – Action-research flow chart



Source: Adapted from Susman and Evered (1978).

The learning integrating model – named *learning loop* – created by David Kolb out of the synthesis of authors like Kurt, Lewin, John Dewey, Jean Piaget and others, approaches the loop from concrete experiences, following it with observations and reflections. With the confluence of experiences and reflections, abstract concepts and new theories are formed; they are utilized in planning new situations and testing the implications of the theory in new situations, returning to concrete experiences.

The learning loop model demonstrates the alignment between thought and action. As it is based on a type of planning rooted in a mental model, the institutional action needs a shared mental model.

The current paper was conducted in two moments: the first cycle occurred from April, 2013 to July, 2013; the second analysis took place from August, 2013 to April, 2014, having been applied to two of the studied company's customers.

## DATA COLLECTION

Data collection is based on bibliographic researches and documentary material by having intensive participatory direct observation techniques through ERP system entries; documentary material, like minutes of meetings which were drafted by the researcher – in some meetings the minutes were also done by the customer with the objective of keeping record of details regarding any subject which might concern their internal customers. All the minutes made it into the formal report to be delivered, as they were attached to the document.

Finally, so as to make the process richer and more precise, an individual and semi-structured interview was held with a digital bookkeeping specialist and service director of the company in study, and the action research journal which the collected documentary material was grounded on was used.

The interview was complemented by the extensive direct observation of the project's actors.

## DATA ANALYSIS TECHNIQUE

Due to the necessity of always being evaluating subsequent processes, the researcher's perception became very important in this impacting stage of the research. So that the processes might be analyzed in a substantial way – as they constitute a specific analysis – they were categorized in four pillars:

- a) the current panorama of the process performed by the company in study;
- b) the customer's point of view; their perceptions extracted from the delivery of the projects in their first and second research cycles;
- c) the entrepreneurial view of the relevance of the study, collected through interview with the company's service director;
- d) the prism of the project's researcher/manager through the cross-check of the added design tools and their reflex in regard to the theoretical background.

The initial analysis, which corresponds to the current panorama, was performed through the study of the current situation of the organization process due to their experience in other types of diagnoses.

From this database, a new methodology to be applied in a new tax consulting model was developed; it already took up the new proposal with initial tools that characterize strategic design. Such analysis featured the first and second research cycles. The evaluation was carried out with the proposal's application to two of the company's customers, which belonged to different areas of operation.

The entrepreneurial view was investigated through a semi-structured interview and built in topics, which aimed to identify how the scientific research might contribute to a transforming application. These are the listed topics:

- a) the importance of a research on a theme that is under development (eSocial) by applying design tools;
- b) opinion regarding a better applicability of the research in the entrepreneurial field;
- c) contributions that are considered important to build up the research in the area of strategic design tools;
- d) configuration of a project's visibility, communicating the main aspects;
- e) maintenance and flexibility to the newly introduced tools.

Under the prism of the project's researcher/manager, gains regarding the presented information's quality, functional aspects and interaction with the customer in the established process were examined. To the researcher, the main observance was associated with the theoretical background, which sustained the innovative proposals introduced with the visualization tools.

## **ANALYSIS OF RESULTS**

The analysis of results features the occurrences experienced in the first and second research cycles, starting with the outstanding mutations noticed in the course of the first cycle; then, the results found, which work as input to the subsequent stages, are investigated. Most importantly, substantial visualization tools that have stood out and prompted a shared and innovative process are approached.

In the first research cycle, significant and impacting modifications are observed, both in reference to the processes and the product's delivery, though more in the sense of co-creation, improving the use of current tools which constituted deliveries prior to the first cycle, giving value to the company's technological capital through the reorganization of information technology.

The flexibility of hyperlinks, the visual construction of information, flags indicating degrees of concern, urgency, trends and priorities, mental maps, as well as the SWOT analysis made a robust set of information. This way, the customer's perception was that of quality delivery and exceeded expectations in a strategic sense, which prompted the project to reach to the company's board of directors. With a strategic view and the planning of scenarios, it was possible to build and improve the current process as in regard to the negotiation of deliveries to the customer so they might be adequately structured.

A favorable point is the fact that, having the results been handed out, the customer made sure the importance of the project was shared with their branches' teams, guaranteeing the sharing of knowledge and emphasizing in that context the relevance of knowledge management.

After the delivery of the first project to a new customer, customer A had a positive perception of the company in study, and that will certainly open doors and generate possibilities of new business deals. The good relationship with the customer was very evident too, since, although the diagnosis had already been presented, they made sure they participated in other endeavors, like the debate on eSocial that was carried out by the company in study in September.

The visualization tools added to the process were responsible for the project's visibility and notoriety.

The second research cycle, which started with the debate over eSocial and had the participation of the Regional Accounting Council, brought more transparency and public interaction over the subject, which enabled the eSocial idea to be extended to the company's board of directors.

Differently from the Forum which took place in April, 2013, the public that participated in this event was composed of professionals of the human resources area, who seemed a little distressed for not being familiarized with the technical terminology for construction and transmission of the files. However, their main concern had to do with the delivery deadlines.

The capacitation of the project's researcher/manager in the methodology developed by José Finocchio – Project Model Canvas – turned out to be essential to the building of the model in the light of the diagnosis projects, clarifying the main differences among requisites, premises, products and delivery group. A strong inclination towards the tendency of inserting design in information technology projects was also noticed.

After the opportunities of improvement were carried out, the implementation of effective design tools – essentially the inclusion of Project Model Canvas – was attempted; yet, including the customer in the plan construction and execution wasn't possible. The tool was used as an internal test so as to verify the viability of application in a future project.

Therefore, it was determined that the tool Project Model Canvas, directed to the project's planning with the interaction of the customer, be included in all stages of the project: from the first meeting with the customer, going through the process, to the post-diagnosis.

Having built the internal model really came in handy, as its framework served as inspiration to other projects. The initial intention was to replace some of the tools and eliminate bureaucracies; yet, with the prototype, it became clear that the project's global view brought more significance, enabling an adequate classification of the strategic results achieved, which were determined through evaluation of the measuring instruments, as the new GUT-p and the consolidated report in PDF.

It is important to emphasize that the interview with the specialist was essential in the sense of measuring the real efforts of the involved areas and categorizing the managers' participation more effectively.

The creation of the new process, facilitated by the insertion of the presented tools and the abrupt change configured in the customer's initiation to the project right in its very beginning, is characterized by the structuring, documenting, and sharing of knowledge. It also has a flexible and interactive modeling that may be utilized in other projects, both by the company in study and other companies which look forward to incorporating the participation of more actors in their implementations.

With Project Model Canvas, the project's planning is done through the interaction of the actors involved, who are influenced by or have influence on the final result of the project.

This direction is assessed and configured insofar as there is change in the scenarios, or when an actor identifies that the plan to be executed may be conducted in a different way. This decision is presented to all the actors, who, in consensus, take necessary actions.

The mental maps, which work as brainstorming, motivate creativity and co-creation. When people think collectively, possibilities are magnified. And by integrating this concept with the project, it's possible to summarize graphically the points to be improved and the topics that will be explored for action plans, as discussed and collected through meetings and interviews with customers. The SWOT analysis, which is strategic in nature and offers closer communication with the customer, presents the board of directors the synthesis of the themes that have more evidence and need to be given priority. The prioritization is elaborated via Excel by making use of the GUT-p methodology; the supporting graphics are also part of the presentations to be made to the directors.

Corroborating the intuitive, creative and innovative traits that characterize strategic design, the set of information attributed and referenced in the previous paragraph are presented via Prezi, which seeks to focus and deepen the details of each piece of information, as well as present them strategically by calling attention to pivotal concerns, which could only be extracted because of the depth with which the meetings and interviews were held.

The PDF document, which is carried through from a Microsoft Word one, is responsible for consolidating entries, like meetings, interviews, perceptions of customers regarding the matter in discussion, and the results diagnosed in the course of the project. The document is complemented by the GUT-p matrix, developed graphics, and the project plan elaborated in the Project Model Canvas. That's the project's formal document for delivery, which must be bound and handed to the customer.

To documentation and new simulations of the project's process, the new proposition makes use of the software Bizagi Process Modeler, which confirms and remodel the new scenarios.

That is how the set of tools – ultimate proposal of this research, which may be applied on other tax diagnosis services – is formed.

## **FINAL CONSIDERATIONS**

Information technology companies are normally organizations that mirror and encourage creativity and innovation. Strategic design is a way to put together activities, values and collective interests, from which significant initiatives within the framework of innovation spring. By guiding action plans and establishing orientations through the simulation of scenarios, it stimulates learning by means of interaction with the environment. Therefore, analyzing the contributions of visualization tools to innovation and differentiation of services provided by a tax solution service-oriented organization through the implementation of processes that employ these contributions in the conception, construction and consultancy of products and services has been the objective of this paper.

For further elucidation, these objectives have been set out as follows: to evaluate the potentials of visualization tools in IT service projects; to insert visualization tools with a view to the building of the competitive strategy of services provided by a tax solution service-oriented IT company; and to propose the implementation of processes that make use of the concepts of visualization tools in the conception, construction and consultancy of services, which is justified by the instantaneous mutations that cause innovative business environments to be constantly reconfigured.

Thus, the application of knowledge management, especially in software consulting companies, is one of the peculiar assets of great importance, in which strategic alignment and knowledge dissemination are points of permanent attention.

The inclusion of structured processes and new tools derived from the application of

the concepts aforementioned results in more project time and the necessity of more management controls; on the other hand, it tends to result in more quality of execution and more quality for the end product. By inserting the customer in the process, there are also new risks, as the desynchronization of proposed agendas, which impact certain aspects like deadlines, but whose results must justify their participation.

It's important to make sure the customer understands his participation is an integrating part of the process and a relevant element to the success of the project. Accordingly, the questionnaire built to foster the interaction with the customer must be adequately elaborated and deepened so that the customer may recognize contribution opportunities through the questions; this will enable their collaboration in the building of a collective job, which will value the applied consulting methodology and consequently open doors to new projects in the company.

In the action research developed in this dissertation, one may observe the effective evolutions which took place during the research, which were made possible by the research methodology that was employed and by the added tooling in the case of utilization of visualization tools. Essentially, the employed tools, which give more visibility to the processes, motivate the participation of the teams and guide them in a structured way, thus making the importance of everyone's contributions more transparent.

In the process of tax consultancy originally employed by the institution in study, which was composed of six synthesis stages, a simplified process was applied, making use of a set of trivial tools with limited potential for generating product and customer service innovation. In this phase of the consulting process, there wasn't a development flow that supported the application of knowledge management tools, which limited the potential of its results. All actions to be taken depended on contributions and direction from the service director of the developing company.

As all knowledge was under the power of this director, there wasn't a structured method or methods oriented to enable the participation of the customer. Questions were carried out in line with the presentation and discussion of layouts, offering few opportunities for significant contributions. It is evident that such approach incurs in deficiency, as it neither values nor stimulates the participation of the customer, who is the most interested part. With limited development processes, results obviously tend to be below the expectation of all the parts involved. Considering the competitive environment organizations live in, it became clear that companies had the necessity to evolve and transform these processes, as they looked forward to achieving positive results for both the service supplier and the customers. Thus, there was a consensus that they should put in hard work in order to improve this process by assessing new tools that might bring dynamism and a bigger interaction with the customer.

Therefore, the following question was elaborated: How may visualization tools contribute to tax diagnosis projects in a tax solution service-oriented IT company?

In order to connect the answer to the issue/problem, the general goal of this paper was developed in the course of the research cycles. With the application of action research methodology, a process of successive cycles was established by employing instruments oriented to the application of visualization tools.

In Process I, established during the first research cycle, improvement through the optimization of current tools was given emphasis, making them more appropriate to the conduction of the application to the customer. The hyperlinks, which formed the instrument panel, were crucial tools to this purpose, giving dynamism and fluidity to the conduction of the presentation of layouts. The creation of the questionnaire, which guided the interview with the customers, was also highly beneficial, as it focused on pertinent questions, orienting the customer very adequately and optimizing the time designated to interviews.

Another interesting initiative was the creation of priorities and dashboards by

performing the GUT analysis, thus guiding the action plans to be carried through by the customer. The translation of the GUT analysis into graphics gave more visibility to the set of items that demand more attention. This way, the utilization of the items with more GUT-p representativeness in the SWOT analysis presented more significance to the managers who accompanied only the final presentation on the diagnosis. The same thing happened with the utilization of synthesized presentations through mental maps.

In Process II, which was developed during the second research cycle, the improvements achieved in Process I were followed up; however, when it became clear that the tools used so far didn't bring forward a project in which the customer could participate more actively, another option with such characteristics was sought.

That was when the opportunity for applying Project Model Canvas came about. It mixed the PMI methodology and administration through Canvas, providing innovation opportunities and interaction to the parts involved, which proved to be quite adhering to the intended format.

Still in the second research cycle, via an interview with the specialist and also service director of the company in study, the analysis was redone by taking into consideration the combination of results obtained in the IBM SPSS software, which helped focus on the events of bigger representativeness to be explored in the face-to-face interviews with customers. In this interview, the director suggested intensifying the analysis of the cross-checks between events and areas to be covered. The IBM SPSS software was chosen for providing descriptive analysis and comparisons pertinent to the intended analyses. With the achieved results, the amount of time designated to each area was qualified. Out of a universe of six areas, three stood out and deserve more attention for their implications in the eSocial, end product created by the new process under development. The three areas are human resources, medicine and security, and the financial area.

Cooperative work, as recommended by strategic design tools, as well as the use of mental maps built with the participation of the customer and the application of the Project Model Canvas adequately configured to serve these cooperative processes make shared experiences more organic than mechanistic, resulting in processes and products also more organic.

For the proposed final process, the premises established in the second cycle were used, and they attained significant results. Although the research's initial planning consisted of the construction of a method by utilizing strategic design tools applied to diagnosis consultancy, which focused on eSocial, the method established in the second cycle may be applied in one more type of tax consultancy, the electronic invoice diagnosis version 3.10, which is going to come into effect in December, 2014. Such application was performed with the two customers of bigger representation in the institution's portfolio. The new proposition was made possible for both diagnoses, once the project manager/researcher was in charge of building and conducting the projects to both prototypes. Evidently, a few adaptations were mandatory, as, for instance, the questionnaires, which were adjusted in accordance with the scenario of distinct legislations.

The final proposition, which includes the Project Model Canvas since the very beginning of the process for an integral participation of the customer, is grounded on maturation and learning as in reference to the conduction of the new project, which was brought forward with the tests performed in the second research cycle.

The structuring of a presentation that is more creative and interactive in the presentation platform of the Prezi software is also part of this innovation context. As a way to document the lessons learned, through the construction of flows, the tool Bizagi Process Modeler was included.

According to the two first specific objects, the visualization tools analyzed and

included in the process, besides providing a guideline, assume collaborative characteristics and involve creativity, cooperation and resilience. Such characteristics are mainly observed in the construction of mental maps, among which each area finds a way to demonstrate and elaborate action plans to correct deficiencies, generating synergy and commitment to attacking recognized points of attention more effectively, which makes possible a revisit to the organizational culture of companies e, consequently, the anticipation of the formatting of processes, which, when presented with intuitive and collaborative tools, as Project Model Canvas recommends, reaches levels never reached before.

Correspondingly, the third goal, which proposes to implement processes that make use of the concepts of visualization tools in the conception, construction and consultancy of services, is entirely adhering to the innovative practice. Based on both initial experiments, successfully executed in the two research cycles, their total implementation is quite opportune.

As of the application carried out in the research stages, it is believed that a new interpretation of process development that use visualization tools as leverage factors towards innovation will be explored in new subject areas, not only tax consultancy. The significance and amplitude provided by these tools – besides the visibility applied to projects – bring the customer close to the service company through their collaborative and expressive features.

A new approach that selects a new combination of the tool portfolio may be better explored, given the variety of tools available and capable of organizing and giving tangibility to services delivered.

The investigation and selection of other areas to integrate the process will also be quite rich contributions, as will a critic and substantial analysis of the results attained post application of the proposed final process.

## REFERENCES

- BAUER, M. W., & GASKELL, George. (2002). **Pesquisa qualitativa com texto, imagem e som: um manual prático**. Petrópolis: Vozes.
- BOOTH, Wayne C; COLOMB, Gregory; Williams Joseph M. (2011). **A arte da pesquisa**. São Paulo: Martins Fontes.
- BUCHANAN, Richard. (2011). **Design research and the new learning**. London: The MIT Press.
- CARDOSO, Leonor. (2007). **Gerir conhecimento e gerar competitividade: estudo empírico sobre a gestão do conhecimento e seu impacto no desempenho organizacional**. Penafiel: Editorial Novembro.
- DAVILA, T; EPSTEIN, M; SHELTON, R. (2009). **As regras da inovação: como gerenciar, como medir e como lucrar**. Porto Alegre: Bookman.
- FAYARD, P. (2010). **O inovador modelo japonês de gestão do conhecimento**. Porto Alegre: Bookman.
- FINOCCHIO, José Jr. (2013). Project model canvas: planejamento em uma folha! Compreendendo ambiente e necessidades para uma melhor estruturação do projeto. **Mundo Project Management**, 70-79, fev/mar.
- FRANZATO, C. (2010). Strategic design in the dialogue between design culture and company culture. **Strategic Design Research Journal**, 3(3): 89-96 set/dez.
- FREIRE, Karine. (2009). Reflexões sobre o conceito de *design* de experiências. **Strategic Design Research Journal**, 2(1): 37-44 jan/jun.
- HAIR, J., BUSH, R., & ORTINAU, D. (2000). **Marketing research: a practical approach for the new millennium**. Boston: Irwin McGraw-Hill.
- HEIJDEN, K. (2009). **Planejamento por cenários: a arte da conversação estratégica**. Porto Alegre: Bookman.



- KIMBELL, L. (2011). Designing for service as one way of designing services. **International Journal of Design**, v. 5, n. 2.
- LAUDON, Kenneth, & LAUDON, Jane. (2010). **Sistemas de informações gerenciais**. 9 ed. São Paulo: Pearson Prentice Hall.
- LOCKWOOD, Thomas. (2010). Transition: becoming a design-minded organization. In: LOCKWOOD, T. (Ed.). **Design thinking: integrating innovation, customer experience and brand value**. New York: Allworth Press, p. 81-95.
- MARCONI, M. A.; LAKATOS, E. M. (2010). **Fundamentos de metodologia científica**. São Paulo: Atlas.
- MAURI, Francesco. (1996). **Progettare progettando strategia**. Milano: Masson S.p.A.
- MERONI, Anna. (2008). Strategic design: where are we now? Reflection around the foundations of a recent discipline. **Strategic Design Research Journal**, v.1, n.1, dec. 1, p.31-38.
- MINTZBERG, Henry, & QUINN, James Brian. (2001). **O processo da estratégia**. Tradução de James Sunderland Cook. 3 ed. Porto Alegre: Bookman.
- MOLES, Abraham A. (1995). **The idea of design: an idea issues reader**. Cambridge, Massachusetts/London, England: The MIT Press.
- MORELLI, Nicola. (2002). Designing product/service systems: a methodological exploration. **Design Issues**, v.18, n.3, jul. 01, p.3-17.
- NONAKA, I., & TAKEUCHI, H. (1997). **Criação de conhecimento na empresa: como as empresas japonesas geram a dinâmica da inovação**. Rio de Janeiro: Elsevier.
- NONAKA, I., TOYAMA, R., & HIRATA, T. (2012). **Managing flow: teoria e casos de empresas baseadas no conhecimento**. Porto Alegre: Bookman.
- O'BRIEN James A. (2010). **Sistemas de informação e as decisões gerenciais na era da internet**. 3 ed. São Paulo: Saraiva.
- PAIM, Rafael et al. (2009). **Gestão de processos: pensar, agir e aprender**. Porto Alegre: Bookmann.
- PAIVA, ELY, CARVALHO JR, JOSÉ & FENSTERSEIFER, JAIME. (2009). **Estratégia de produção e de operações**. São Paulo: Bookman.
- PROJECT MODEL CANVAS. Disponível em: <[http:// www.projectmodelcanvas.com.br](http://www.projectmodelcanvas.com.br)> Acesso em: 05 jan. 2014.
- RATNESHWAR, S., MICK, D., & HUFFMANN C. (2005). **The why of consumption: contemporary perspectives on consumer motives, goal, and desires**. London and New York: Routledge.
- SEVERINO, Antônio Joaquim. (2012). **Metodologia do trabalho científico**. São Paulo: Cortez.
- SOUZA, Cesar Alexandre de., & SACCOL, Amorolinda Zanela. (2011). **Sistemas ERP no Brasil: (Enterprise Resource Planning): teoria e casos**. São Paulo: Atlas.
- SUSMAN, G. I., & EVERED, R. D. (1978). An assessment of the scientific merits of action research. **Administrative Science Quarterly**, v.23, p. 582-603.
- THIOLLENT, Michel. (2005). **Metodologia da pesquisa-ação**. 14 ed. São Paulo: Cortez.
- TIDD, J; PAVITT, K; BESSANT, J. **Gestão da inovação**. Porto Alegre: Bookman, 2008.
- TONKINWISE, Cameron. (2008). A taste for practices: unrepressing style in design thinking. **DTRS8**: p. 381-391.
- VERGANTI, Roberto. (2008). *Design, meanings, and radical innovation: A metamodel and a research agenda*. **The Journal of Product Innovation Management**, v.25, p.436-456.
- ZURLO, Francesco. (2010). *Design strategico*. In: **XXI Secolo**, v. IV, Gli spazi e le arti. Roma: Enciclopedia Treccani.